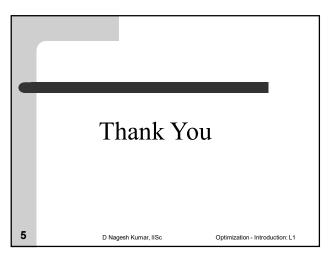


Р	Potential Uses of Flood Mapping – Contd								
•	Also useful for the coastal areas having a risk of storm surges and tsunamis								
•	Maps depicting flood hazards, flood-prone areas, and related information are important components for an effective Integrated Flood Management (IFM)								
	<ul> <li>Asset management</li> </ul>								
•	Public awareness								
•	<ul> <li>Flood insurance</li> </ul>								
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Tier Level	Applications	Breach Pa- rameter Prediction	Peak Breach Discharge Prediction	Downstream Routing of Breach Out- flow Hydro- graph	Downstream Risk Evalua- tion
Tier 1 – Basic level screening and simple analy- sis using low reso- lution terrain data (e.g., SRTM, AS- TER, or ALOS)	<ul> <li>First level screening for significant or high hazard dams</li> <li>Low hazard potential dams</li> </ul>	Empirical formulae	Empirical formulae if inflow design flood hydro- graph is not available, oth- erwise un- steady flow routing through mod- elled reach	Geo-Dam- BREACH, SMPDBK, HEC-HMS, or other simpli- fied approach- es	Peak dis- charge, water surface eleva- tion, and flood wave travel time
Tier 2 – Interme- diate level of anal- ysis using medium resolution terrain data (e.g., 10 m INTERMAP or Lidar	<ul> <li>Large signifi- cant hazard dams</li> <li>All high hazard dams</li> </ul>	Empirical formulae	Unsteady flow routing through mod- elled breach	HEC-HMS, HEC-RAS, MIKE-11 or similar one dimensional (1D) unsteady flow numerical models	Peak dis- charge, water surface eleva- tion, flood wave travel time, and ap- proximate PAR assess- ment
Tier 3 – Ad- vanced level of analysis using high resolution Lidar terrain data	<ul> <li>Significant hazard dams with complex downstream flooding</li> <li>High hazard dams with large popula- tion at risk (PAR)</li> </ul>	Empirical equations, WinDAM-B, or causal embankment erosion nu- merical models (one or two di- mensional)	Unsteady flow routing through mod- elled breach	One or two dimensional (2D) unsteady flow numerical models	Peak dis- charge, water surface eleva- tion, flood wave travel time, and de- tailed PAR assessment