A methodology to study and improve a development service such as irrigation, food security or public health.

Objectives/Tasks Method Outcome **Basic Societal** Public and popular Outline of the problem or failure, the geography and Α Concern literature and data. sector. Attributed reasons and analysis. Choice of Literature survey, Development Indices and ways of delivery- policy, state B Development textual analysis agency, NGO, market etc. Paradigm. Arguments and pathways of impact of development Relevant development Literature survey. С service and its Regional data-sets and service. Changing circumstances such as climate change. importance. analysis. Study of policy Authority and Mandate. Organization of the service. Key Description of the developments in the history of the service. Agents and agency/agencies documents, guidelines, procedures. Demand and its representation. Conceptual regional data. D Scientific papers. frameworks. Working data-sets. Scientific and social bases for the procedures. Current delivery of value and social profit-and-loss. Outcome indicators. Attributes of service. Choice of Selection of sub-Data, preliminary field program, level of work. Secondary field attribute and sub-progarm chosen for analysis. Е service and gaps. reports. Newspaper Preliminary analysis of failure. Geography and extent. reports. Field work. Scientific Selection of a panel of failure locations. Stakeholder Failure description. analysis. diagram. Data collection and analysis strategies. Deeper description of the failure. Various components F contributing to failure. Causes of failure and their exploration. Coping Mechanisms. Interviews and Documentation of current strategies - public, community G and private. Social and technical analysis. analysis. Analysis of agency Understanding M&E Mapping it to policy, practice and scientific reasons. response to failure. and R&D frameworks Trajectory of failure in agency frameworks. Η within agency. Interviews. Mitigation measures Review. Policy and Selection of component to be addressed. Review of and new proposals or Procedure Design. similar situations in other geographies. Design of new Ι procedures. Existing scientific procedures, policies. New conceptual frameworks or adaptations. Supporting scientific arguments. Training literature. manuals. Verification. Scientific reports, Applicability of mitigation suggestions to existing panel of failures. Counter-factual analysis. Stakeholder interviews with J agency, secondary opinions. Comparison with situation in other geographies. data, field reports. Mini-study Description of new scenario. Extension of work to new Extensions. K regimes. Field work. Analysis. Report on mitigation measures and their applicability on a Expansion. L new geography or new set of failures. Conclusion. Summarizing and Actions to be taken. Stakeholder reporting. Big Picture Μ arguments. Capsule outline of future work. wrapping up.

(Milind Sohoni, CTARA, IIT Bombay, 20th September 2018)