

ON-LINE DESIMINATDISSEMINATION BY DIAS

Capacity Building

Developing a Research Framework for (Mahaweli) Complex Watershed System:





Mahaweli River Basin is Very Complex and Unique System

- *watersheds are not linear system* due to several factors which are varying in time and space (e.g. precipitation, evaporation, vegetation type and its penology)
- human made changes such as water storage and their usage for power generation, irrigation, diversion to other basins and drinking water usage make the watershed management even more complex and complicated.

A Complex Watershed System:

- *watersheds are not linear system* due to several factors which are varying in time and space (e.g. precipitation, evaporation, vegetation type and its penology)
- human made changes such as water storage and their usage for power generation, irrigation, diversion to other basins and drinking water usage make the watershed management even more complex and complicated.



Developing a Research Framework for (Mahaweli) Complex Watershed System:



This approach consists of several sequential processes

- Identification of major components of the watershed,
- Simplification based on topography and rainfall characteristics
- Introduction of physical processes and storage/diversion facilities,
- the combined model to development an effective IWMRM

System Performance and its applications



• Both Dam Operation & Diversion

Flood Reduction in lower part due to Dam Operation Rules



Two Scenarios Checking to Optimize the Water Diversion

