



Study of the Influence of Built Structures on the Fisheries of the Tonle Sap

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Project background

- ADB Project Financed by the Government of Finland
- CNMC, through TSBR Secretariat, acts as Executing Agency
- Started May 1. 2006
- 34 international and 39 domestic specialist months: fish biologists, socio-economists, ecologists, EIA-specialists, modellers, database developers
- Duration 10 months

Data currently available with us

- Textual Data
 1. Village surveys
 2. WUP-FIN Tonle Sap project reports
 3. Other reports

Data currently available with us

- Tabular (Database) Data
 1. Water quality sampling (tens of stations)
 2. Recording water quality (oxygen, turbidity, acidity, conductivity)
 3. Recording current direction and speed
 4. Recording water level
 5. Recording meteorology (wind speed and direction, air pressure, humidity, sunshine)
 6. Data from national measurements (meteorology, water levels, discharge measurements)

Data currently available with us

- Tabular (Database) Data
 7. Prek Kdam and Chaktomuk ADCP profiling current and discharge + sediment measurements
 8. Data from models (hydrology, flow, flooding, water quality)
 9. Water balance study of the lake
 10. Sediment balance study of the lake
 11. Benchmarks and topographic surveys (WUP-FIN surveys)

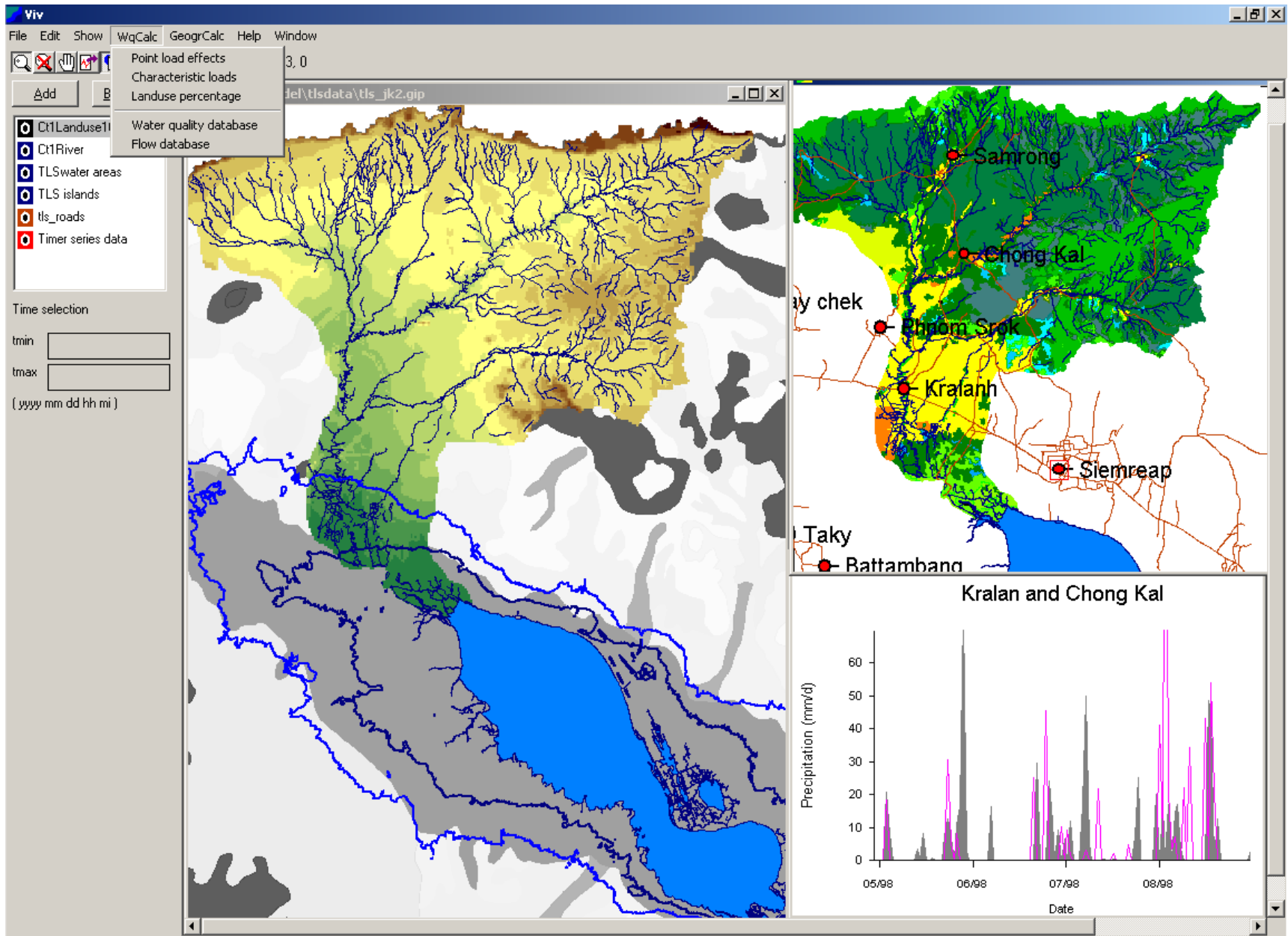
Data currently available with us

- Spatial (Geo-Referenced / Map) Data
 1. Topography
 2. Hydro Atlas (lake and river elevations)
 3. DEM
 4. Rivers
 5. Infrastructure
 6. Land use
 7. Soil types
 8. Sosio-economy
 9. Data from models (horizontal and vertical distributions of physical, water quality and biological parameters)

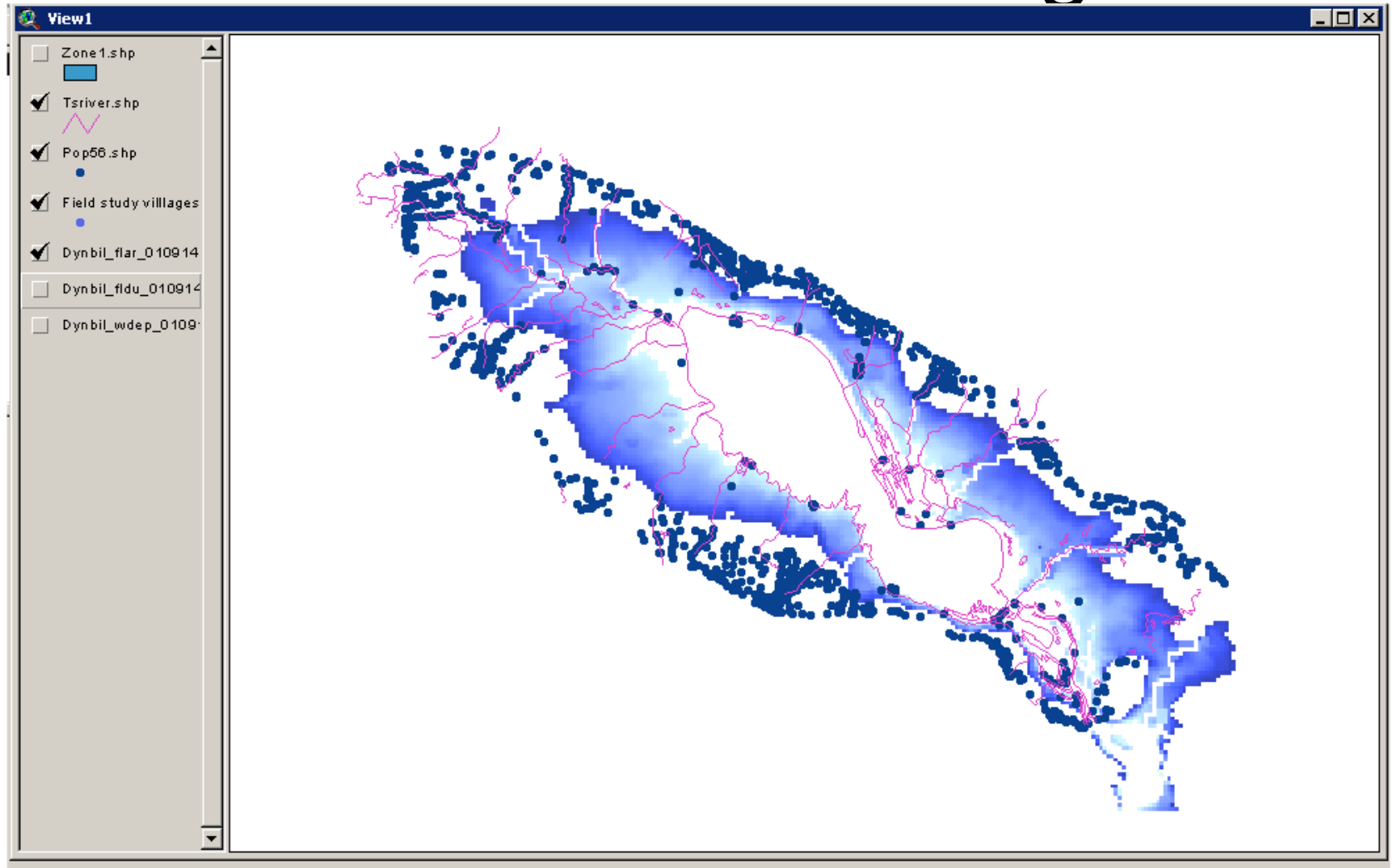
Socio-economic analysis

- socio-economic, land use and water-related factors are arranged into flood zones, instead of administrative boundaries
- allows better understanding of the impacts of flow regimes
- the databases include e.g. Population Census 1998, WFP's Poverty Mapping 2002 and JICA's Land Use Database.

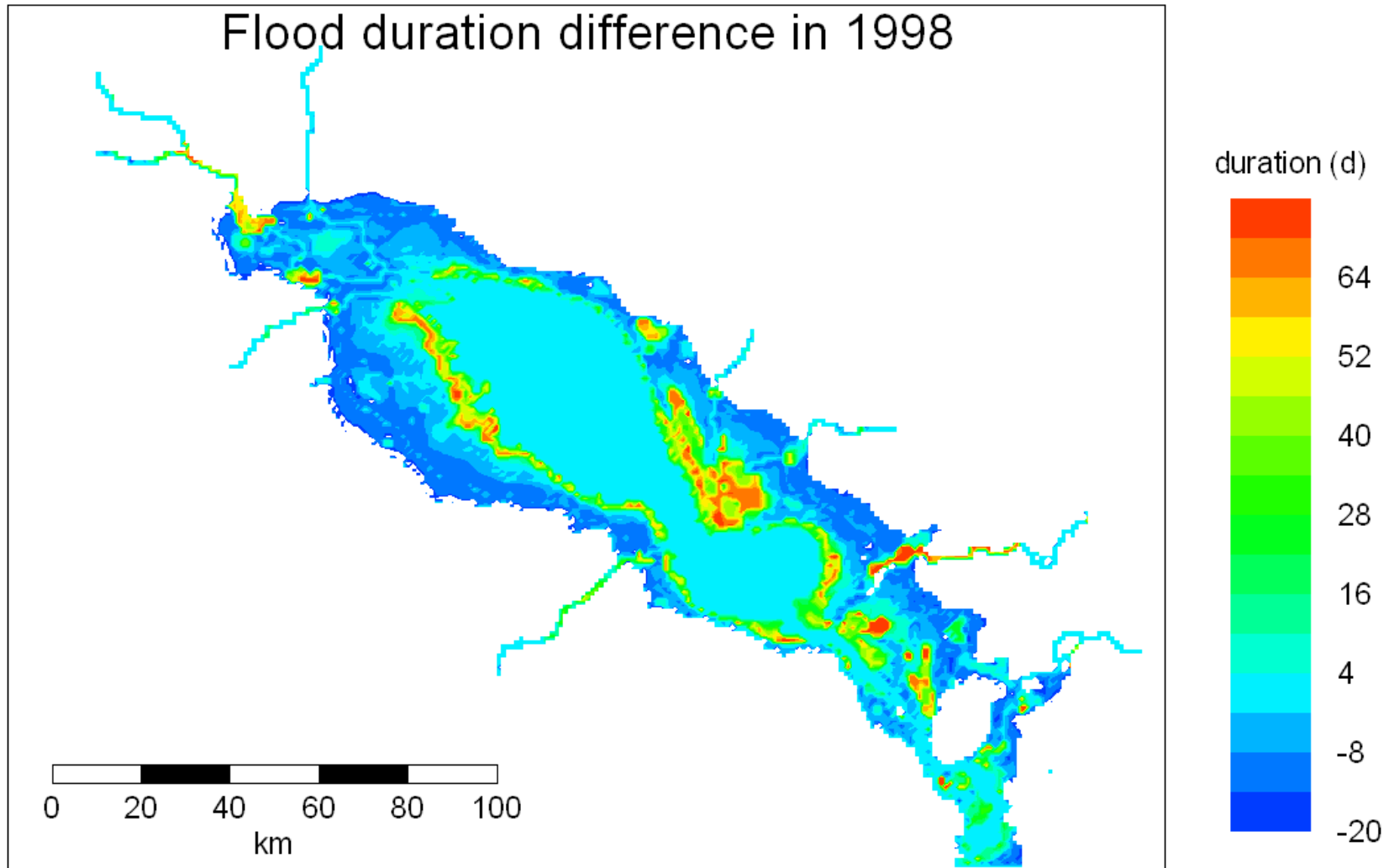
Database user interface



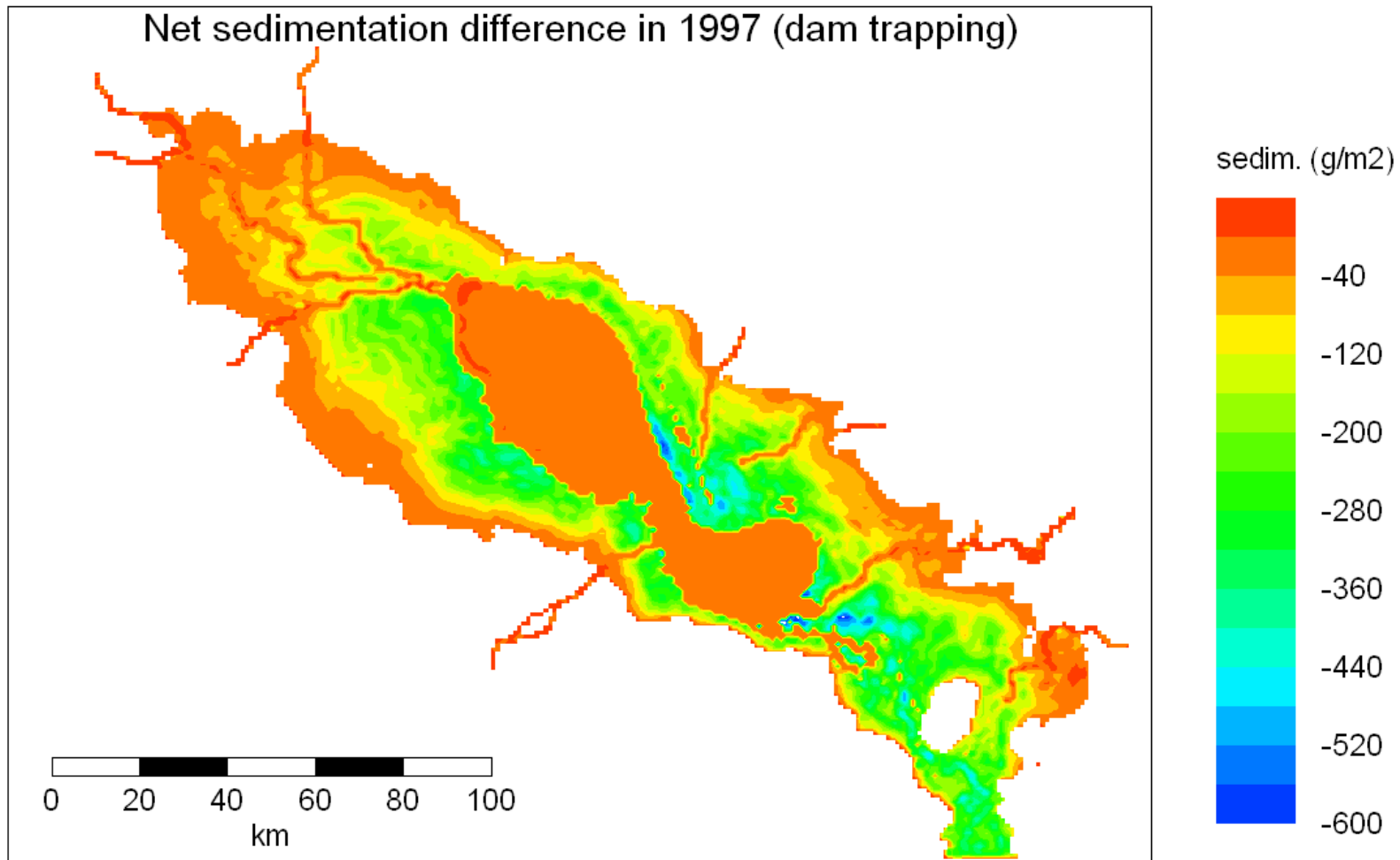
Flood arrival times combined with location of villages



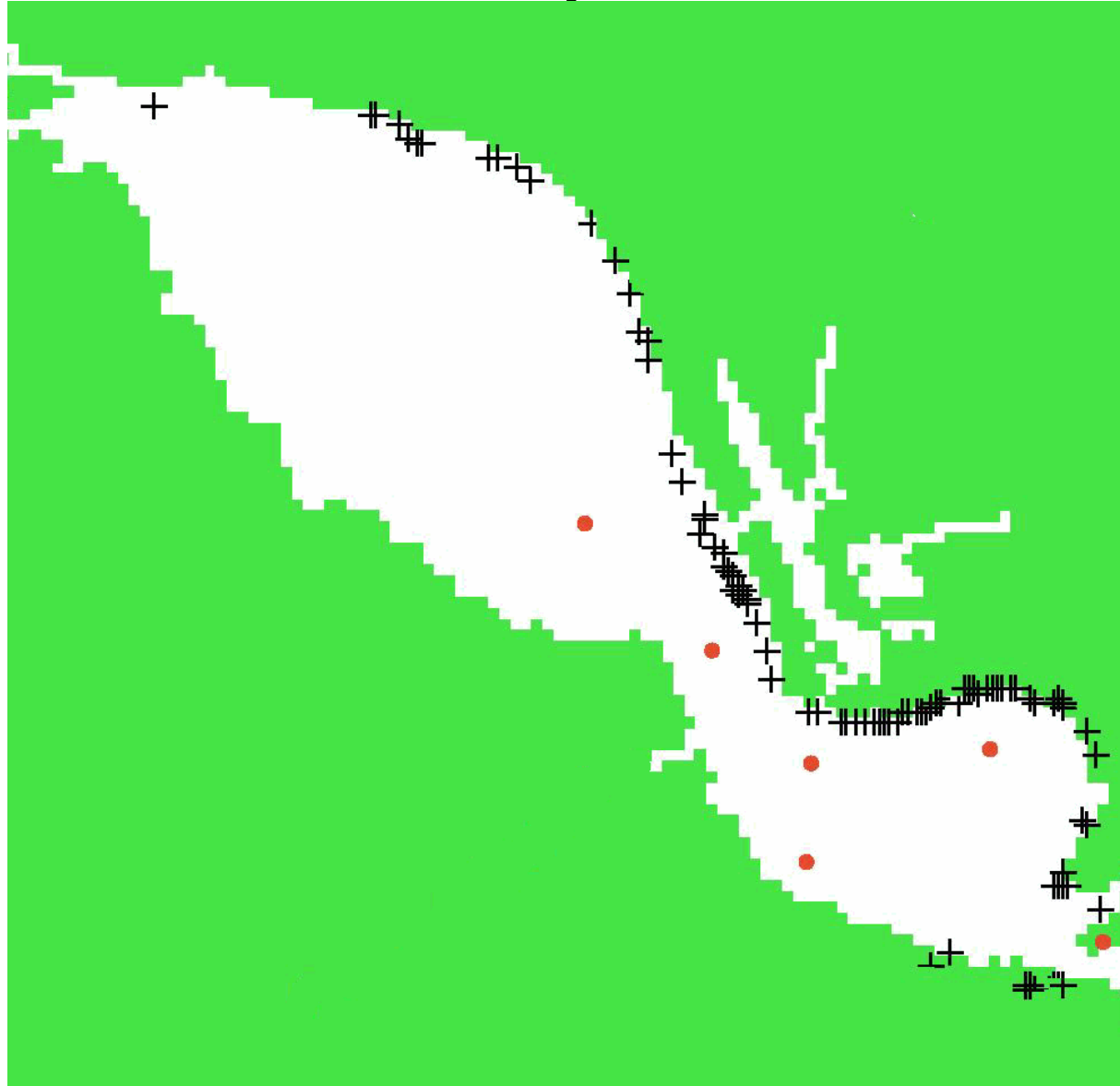
Modeled high-development scenario



Modeled dam trapping scenario



Modelled fish larvae drift from the Tonle Sap River in 1997



Data that we need from other agencies

- Textual Data
 - Environmental Impact Assessment studies of built structures
 - Possibly socio-economic and fisheries studies (to be identified)

Data that we need from other agencies

- Tabular (Database) Data
 1. To be identified

Data that we need from other agencies

- **Spatial (Geo-Referenced / Map) Data**
 1. Photomaps and digital terrain model prepared in 2005 by FINNMAP under the Tonle Sap Environmental Management Project
 2. ADB Road Rehabilitation Project Database (road and bridged information) prepared by the Aruna Technology Ltd.
 3. Additional infrastructure data
 4. Fisheries data
 5. Irrigation and hydropower development
 6. Socio-economic data
 7. Habitat data
 8. Other to be identified

What will be the benefits of Data Sharing for my organisation

1. Use of the project results for research, planning, management and decision making – increased usefulness and impact of the project
2. Improved networking and coordination between the actors
3. Avoidance of duplicate work - increased efficiency
4. Improved research quality, more comprehensive results



More information:
www.eia.fi/wup-fin