A new, free, web-based tool to support decision making under uncertainty

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Flood and Drought Management Tools

http://www.flooddroughtmonitor.com

Seasonal planning, Chao Phraya basin, Thailand

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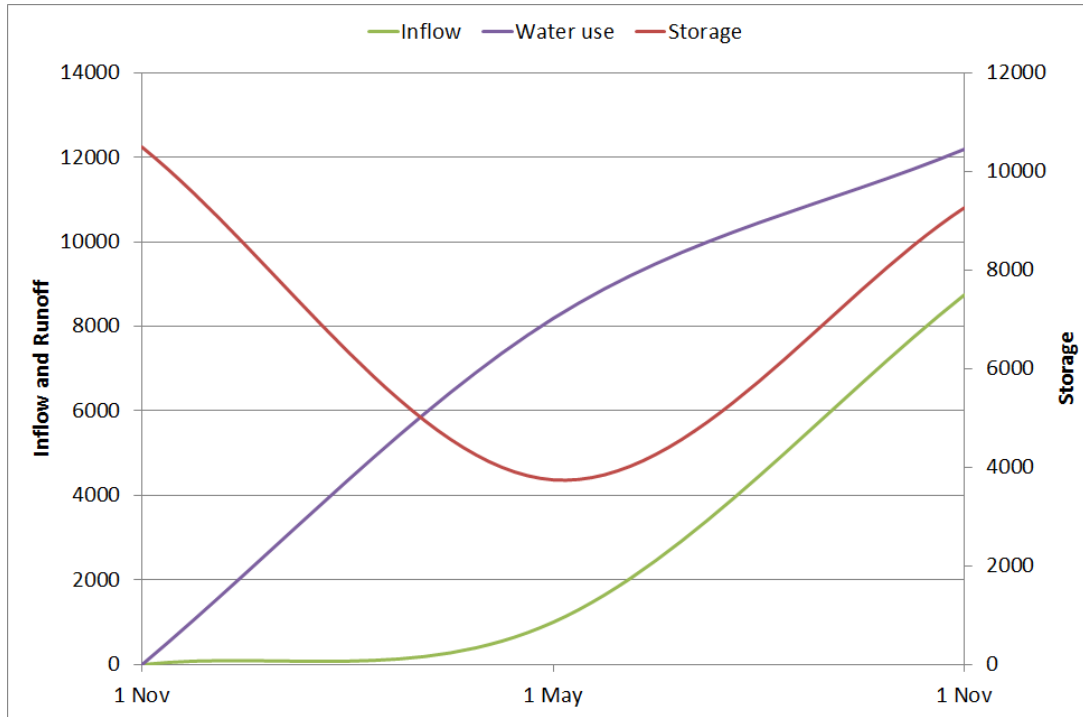
Decisions (Levers)

- **On 1 November, the following decisions are made:**
    - Total size of dry season irrigated area
    - Size of incentives to farmers for growing upland crops

Objectives (Measures)

- **Maximize benefits to farmers for this dry season**
- **Minimize risk of low storage at the end of the next wet season**
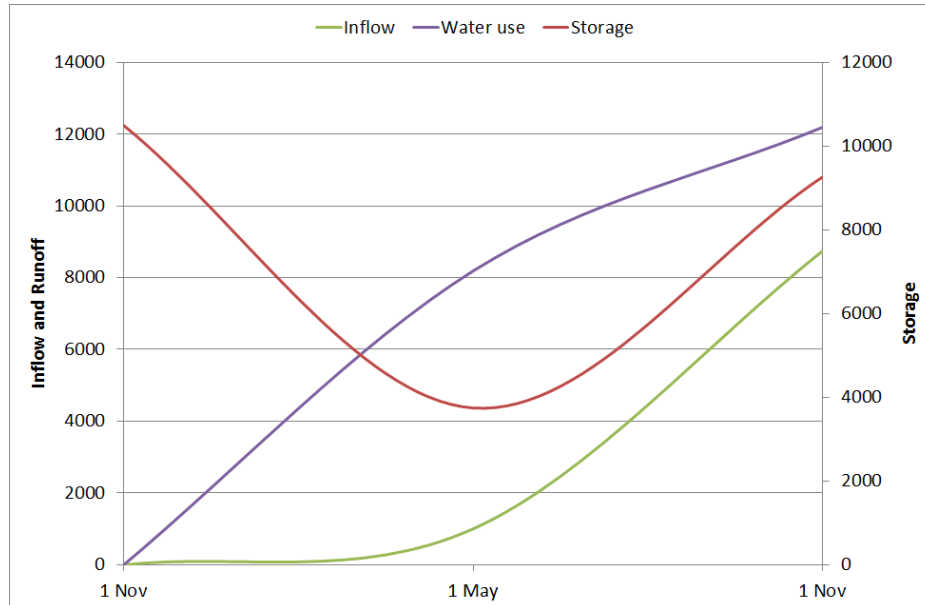
Uncertainties (X)

- **Rainfall**
- **Actual dry season planted area**
- **Price of rice**
- **Price of upland crops (wheat)**

Uncertainty ensemble

- Rainfall (50)
- Actual irrigated area (10)
- Rice price (5)
- Wheat price (5)
- 12,500 ensemble members

Models and assumptions (Relationships)

- Rainfall-runoff model
- Irrigation model
  - Rice demands
  - Wheat yields
- River basin model
  - End of wet season storage
- Subsidy effectiveness model

Demo

- http://www.flooddroughtmonitor.com

Questions

- http://www.flooddroughtmonitor.com
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