Integrating socio-economic data into a spatial framework for aquaculture development

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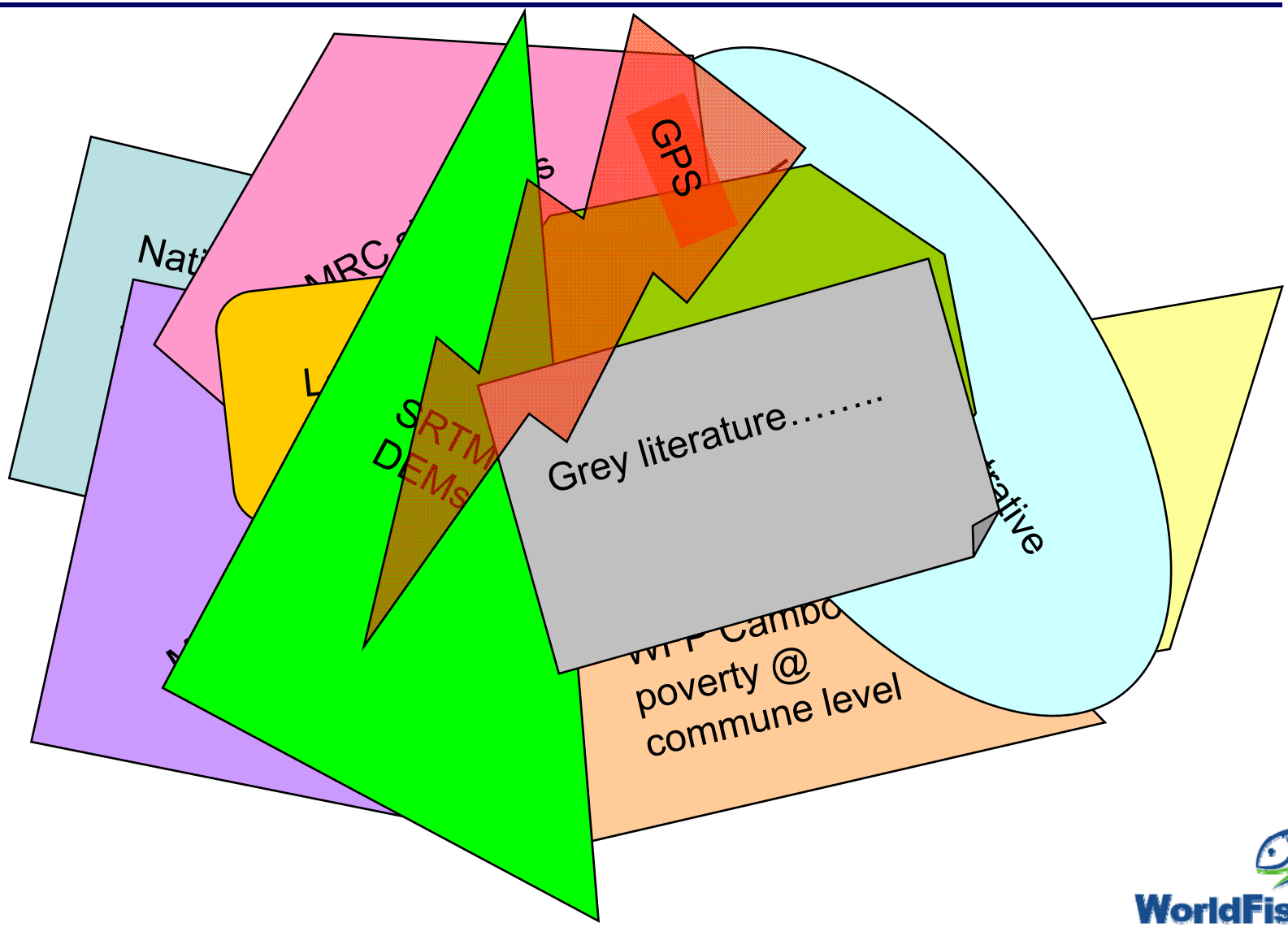
Outline

- Options and shortcomings of data from multiple sources
- 1 example from the study area
- What do we want to know?
- What do we know?
- What do the data show?
- What do we still not know?

Spatial framework for aquaculture

- Integration of data from multiple and disparate sources
- Costly and time consuming
- Data across borders
- Across disciplines
- Across scales

Disparate Data or Desperate Data?



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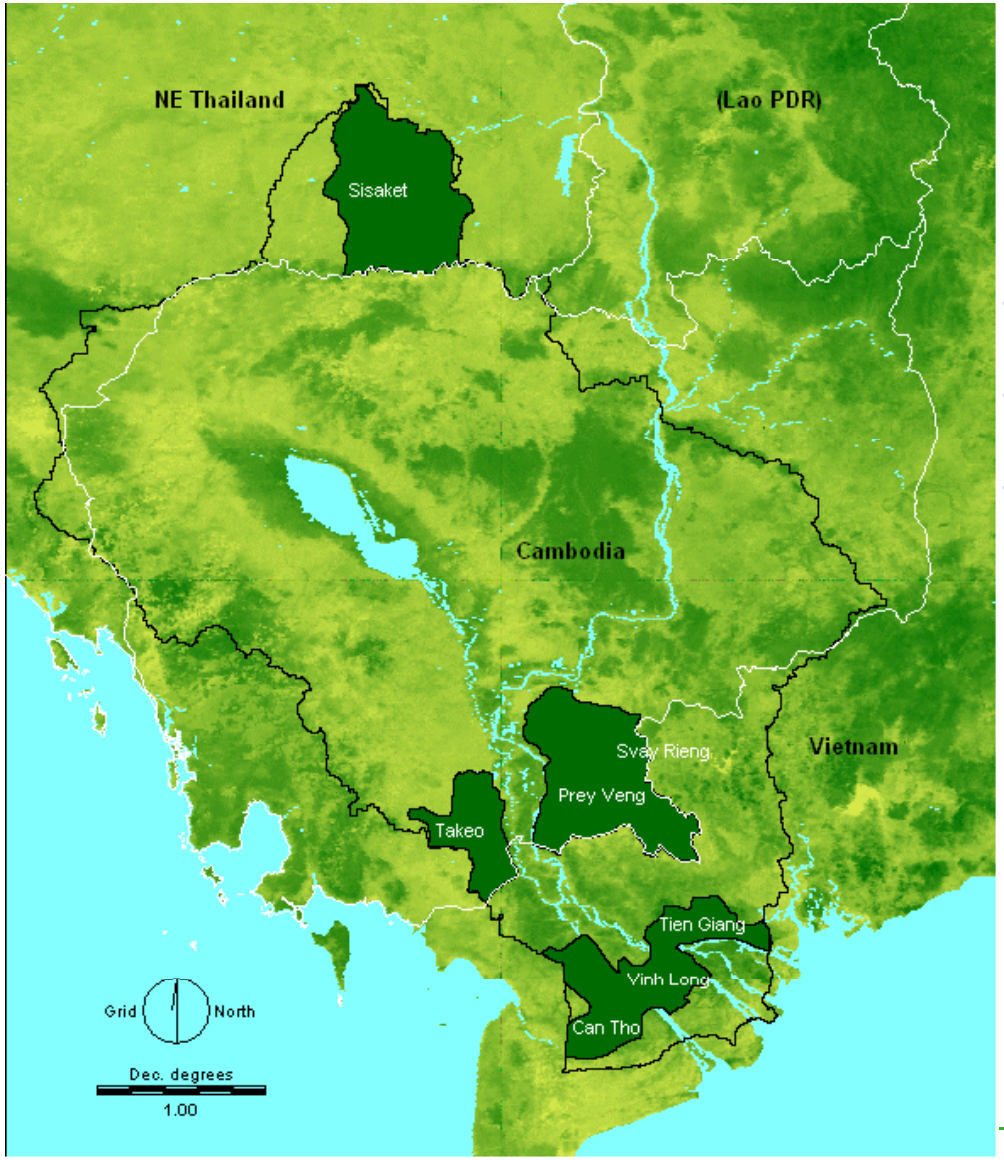
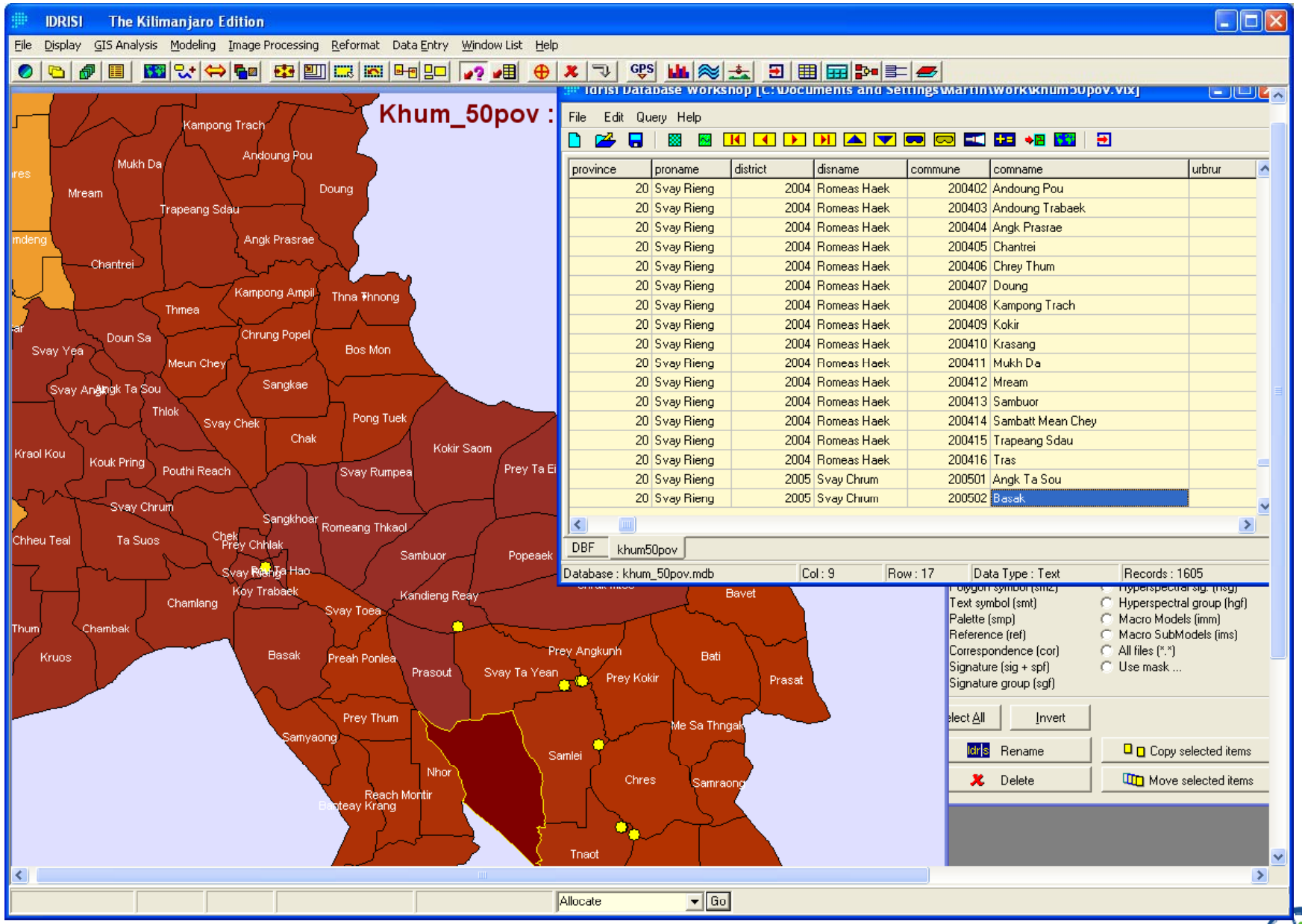
Spatially linking socio-economic data



Lower Mekong

- **NE Thailand – NRD-2C**
- **Cambodia – WFP poverty**
- **VMD - None**



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NE Thailand, Srisaket province – NRD-2C

- Basis for development planning at the local level
- Three categories relative to the countrywide average: ‘progressive’, ‘regular’ or ‘backward’ (Kaojarern, 1986)
- Data collected every two years
- Criteria adjusted every four years according to Thailand’s National Economic and Social Development Plan
- Currently 30 indicators classified into six problem groups: infrastructure, employment, health and sanitation, knowledge and education, community strength, natural resources and environment
- Purposes: policy formulation, development planning, monitoring and evaluation

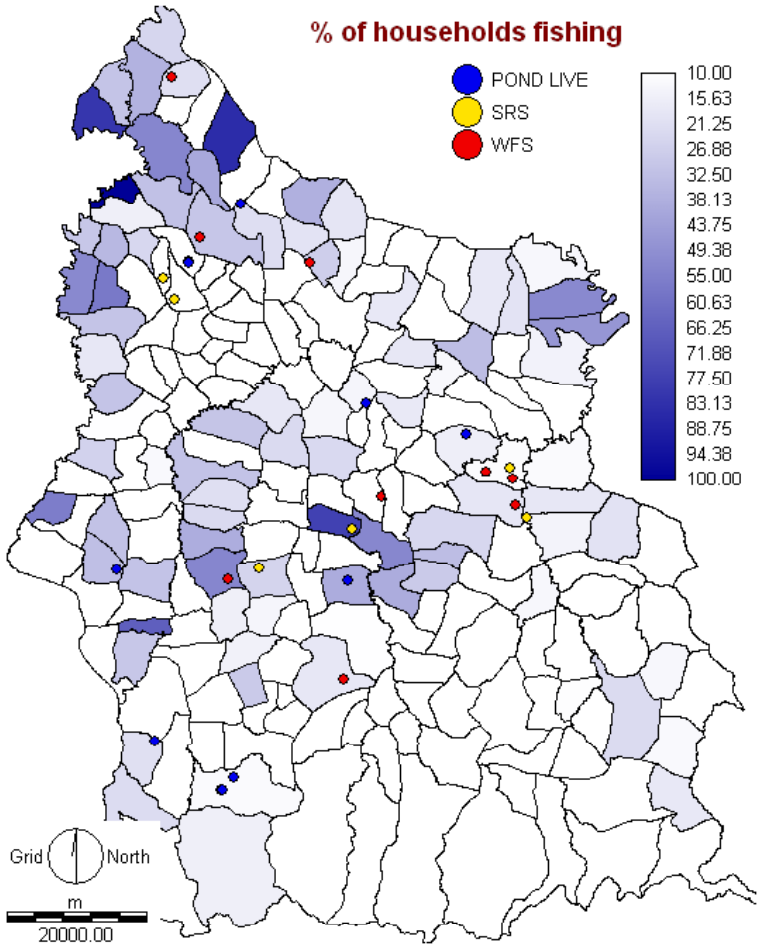
What do we want to know?

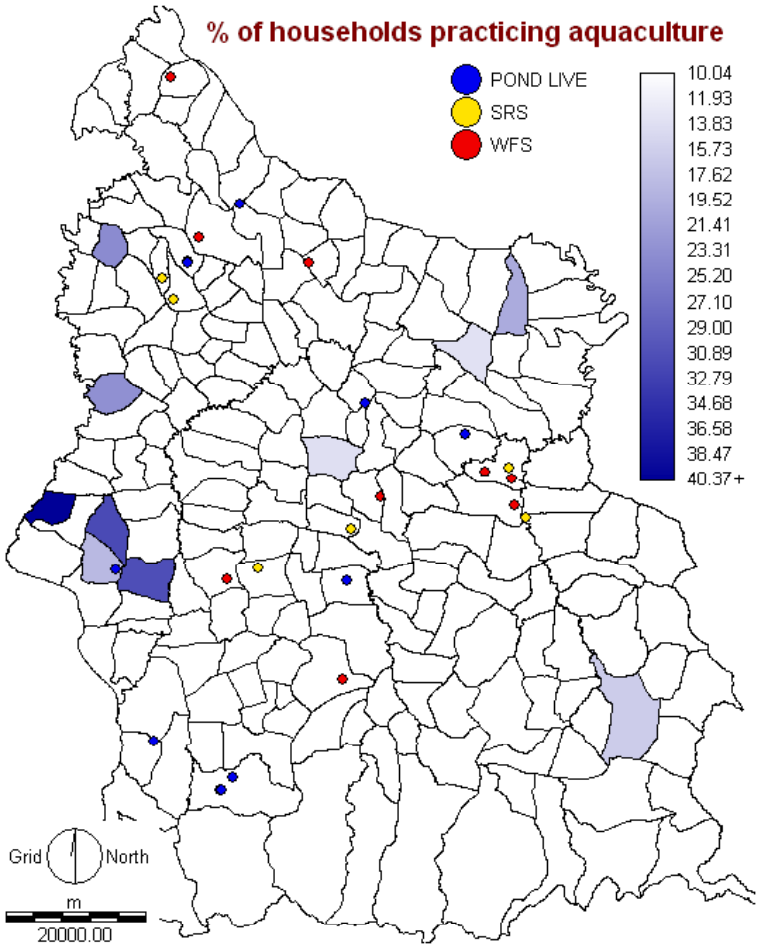
- Usefulness of NRD-2C for planning of aquaculture in wider rural development
- Objective: characterise agro-ecosystems and aquatic resource use

What do we know?

- Fishing almost universal in this area (83% of survey respondents in 1993-94 claimed to fish at some time of the year (AIT/AOP, 1998)
- Major temporal and spatial variation in wild fish
- Fishing sites vary seasonally (wet season: farmers fish in rice fields, dry season: in perennial water bodies)
- Potential of aquaculture development appears to depend on how far the natural stocks have declined
- ponds serve as a multipurpose resource
- Rice farming, vegetables and fruits are the most important sources of agricultural income
- 3 agro-ecological zones parallel to the Mun river (floodplain, low terrace paddy, higher land)

What do the data show?





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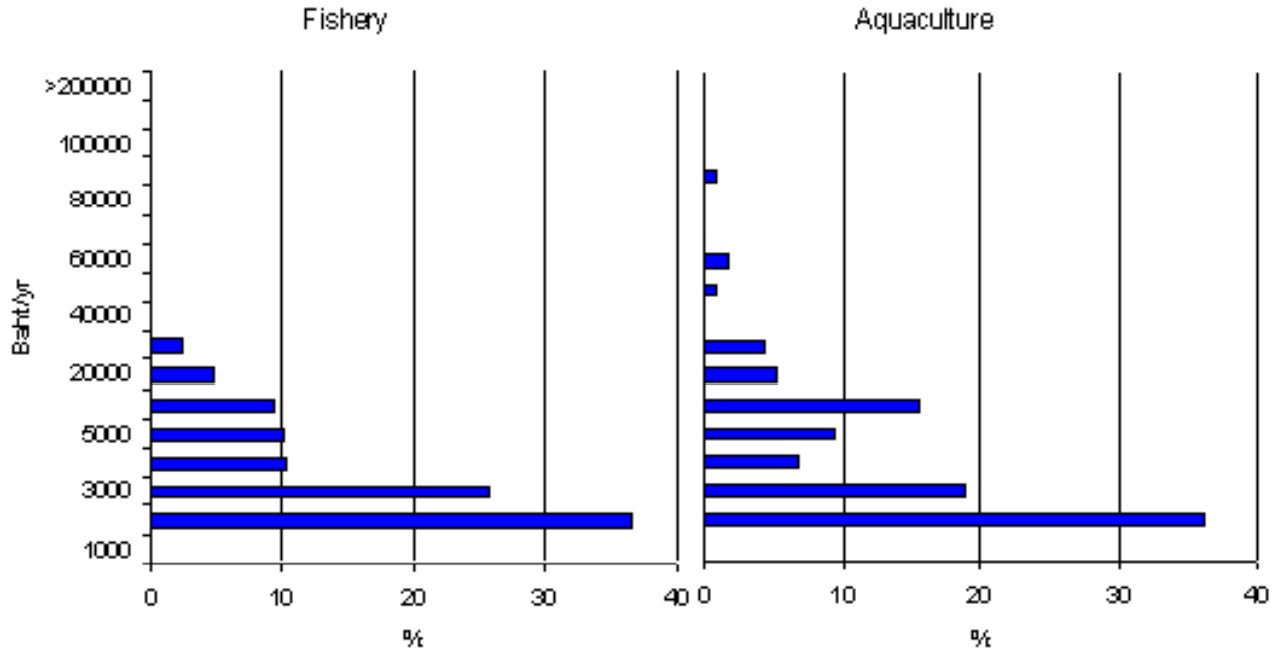
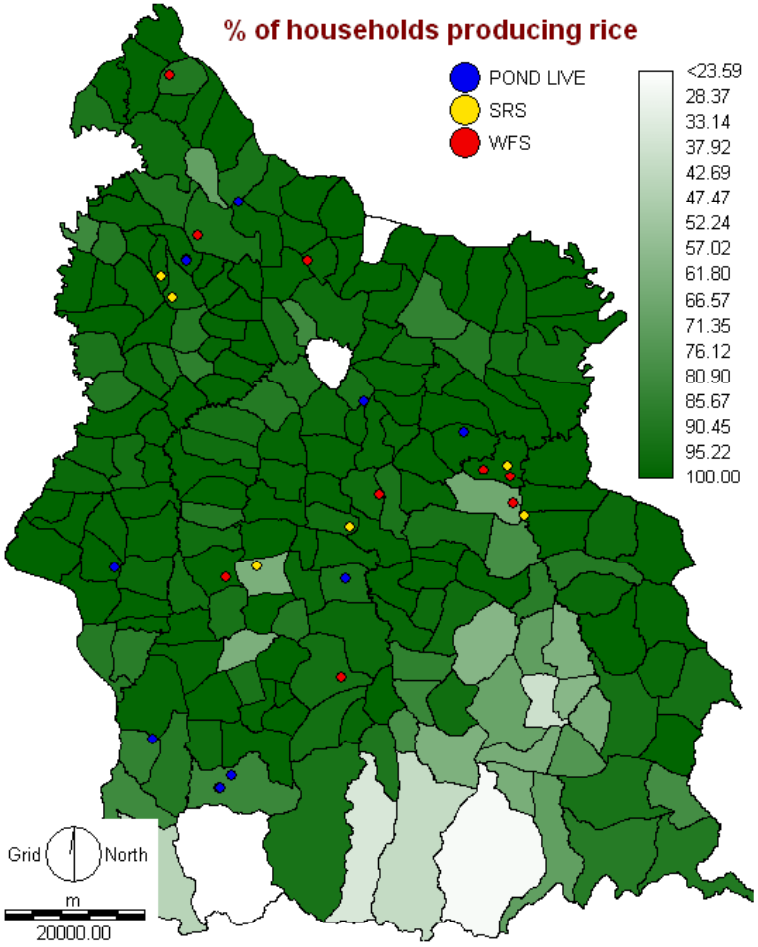
What do the data show?

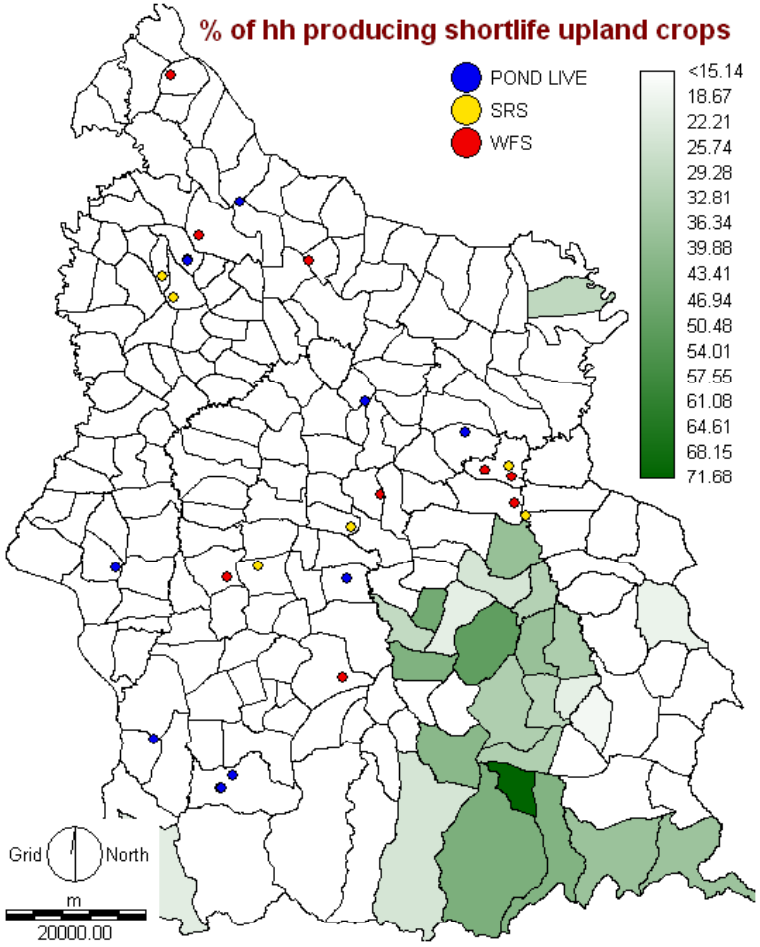


Distribution of annual income from fishery and aquaculture (NRD-2C)

- Almost 26% of rural households have income from fisheries
- almost 40% of households involved earn between 1000 and 2000 baht / yr (additional income source). Similar for aquaculture (but wider range)

What else do the data show?





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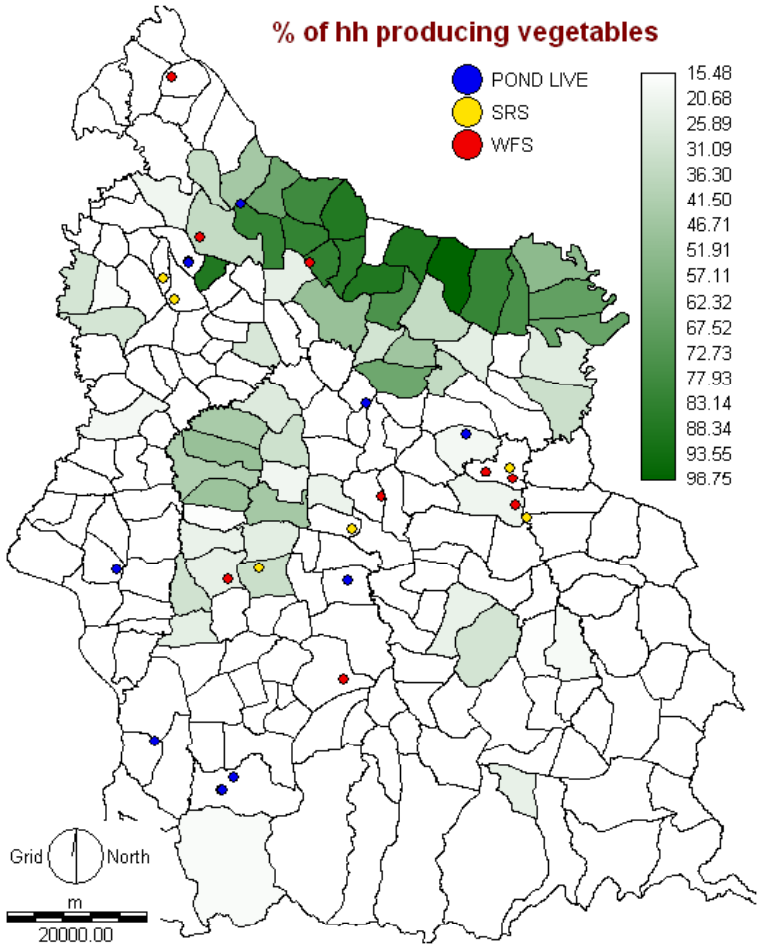
What do the data suggest?

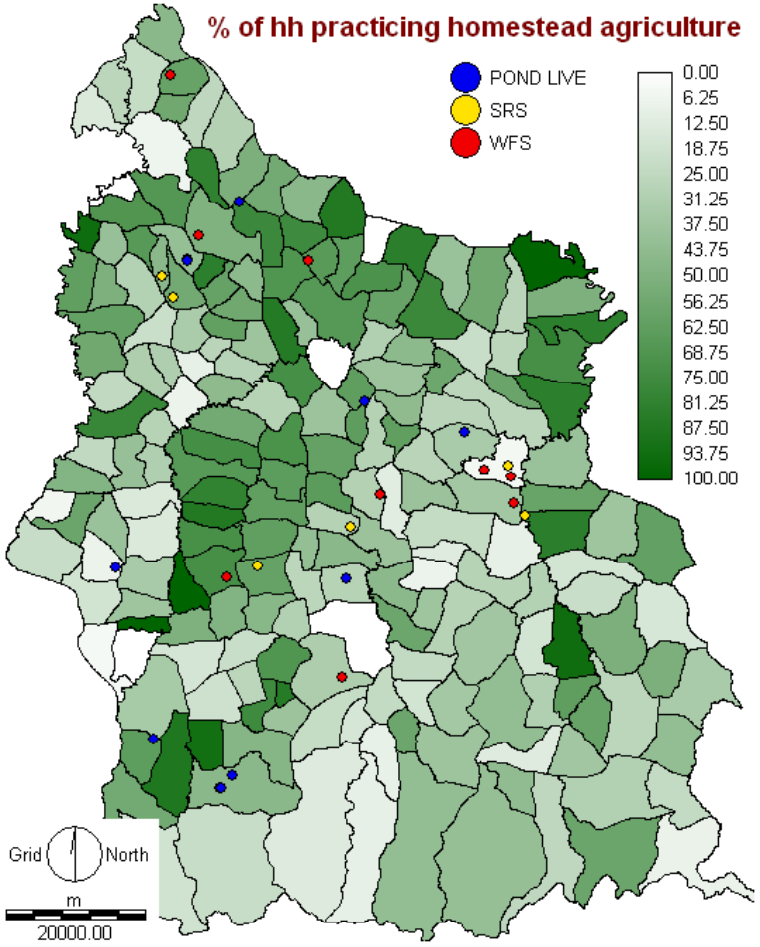


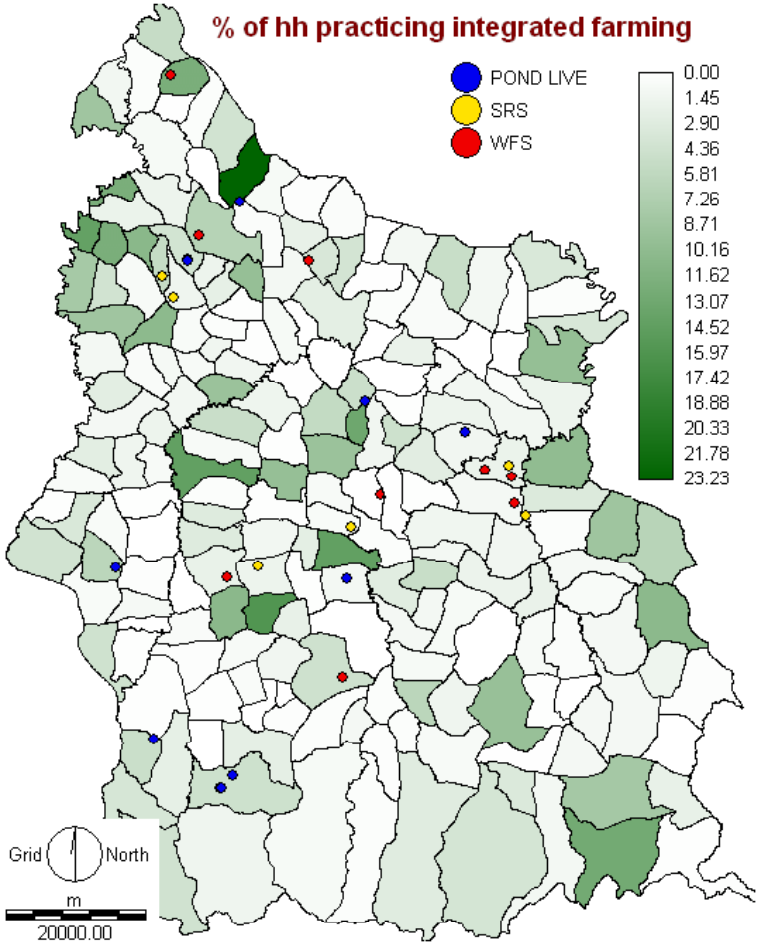
- A snapshot of spatial distribution of productive activities
- Rice everywhere except some upland areas
- Upland crops in upland areas
- Vegetables in floodplain areas
- Fisheries in floodplain areas (surprise?)
- Aquaculture not relevant (?)

What else do we know?

- Integrated agriculture-aquaculture systems (IAAS) play a pivotal role in diversification of farming systems
- Three physically distinct pond-dike systems in Srisaket, under different agro-ecological conditions. Two crop dominated, one focusing on fish
- For pond construction, aquaculture always secondary to production of crops
- Possible benefits from pond-dike systems (financial, human, natural and social) vary with location and socio-economic circumstances

What do the data show?





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What do we still not know?

- Who is doing what
- Who is doing when
- Who is doing well
- Usefulness of NRD-2C for planning of aquaculture in wider rural development

Do poverty data tell us more?

- We'll tell you in our next presentation

Obrigado

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