



SOILS AND FERTILIZERS RESEARCH INSTITUTE (SFRI)

Using Soil Information for Agricultural Production in Vietnam

Research results of the Soils and Fertilizers Research Institute

Advancing the Science and Technology of Soil Information in Asia - Launch of the Global Soil Partnership's Asia Soil Science Network and GlobalSoilMap.net

East Asia Node

8-11 February, 2012, Nanjing, China

Overview of Vietnam

Population: ~87 million

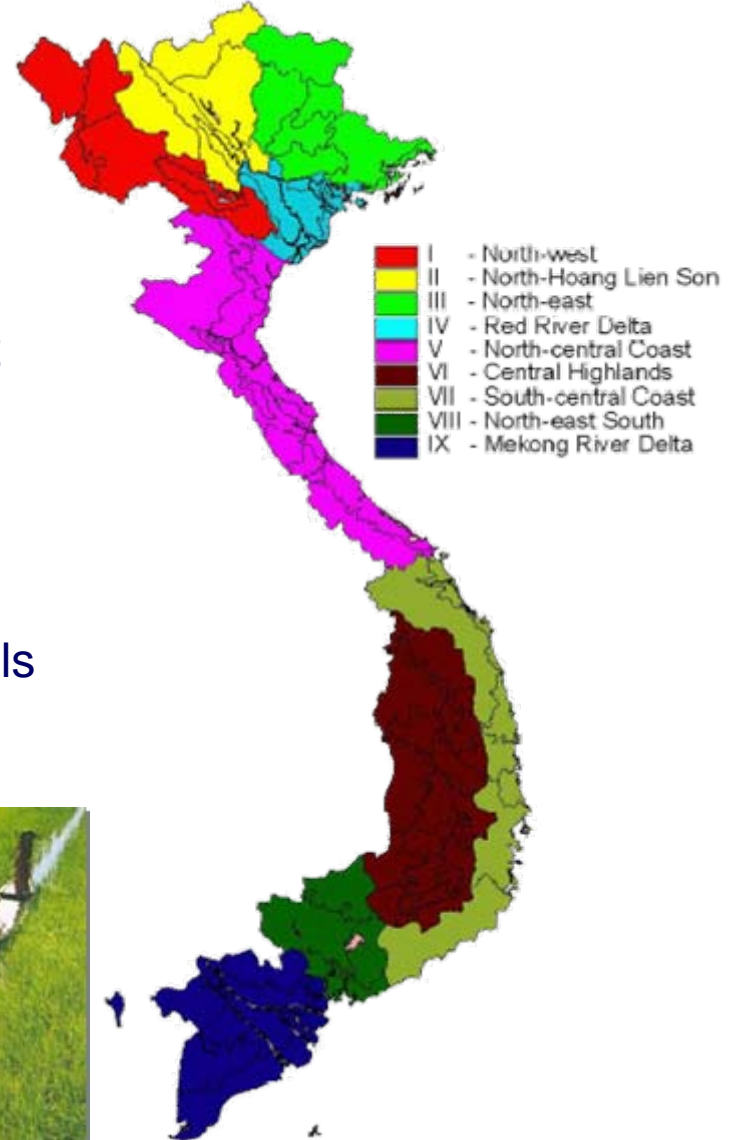
Total areas: 33.1 million hectares

Cultivated land: ~9.6 hectares

Main export products from agriculture: Rice (>3.2 billion USD), coffee (>1.8), cashew nut (>1.1), pepper (>0.4), rubber (>2.5) and tea (~0.2)

Agro-ecosystems: 8 parts

Major soils: Acrisols, Fluvisols, Ferrasols, Gleysols and Arenosols



SFRI Introduction



SFRI is a public science unit belonging to Vietnam Academy of Agricultural Sciences (VAAS), and has functions on scientific researching, technology transferring, producing and trading in the areas of **soil**, **fertilizer** and **microbiology** on the whole Vietnam

The organization of the Institute:

- 3 administrative departments
- 5 research departments; and
- 4 research centers.

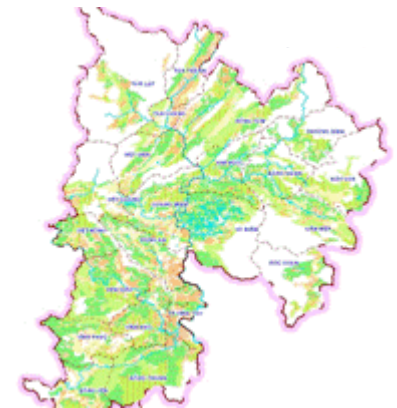
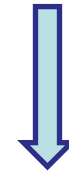
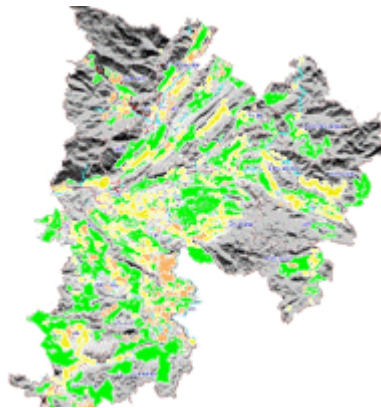
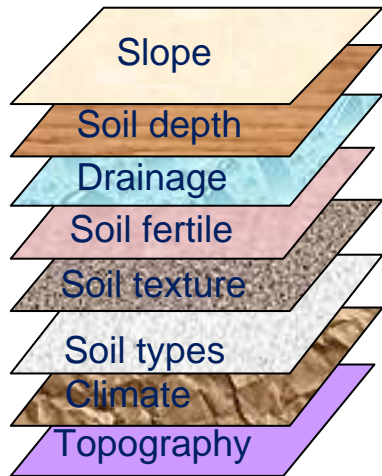
Using Soil Information

1. Land evaluation;
2. Land use planning;
3. Fertilizer recommendation;
4. Web-map; and
5. Geographic indicator for traditional crops

Land evaluation



Crop Requirements



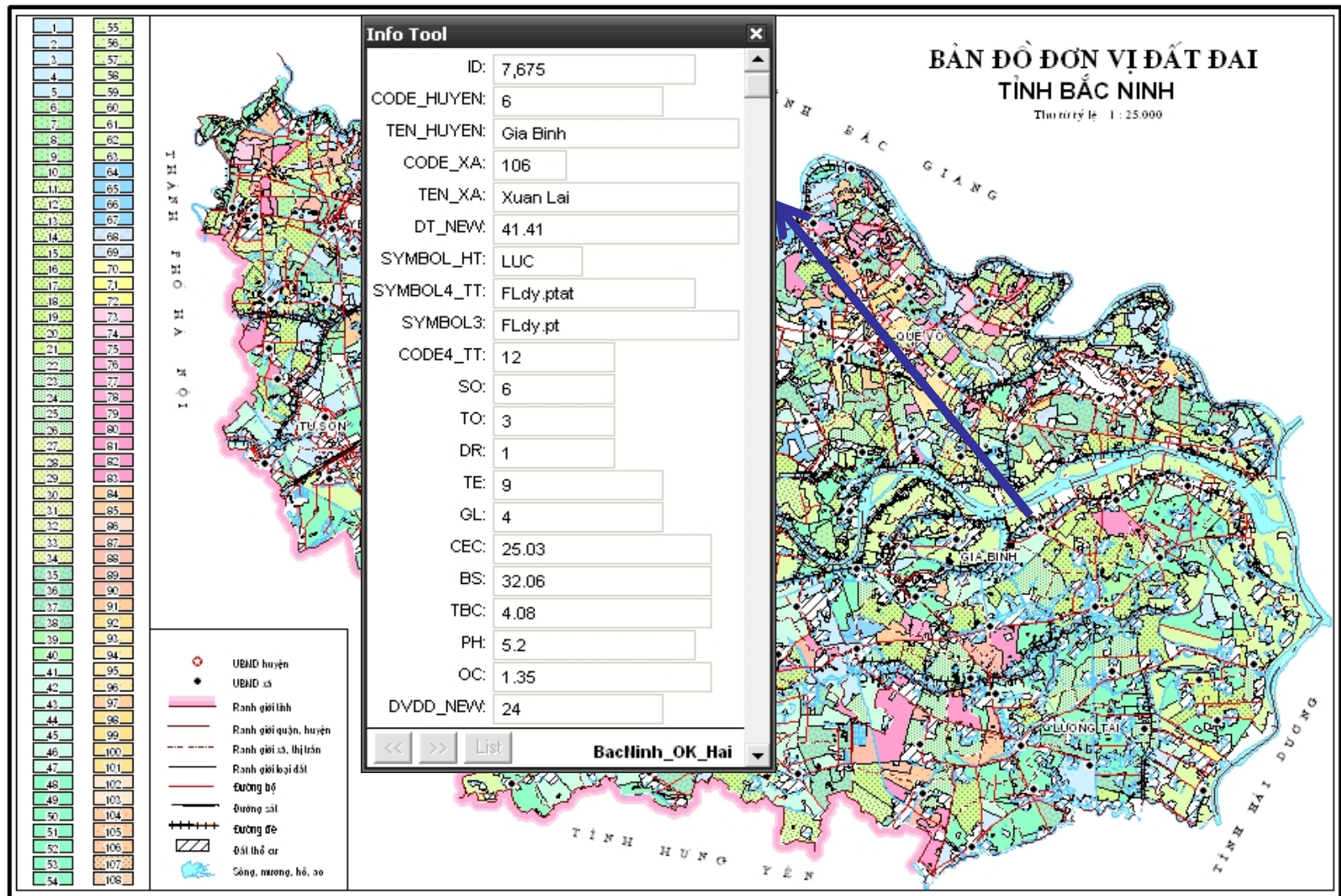
Thematic maps

Land unit map

Land suitability map

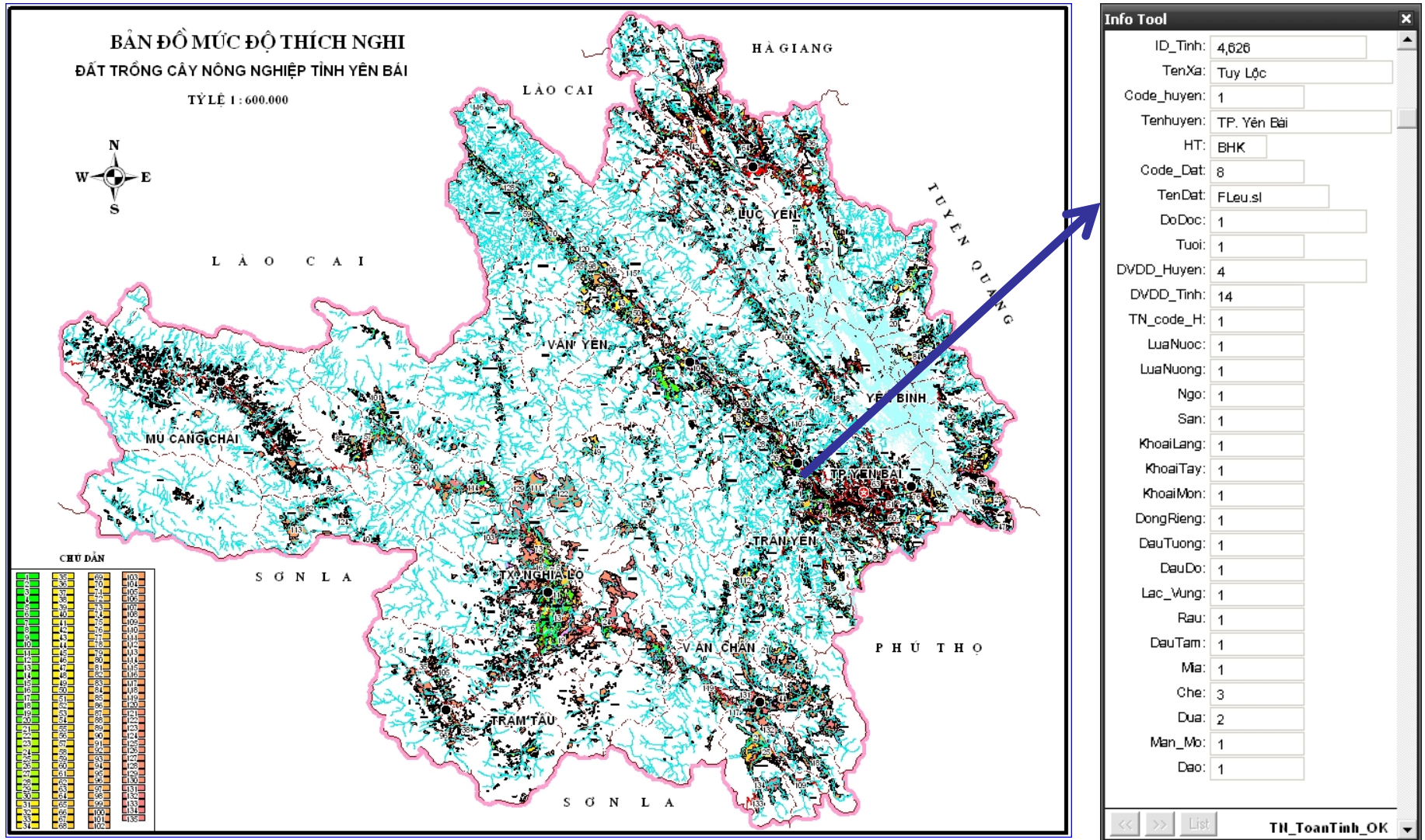
Land evaluation

Case study: Land unit map of Bac Ninh province



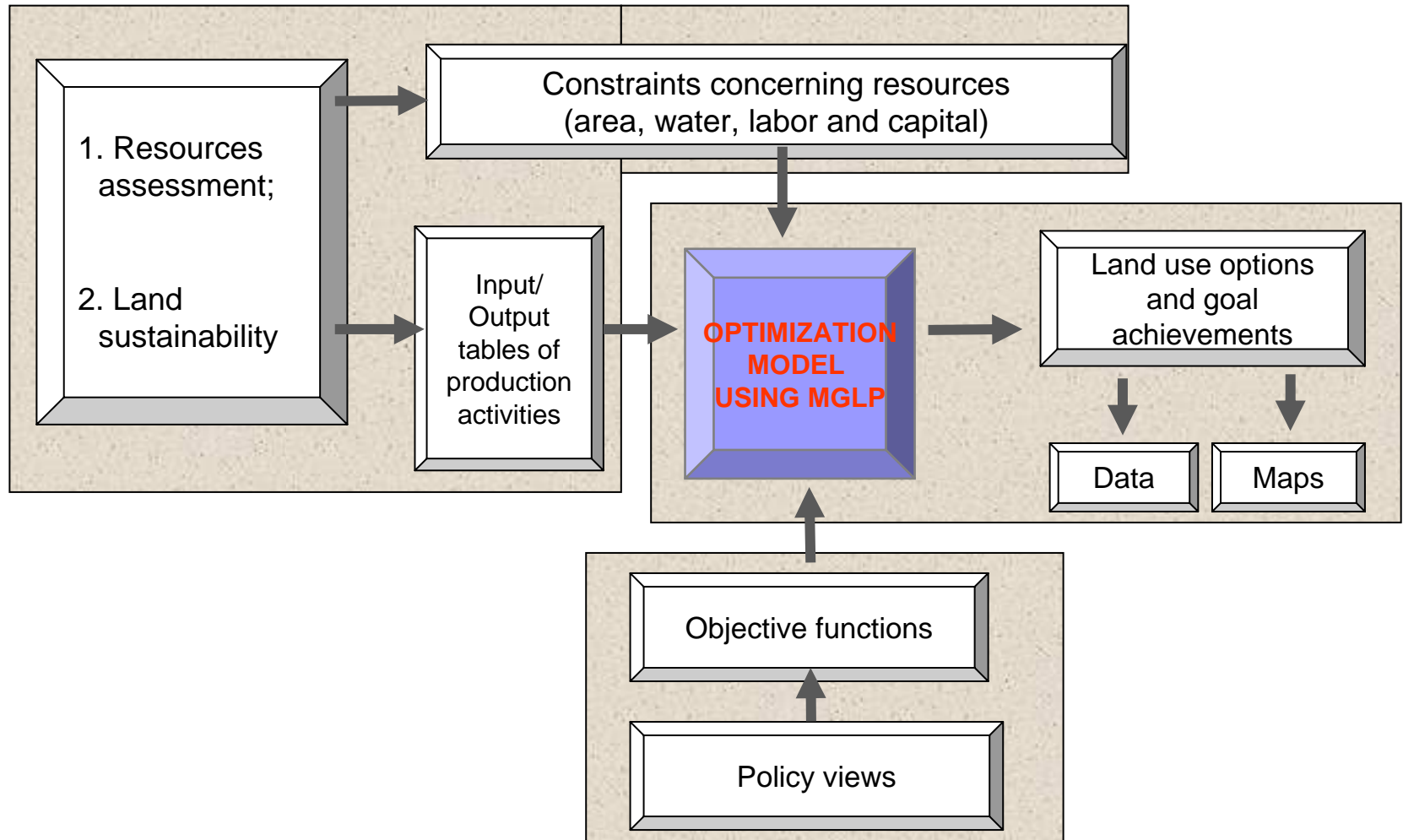
Land evaluation

Case study: Land sustainability map of Yen Bai province



Source: SFRI, 2004

Land use planning by LUPAS method



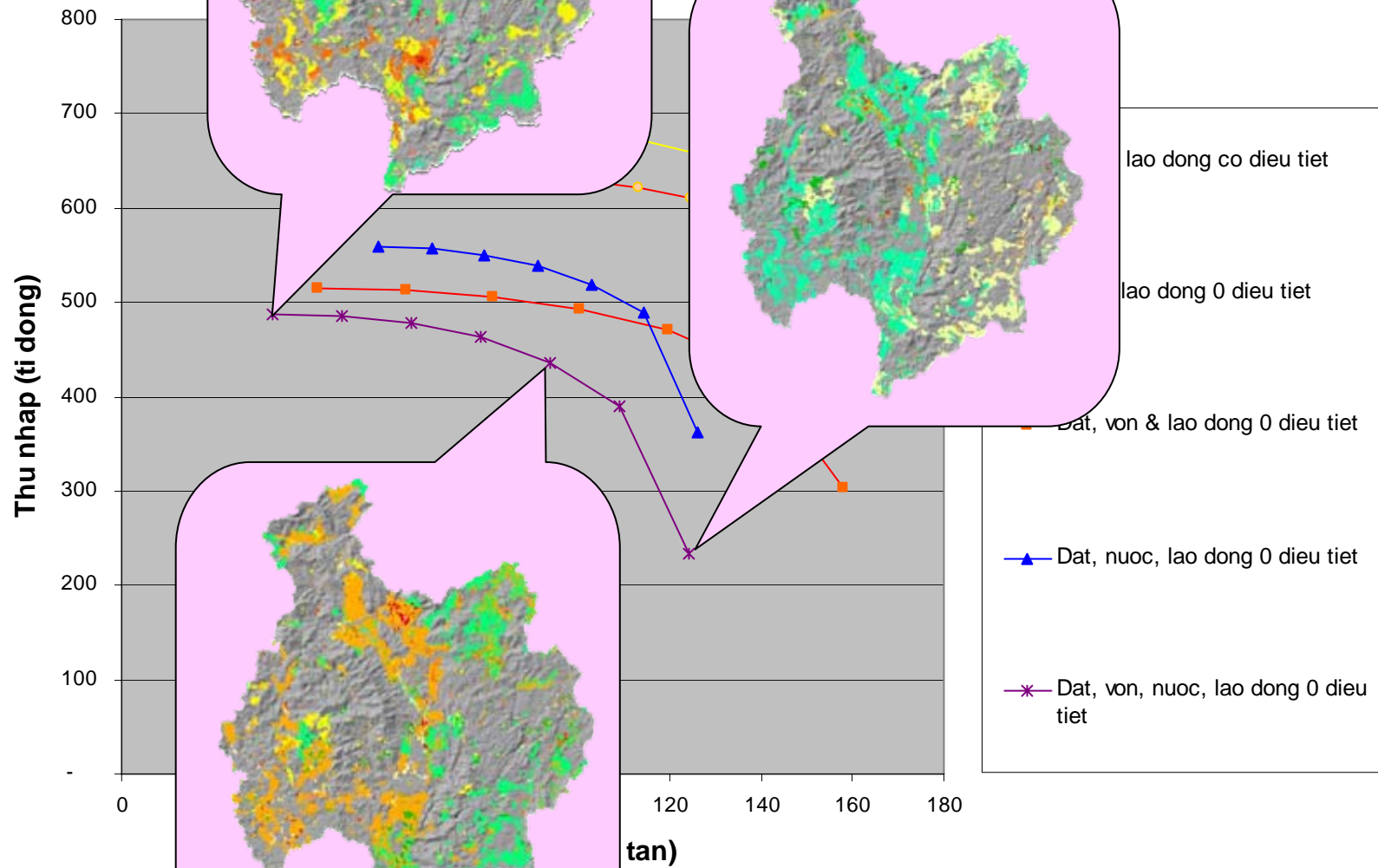
LUPAS: Land use planning and analysis system
MGLP: Multiple goal linear programming

Source: SFRI & IRRI, 2002

Land use by LUPAS method

Case study

scenarios for Nari district, Bac Can province

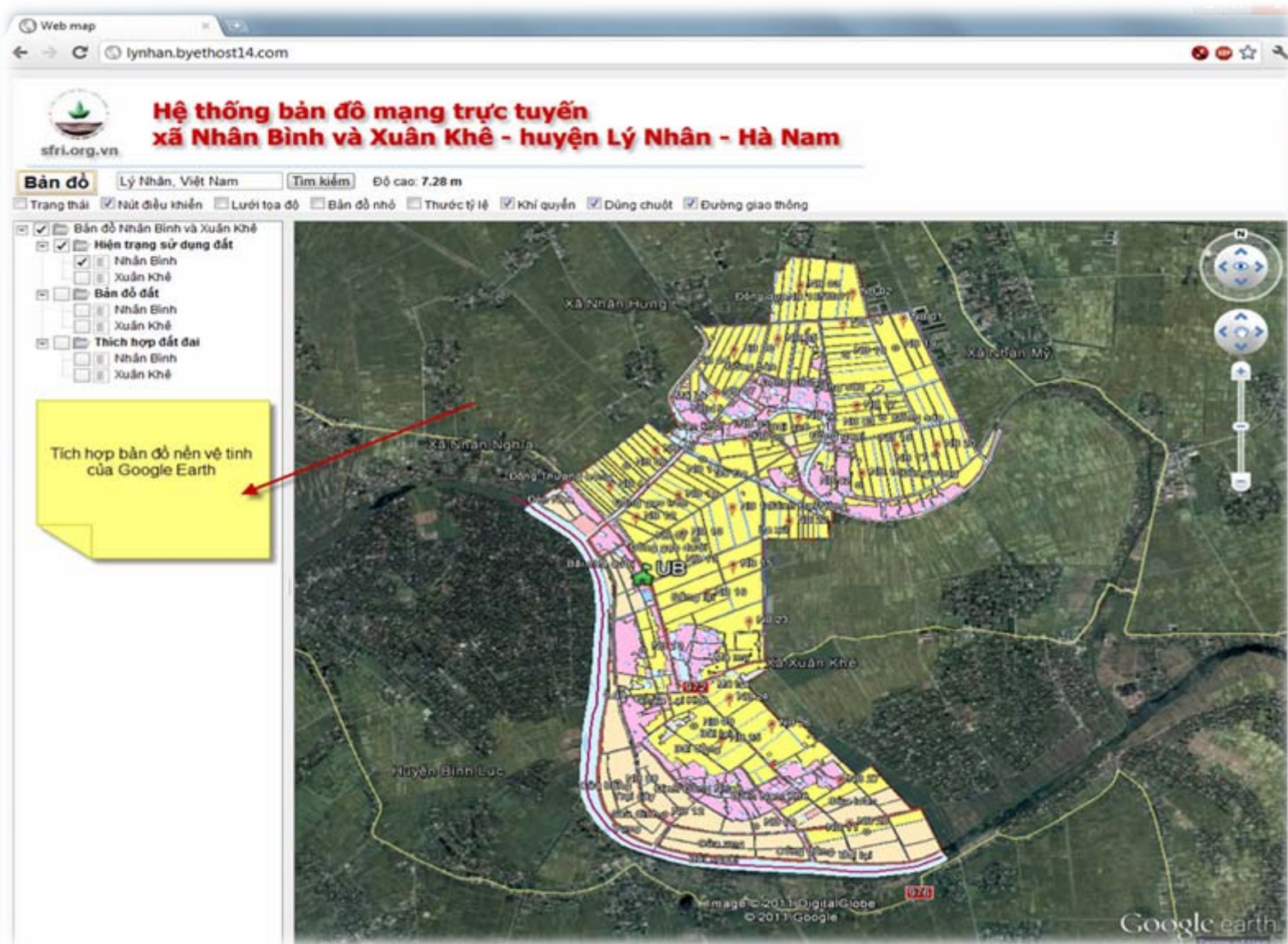


Source: SFRI & IRRI, 2002

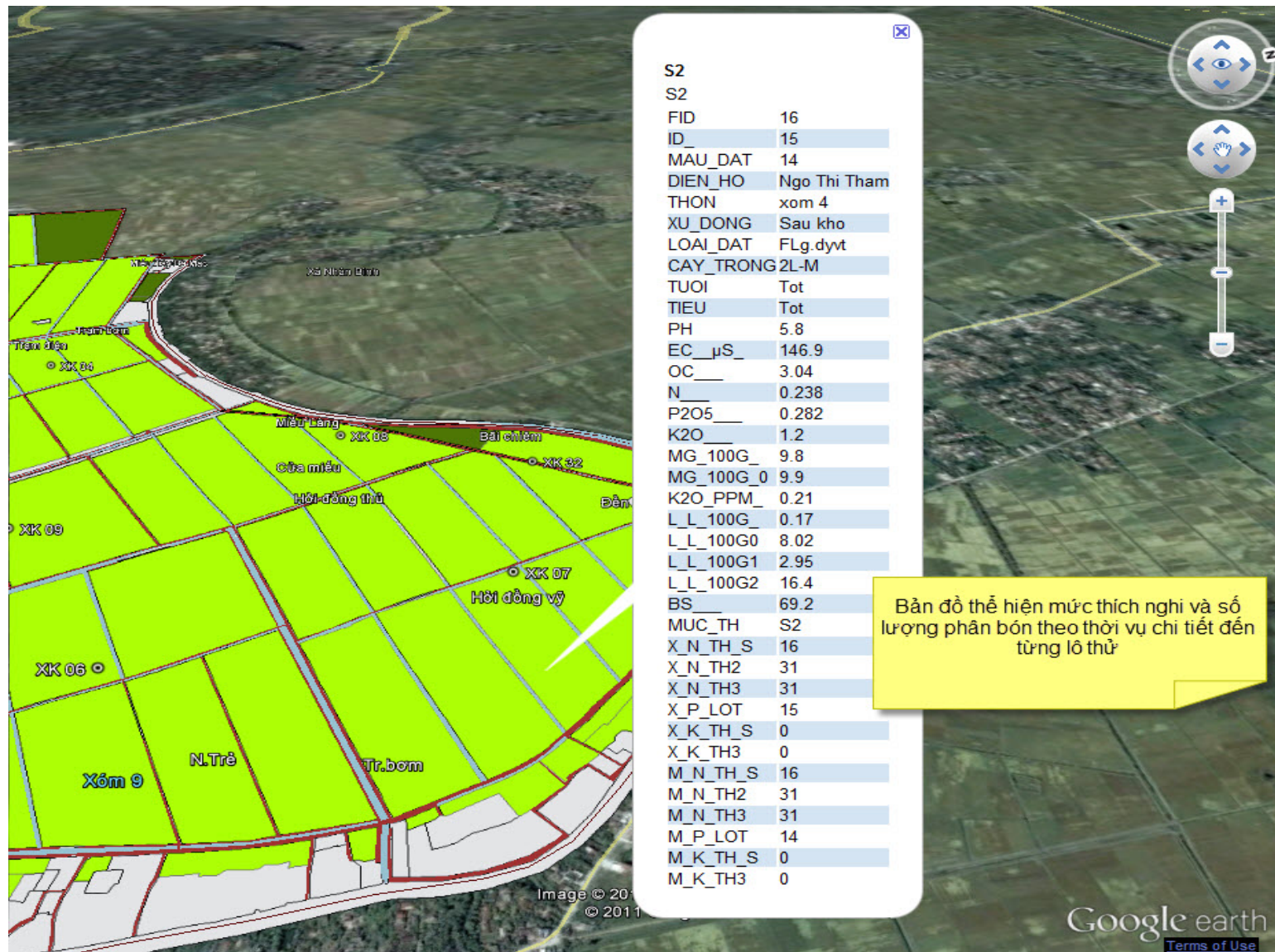
Case study: Fertilizer recommendation map of the Red river delta



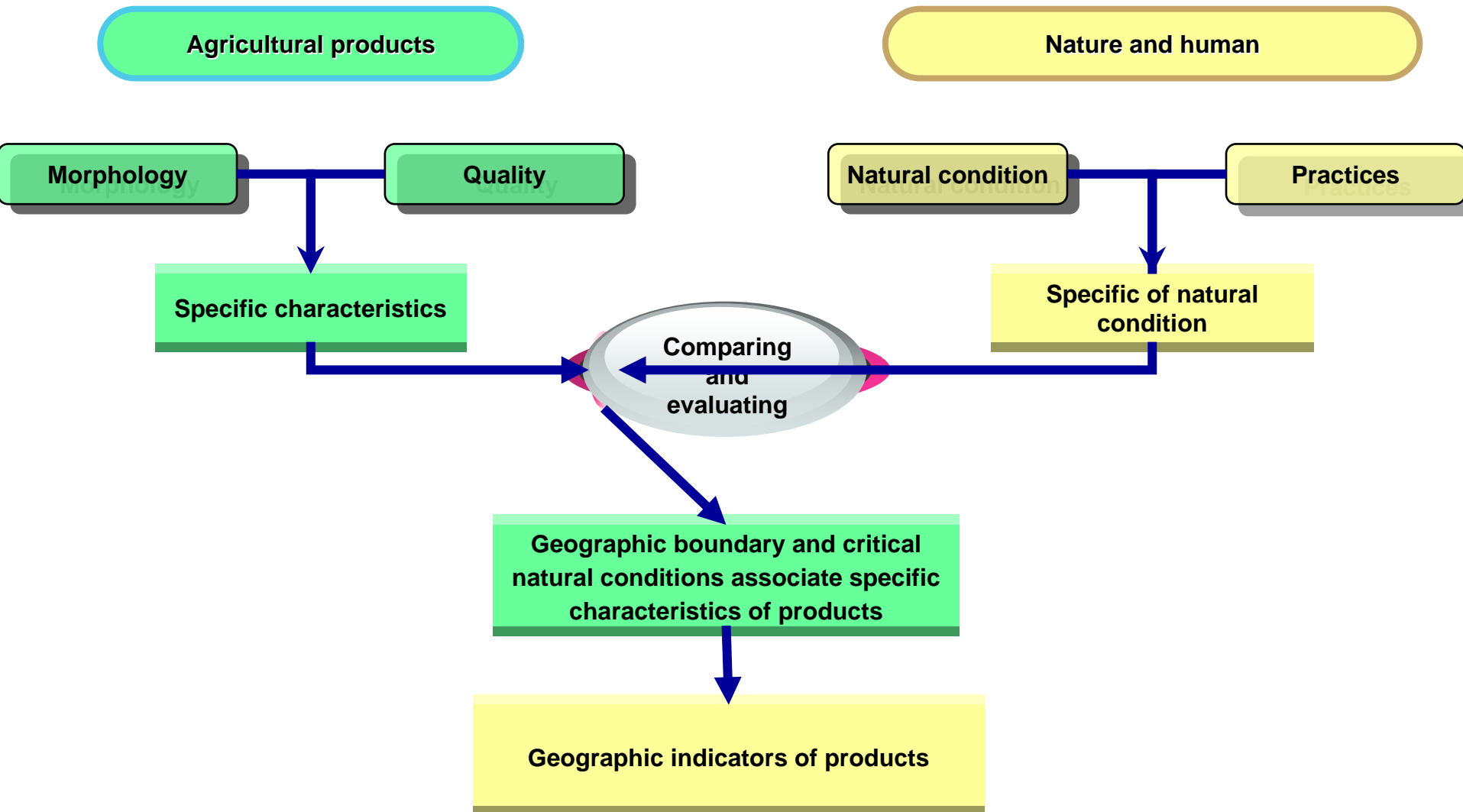
Web-map for fertilizer recommendation at commune level



Web-map for fertilizer recommendation at commune level



Determining geographic indicator for traditional crops

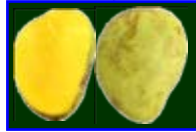


Determining geographic indicator for traditional crops

Pomelo



Mango



Orange



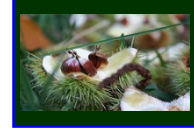
Green pepper



Cinnamon



Chestnut



Cinnamon



Litchi



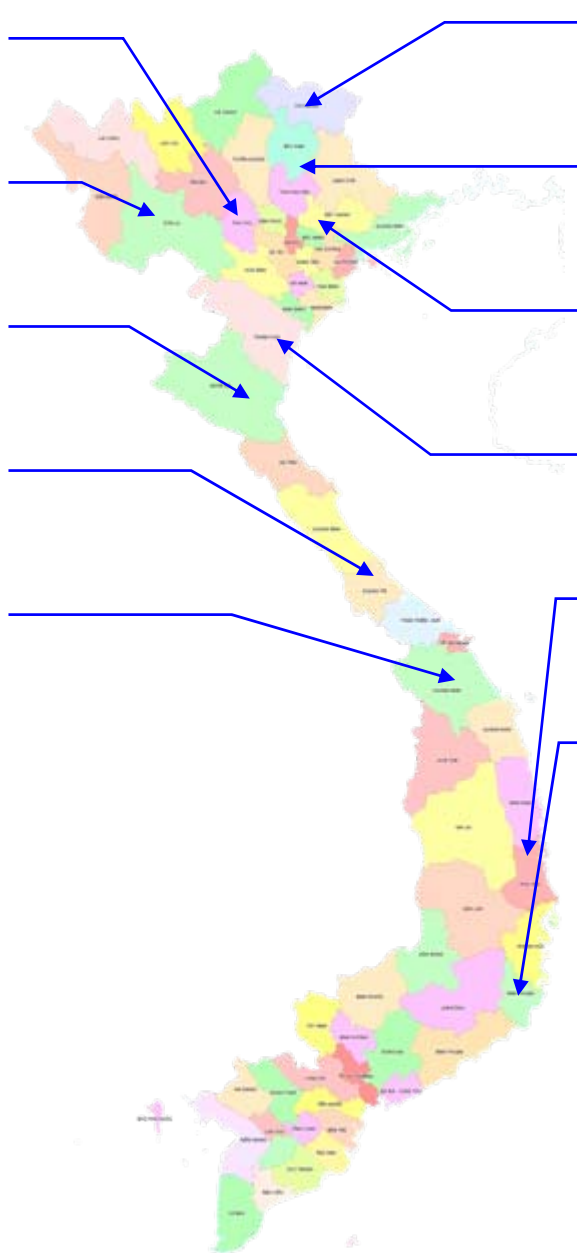
Sedge



Ginseng



Grape



Experiences

1. Simplify soil information in maps
2. Link soil information with fertilizer recommendation, cultivation regime...
3. Use internet as a tool for transferring soil knowledge



Thanks for your attention!

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