



## Developing stakeholder platforms in the Vu Gia – Thu Bon river basin to support system analysis and management

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1. LUCCi Project
2. Role of Stakeholders in the Project
3. Stakeholder Process and Platforms
4. Conclusions

### ***LUCCi Coordination***

1. Institute for Technology and Resources Management in the Tropics and Subtropics, ITT, at the Cologne University of Applied Sciences
2. Vietnam Academy for Water Resources, Center for Training and International Cooperation – VAWR

### ***German and Vietnamese Partner***




1. Department for Remote Sensing, Friedrich-Schiller-University of Jena
2. Department of Geoinformatics, Hydrology and Modelling, Friedrich-Schiller-University of Jena
3. Institute of Environmental Engineering and Ecology, Ruhr University Bochum
4. Institute for Meteorology and Climate Research, Atmospheric Environmental Research, (KIT)
5. Secretariat for the International Hydrological Programme (IHP) of UNESCO and the Hydrology and Water Resources Programme (HWRP) of WMO at the Federal Institute of Hydrology, Koblenz
6. Hue University of Agriculture and Forestry (HUE)
7. Institute for Metrology, Hydrology and Environment - IMHEN (MONRE)
8. Ministry of Agriculture and Rural Development REDD (MARD)
9. International Rice Research Institute, IRRI, CGIAR (Philippines)
10. UN REDD
11. UNDP Disaster Risk Management Programme (MARD)

### Project Region

- Vu Gia-Thu Bon River Basin
- whole Quang Nam Province
- whole Da Nang Province
- Size: around 12,000 km<sup>2</sup>
- Population: 1,873,500 inhabitants (urban: 36.5%)

#### Legend

- Project Area
- Basin watershed
- National Boundary
- Province
- District
- Kommune
- City
- Municipality
- Town
- Planned Reservoir
- Existing Reservoir
- River
- National Highway
- Secondary Road
- Rail
- East Sea

 Land Use and Climate Change in central Vietnam		 Bundesministerium für Bildung und Forschung	
Institute for Technology and Resources Management in the Tropics and Subtropics			
Project area and administrative boundary			
Projection: UTM Zone 48N, WGS 84	Scale: 1: 870,000	Date: 28.10.2011	Contact: Firoz, ITT

## PROJECT REGION: VU GIA THU BON RIVER BASIN

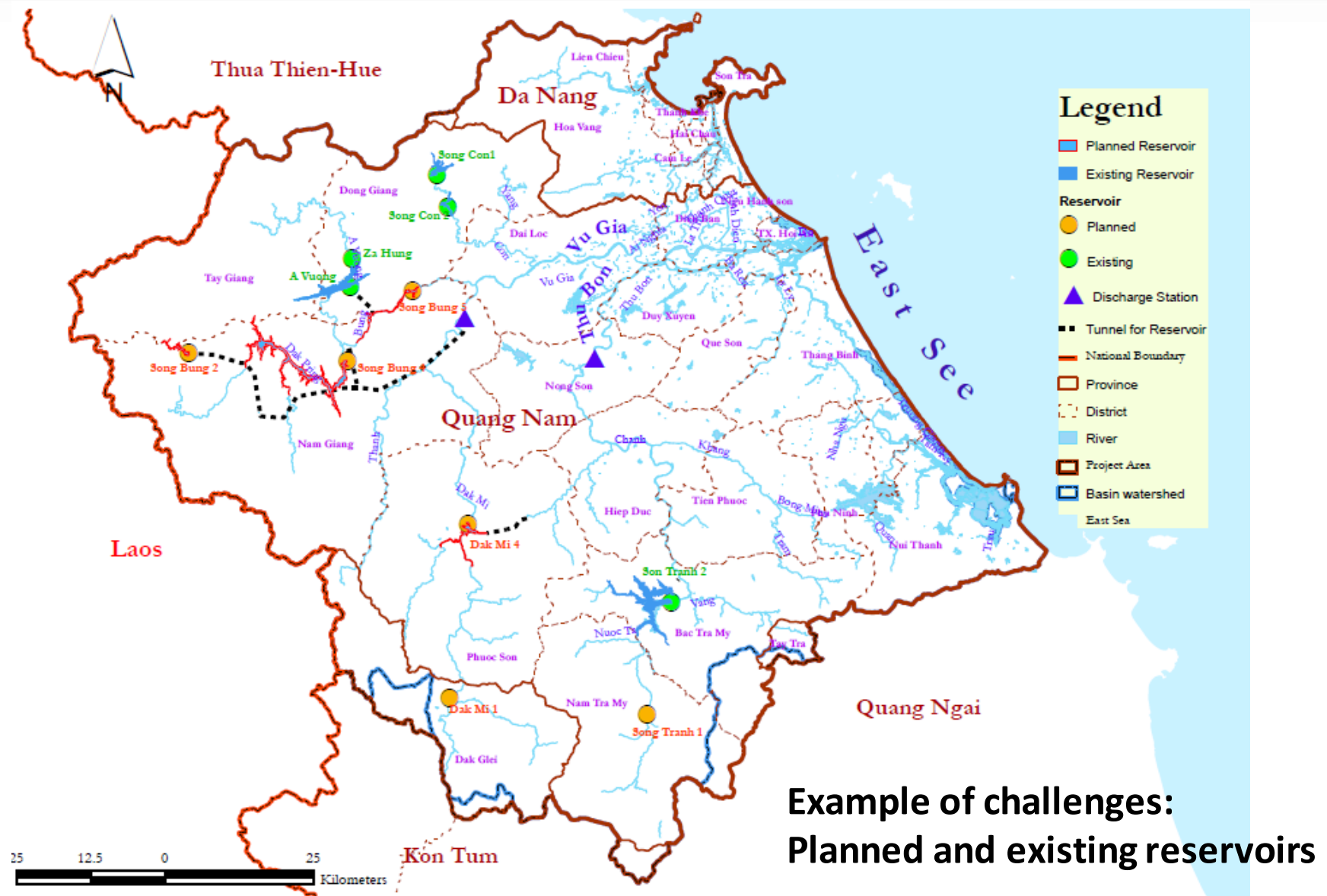


- Rainfall: 2000 – 4000 mm p.a (wet season: 60-80%)
  - Topography: up to >2000 m in the mountainous area, large flood plain
  - Agricultural land use: 220,040 ha (paddy rice 61%)
- (MONRE, 2010)

## CHALLENGES IN THE BASIN

- Hydropower development
- Deforestation and defragmentation
- Green house gas emissions of rice
- Salt water intrusion
- Flood risk
- Drought risk
- Institutional diversity and ongoing reforms
- Increasing demands for food, water and energy





**Overall goal:**

Provide a sound future land and water use management framework that considers socio-economic development, population growth and expected impacts of climate change on land and water resources.





# ROLE OF STAKEHOLDER PROCESSES IN THE PROJECT

#### RESEARCH

#### INTEGRATION

#### IMPLEMENTATION

##### WP 1 Project Management

WS 1 WS2 WS3

WS 4 WS 5

WS 6

WS 7

##### WP 2 Integrated Data Base RBIS

##### WP 3 Climate Modelling

Trend Analysis  
Extreme Climate Analysis  
Regional Statistical  
Dynamical Downscaling

##### WP 6 Integrated Modelling

Link other Models to JAMS  
Develop Model components

##### WP 4 Socio-Economic Multilevel Analysis

Socioeconomy/Policies  
Farming Systems  
Agricultural Fields Trials on GHG

##### WP 5 Natural Environment & Carbon Balance

Carbon, Landscape, Biodiversity  
Hydrology, Salt Water Intrusion

##### WP 8 Develop Strategies

Delphi analysis for strategic choice  
Evaluate strategies  
Develop optimized landuse strategies  
Develop planning strategies

##### WP 9 Application & Transfer

Implement landuse planning  
Training/Capacity Building  
Policy recommendations  
Transfer to other Provinces

##### WP 7 Evaluation and Scenario Development

Analysis of model results  
Risk/Vulnerability analysis  
STAKEHOLDER Indicators based  
Scenario Calculation

DATA COLLECTION

STAKEHOLDER Analysis, participatory data collection

Setting indicator for planning objectives and involving the STAKEHOLDER

Scenario development using STAKEHOLDER indicators

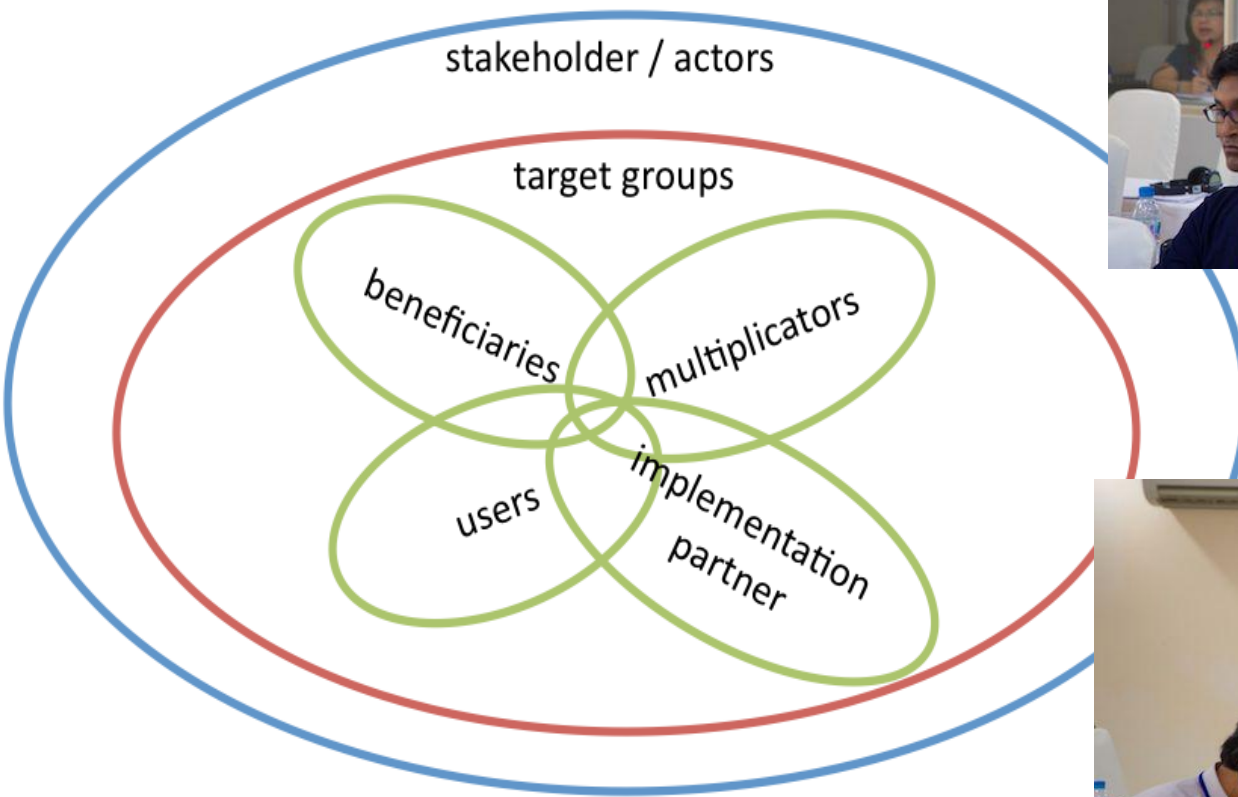
Participatory development of strategies

Participatory implementation

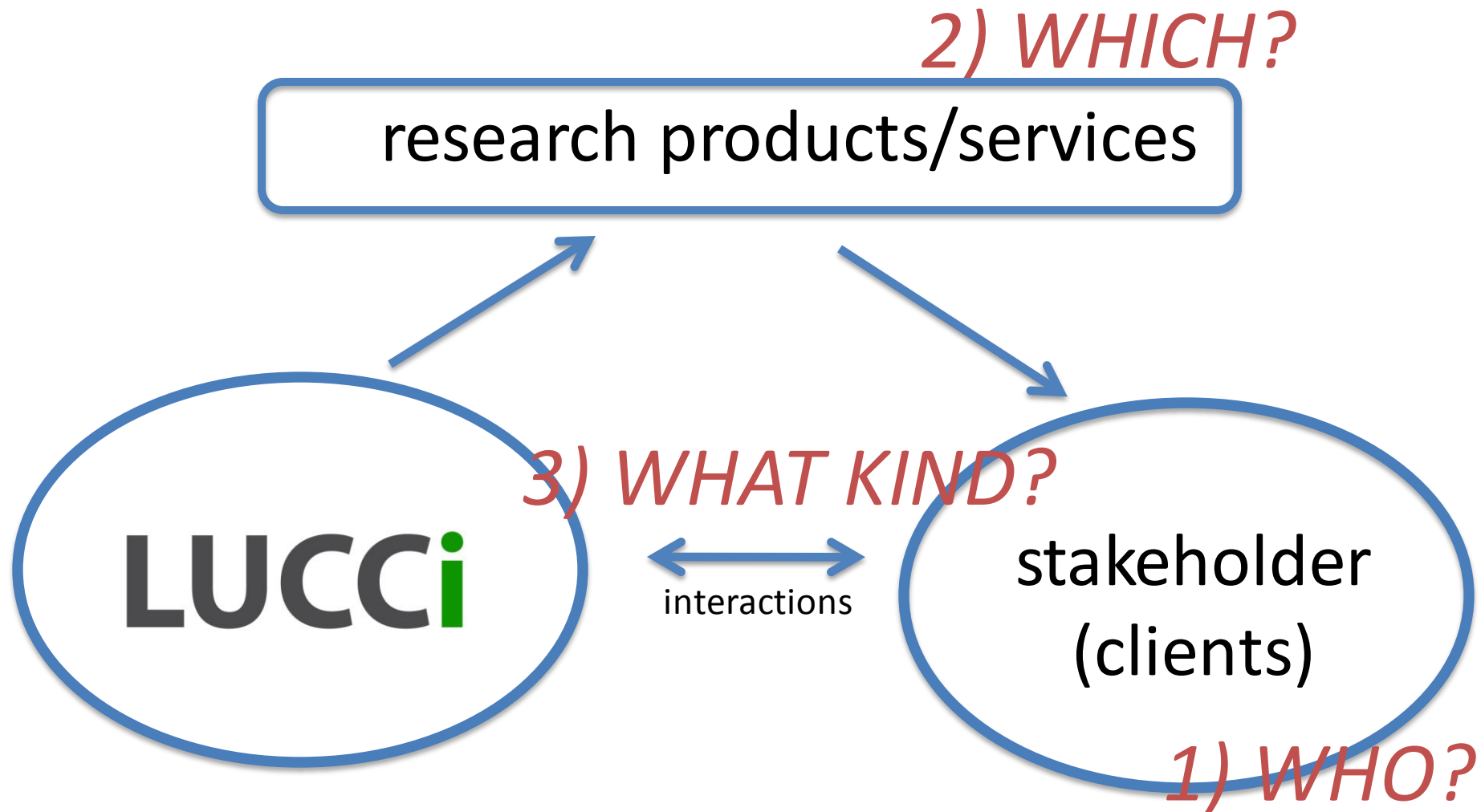
# Applied Research



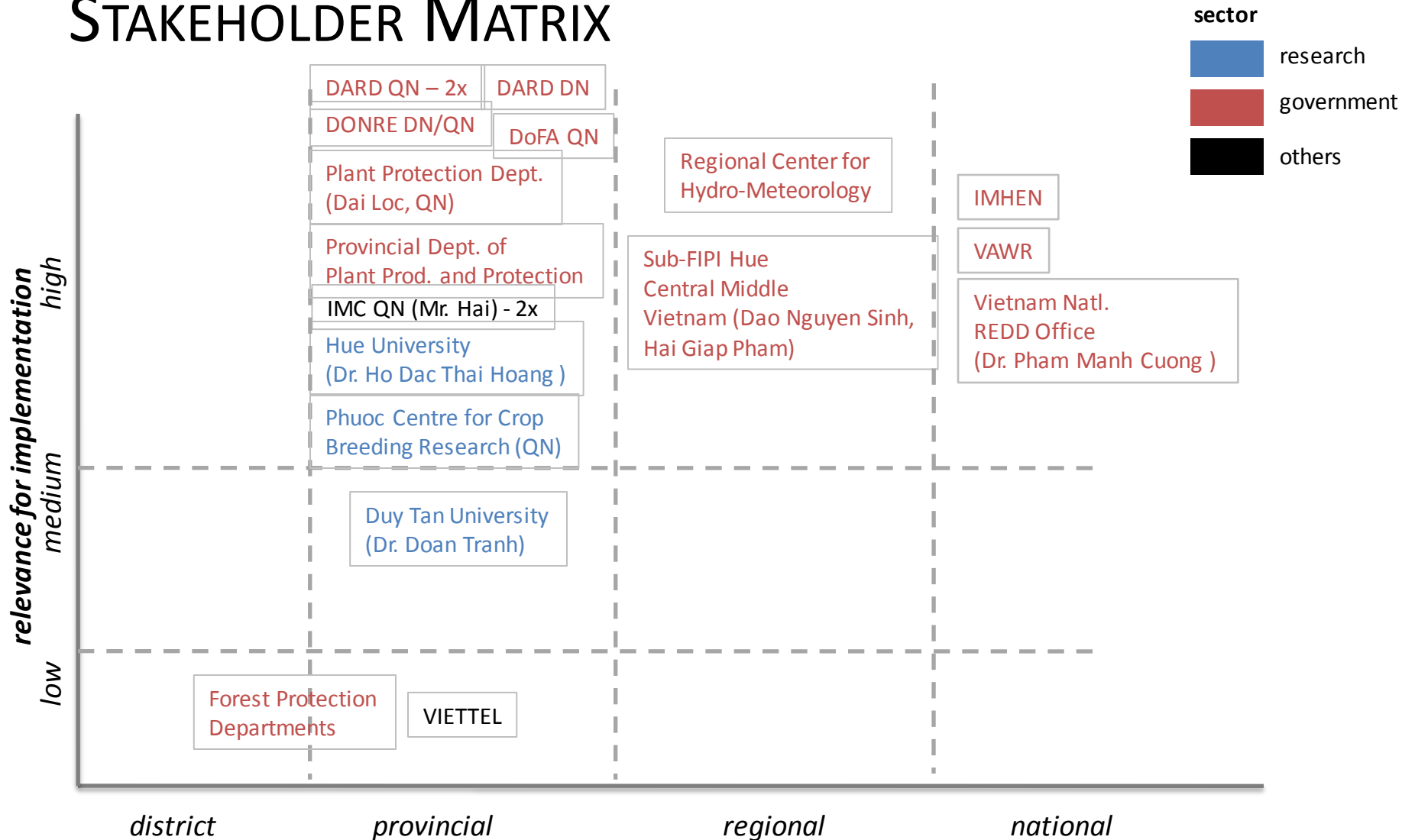
## STAKEHOLDER ANALYSIS



## CONCEPTUAL FRAMEWORK



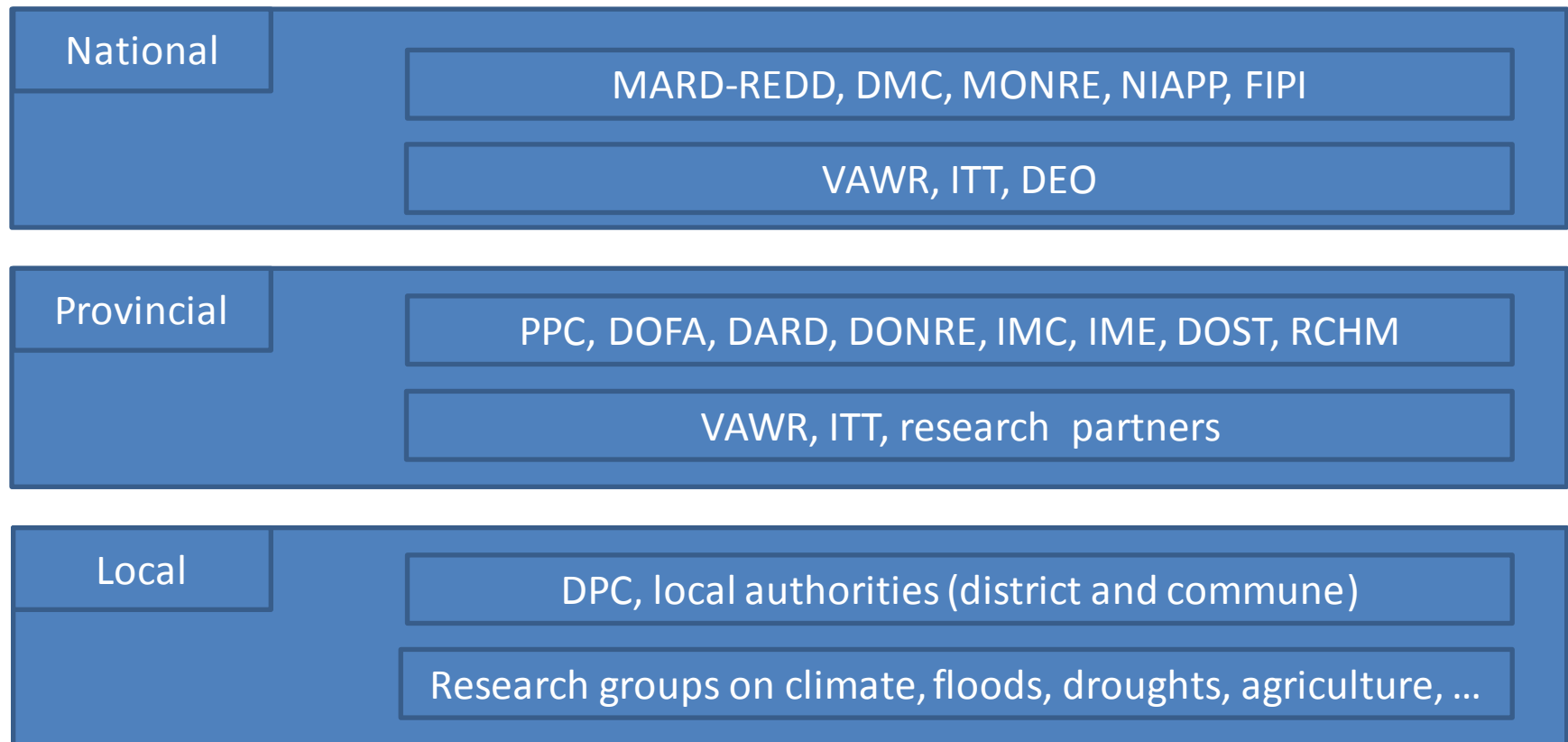
### STAKEHOLDER MATRIX





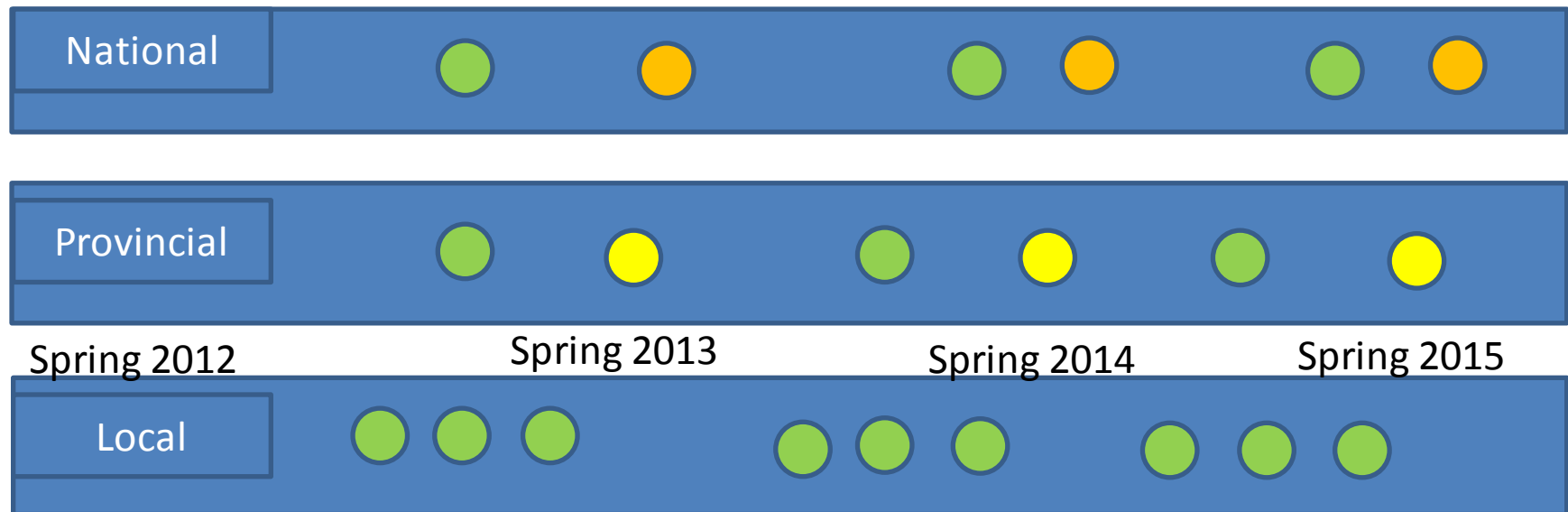





# Stakeholder platforms interdisciplinary and cross-sectoral



Role of stakeholder platforms: discuss and advance research results, scenarios and strategies

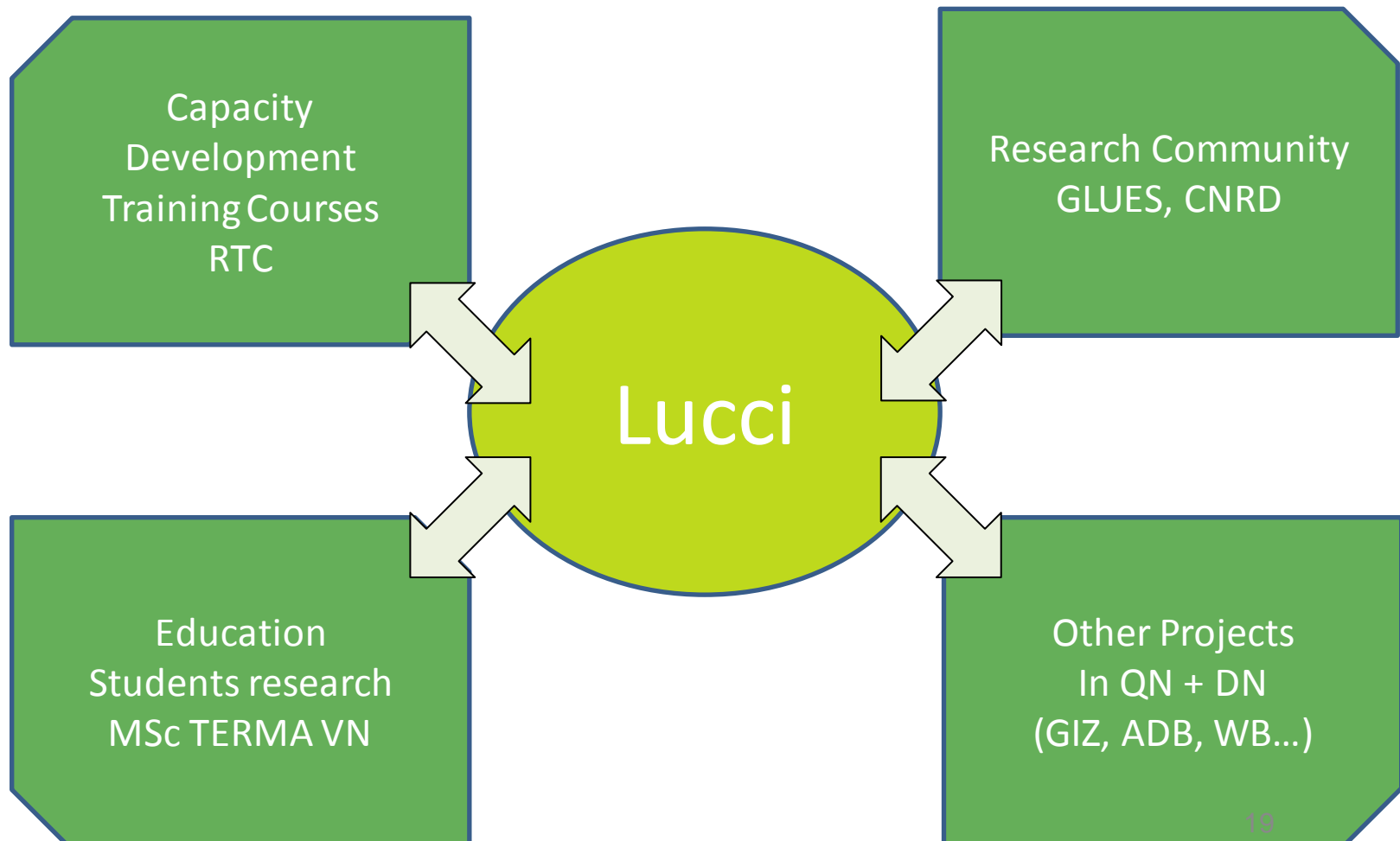
# Stakeholder platforms



-  National consultation workshops 2013+2014; common presentation of stakeholders and researchers in Hanoi 2015
-  Stakeholder workshops to discuss research findings, knowledge gaps, strategies
-  Research Groups: joint field campaigns and dialogue of stakeholders with local and international researchers



## FURTHER INSTITUTIONAL LINKAGES





## RELATION BETWEEN RESEARCH OUTPUTS AND STAKEHOLDERS





# OVERVIEW: PRODUCTS OF LUCCI

- River Basin Information System (RBIS)
- River Basin Status Report (maps + figures analyzing key challenges)
- Integrated Modeling and Decision Support System (DSS VGTTB)
- Scenarios :
  - Regional Climate Change
  - GHG emission estimates and carbon stock changes
  - Flood, drought and salt water intrusion
- Assessment reports on alternative land and water management strategies

### RESEARCH PRODUCTS

research products	potential implem. partner	implementation	transferability	comments
<b>RBIS for VGTB</b>	<ul style="list-style-type: none"> <li>• DARD, DONRE, IMC, CHM</li> <li>• CTIC, IMHEN, DARDs, DONREs (potentially CHM)</li> </ul>	<ul style="list-style-type: none"> <li>• training courses for RBIS were conducted</li> <li>• RBIS will be handed over to the stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• easy to transfer to different regions</li> </ul>	
<b>River Basin Status Reports</b>	<ul style="list-style-type: none"> <li>• DARD, DONRE, IMC, CHM</li> <li>• Sub-FIPI (Mr. Sinh)</li> <li>• MONRE &amp; DONREs</li> </ul>	<ul style="list-style-type: none"> <li>• for relevant information on processes in forestry data and governance</li> </ul>	<ul style="list-style-type: none"> <li>• easy to applicable in other regions but should define which scale of basin need to be reported</li> </ul>	<ul style="list-style-type: none"> <li>• clear, the same format for all, one dataset (shapefile, information, figures) should be used for all partners</li> </ul>
<b>Assessment Reports on alternative L&amp;W Mangt</b>	<ul style="list-style-type: none"> <li>• DARD, DONRE, IMC, CHM</li> <li>• DARD, DONRE, and local NGOs</li> <li>• Sub-FIPI (Mr. Sinh)</li> </ul>	<ul style="list-style-type: none"> <li>• implementation of alternative management strategies needs the support and approval from natl. level, coordination with involved local stakeholders and capacity building at provincial and local level</li> <li>• for relevant information on processes in forestry data and governance</li> </ul>	<ul style="list-style-type: none"> <li>• implementation of alternative management is a complex task requiring medium-term capacity building and support</li> </ul>	<ul style="list-style-type: none"> <li>• critical to evaluate the political willingness to sustain the alternative management strategies. critical also to clarify roles and responsibilities of different institutions</li> </ul>

### RESEARCH PRODUCTS (CONTD.)

research products	potential implem. partner	implementation	transferability	comments
<b>Integrated Modeling and DSS for VGTB</b>	<ul style="list-style-type: none"> <li>• IMC / Da Nang University</li> <li>• VAWR, IMHEN (potentially: DARDs and DONREs)</li> </ul>	<ul style="list-style-type: none"> <li>• training courses for JAMS/J2000 will be conducted and the research product (integrated model, DSS) will be handed over at the end of the project</li> </ul>	<ul style="list-style-type: none"> <li>• limited transferability to other regions. Considerable adaptations and work is necessary</li> <li>• Methodology can be transfer but need to be updated with local features of targeted areas</li> </ul>	<ul style="list-style-type: none"> <li>• should be an opened source and available on Internet</li> </ul>
<b>Developed Scenarios</b>	<ul style="list-style-type: none"> <li>• VAWR, IMHEN (potentially DARDs and DONREs)</li> </ul>		<ul style="list-style-type: none"> <li>• not clear up to now</li> <li>• transferable regions need to be evaluated carefully their natural and socio-economic characteristics</li> </ul>	<ul style="list-style-type: none"> <li>• could we think to suggest scenarios based on the development level of socio-economy → learn from other countries or regions</li> </ul>
<b>Strategy Handbook for land and water resources management</b>	<ul style="list-style-type: none"> <li>• DARD, DONRE, IMC, CHM</li> </ul>		<ul style="list-style-type: none"> <li>• easy to transfer</li> </ul>	<ul style="list-style-type: none"> <li>• should be simple, more maps, figures, use the same dataset for all the results</li> </ul>

Comment: First to be clarified and discussed with Key-Stakeholder:

What is the demand? What is feasible (knowledge, administrative issues, equipment)

Orientation and exploration of potential approaches within small workgroups for certain research questions



# STAKEHOLDER PROCESSES

PROCESS	INVOL. STAKEHOLDERS	EXPERIENCE	REMARKS
forest inventory fieldwork	<ul style="list-style-type: none"> <li>• Sub-FIPI Hue – Central Middle Vietnam</li> <li>• Forest Protection Department Quang Nam</li> </ul>	<ul style="list-style-type: none"> <li>• gov entity with authority and best knowledge/personnel (engl. speaking, able to recognize tree species) for forest related work in central Vietnam. Contact is Dr. Hoang (Hue University)</li> <li>• gov entity with local authority for fieldwork in natural forests and contacts in local office (PCs)</li> </ul>	
collection of samples of water quality	<ul style="list-style-type: none"> <li>• VAWR / DARD</li> </ul>	<ul style="list-style-type: none"> <li>• fill in a form of field access. Problems: detailed description of field trip was necessary</li> </ul>	
setting up a climate station I	<ul style="list-style-type: none"> <li>• University of Hue and Forest Ranger</li> </ul>	<ul style="list-style-type: none"> <li>• without serious problems</li> </ul>	
setting up a climate station II	<ul style="list-style-type: none"> <li>• District Peoples Committee – Bac Tra My and Viettel</li> </ul>	<ul style="list-style-type: none"> <li>• very cooperative</li> </ul>	
collection of tree species data	<ul style="list-style-type: none"> <li>• sub-FIPI Mr. Sinh (Head of Planning and International Cooperation Section); Sub-FIPI in Mid Central Viet Nam, Mr. Nghiem, Mr. Hung</li> <li>• FPD: we worked together with officers of different levels (local, district)</li> </ul>	<ul style="list-style-type: none"> <li>• very helpful and cooperative; best Vietnamese tree species experts in the area;</li> <li>• very helpful support of many different people; most do not speak English, are indispensable for field work with their knowledge on local conditions</li> </ul>	<ul style="list-style-type: none"> <li>• (Sub-FIPI) should be involved in all coming larger events in Vietnam</li> <li>• rangers from district level should be involved in coming larger events in Vietnam</li> </ul>

## STAKEHOLDER PROCESSES (CONTD.)

PROCESS	INVOL. STAKEHOLDERS	EXPERIENCE	REMARKS
<b>Data collection, fieldtrip in general, hydrologic monitoring</b>	• Mr. Hai: Vice-Director, Quang Nam Irrigation Management Company	• very cooperative, one person with high interest and expectation in LUCCi	• should be invited for a study tour, one key person for supporting implementation
<b>Data collection, hydrologic monitoring</b>	• Mr. Bao: Regional Center for Hydro-Meteorology	• After some misunderstandings in the beginning, very cooperative, supports the project and students unbureaucratic	• should be invited for a study tour, one key person for implementation
<b>Collection of hydrological data</b>	CHM Da Nang	• Their data is valuable	• should be clear in the first phase of negotiation
<b>Data Collection</b>	• Mr. Tuyen, Center for Hydro-Meteorolgy, Tam Ky	• Helpful and unbureaucratic, under the RCHM	• further cooperation more difficult, as RCHM over CHM and in charge of such cooperation
	• DPC Dai Loc, DPC Dien Ban, DPC Duy Xuyen, DPC Hoi An	• Open discussion and support (Dai Loc: In general not allowed to talk with foreigners, just provide data by official request)	• one person (e. g. DONRE) of each lowland district should be invited to a study tour to enhance the possibilities during the implementation phase
	• Mr. Son, Vice-Director, Da Nang Irrigation Management Company	• very cooperative	• of lower interest for LUCCi – almost no agriculture left in Da Nang
	• CTIC and IMHEN	• expensive but good	



## STAKEHOLDER PROCESSES (CONTD.)

PROCESS	INVOL. STAKEHOLDERS	EXPERIENCE	REMARKS
<b>Information exchange about the experiments being undertaken</b>	<ul style="list-style-type: none"> <li>• Mr. Le Van Dinh, Vice- Director, Provincial Department of Plant Production and Protection, Quang Nam</li> <li>• Mr. Tran Van Thuan, Nam Phuoc Centre for Crop Breeding Research, Nam Phuoc, Quang Nam</li> <li>• Mr. Le Van Thanh, Plant Protection Department , Dai Loc, Quang Nam</li> </ul>	<ul style="list-style-type: none"> <li>• reliable advisements, Information dissemination flowing, People felt involved</li> </ul>	<ul style="list-style-type: none"> <li>• next steps depend of the availability of funds to implement meetings and field visits</li> </ul>
<b>New process:</b> <b>An advisory committee will be initiated for the interaction with key-stakeholders regarding the experiments in mitigation and adaptation. The committee should be composed with: 1 Policy maker, 1 Extension Staff und 1-2 Farmer Champions. Consultations take place before and after each experiment (started already in this summer season)</b>	<ul style="list-style-type: none"> <li>• process still ongoing, the selection of the key-persons is still not concluded.</li> </ul>		<ul style="list-style-type: none"> <li>• process ongoing, the selection of the key-persons is still not concluded. The success of the measure depends also on the financial possibilities for supporting meetings and field visits.</li> </ul>
<b>Qualitative assessment of the different farming systems</b>	<ul style="list-style-type: none"> <li>• DARD Department</li> <li>• Plant Protection Department</li> <li>• Agriculture and Fishery Extension Center</li> <li>• IMC</li> </ul>	<ul style="list-style-type: none"> <li>• very good results, the qualitative assessment with these stakeholders has made the design of the sampling procedure possible for the AE-Group</li> </ul>	<ul style="list-style-type: none"> <li>• next step is the information about the survey results, this should be possible next spring, depends on the availability of funds to set-up the meetings.</li> </ul>

# MANAGEMENT TOOLS

TOOL	PROS	CONS	SUGGESTIONS
<b>workshops</b>	<ul style="list-style-type: none"> <li>• important to maintain and strengthen local partnerships</li> <li>• <i>cooperation with stakeholders</i></li> <li>• <i>discussion platform, exchange of important information, keep in touch with stakeholders =&gt; very important</i></li> <li>• good for project advertising and bringing together of different stakeholders</li> <li>• basic, useful for exchange, networking and PR</li> </ul>	<ul style="list-style-type: none"> <li>• costs</li> <li>• requires funds to invite partners (expensive?)</li> </ul>	<ul style="list-style-type: none"> <li>• all partners should use LUCCi layout for all relevant presentation</li> <li>• <i>need more (maybe smaller) ws or roundtable discussions</i></li> <li>• not enough for stakeholder involvement, stakeholder meetings focusing on certain research aspects</li> </ul>
<b>website</b>	<ul style="list-style-type: none"> <li>• no website means we don't exist</li> <li>• gives general information about the project, important window to public, Vietnamese version available</li> <li>• important for project visibility</li> <li>• basic</li> </ul>	<ul style="list-style-type: none"> <li>• no</li> <li>• ugly green color</li> </ul>	<ul style="list-style-type: none"> <li>• have to be fed by updated information from all partners</li> <li>• unprofessional website = unprofessional project</li> <li>• the new website seems to be good, some data but not too much, some pics. The news should be updated weekly! Need more maps</li> <li>• mix German and Vietnamese partners; like this it looks like 2 classes, i do not know if it is important to order according to institute, why not topic?</li> <li>• 2 websites are too much</li> </ul>
<b>Twiki</b>	<ul style="list-style-type: none"> <li>• provides a discussion platform and information database which is accessible for all project partners</li> <li>• good for internal coordination and cooperation</li> <li>• unsuccessful - e.g. Corporate Design Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• not used by many people</li> <li>• not frequently used</li> <li>• I prefer using emails, so maybe should be advertised more</li> <li>• responsibility not clear</li> </ul>	<ul style="list-style-type: none"> <li>• raise awareness</li> <li>• open discussion and so on, could be mentioned within an intern LUCCi newsletter</li> </ul>

# MANAGEMENT TOOLS (CONTD.)

TOOL	PROS	CONS	SUGGESTIONS
Server (Jena)	<ul style="list-style-type: none"> <li>• file exchange platform easy to use</li> <li>• necessary to exchange data</li> <li>• useful to share raw data</li> </ul>	<ul style="list-style-type: none"> <li>• not structured</li> </ul>	<ul style="list-style-type: none"> <li>• provide data not adequate for RBIS</li> </ul>
RBIS	<ul style="list-style-type: none"> <li>• data distribution</li> <li>• Necessary to exchange data</li> <li>• Useful to implement and to how results to local people</li> </ul>	<ul style="list-style-type: none"> <li>• no</li> <li>• not always user-friendly</li> <li>• still not developed to a level where we can invite stakeholders to use it, far too difficult to use (any Vietnamese partner is using it yet) should be more</li> <li>• user based – e. g. River Basin Organization</li> </ul>	<ul style="list-style-type: none"> <li>• share your available data</li> <li>• make the procedure to upload data more intuitive. Remove old datasets, as the boundary shapefiles (there are more copies of the same dataset) and leave only the final boundary that should be used by all project partners</li> <li>• more for the final version of data, not data exchange</li> </ul>
Mendeley Group		<ul style="list-style-type: none"> <li>• too late in this project phase</li> </ul>	
Newsletter	<ul style="list-style-type: none"> <li>• information for partner, stakeholder and external</li> <li>• not used / received yet (?)</li> <li>• continuous update and exchange, publishing – “PR”</li> </ul>	<ul style="list-style-type: none"> <li>• time intensive</li> </ul>	<ul style="list-style-type: none"> <li>• intern: quarterly; Public: semestral</li> </ul>
Contact Sheet	<ul style="list-style-type: none"> <li>• good human database</li> <li>• comprehensive data sheet about all project partners, important for all, updated regular</li> <li>• very useful to navigate and orientate through the numerous vn Institutes and representatives</li> <li>• high use in the beginning</li> </ul>	<ul style="list-style-type: none"> <li>• no</li> <li>• partner and contacts are known within this phase of the project</li> </ul>	<ul style="list-style-type: none"> <li>• keep it in a reasonable extend, but one of the best tools available in the project</li> <li>• keep it update every year (especially before project workshops in VN)</li> <li>• better take photos from contact sheet for the website</li> <li>• update: yearly</li> </ul>

## CONCLUSION

- Since many stakeholders are involved participation processes require a lot of effort and energy
- It took some time to develop the right approaches of stakeholder participation; after 2 years processes well established
- The importance of stakeholders for the success of the project are crucial and deserve the highest intention
- Participation of stakeholders will make project outputs/results to be more useful for local needs

**Thank you for your attention!**