

RURBIFARM Kick-off workshop in Nanjing, Sept 21-28, 2002

Work Package Discussions, Sept 25-26

1. Starting point and tasks for group discussions about WPs 1-5.

- Use the Technical Annex (TA): (pages 4-7,13-21 (incl Tables TA3.1, TA3.2, TA3.3, and TA4.1))
- Develop and agree on the detailed Work Plan, Time Plan and Deliverables for the Work Package for the 4 years period (Revise TA).
- Discuss links and interactions with other Work packages.
- Discuss and agree on the work process within the WP; responsibilities for planning, interaction and communication between partners, reporting etc. (incl how to make decisions between meetings) (Take Minutes)
- Which partners will be involved? Which role will they have? Who will be the key person from each partner? Who will carry out the work? (Revise Table TA4.1)
- What should be carried out before the next workshop (March 2003)? Develop more detailed plans for that work (Make a check list).

Discussion on WP1. Characterisation and diagnosis of small-scale farming systems with emphasis on rural-urban interaction

Group members; Prof. Shi – WP coordinator, Karin, Minh Ha (taking notes), Thai Phien, Kuson, Fergus, Zhang and Jaturong.

Prof. Shi: Chinese group.

(2). Inventory of pathways:

We should decide about sampling sites.

How many soil, water and plant samples.

How to treat methods for the soil, water, and plant samples.

Karin:

(D1) what do we mean with “study areas”? For catchment or for the whole area outside Hanoi?

Organisations:

All institutes take part into the WP1. Should all of the institutes do the WP1? How to organise the work in connection with other institutes?

Vietnam:

Prof. Quyen: Rapid Rural Appraisal (RRA) at the study sites, concerning socio-economic and physical conditions of the study sites.

Prof. Thai Phien: NISF will complete the first survey.

RRP: Interviewing farmers, village leaders and farmers groups about farming system:

I. Farming activities		
Fertilisers,		
Irrigation water, quality		
Use of wastes Type of crops, vegetables: crop calendar		
Farming activities		
II. Socio-economic		
Household income from different land uses		
Household income of farm activities		
Local policies:		
-Water supplying		
-Marketing		
- Environmental policies		

Whose diagnosis? The diagnosis of all stakeholders who are interested in our work and affected by our work. For example farmers, consumers, people who produce wastes, researchers, factory workers and factory owners.

Fergus will give materials on the methodology in Livelihood characterisation: livelihood analyses. Household structure, how different actors are involved in different activities. Diagrammatic ways of description.

How will the training in Farming System analyses be carried out in China?

Training should be organised in China. Who will do it?

- Somebody from Hanoi after the training in Vietnam will come to China?
- Somebody comes from MCC?
- Materials on the methodology should be given to China and VN, and each partner will learn by reading?
- Send materials to China, and ask someone from Nanjing agricultural university.
- Huang from China come to VN for two weeks and after that someone from Vietnam goes to China for a week. Britta??? to China.

Take limited amount of samples (crop, soil, organic waste and irrigation water) within the villages in the selected study areas. To identify and estimate (try to quantify) the flows and make chemical characterisation of organic wastes (including manure) and water are most important. Based on that we can make the diagnosis and decide where and on what to concentrate our efforts.

How to select the study site?

Representative area?

Representative commune?

Representative villages

Representative farms?

Representative group of farms?

Where is the organisation structure?

We need to answer the question; what decisions will be taken at what level?

What to plant, how to irrigate, how to take care of waste treatment, impact from the road network etc.

Farm level: what will be planted at the farm level.

Criteria for selecting the sites: Vegetable land

In Vietnam: city waste,

In China: Traffic, irrigation water.

Chemically characterization: may not be able to be reported in March next year.

Peri-urban farming system characterization is different from the rural farming system characterization.

Criteria in selecting study farms: diverse representation.

What unit should be used for nutrient balance survey?

Issues WP 1

Inventory of pathways: Survey and analyses methods need to be agreed on.

How to organise the work in China and Vietnam in connection with other concerned institutes?

Rapid Rural Appraisal (RRA) at the study sites, concerning socio-economic and physical conditions is needed to carry out

How training in Farming system in China will be carried out? Huang from China come to VN for two weeks and after that someone from VN goes to China for a week. Britta??? to China.

How to select the study site: Representative area? Commune? Village? Groups of farms? Farms? The main principles may be to answer the question “**What decisions will be taken at what level?**” based on that to make decision about the study site.

• Vietnam has already decided on study site selection and has done some characterization work at the selected sites.

• In China: collect general information for Nanjing and Wuxi. ISSAS want to select Ma Qun town (the second place we visited) for research.

What we will do before next workshop in Chiangmai, March 2003?

- Training in LEK and AKT in China (September) and in Farming system (FS) and PRA/RRA in Vietnam (October-November).
- Training in Farming system in China given by Nanjing Agricultural University in November.
- Farming system analysis using PRA/RRA method and secondary data in socio-economic conditions and farming activities. This will be carried out directly after the FS training, in November-February
- First environmental inventory: Some limited amount of soil, water and plant, fertilisers (organic and inorganic) samples for analyses. Review relevant studies to get secondary data needed. This will be done after the kick-off meeting.
- Through PRA/RRA and the analyses of the information collected, find some first environmental problems/issues.
- Suggest farms selected for further studies (WPs 2-3).

Who does what within WP 1?

Build up survey team for different activities

China: one team covering all activities 1-4.

Vietnam: two teams. Each team take care of one site.

How to carry out the WPs at the two sites we need to discuss further after this kick-off meeting.

Discussion on Work Package 2

Group members; Laxman-WP coordinator, Yem, Tuan, Phrek, Yu, Nong, Britta (taking notes)

Issue 1: Discussion and explanation of terminology: Local Ecological Knowledge (LEK) and Agroecological Knowledge Toolkit (AKT), i.e. farmer's understanding/views on processes taking place. Laxman explained AKT methodology software for systematizing and building a knowledge base of farmers' knowledge.

Issue 2: Questioning what topics to include in LEK field investigation in RURBIFARM. Phrek gave examples such as farmer experience from waste/nutrient/plant/water management, pollutants vis-a-vis crop quality. Proposed that decisions must be based on findings from WP1, and that it is important that both benefits and risks/hazards are included.

Issue 3: Discussion of information channels and flows, what methods to use. Dr. Yu gave examples from China on how agricultural information is disseminated and the group discussed the need to understand flows of information among farmers as well as information flow between other stakeholders related to vegetable production and marketing. Britta suggested that flow charts and institutional diagrams are used in Rapid Rural Appraisal (RRA) to get initial information (in the form of group discussions). Further exploration of methodologies will be necessary in the coming days.

Issue 4. Agreed that for each study site a protocol on study procedure (including list of topics for knowledge acquisition and a checklist) should be agreed on by all partners involved before starting fieldwork in WP2. These should be sent to WP co-ordinator (Laxman).

Issue 5. Agreed to timing of different parts of the work package according to table below. NISF will be responsible for fieldwork in both sites in Vietnam and VESDI will have supportive role.

Need to clarify what supportive role means and budget implications should be considered by the project co-ordinator during the visit to Vietnam (Ingrid). Key person for LEK work in Vietnam also needs to be reconfirmed with NISF (Ha).

If appropriate and depending on achievements by the time of Chiang Mai workshop, a draft report will be prepared by both the Chinese and the Vietnamese group and shared among participants at the Chiang Mai workshop in March.

	Month	Activity: China Dr Yu responsible; in Vietnam Tuan for both NISF and VESDI site (?)	Delivery
Yr 1	1	W1 (Kick-off meeting)	
	2	C1 (Training) LEK – scooping begins with FS analysis	
	3	Protocol developed and agreed upon; Fieldwork begins	Protocol will be circulated to coordinator before starting This will be done by e-mail
	4		
Jan 2003	5		
	6	Some preliminary LEK information available for Chiang Mai workshop	
	7		
	8		
	9		
	10		
	11		
	12	Initial knowledge bases ready	
Yr 2	13	Analysis and application of knowledge base, initialise ideas for linking with modeling	
	14		
	15	Development of tools and methodology for linking to other WPs	
	16		
Jan 2004	17		
	18	D5. A suite of validated electronic knowledge bases for each group of actors at each study location comprising an easily accessible record of their knowledge about waste, vegetable farming practices and their environmental impacts.	
	19		
	20		
	21	D6. Recommendations on research based on the identified common understanding, conflicts and key gaps in knowledge amongst stakeholders. (input to WP3)	
	22		
	23		
	24	D7. Recommendations on extension activities and mechanisms based on the identified common understanding, conflicts and key gaps in knowledge amongst stakeholders. (input to WP5)	
	25		
	26		
	27		
	28		
Jan 2005	29		
	30	D8. Conflict and correspondences between local and scientific knowledge both documented and integrated in hybrid fuzzy logic representations where appropriate	

Information required from WP1 for WP2:

1. Who are the major stakeholders and their stratification?
e.g. farmers, farmer groups, consumers, traders, policy people
2. How is the flow of information? Source and type of information and knowledge?
3. What is the hierarchy of decision making in the system?
Village groups, government institutions and instructions
4. How variable is individual farm management?
5. What are the key issues for investigation?
6. Specifications of type of output required from LEK of key stakeholders (WP3, WP4 and WP5).

Things to be done within WP 2 before Chiang Mai workshop

- LEK training in Nanjing (Sept 28-Oct 2, 2002)
- Protocols for LEK investigation in Vietnam and China have to be developed by Toan (has to be confirmed by Ha), Yu, and Laxman);
- Appoint field staff (China; ISSAS, Vietnam; NISF, VESDI?)
- Preliminary field work
- Progress report

Discussion on WP3; Element balances and crop quality, risk assessment

Group members: Ingrid, Hiep, Huang (taking notes)

1. We would understand flow chart of work packages and their relationship in terms of Fig. TA 3.1 so that we can eliminate the difference in thinking and research customs among different countries.
2. We need to clarify the analysis methods including soil, water, and crops. The best way is that every sub-leader WP (the person from each partner being in the lead for WP3; NISF-Ha, VESDI-Can, ISSAS-Huang and SLU-Ingrid) gives the method that they are doing in their laboratories to the WP coordinator (Ha). Then, the WP coordinator sums up the analysis procedures and gives a booklet back to sub-leader (see Technical Annex, Deliverable 9).
3. To determine the plot size for element balances and numbers (need to check with WP4, what's the requirement for WP4).
4. How many soil profiles does the modeling work need input data from?
5. To determine soil total and soluble element methods, which had better correspond the soil survey data and other data.
6. The selection of heavy elements has to depend on the WP1 results, which the major urban wastes were chemically characterized. Right now, we include Hg, Cr, Ni and As in WP 1 but it has to be discussed further for WP3.
7. Before starting WP3, we would have training about sampling, analysis, lysimeter set up methods (will be included in ToT2 in Chiangmai).

8. We need to ask WP1 if they have mentioned the sampling and analysis methods for the urban wastes, water, soil, crops etc.
9. Before the workshop in Chiangmai, the WP3 members should collect background information from their countries about critical toxic concentrations/limit values/legislation etc for vegetables related to human health (including different aspects such as nitrate, heavy metals, pesticides, hygienic aspects).

To do within WP 3 before the Chiangmai workshop:

1. We need to collect the methods for sample preparation, extractions and analyses including soil, water, and crops from every sub-leader (Huang, Ha, Hiep, Ingrid). The best way is that every sub-leader within WP3 (the person from each partner being in the lead for WP3; NISF-Ha, VESDI-Can, ISSAS-Huang, CMU-Phrek and SLU-Ingrid) gives his or her methods to WP coordinator (Ha). The WP coordinator sums up the analysis procedures in the 'Protocol for field sampling and measurement techniques and laboratory analysis' as stated in Deliverable 9 (see Technical Annex). We also need information about what methods are used national level/soil survey/environmental monitoring in each country in order to be able to link to secondary data (already available data).
2. The WP3 coordinator (Ha) is responsible for having regular contacts with the WP1 coordinator (Shi). Within each country the sub-leaders of WP 3 is responsible for having regular contacts with WP1 sub-leaders in terms of description of farming systems (D1, see Technical Annex), major pathways (D2) and chemical characterisation of the solid wastes and waste water (D3). Based on this the sub-leaders will come up with suggestions on criteria for selection of plots for the element balance studies. Methods of analyses should be coordinated between the WP1 and WP3.
3. The research leader for each study site gives suggestions of sampling methods for soil, crop, organic wastes, manure, water etc in terms of what would be suitable for the potential study areas (fields/plots) and send to WP coordinator (Ha). The WP coordinator sums up the analysis procedures in the 'Protocol for field sampling and measurement techniques and laboratory analysis' as stated in Deliverable 9 (see Technical Annex).
4. Collect information about if there are any monitoring stations located in the/close to the study areas (Hanoi, Nanjing, Wuxi) (WP sub-leaders).
5. In Chiangmai the set up of the element balance study has to be agreed on. ToT 2 includes methods for WP3.
6. Crop quality – background information from China, Vietnam (and Thailand and Europe) on regulations related to crop quality and public health. Britta is responsible for this work and she needs contact with one person in each country who will collect background information. (See D12 'Protocol for crop product quality and food safety criteria with emphasis on heavy metal and pesticide concentrations' in Technical Annex).

WP4 discussion; Reducing environmental risks – soil and water contamination. Risk assessment.

Group members: Karin WP-coordinator (taking notes), Kuson, Jatorong, Fergus, Huang, Yu, Tuan, Li

Question: What model will we use?

The choice of models will be based on the outputs from the WP1, which will identify the most important targets for modelling extensions. Both dynamic and static models can be considered, as well as different levels of mechanistic approach. For modelling at the urban-rural interaction level, Fergus suggested that simple models including many aspects should be used, to cover requirements from different stakeholders and to promote the interaction between the different stakeholder groups. We have to consider the need for develop these kind of simple models designed for the needs of the RURBIFARM project. GIS can be a useful tool to extend modelled results at plot (field) level to larger scales. For the Thai field experiments it may be interesting to do some kind of modelling on heavy metals.

In the project application, the models GLEAMS and MacroDB are suggested to be used for simulation of water, N, P, and pesticide dynamics in the soil-crop system at field level.

Former experiences in the group:

Within the group there is experience from using different models such as GLEAMS, MacroDB, Wanulcas, SOIL/SOILN, models for land use and livelihood characterisation and analysis. The ISSAS group is experienced in using GIS. The group from Bangor have experiences in developing models.

Planning for the next 6 month:

The WP4 group decided to set up a list of tasks, for which each partner have to deliver answers before the Chiang Mai meeting in March 2003 (see list below).

Deliverables from WP4 before the Chiang Mai workshop:

Who are the users of the models?

Who are the users of the results?

What to test, what are the variables?

What are the indicators?

Requirements from WP1

- Characterization of the interaction between the city, environment and vegetable production within the study areas; identification of flows and a rough quantification of the major flows; organic material (crops, organic wastes, manure etc.), fertilisers (amount, type, timing), pesticides (amount, type, timing), water, pollutants etc.
- Three levels: village, catchment, town (county), but with difference in level of details
- Background data on climate, major soil types.
- Information flows in the system at different levels.

WP5 discussion: Implementation.

Group members; Yem (acting on behalf of WP5A-coordinator), Quyen, Hiep, Minh Ha, Shi, Zhang, Tung, Phrek (WP5B-coordinator), Nong, Britta (taking notes), Ingrid, Laxman, Phien

Yem: WP 5A. Decision support tools:

Objectives:

- (1) To formalize a framework of decision support tools directed towards local advisors, policy makers, producers/farmers and consumers.
- (2) To increase awareness of stakeholders regarding nutrient and water recycling.

In WP5 we need results from WPs 1-4. We should not wait for the outputs from WPs 1-4, but also put the expectations on the WPs 1-4. WP 5 includes an integration of the methods used and information gathered in WPs 1-4.

At what levels can WP 5 work in this project? Yem presented some ideas from VESDI;

Hierarchical level in formatting 'Framework of decision support tools'. For example policy on land use, policy on environmental protection, regulation on pesticide use, regulations on solid waste collection, wastewater use, water supply, rural sanitation, food safety etc.

1. Central level (state/government)
2. Provincial
3. District



Commune and village;
Policy, Regulation → micro scale
→ Development/make clear/detail.

It is necessary that the framework suit to the socio-economical conditions; reality/possibility/acceptability.

What kind of methods should be used? Working group of experts, public hearing, farmer's opinion, questionnaire, organise meetings with different stakeholder groups.

Application;

-People committee of commune, social organizations; women union, youth union, veteran union, farmer association etc.

-Communication/propaganda/media campaign, dissemination

At the workshop in Chiangmai we should develop the criteria further.

-Education

-Establish club.

Phrek mentioned that we should be aware of the differences between the Thai case and the cases in China and Vietnam. It is important to identify different stakeholders. We might need different strategies to work with different stakeholders. Phrek also

mentioned the importance of the dialogue at farmers level and of the feedback at the same level.

Difference in farming systems at the RURBIFARM study sites:

Chiangmai: non-industrial area.

Nanjing and Hanoi: industrial areas.

What kind of delivery and when?

Some hypotheses for WP 5, formed by Phrek:

1. The productivity and quality of peri-urban vegetable farming system will be affected by flow of material waste, use of chemicals and pesticides and industrial pollution.
2. The analysis of farming system in peri-urban areas will include not only the farming system itself but also other systems involved in the rural-urban interaction, e.g. the local vegetable market, local government at different levels (responsible for waste and wastewater treatment, extension, control system for vegetable quality and human health etc) and others. .
3. The sphere of influence will go beyond farm and community levels, particularly the key stakeholders will be more and conflicts of interest will be more complex.
4. Farmer knowledge on industrial pollution and heavy metal contamination could add to new ways of participatory monitoring and assessment (PM/A) on environmental contamination and its influence on rural livelihoods.
5. The bio-indicators of environmental contamination (scientific knowledge) developed by the institute and existing farmer knowledge on impact or sign of contamination could add to better understanding of the environmental impact. New and user-friendly tools could then be developed.

Before the Chiangmai workshop:

- List of stakeholders
- List of expectation from WP 5 to other WPs (1-4).
- List of issues of the interactions, in relation with producers-consumers.

What to do before the workshop in Chiangmai;

Activities for 5A

Review and assess existing policy and regulation on;

- Vegetable production and consumption in peri-urban areas,
- Land-use in peri-urban areas,
- Regulation on environmental sanitation, use of wastes, pesticides, fertilisers etc.

Evaluation of the review: what questions should we answer?

- Establish working group with the experts of scientists, policy makers and farmers. Prepare the framework of the decision support tools.

Activities for 5B

1. Consumers survey: where?

2. Campaign:

- Annual fair (30/1 – 1/2)
- Monthly market
- Weekly market
- Poster and information leaflets:
 - Health hazards from pesticides
 - Nutritive values of vegetables
 - Food preparation from local vegetables.

3. Farmer Field Schools -collective learning process:

Discussion topics:

1. Modelling: All partners have to think about for what purpose they want to use different models, which are target groups? What we want to use the model for, from that can we make decision. What indicators, what can we see from the modelling exercise.
2. FFS, decision support tools: What to deliverer and what for, method development.
3. What issues are needed for WP 3, 4 and 5? In what form do you need.

(Minh Ha): how to organise our self.

Organisation and activities: organise in terms of country, cross cutting between WPs.

Expertises and dynamic in methodology: according to different WPs.

What should be done before the next workshop?

Who will do that?

General suggestion put forward by VESDI;

What should be done at the Chiangmai workshop;

1. Each partner should present its; activities and output implemented in the period 'after Nanjing kick-off meeting to Chiangmai meeting':

*Difficulties

*Advantage

*Lesson learned

*Recommendations

2. Discussion on

* Co-operation between partners and lin

* Link WP