

Participatory Impact Pathway Analysis (PIPA)

**Regional Workshop Report**

Rice Postharvest Management in Vietnam

21<sup>st</sup> – 22<sup>nd</sup> July 2009

Venue: Tay Ho Hotel, 02 Thu Khoa Huan Street, MyTho City, Vietnam

ADB RETA No. 6489

***Bringing about a Sustainable Agronomic Revolution in Rice Production in Asia by Reducing Preventable Pre- and Postharvest Losses***



**Figure 1: Workshop Participants**

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*Funded by Asian Development Bank (ADB) and Swiss Agency for Development and Cooperation (SDC)*

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## 1. Background

Postharvest losses in the Vietnam as in other Southeast Asian countries are typically 15–20% in weight loss. When quality is factored in, it can result in a 10–30% loss of value in the market. From 2005 to 2008, the Asian Development Bank (ADB) / Japan Fund for Poverty Reduction (JFPR) 9036 project “*Improving Poor Farmers’ Livelihood through Improved Rice Postharvest Management*” began pilot testing improved postharvest technologies in four villages in Viet Nam and eight villages in Cambodia. Results from this project and also from the Swiss Agency for Development and Cooperation (SDC)-funded Postproduction Work Group of the Irrigated Rice Research Consortium (IRRC) with activities in Indonesia, Lao PDR, and Myanmar demonstrated that losses can be significantly reduced and income from rice harvests increased if farmers and processors are enabled to use improved postharvest management options and technologies like mechanized harvesters, paddy dryers, hermetic storage systems and improved milling practices. Additional benefits can come from the use of up-to date market information. Both projects included private sector stakeholders as implementing partners in project activities. This was successful on a pilot basis in Cambodia but not yet sufficient for a wider adoption. Farmers and millers in the project villages have now realized the benefits of the improved postharvest management and are increasingly asking for more assistance in sourcing the technologies that they find beneficial (especially hermetic storage and drying systems).

### Rationale

The International Rice Research Institutes (IRRI) new ADB funded postharvest initiative has the objective to scale out these postharvest innovations, which have been piloted in the limited number of villages, to a large number of farmers. The objective is to reach a minimum of 300,000 households in three countries (Cambodia, Philippines and Viet Nam) after five years. This will require an increased focus of project activities on strengthening agricultural and industrial extension provided by both public- and private-sector stakeholders. It will also need better linkages to support service providers for financing for investment and operating capital and for marketing. A major component will be the development of business models for farmers and postharvest practitioners (see appendix 1).

In order to facilitate the dissemination of the proven technologies listed above, the project will strengthen country postharvest innovation systems by facilitating in-country Learning Alliances. These Learning Alliances can be understood as the platforms for working with established national partners from the public research and extension systems and for embracing new partners, especially from the private sector and Non Government Organizations (NGOs). The Learning Alliances will seek to widen stakeholders’ choice of technologies and business models, foster adaptation and innovation and, through regular reflection, lead to better understanding of what works where and why. Regular cycles of experimentation, reflection and adaptation is expected to promote interaction and learning among members. The Learning Alliances are expected to (1) increase diversity of options (through prototyping and experimentation), (2) increase interaction among stakeholders (through regular group reflection), and (3) improve stakeholders’ ability to identify and choose what works (through research). We expect that they will provide more flexible and more participatory means for project management and the possibility to accommodate new partners.

As a result of the national PIPA-LA workshop in Vung Tau, Vietnam, in 26<sup>th</sup>-28<sup>th</sup> May 2009, the representatives suggested that the PIPA-LA methodology should be applied and implemented on a sub regional level. Participants from the provinces should be invited and ensure that the specific needs of the region will be addressed during the project implementation. The responsibility was divided among five institutions with Nong Lam University being the coordinating lead institute for overall Vietnam.

## Objectives

The overall workshop objective is to provide the input for the development of the region specific sub-projects for Viet Nam, including identification of key stakeholders in the region, identification of the project's impact pathways, and to form the Learning Alliance in the region as a step to merge with the National Learning Alliance.

The specific objectives of the sub-workshops are exactly like those of VungTau workshops, except that they are confined to the regional level (consisting of 7 - 10 Provinces) so that they can be more regionally specific

- Clarify project objectives, its planning logic and guiding principles in the Viet Nam regions
- Identify key stakeholders, their roles and foster ownership of the project amongst different stakeholders on the regional and provincial level.
- Identify the project's impact pathways (i.e. project strategies to bring about specified changes) and document inputs to develop an impact evaluation plan for the regional and provincial level.
- Clarify the Learning Alliance concept and reach agreement on the next steps to launch one in Viet Nam as a multi-stakeholder platform and support mechanism for the project planning, steering, monitoring and evaluation (M&E) and capturing the learning.

With the addition of

- Capacity building and training of partners in Vietnam in participatory methodologies and facilitation skills.

## Workshop deliverables

- Network maps showing who is working with whom in the region
- Project vision for five years
- Description for the project short-term expected changes resulting from project activities, and longer-term contribution to developmental impact in Vietnam in so-called logic models
- Identification of likely members of the Postharvest Learning Alliance in the Northern provinces of Hau river (Region No. 4)
- Identification of draft list of topics for investigation by the Learning Alliance, the inquiry/experimentation needed and initial allocation of responsibilities (this would be firmed up after the workshop)
- National Learning Alliance consisting of key stakeholders from private and public sectors (to be finalized in follow up activities after the workshop)

## Workshop languages

English was the working language for the conceptualization and preparation. All preparatory documents and the presentations were translated into Vietnamese, which was also the main language of the workshops. Questions asked by participants were translated for the PIPA-LA experts to ensure that the answers are in line with the concept and methodology. As soon as possible (to ensure not to disrupt the process) the content of the group work was translated into English for the workshop responsible to ensure understanding and necessary action with regards to the exercise results produced.

## Schedule of sub-regional workshop series

The workshop in Nha Trang was scheduled to be for one and half day, part of a series of total five regional workshops in Vietnam (see appendix 2) and appendix 3 for detailed program.

## 2. The PIPA process

A major component of the workshop is a Participatory Impact Pathways Analysis (PIPA) which follows the road map shown in Figure 1. Guided along certain questions a group of project participants and stakeholders describe what they think is going to happen in their project and beyond. This is done by looking at two things: 1) the main problem the project tries to solve and asking why this problem exists, and 2) the stakeholders, their relationships and influences. These are all in the context of the region.

Project impact pathways specify who needs to change for the project to achieve its vision and what the project has done/needs to do, to achieve those changes. The changes are quantified as far as possible as a way of predicting actual and future project impacts as well as providing the basis for an evaluation plan. Through the PIPA process key leverage points will be identified for achieving these changes as a basis for the activities of the Learning Alliance. All this will be captured in a so-called outcomes logic model.

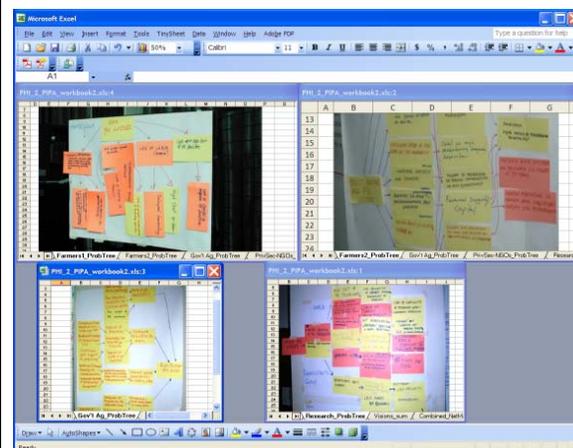
### Participation

The 30 participants (including 2 women) in the workshop (see appendix 4 and worksheet participants in *VTN\_5\_WS\_Workbook\_MyTho\_ENG.xls*) were staff from government agencies (# 3), extension (# 10), researchers (# 10) working on postharvest, journalist (# 1), representatives from the private sector manufacturers (# 4), and farmers (# 2), and no representatives from farmer collectives or non-government organizations. Dr. Pham Van Tan facilitated the workshop in My Tho supported by Dr. Phan Hieu Hien, expert consultant, and the translator Dr. Nguyen Phu Hoa. The IRRI facilitation team (2) Tonya Schuetz, Impact Specialist, and Rica Flor, IRRC Anthropologist in the project prepared the workshop concept, directed and backstopped the facilitation of the sub-regional workshop series.

Figure 1 shows the workshop participants (several participants are not on the picture).

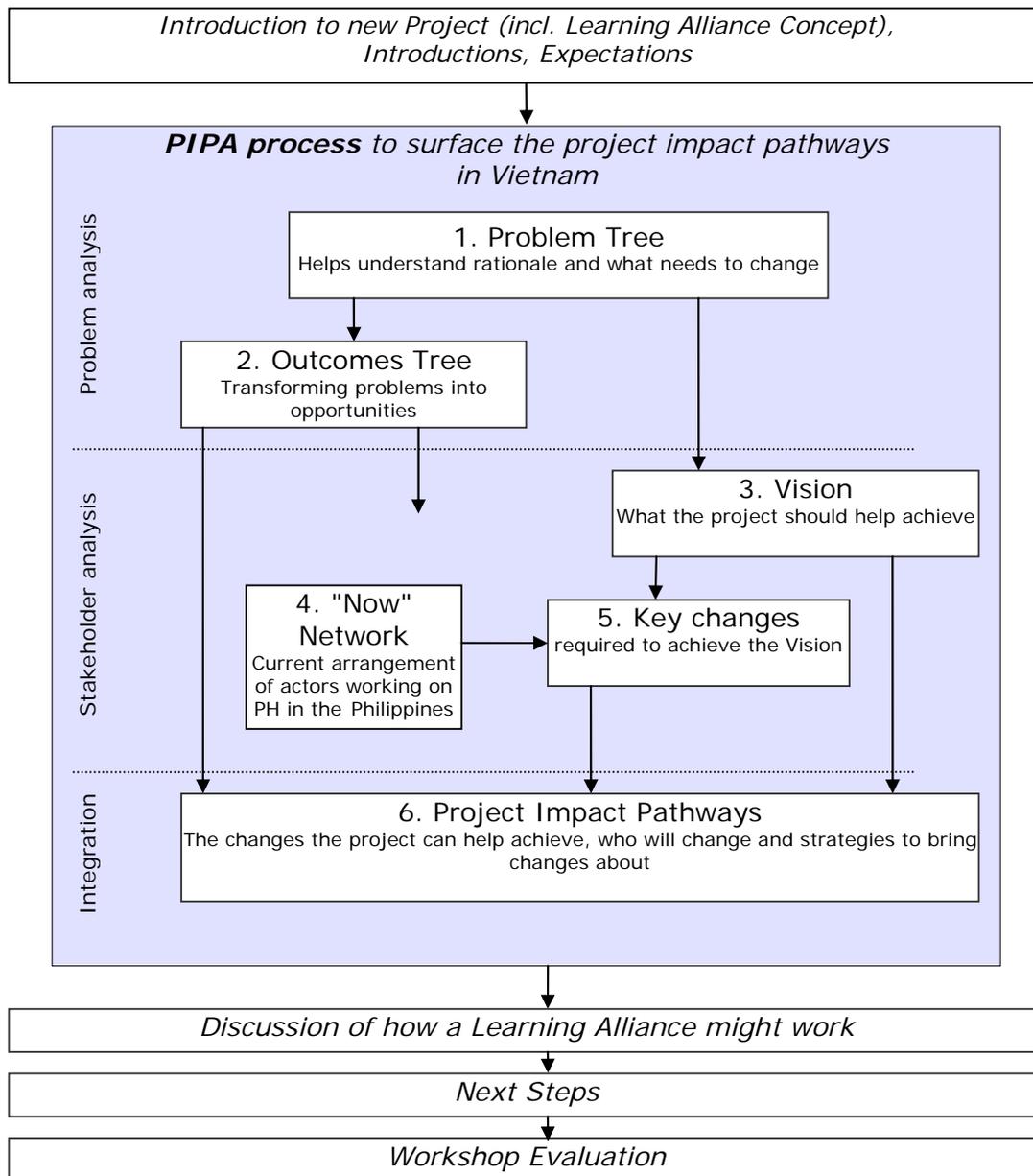
#### **Note on additional documentation:**

*This report contains a synthesis of all the group results and some examples from individual groups. The individual group outputs are captured in a separate Excel document referred to as *VTN\_5\_WS\_Workbook\_MyTho\_ENG.xls* see Figure 2.*



**Figure 2: Excel workbook containing problem trees and other group work outputs**

The roadmap followed throughout the workshop is presented in Figure 3.



**Figure 3: Workshop Road Map**

### 3. The workshop

#### Day 1: Status of postharvest, beginning impact pathways for new project

The workshop was opened by Dr. Pham Van Tan, Vice Director of SIAEP. Dr. Phan Hieu Hien who is on behalf of the national co-ordinator gave an overview of the postharvest situation in Vietnam, then Dr. Tan presented the region-specific situation. A background of the IRRRI postharvest activities and the new ADB-funded postharvest project ADB RETA No. 6489 “*Bringing about a Sustainable Agronomic Revolution in Rice Production in Asia by Reducing Preventable Pre- and Postharvest Losses*”, was also presented.

Before lunch participants were introduced to the Learning Alliance concept. They were assigned to four groups according to sectors as shown in Table 1.

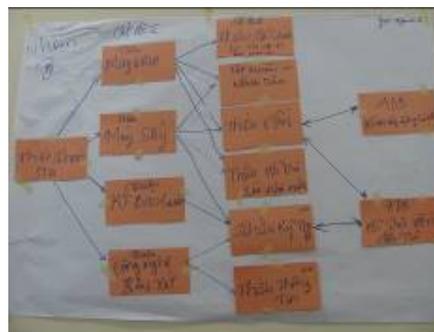
**Table 1: Group composition**

Count	GROUPS	Count	GROUPS
	<b>Researchers (Group 1)</b>		<b>Governmental Agencies 1 (Group 3)</b>
1	Mr. Nguyen Bong (Group leader)	1	Mr. Phan Van Khong (Group leader)
2	Dr. Nguyen Ngoc De	2	Mr. Huynh Quang Duc
3	Dr. Bui Ngoc Hung	3	Mr. Ma Van Ut
4	Mr. Vu Cong Khanh	4	Mr. Nguyen Van Tam
5	Mr. Tran Ngoc Linh	5	Mr. Le Van Be Thuan
		6	Mr. Nguyen Van Trang
	<b>Farmers and Private Sectors (Group 2)</b>		<b>Governmental Agencies 2 (Group 4)</b>
1	Mr. Le Huu Ma (Group leader)	1	Mr. Nguyen Thanh Tung (Group leader)
2	Mr. Mai Quoc Dung	2	Mr. Trinh Cong Minh
3	Mr. Pham Tan Khuong	3	Mrs. Tran Thanh Phong
4	Mr. Nguyen Van Thien	4	Mr. Phan Tan Tai
5	Mr. Le Tan Dai	5	Mr. Le Van Lam
6	Mr. Vo Hung Anh		

The process of developing impact pathways for reducing postharvest losses in the region followed the roadmap shown in Figure 3. The first step was to construct a **problem tree** (see Figure 3a and Figure 3b) identifying the main causes of high postharvest loss in the region by asking ‘why’ this problem is happening. By asking this question several times (between three to maximum five times) the main problem is broken down into smaller units. At the final stage, participants derive at intervention points **where the project can make a difference**.



**Figure 3a (left):**  
Government  
group discussing



**Figure 3b (right):**  
Their problem tree

Participants were introduced to the concept of problems being opportunities and how to convert a problem tree into an **outcomes tree** defining **the positively changed behavior of an actor**. With the focus on the positive, participants developed a vision of project success in reducing postharvest losses in five years time, in 2013. The last part of the morning session was for groups to come up with **a common vision describing the future scenario** along the questions below as in Table 2.

**Table 2: The vision example of Researcher Group (Group 1):**

What are the next users doing differently? How are men benefiting? How are women benefiting?	<b>Researchers</b> have positive changes in methods of research and technology transfer, have advanced technologies and new machinery successfully and efficiently applied to practical production. <b>Millers</b> have awareness of their responsibility to farmers and rice production, have an improvement in rice processing technology and equipment, have shortening the rice supply chain
How are project outputs disseminating (scaling out)?	<b>Local authorities</b> have postharvest supporting policies and motivation for agricultural and industrial extension activities
What political support is nurturing this spread (scaling up)	<b>Governmental officials/ agencies</b> have suitable policies to support rice postharvest and enforce agricultural and industrial extension activities, have a close co-operation between relative organizations to enhance efficiencies in activities and have an improvement in methods and skills of technology transfer. <b>Donors</b> have valuable supports
What are the end users doing differently? How are they benefiting?	<b>Farmers</b> have appropriate rice varieties, have proper harvesting techniques, have appropriate technologies and equipment for paddy drying and rice processing to ensure high quality rice, have reconstruction of rice fields, and have good relations between farmers and the other 3 partners in the rice supply chain

The following table 3 is a summary the visions that were presented back to participants while Table 2 gives the detailed vision of the Researcher Group (Group 1).

**Table 3: Summary of visions of the groups**

<b>Governmental agencies 1 Group 3</b>	<b>Farmers</b> have new methods in rice cultivation. <b>Local authorities</b> have more efficient management to meet requirements of the development. <b>Agricultural extension systems</b> have an enhancement in ability and capacity. <b>Enterprises</b> have good business strategies. <b>Research institutions</b> have advanced technology and new machinery which could be successfully applied to rice production. <b>Banks</b> provide farmers with high financial supports.
<b>Governmental agencies 2 Group 4</b>	<b>Farmers</b> have new methods in rice cultivation. <b>Local authorities</b> have land zones specialised for rice production. <b>Agricultural extension systems</b> have an enhancement in ability and capacity, and have an improvement in methods and skills of technological transfer. <b>Governmental officials/ agencies</b> have an improvement in methods and skills of technology transfer. <b>Rice middle traders</b> have stable schedule and mode for buying paddy from farmers. <b>Rice millers</b> have investments in suitable rice processing equipment, have changes in paddy buying methods (no more buying high moisture content paddy), have large-scale rice producing areas with high quality, have an improvement in cooperation with the other partners for rice trading, and have good trademarks in rice business. <b>Research institutions</b> have advanced technology and new machinery which could be successfully applied to rice production. <b>Banks</b> provide intermediate or long-term loan for farmers. <b>Social associations</b> have new methods of farmer encouragement and better cooperations with research institutions.
<b>Farmers and private sectors Group 2</b>	<b>Farmers</b> have application of agricultural mechanization. <b>Machinery manufacturers/ servicing groups</b> have advanced technology for design and manufacture of rice harvesting machinery and postharvest equipment and have full mechanisation in rice harvesting. <b>Rice middle traders</b> buy diverse products with ensured quality. <b>Rice millers</b> have good planning for buying up paddy surplus from farmers. <b>Banks</b> provide farmers with high financial supports.

<b>Researc hers Group 1</b>	<b>Farmers</b> have appropriate rice varieties, have proper harvesting techniques, have appropriate technologies and equipment for paddy drying and rice processing to ensure high quality rice, <i>have reconstruction of rice fields</i> , and have good relations between farmers and the other 3 partners in the rice supply chain. <b>Local authorities</b> have postharvest supporting policies and motivation for agricultural and industrial extension activities. <b>Governmental officials/ agencies</b> have suitable policies to support rice postharvest and enforce agricultural and industrial extension activities, have a close co-operation between relative organizations to enhance efficiencies in activities and have an improvement in methods and skills of technology transfer. <b>Donors</b> have valuable supports. <b>Rice millers</b> have awareness of their responsibility to farmers and rice production, have an improvement in rice processing technology and equipment, have shortening the rice supply chain. <b>Researchers</b> have positive changes in methods of research and technology transfer, have advanced technologies and new machinery successfully and efficiently applied to practical production.
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## Network mapping

The topic of network concepts, network mapping and the possibility how to visualize networks were introduced to the participants. In their groups, participants were asked to develop their network maps to describe how organizations are currently linked together in the postharvest sector in the region (see Figure 5a and 5b). Scaling-out (adoption) is the spread of technology and knowledge from farmer to farmer, community to community, within the same stakeholder groups. Scaling-up is an institutional expansion, based largely on first-hand experience, word-of-mouth and positive feedback, from adopters and their grassroots organizations to policy makers, donors, development institutions, and the other key stakeholders to building a more enabling environment for the scaling-out process. In other words, scaling-up is the process by which policies and norms change in such a way that they support a scaling-out process.

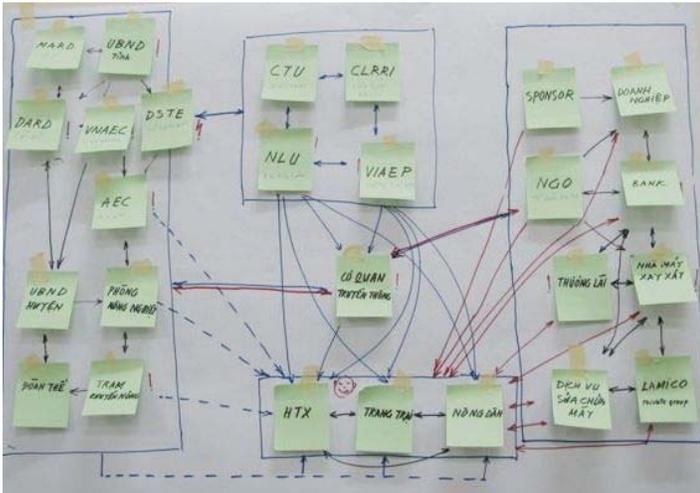
Participants drew maps with four relationships – funding flows; research links; scaling-out and scaling up; considering five stakeholder/actors categories (Table 4).

**Table 4: Different Stakeholder Categories**

<b>Actors</b>	<b>Examples</b>	<b>People and/or organizations ...</b>
<b>First users</b>	Extensionists, Government agencies, for examples: agricultural extension agents	... who directly use project outputs (technologies, methods, knowledge)
<b>Final Users</b>	Farmers	... that ultimately benefit
<b>Politically-important Actors</b>	Government agencies, for examples: Provincial chairperson, director of Department of Agriculture and Rural Development (DARD)	... whose support is needed for project success
<b>Project Implementer</b>	IRRI, researchers from research institutes and universities.	... who work on project activities, provide training for the project
<b>Enterprises/companies</b>	Farm machinery manufacturers, farm machinery servicing groups, rice processors, rice companies	...who participate and enhance efficiency of the project
<b>Donor</b>	ADB	... who provide funding

Participants also flagged actors whom they think to be extremely influential (with exclamation point) and those that they think may have a significantly negative attitude to the project (with lightning stroke). To capture the actors in the networks, the participants were presented with a list of actors identified in the Vietnam national PIPA – LA workshop in Vung Tau, earlier in May 2009 (appendix 5a). The groups were asked to mark the actors they think are also relevant for their regional postharvest work and add additional ones (specific) for their

regions. In appendix 5 are both these tables presented with the listing of actors, abbreviations and terms used in network maps. Appendix 6 shows the groups' current postharvest networks and captures key issues that were presented in plenary.



**Figure 4 (left): Map of the postharvest network drawn by Government agencies Policy group**

In the next activity, participants identified the main network changes required to achieve their respective visions. They identified the actors whom they think should change with respect to their vision of success and the actors they brought out in the network maps. They identified the practice change needed for each actor and the change in knowledge, attitudes and skills needed for that specific actor to change in practice as in Figure 6.

**Figure 6 (right): Table of changes done by Government agencies policy group**

Participants were brought together in a plenary where each group was given time to present to the other groups the main points that have emerged from their problem tree, vision, network map and changes required to achieve their vision of project success.

Những người trung gian đã làm cái gì khác biệt?	<ul style="list-style-type: none"> <li>- Cải tiến kỹ thuật</li> <li>- Hạ giá thành sản phẩm</li> <li>- Xây dựng chính sách phù hợp</li> <li>- Tạo tạo nghề</li> </ul>
Phổ biến từ nông dân đến nông dân	<ul style="list-style-type: none"> <li>- Tổ chức nông dân tham quan học hỏi trực tiếp + tuyên truyền qua phương tiện TT-ĐC.</li> <li>- Xây dựng các tổ nhóm cộng đồng</li> <li>- Tập huấn lực lượng công tác viên nông dân (TGT)</li> </ul>
Hỗ trợ chính sách	<ul style="list-style-type: none"> <li>- Hỗ trợ chính sách kích cầu</li> <li>- Hỗ trợ xây dựng thương mại sản phẩm cho nông dân</li> </ul>
Những người sau cùng sẽ làm gì khác biệt? Họ được lợi như thế nào?	<ul style="list-style-type: none"> <li>- Thay đổi tập quán sản xuất nhỏ.</li> <li>- Hình thành các dịch vụ hỗ trợ nông nghiệp chuyên nghiệp.</li> <li>- Tăng thu nhập người trồng lúa - cải thiện đời sống.</li> </ul>

The first day closed with participants coming together for a go-around for each to briefly express what was important to them in the entire day (see appendix 7).

## Day 2, morning: Outcome Logic Models and Learning Alliance

The morning started with an exercise that introduces the outcome logic models. The groups formed small circles. With each participant's hands randomly holding another participants', the groups will have formed a knot which they then untied. The first group to untie themselves back into a circle wins. This exercise allowed participants to see which person/actor needed to change or move, then decide what effective strategy they will use so that they can untie themselves first.

From their work the previous day on changes needed to achieve their vision of success, participants generated an **outcome logic model**, in which each row describes an impact pathway as seen in the Template in Table 5. The outcomes logic model synthesizes the information from the Vision, Network Maps actors, and project entry points from the problem-opportunities tree. It describes who needs to change, how that actor's knowledge, attitude and skills (KAS) need to change, and what the project will do to make these changes happen, so that the project can achieve its vision.

**Table 5: Template for outcomes logic model**

Actor (or group of actors who are expected to change in the same way)	Change in practice	Change in Knowledge, Attitudes or Skills	What are/were the project's strategies for achieving these changes in KAS and practice?

Each line in the table below contains an outcome hypothesis and impact hypothesis:

- 1) That the strategy or strategies the project proposes will bring about the desired outcomes;
- 2) That the outcomes, if realized, will contribute to livelihood impacts on the ultimate beneficiaries.

The former are tested by the project's Monitoring & Evaluation, which is the project's responsibility. The latter will generally be tested by external ex-post impact assessment, either at or after the end of the project.

For the individual groups outcome logic models see spreadsheets in the Excel workbook (*VTN\_5\_WS\_Workbook\_MyTho\_ENG.xls*).

While the OLM from the four groups were synthesized the participants developed ideas how to further the regional post-harvest Learning Alliance see section 4. below.

The impact pathways generated by the groups were synthesized and presented by the regional facilitators. Participants then made comments and additions resulting in the Table 6 below.

**Table 6: Combined impact pathways to reduce postharvest loss in the Northern provinces of Hau river, Mekong River Delta (MRD)**

Explanations:

- (Group 1) = Researchers , (Group 2) = Farmers & private sectors, (Group 3) = Government agencies 1, (Group 4) = Government agencies 2
- **Bolded = Project intervention**, normal = project can help facilitate, *italics = beyond the scope of the project*,
- Actor or group of actors

Actor	Change in practice	Change in Knowledge, Attitudes or Skills	Strategies for achieving these changes in KAS and practice?
Farmer s	Have new methods in rice cultivation (3, 4), have appropriate rice varieties (1), have application of agricultural mechanisation (2) and proper harvesting techniques (1), have appropriate technologies and equipment for paddy drying and rice processing to ensure high quality rice (1), <i>have reconstruction of rice fields</i> (1), have good relations between farmers and the other 3 partners in the rice supply chain (1).	Have improvements in both knowledge and practice in application of machinery to rice production (2), accept new postharvest technology (1), know how to select and apply postharvest technology and equipment to rice production (1, 3), have enhancement of postharvest knowledge (1, 3), be ready to cooperate (1), know how to search information on rice production and trading (2); know how to use machinery efficiently and apply knowledge to their practice (2)	<b>Train and transfer postharvest technology</b> (1, 2, 3) and <b>provide information</b> (1), <b>organize study tours, field trips and model demonstrations</b> (1, 3), help to study, select appropriate rice varieties and apply the advanced technology to reconstruction of rice fields and to cultivation techniques of rice (1), <b>organise, enforce and develop linkages between farmers (1)</b> and develop farmer associations for <b>sharing experience and knowledge</b> (1, 2, 4), <b>encourage to establish postharvest servicing groups and enhance efficiency of the learning alliances</b> (4)
Local authori ties	Have land zones specialised for rice production (4), have postharvest supporting policies and motivation for agricultural and industrial extension activities (1), and have more efficient management to meet requirements of the development (3)	Understand necessity to have land zones specialised for rice production (4), have more attention to the field of rice postharvest (1), and have improvements of managerial knowledge and skills (3)	Suggest lending policies with low or no interest rates (1), suggest the government to have financial supporting policies for investment and development of postharvest technology (1, 3), suggest the government to set-up "the 4-house-co-operation" (farmer, the government, trader and researcher) (1), suggest the government to have priority policies for land zones specialised for rice production and an increase in agricultural extension budget (4).
Agricu ltural extens ion syste ms	Have an enhancement in ability and capacity (3, 4) and have an improvement in methods and skills of technological transfer (4)	Have an improvement in both method and content of agricultural extension activities (3)	<b>Train and transfer postharvest technology</b> (2, 3, 4), <b>provide financial supports and means for extension activities</b> (3), <b>improve the agricultural extension method</b> (4), <b>organise study tours and model demonstrations</b> (3).

Actor	Change in practice	Change in Knowledge, Attitudes or Skills	Strategies for achieving these changes in KAS and practice?
Governmental officials/agencies	Have suitable policies to support rice postharvest and enforce agricultural and industrial extension activities (1), have a close co-operation between relative organizations to enhance efficiencies in activities (1) and have an improvement in methods and skills of technology transfer (1, 4)	Have more attention to rice post-harvest issues (1), establish projects on rice producing areas with high yield and quality, and support small and medium scale enterprises for rice processing and trading (4)	Suggest the government to have interest-supporting policies (1, 4), suggest the government to have more investment for developing postharvest technology (harvest, drying, storage and processing) (1), suggest the government to establish four-actor-co-operation (4-house-co-operation) (1), suggest the government to have priority policies (on rice varieties producing high yield and quality, and farm mechanization) for rice producing areas (4), suggest local governments to setup projects on small and medium scale enterprises (4), suggest the government to have suitable policies to have qualified staff and increase budget for extension activities (4), suggest the government to have appropriate policies to create an equal competition between rice processing enterprises, especially between state-owned and private rice companies, and suggest to establish a rice price stabilising budget (2)
Enterprises	Have good business strategies (3) and have good link with farmers and scientists (1).	Have awareness of benefit from co-operations (3)	<b>Transfer postharvest technology and support to establish mutual trading and production plans (3).</b>
Machinery manufacturer/s/ servicing groups	Have advanced technology for design and manufacture of rice harvesting machinery and postharvest equipment (2) and have full mechanisation in rice harvesting (2)	Have awareness of benefit from standardisation in design and manufacture of machinery (2)	Suggest the government to have supports for investments in advanced technology, new equipment, standardisation in design and manufacture (2)
Rice middle traders	Have stable schedule and mode for buying paddy from farmers (4) and buy diverse products with ensured quality (2)	Have awareness of benefit from good cooperation with farmers and rice producing zones (4) and knowledge of rice quality during rice trading (2)	<b>Invite rice middle traders to join the project and workshops (4)</b> and suggest the government to have financial supports for buying, drying and storing paddy and build up rice trading co-operatives (2)
Rice millers	Have awareness of their responsibility to farmers and rice production (1), have an improvement in rice processing technology and equipment (1) have investments in suitable rice processing equipment (4), have shortening the rice supply chain (1), have good planning for buying	Share the benefit reasonably/equally with farmers and the other partners in the rice supply chain (1, 2, 3), have transparency in rice business (1), buy paddy directly from farmers and farmer groups and use leverage capital from the government for buying, drying, storing and milling rice (4).	<b>Establish rice business models (or called new agricultural communities) including activities of rice production, processing and distribution (1)</b> , suggest investments in new rice technology and equipment (1), suggest to use the leverage capital from government to upgrade equipment, priority for paddy dryers and silos (4), suggest to build-up project to develop high-quality rice producing areas and

Actor	Change in practice	Change in Knowledge, Attitudes or Skills	Strategies for achieving these changes in KAS and practice?
	up paddy surplus from farmers (2), have changes in paddy buying methods (no more buying high moisture content paddy) (4), have large-scale rice producing areas with high quality (4), have an improvement in cooperation with the other partners for rice trading (4), and have good trademarks in rice business (4).		setup detailed plans for the 4-house-co-operation (4).
Research institutions	Have advanced technology and new machinery which could be successfully applied to rice production (3, 4)	Understand that new technology and machinery must be applicable to practical rice production (3) and transfer achievements of technology and new machinery to rice production (4)	<b>Provide technological information for farmers (3), have good contact with farmers and deep understanding practical conditions of rice production (4), suggest the government to provide more financial supports for research and technology transfer (3).</b>
Researchers	Have positive changes in methods of research and technology transfer (1), have advanced technologies and new machinery successfully and efficiently applied to practical production (1).	Be closer with practical production and update frequently advanced knowledge and technology (1)	<b>Study and evaluate the current situation to propose proper policies and strategies to the government (1), apply new research methods (1), research to improve and develop proper technology/equipment (1), and strengthen technology transferring activities (1).</b>
Donors	Have valuable supports (1)	Be satisfied with the project results (1)	Setup feasible projects (1)
Banks	Provide farmers with high financial supports (2, 3), provide intermediate or long-term loan for farmers (4)	Recognise economic efficiency on rice production (2) and simplify lending procedures (3, 4).	Have certain interest in rice postharvest (2) and join to development projects (4); help farmers, enterprises or companies to setup projects (3), provide proper lending policies (3) and provide farmers with intermediate-term loan with low or no interest rate (2).
Social associations	Have new methods of farmer encouragement and better cooperations with research institutions (4)	Provide professional training courses for local association leaders and encourage cooperation among farmers (4)	Build-up good cooperations with relevant organisations and individuals (4)

#### 4. Furthering the learning alliance in the region

Participants were introduced to the concept of a **Learning Alliance**, which is shown in Figure . They understood that the PIPA workshop represented the first stage in planning for a learning alliance.

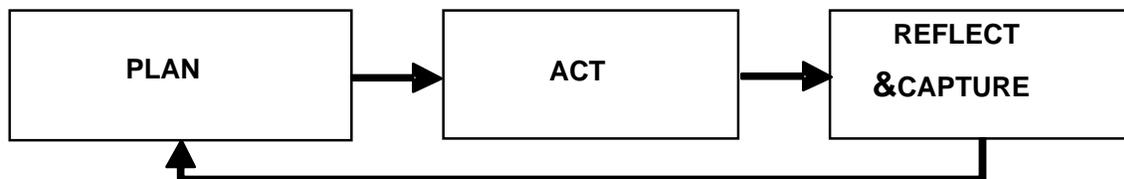


Figure 7: Learning Alliance repeated learning circle

In randomly selected multi-stakeholder groups participants discussed what a postharvest Learning Alliance in the Philippines might look like using five guiding questions.

- *Who should participate as a stakeholder and what could be their role?*
- *What could be topics of interest to be discussed in further detail among members of the Learning Alliance?*
- *How can we share what we learn?*
- *How can we capture and document what we learn?*
- *What are necessary next actions (for individuals as well as organizations)?*

Ideas were collected and generated in a World Café<sup>1</sup> Session and brought together to populate the Learning Alliance concept for the Northern provinces of Hau river, Mekong River Delta (MRD) in Vietnam. Each question host reported back to the plenary the *key issues* discussed at his/her table. See below the results and outputs of the Learning Alliance session.

#### **Who (stakeholders) should participate? And what is their role?**

*Farmers, governmental agencies (policy makers, local governments and agricultural extension centres), scientists, business people (farm machinery manufacturers, servicing groups of farm machinery, rice traders, rice middle men and rice processors) and social organisations (farmer association, women association and youth association).*

#### **Their role:**

- *Farmers: participate and carry out the project.*
- *Governmental agencies: study to set up good lending policies for farmers; enforce and expand agricultural extension activities, carry out the project and participate technology transferring activities.*
- *Scientists: study, develop and transfer advanced postharvest technologies and machinery to rice production.*
- *Business people: Manufacture good rice combined harvesters, rice reapers, dryers and other farm machinery; select suitable machinery and equipment for works; apply advanced postharvest technology and set up good business models for rice supply chains.*
- *Social associations: support project implementation.*

<sup>1</sup> See <http://www.kstoolkit.org/The+World+Cafe>

**What do we share - Topics?**

- *Knowledge of rice postharvest technology. For examples, causes of rice postharvest losses and solutions to them, benefit from harvesting rice at correct time and using mechanical dryers.*
- *Manufacturing technology for rice combined harvesters, paddy dryers, milling machinery, etc.*
- *Information of suitable rice varieties for each region, equipment and machinery for rice, rice price and markets, and requirements of rice quality of the markets.*

**How do we share our learning?**

- *Organise training courses of rice postharvest technology and machinery manufacturing technology.*
- *Set up websites of rice postharvest technology and agricultural libraries.*
- *Exchange knowledge and experience through workshops, seminars, field meetings, field trips, farmer associations, agricultural extension clubs, agricultural extension coffee clubs, E-mail, newspapers and other public media.*

**How do we document our learning?**

- *Note or record important things from seminars, training courses , etc.*
- *Set up E-mail boxes and folders on computers (laptops).*
- *Save materials and documents on computers (laptops), memory sticks, CD-ROM, etc.*
- *Publish and post papers on magazines and web sites of rice postharvest technology.*

**What action is needed (Next Steps)**

- *Organize training courses of postharvest technology for farmers, farm machinery manufacturers, servicing groups of farm machinery, rice traders, rice middle men and rice processors.*
- *Organize demonstrations, field meetings and field trips for exchange of knowledge and experience between farmers.*
- *Help farmers to up date information related to market and postharvest technology of rice.*
- *Enforce agricultural extension activities.*
- *Provide farmers with financial supports for investments of new technology and machinery.*
- *Build up a good linkage between “4 houses” in the rice supply chain (farmers, government agencies, rice business and scientists).*
- *Build up special zones for rice production.*
- *Improve machinery and reduce production cost of the machinery.*
- *Build up trademarks for Vietnam rice.*
- *Build up good marketing strategies for rice.*

Following the training of the regional facilitating team and the national coordinators on participatory methodologies, in a discussion with the national coordinating team and the regional responsables it was agreed that the PIPA and in particular the learning alliance as a mechanism for them to use (e.g. for monitoring and learning) was done.

## 5. Next steps

The regional coordinator then gave a workshop summary and in a plenary brought out with the participants the possible next steps to be taken in the region (Table 8):

**Table 8: Next steps to be taken in the region**

No	What activities to take	Who will do it	When
1	Investigate the current status of rice postharvest in Mekong River Delta	The Project Managing Unit (PMU)	09/2009
2	Revise and complete project proposal	The Project Managing Unit	10/2009
3	Contact sponsors	IRRI, NLU & SIAEP	12/2009
4	Carry out the project	The Project Managing Unit	01/2010
5	Organise postharvest training courses	IRRI, NLU, SIAEP, CTU for farmers & rice companies	01/2010
6	Provide postharvest technology transfer	IRRI, NLU, SIAEP, CTU for farmers & rice companies	02/2010
7	Determine locations for building up business models	IRRI, NLU & SIAEP	02/2010
8	Improve rice combined harvesters, paddy straw collecting machinery	Equipment manufacturers, IRRI, NLU, SIAEP & CTU	04/2010
9	Carry out experiments to compare two rice processing models	IRRI, NLU, SIAEP & CTU	6/2010

## 6. Participants contribution to the project (Self assessment)

The participants were then asked to reflect on the outputs of the workshop, how and what they think they themselves as individuals and their institutions can contribute to the project. The responses included the whole range from the application of new technologies by farmers, out-scaling through being model farmers and providing extension services to scaling-up and passing resolutions that favor postharvest development (Table ). This provides a good starting point the initial activities in the provinces.

**Table 9: Self assessment of participants with respect to what and how they can contribute to the project**

Inst./ Province	Name of Participant	What/How they can contribute to the project
Long An province	Nguyen Thanh Tung	Participate the project, prepare project proposals of agricultural extension, improve agricultural extension activities, provide training of postharvest for farmers and rice companies, help machinery testing, and build up farmers organisations and “New Agricultural Communities”.
	Le Huu Ma	Study to design and manufacture paddy dryers and rice processing machinery
Tien Giang province	Tran Thanh Phong	Participate the project and provide and share information
	Pham Tan Khuong	Participate model demonstration
Ben Tre province	Huynh Quang Duc	Participate model demonstration
Vinh Long province	Nguyen Van Trang	Provide training of postharvest for farmers and companies

Inst./ Province	Name of Participant	What/How they can contribute to the project
Tra Vinh province	Le Van Lam	Prepare training programs
	Mai Quoc Dung	Participate the project
	Ma Van Ut	Collect local information and carry out the project in Tra Vinh province
Dong Thap province	Le Tan Dai	Build up trademarks and organise study tours
SIAEP	Vu Cong Khanh	Research, develop and transfer rice postharvest technologies and machinery, organise training courses, provide training of rice postharvest for farmers and rice companies.
	Vo Hung Anh	Transfer paddy dryers and rice combined harvesters to farmers and companies
CTU	Nguyen Ngoc De	Consult technological matters and play a role as bridge between partners of the project in Mekong River Delta, help to prepare project proposals, organise training courses, workshops, seminars, etc.

## 7. Workshop monitoring and evaluation

At the end of Day one people were asked to give a brief statement of how they think the day went for them. The most important thing – good or bad – what they liked or for the facilitation team to improve. Most of the comments were positive like, *Diversity of the participants, Right participants with high energy, Active and interesting but tired, Good, useful and impressive workshop, Should scale out results obtained from this workshop.* Some felt e.g. there was a *Lack of millers and traders at the workshop.* For detailed statements see Appendix 7.

At the end of the workshop a simplified After Action Review was done with the focus for the feedback on ‘what to improve?’ and what ‘worked well?’, and a dart board evaluation checking how much for the objectives we targeted were achieved (*Clarify project objectives and regional plan, Identify key stakeholders and foster ownership, Identify project’s impact pathways OLM, Clarify the LA*), and some additional administrative and logistics were asked how much participants were satisfied and content with the workshop (*Venue, Organization + Facilitation, Methodology PIPA, part. Approaches, Materials provided*).

Some selected comments on ‘WHAT TO IMPROVE’ were e.g. *registration stage of the workshop should be improved, workshop had too much content., Time for the workshop was not enough (3), Logic of the workshop agenda was not good enough, IRRI specialists and the Vietnamese organisers should agree on workshop agenda before the workshop, The workshop participants from each province should consist of 4 partners: Farmer, governmental agencies, companies/enterprises and researchers.* Some examples of comments on ‘WHAT WORKED WELL’ are *Diversity of the participants, right participants with high energy, well prepared and organized workshop, good method and excellent contents, Good combination between theory and practice as well as demonstrations, Supply of much knowledge and useful information, Good grouping at the workshop, Good collection of different ideas and opinions from participants, Good results from the workshop, The workshop helped participants to have a full picture of postharvest problems and solutions, Creation of a network of project stakeholders, Good determination of strategies, next steps, who, what, and when for the project.*

In the dartboard evaluation overall 61% of the participants’ marks indicated that we have hit the target, top score of 3 for the given criteria and 37% voted for the score of 2, and 2% were marked y in the outer circle, for a detailed listing of the evaluation criteria see appendix 7.

## **Appendices**

## Appendix 1: Key information about the new ADB funded project and its linkages

### ADB Reta No. 6489

Title:	Bringing about a Sustainable Agronomic Revolution in Rice Production in Asia by Reducing Preventable Pre- and Postharvest Losses
Timeframe of project design:	5 years
Approved by ADB:	Initial phase to be implemented within 1-2 years
Funding ensured:	1 year
Project start:	November 2008

### Project sub components

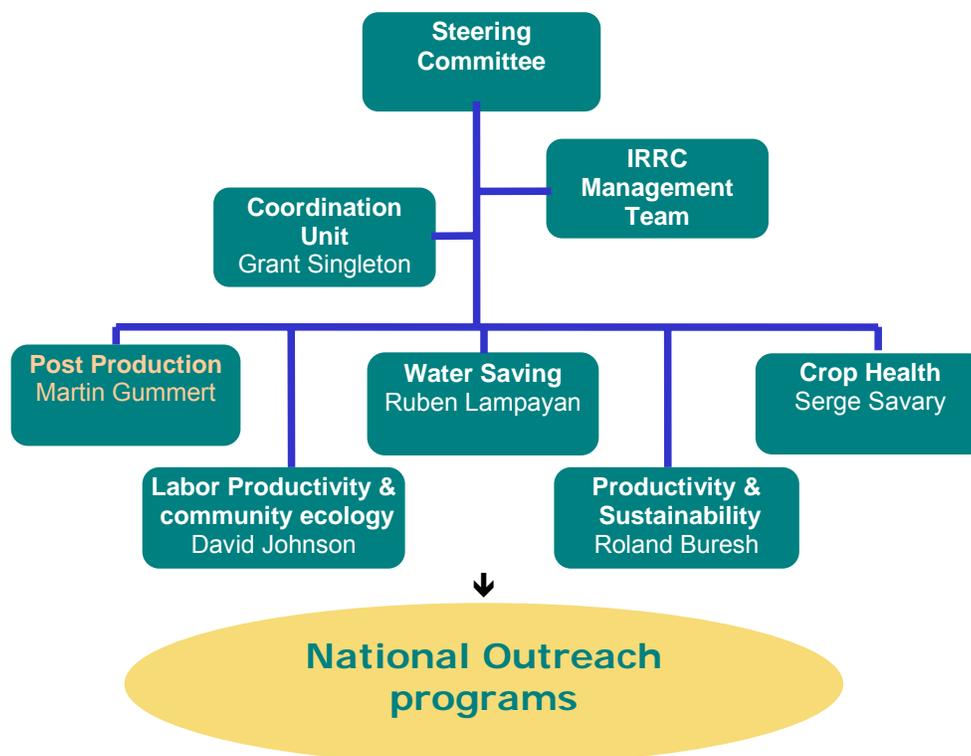
ADB Reta No. 6489, IRRI component	Subcomponent 2: Reducing postharvest losses and increasing income by producing better-quality rice.	Subcomponent 2: Reducing postharvest losses and increasing income by producing better-quality rice.
<b>Countries</b>	China, Thailand and Vietnam	Cambodia, Philippines and Vietnam
<b>Timeframe</b>	5 years, 1-2 year inception phase	5 years with a 1-2 year inception phase 10 years for wide scale impact
<b>Approach</b>	Mainly research Some field trials Multi stakeholder meetings	Outreach to min. of 300,000 of farmers Impact pathway orientation Learning alliance platforms

### Postharvest sub component of the ADB Reta No. 6489

- **Objectives**
  - The **reduction of postharvest losses** by wide scale out-scaling postharvest interventions that were piloted in the previous ADB/JFPR 9036 project in Vietnam and Cambodia.
  - Increasing farmers' incomes from their rice harvests.
  - Strengthening national public and private **extension systems**
    - For rice farming communities (agricultural extension)
    - For manufacturers of postharvest equipment (industrial extension).
  - Facilitate a **policy dialogue** for sustainable development of PH sector
- **Goals, in line with national policy and MDGs**
  - Contribute to **food security** nationally and globally
  - **Poverty reduction** in poor rice farming communities

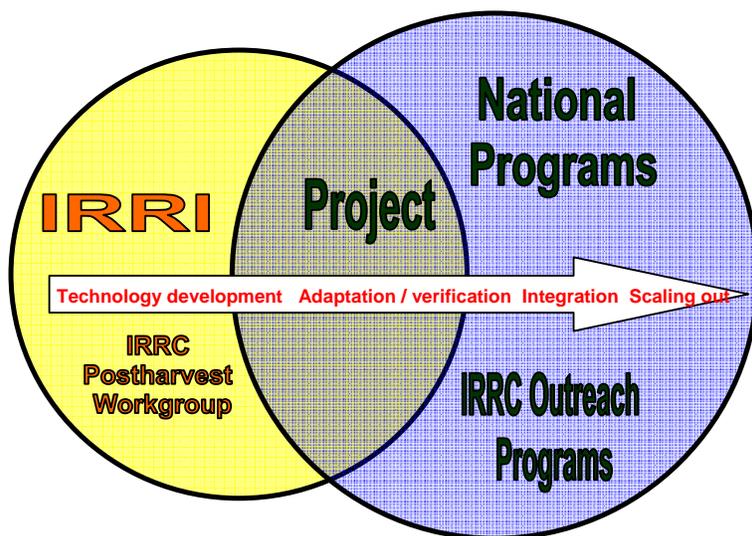
### IRRC country outreach programs (ICOPs)

At IRRI we consider the new ADB Reta No. 6489 postharvest component as complementary to the Postproduction Workgroup of the Irrigated Rice Research Consortium (IRRC). The IRRC is a consortium consisting of IRRI and NARES in Southeast Asia working on best agricultural practice in five problem oriented workgroups. The consortium is coordinated by a Coordination unit, which also supports the work groups with socio economic expertise, baseline and impact studies etc. The Postproduction Workgroup of the IRRC has activities in Viet Nam, Lao, Myanmar, Indonesia, Cambodia and the Philippines and through this consortium the ADB project will be linked with a bigger international postharvest network for information exchange and cross country technology transfer.



### How to reach out to thousands of farmers?

How do we envision to reach hundred thousands of farmers? The project does not have the resources to finance wide-scale in-country extension activities. It is also not the purpose of the project to fund national extension activities or re-place national institutions with extension mandates. Instead the project will add value to national programs by using the approach championed by the IRRC where the project will feed into national extension and outreach programs. This is shown in the simplified diagram below. The yellow circle constitutes the postharvest activities at IRRI and in the IRRC Postharvest Workgroup, where mainly technology and methodology development takes place. The blue circle represents the partner country, in this case the North Vietnam, which usually has many own national extension and outreach programs for technology verification, integration and scaling out. These national programs are implemented with own funding or supported by other donors. The ADB Reta No. 6489 Postharvest project is represented by the overlap in grey. These are the joint activities mainly on technology and methodology adaptation and verification which are directly supported with project resources as listed under “Project contribution”.



## Project contribution

- Training at IRRRI
- Training in country
- Studies
- Facilitation and coordination (Learning alliances)
- Technology concepts,
- Cross country technology transfer
- Pilots in selected sites
- Extension methodology development
- Business model development
- Support for local team
- Capture the learning and make it available

It needs to be understood that we will not reach the targeted number of end users with the project resources alone. The project will rely on these national outreach programs for a wide scale dissemination of the postharvest technologies. A key task of the project management will therefore be to engage with these outreach programs and evaluate options and foster collaboration. This also will require a dialog on the decision making level so that national resources can be allocated to outreach activities that include the projects technologies and methodologies.

We propose the Learning Alliance as a multi stakeholder platform for this engagement.

### **Basket of interventions to choose from**

Based on the previous ADB/JFPR 9036 and the IRRC Postharvest activities in other countries the following technologies and management options are verified in farmers' fields and are available for inclusion in the project based on the still to be determined need of the end users in the target areas. New promising technologies can be included as well, which might need some adaptive research component.

- Mechanical harvesting (mini combine harvester)
- Mechanical drying (Flat bed dryer)
- Hermetic storage systems for seeds and grain
- Rice mill improvement
- Marketing assistance
- Understanding quality
- Training
- Policy dialog

(See also the slides presented during the first day.)

## Outputs

The project has the following outputs based on the functions and inputs needed for a successful wide- scale introduction of improved postharvest management options.

- Output 1: Appropriate **postharvest technologies** (PHT) and improved PH management options are available to farmers and processors.
- Output 2: Country- and technology specific **agricultural extension methodologies** are developed and agricultural extension systems are strengthened.
- Output 3: **Business models** for improved PHT are developed, links to financing established and support market oriented production established.
- Output 4: National **outreach programs** include postharvest technologies and management options on a wide scale. .
- Output 5: National **learning alliances** capture the learning experiences and feed them into project management, **policy**, decision making, and extension.

## Expected outcomes and impacts

We are expecting the following outcomes and impact from the project:

- Local manufacturers are producing equipment and adopting it to users needs and are getting the assistance needed in the adaptation.
- Improved postharvest equipment is available nation wide.
- Public and private extension systems are providing advice and training on postharvest technologies according to users needs.
- Postharvest chain actors have access to financing for purchasing equipment.
- National market info systems includes rice prices, timely data is available at the villages.
- Learning is captured and used in policy and decision making.
- Farmers sell more and better quality rice (300,000 in 3 countries within 5 years)

## Activities

Activities will be planned and agreed on in annual planning meetings, for which the proposed Learning Alliance can provide a platform. The list below is included in the project document but will need to be discussed and fine tuned in the national context based on the need.

- Baseline studies, need assessments, impact pathway workshops
- Adaptive research to adapt technologies to end users needs
- Industrial extension: technology transfer to manufacturers, manufacturers training, production techniques, advisory service
- Agricultural extension: development of extension methodologies and materials, demos, training
- Workshops for cross country learning and technology transfer
- Training, capacity building
- Linking to support services (financing, markets, etc)
- Capture learning and make available in RKB
- Initiate and facilitate a Learning alliance

## Guiding principles

Some of the guiding principles for the project are:

- **Need based value chain approach from harvest to market.**

Activities should be based on the actual needs of the end users for reducing losses and increasing their incomes. The project will consider interventions based on available technology options along the whole postharvest value chain and not focus on one simple operation.

- **Building entrepreneurial skills.**

Investment in postharvest means that a farmer often needs to make the transition from being a production focused farmer into being an entrepreneur using a business approach for investment in equipment and selling services (e.g. drying service) to others. The project will support this process.

- **National learning alliances embrace all relevant public and private stakeholders.**

The project will be inclusive and work with all key stakeholders in the value chain and not focus on one group only

- **Impact culture** established with impact pathway analysis and fostered through facilitation of learning alliance meetings

- **Make maximum use of existing knowledge**

Many technologies and methodologies are being used commercially in other countries. Rather than re-inventing the wheel the project will draw on existing solutions and assist with transfer and adaptation to local conditions.

Don't re-invent the wheel, facilitate cross-country learning and learning from the history

- **Building on and adding value to national initiatives**

- Work done and decisions made where they are done best
- IRRI building on and adding value to national initiatives
- (e.g. through IRRC outreach programs)

- **Letting go as stakeholders take over**

**Appendix 2: Schedule of Workshop Series and responsible Partners**

Dates	Location No. of WS, workshop	Responsible institution + acronym	Responsible person Supported by ...	Translator + email
21 <sup>st</sup> - 22 <sup>nd</sup> Jul.	My Tho WS 1	Sub-Institute of Agricultural Engineering and Post-harvest Technology SVIAEP	Pham Van Tan, PhD, Vice director of the Southern Sub-Institute of Agricultural Engineering and Post- harvest Technology (SIAEP), 54 Tran Khanh Du Street, Tan Dinh Ward, District 1, Ho Chi Minh City, Vietnam. <a href="mailto:tavisydney@yahoo.com.au">tavisydney@yahoo.com.au</a> , Tel: +(84.8) 3526 7192, Cell ph.: +(84) 126 5748 560  <i>Nguyen Duy Duc, Director the Southern Sub- Institute of Agricultural Engineering and Post- harvest Technology (SIAEP), HCMC, s.a.</i> <a href="mailto:ducnguyenduy2003@yahoo.com">ducnguyenduy2003@yahoo.com</a>	Nguyen Phu Hoa, PhD, deputy head of the International Relation Department, Aquaculture and Aquatic Resource Mgt., NLU Email: <a href="mailto:phuhoa0203@gmail.com">phuhoa0203@gmail.com</a> Tel: 08 3896 6946, Cell phone: 0903 946 880  San Tram Anh, MSc, Researcher, SIAEP; <a href="mailto:tramanhbiotec@gmail.com">tramanhbiotec@gmail.com</a> Cell phone: 0902 855 493
24 <sup>th</sup> - 25 <sup>th</sup> Jul.	Nha Trang WS 2	Nong Lam University NLU	Nguyen Le Hung, PhD, Vice Rector, NLU HCMC Mob: +(84) 913768957; Email: <a href="mailto:lehungn@gmail.com">lehungn@gmail.com</a>  Nguyen Van Xuan, MSc, Director, Centre of Energy and Agricultural Machinery NLU Mob: +(84) 918 002 312; Email: <a href="mailto:vanxuan310156@gmail.com">vanxuan310156@gmail.com</a>  Bui Ngoc Hung, PhD, Vice Dean, Faculty of Agricultural Engineering & Technology, Nong Lam University, Ho Chi Minh City <a href="mailto:hungbuingoc@gmail.com">hungbuingoc@gmail.com</a>  Tran Van Khanh, MSc, Lecturer Centre of Energy and Agricultural Machinery NLU Mob: +(84) 903 737 498, Email: <a href="mailto:tvkhanh1958@yahoo.com.vn">tvkhanh1958@yahoo.com.vn</a>  Dr. Phan Hieu Hien, Consultant, Nong Lam University, Ho Chi Minh City 091 312 7481 <a href="mailto:phhien1948@yahoo.com">phhien1948@yahoo.com</a> , <a href="mailto:phhien@hcm.vnn.vn">phhien@hcm.vnn.vn</a>	Truong Thuc Tuyen, Lecturer, Faculty of Food Science & Technology Nong Lam University, HCMC <a href="mailto:thuctuyen@hcmuaf.edu.vn">thuctuyen@hcmuaf.edu.vn</a> , <a href="mailto:thuctuyentruong@gmail.com">thuctuyentruong@gmail.com</a>  Nguyen Thi Hong Ngoc, Director, Ideal Agriculture Joint-stock Co.
27 <sup>th</sup> - 28 <sup>th</sup> Jul.	Hue WS 3	Hue University of Agriculture and Forestry HUAF	Dr. Do Thi Bich Thuy, Vice Dean, Faculty of Engineering and Technology, Hue University of Agriculture and Forestry (HUAF) <a href="mailto:chieuthuy64@yahoo.com">chieuthuy64@yahoo.com</a>  Mr. Nguyen Quang Lich, Lecturer, Faculty of Engineering and Technology, HUAF <a href="mailto:ngqlich@yahoo.com">ngqlich@yahoo.com</a> , <a href="mailto:ngqlich@gmail.com">ngqlich@gmail.com</a>	Ve Ouoc Linh, Department of Engineering and Technology, HUAF
30 <sup>th</sup> - 31 <sup>st</sup> Jul.	Ha Noi WS 4	Vietnam Institute of Agricultural Engineering and Post-harvest Technology VIAEP	Dr. Tran Thi Mai, Vice Director, Vietnam Institute of Agricultural Engineering and Post-harvest Technology (VIAEP) <a href="mailto:tranthimai05@yahoo.com">tranthimai05@yahoo.com</a>  Dr. Nguyen Thi Duong Nga, Lecturer, Faculty of Economics and Rural Development, Hanoi University of Agriculture <a href="mailto:ngatd@hua.edu.vn">ngatd@hua.edu.vn</a> , <a href="mailto:ngantd@gmail.com">ngantd@gmail.com</a>	Dinh Thi Tam, Vice Head Division of Science, training and International Cooperation, VIAEP <a href="mailto:dinhthamvn2002@yahoo.com">dinhthamvn2002@yahoo.com</a>
3 <sup>rd</sup> -4 <sup>th</sup> Aug.	Can Tho WS 5	CanTho University CTU	Dr. Nguyen Ngoc De, CanTho University, Farming Systems <a href="mailto:nnde@ctu.edu.vn">nnde@ctu.edu.vn</a>  Dr. Vu Anh Phap, Lecturer, Can Tho University Email: <a href="mailto:vaphap@ctu.edu.vn">vaphap@ctu.edu.vn</a> ; cell ph.: 098600616	Please add translators details as soon as available

**Appendix 3: Agenda**

Time min.	Description of topic and activity
	<b><i>Day 1</i></b>
15	Registration
15	Welcome remark by host DARD and host institution
15	Introductions
15	Participants introduce themselves
30	Workshop Objectives
30	Participants' Expectations of the workshop
15	New PH project, objectives, proposed outputs, linkages to other programs
45	Overview (updated) on PH sector in Viet Nam (by Phan Hieu Hien)
15	Overview (updated) on PH sector in the Region (by host institution)
5	Housekeeping issues (by the host)
25	<i>Coffee and picture taking</i>
15	Introduction to Impact Pathways Learning Alliances
45	Drawing PH regional problem trees and identifying potential project leverage points (working in stakeholder groups): To clarify and communicate the project rationale in terms of the problems it is addressing, and how solving these problems will contribute to eventual impact
	<i>Lunch break</i>
30	Develop vision of project success: The different stakeholder groups describe their visions of the types of changes they wish to see by 2013, that the project might contribute to
15	Introduction to networks: Participants become familiar with key concepts related to social networks
55	Construction of 'now' networks (a form of institutional analysis): Groups map how they see the current PH network in their region/province
20	<i>Coffee</i>
30	Identification of main (network) changes required: Groups identify key relationship changes required to achieve their respective visions, and identify concrete actions to bring them about
90	Plenary presentation of PH problem trees, opportunities and visions, groups' network maps and identified changes: (1,5 hr) Participants gain a better understanding of each others' problem analyses and visions for the PH sector in their region/province, the PH sector, as seen by others.
30	Wrapping up of the day
17:00	<i>End of the Day 1</i>

Time min.	Description of topic and activity
	<b>Day 2</b>
15	Check-in
60	Development project impact pathways: Participants prioritize changes required to reduce PH losses based on other workshop outputs in the form of an outcomes logic model
60	Plenary presentation and discussion of the impact pathways for the region and provinces: Participants attempt to reach consensus on main opportunities for reducing PH losses available to the project, and the prototyping and learning required to realize them
25	<i>Coffee</i>
60	Discussion of how the Learning Alliance concept might work as a platform for prototyping and shared learning: Participants give input and reach common understanding of how the Vietnamese Postharvest Learning Alliance might work in their region
60	Discussion Next steps (activities that can be implemented until mid 2010) Each participants contribution
50	Workshop evaluation
13:30	<i>End of the Day 2</i>
	<i>Lunch</i>

**Appendix 4: List of participants****Participatory Impact Pathway Analysis Workshop Participants, 21<sup>st</sup> and 22<sup>nd</sup>, July, 2009, My Tho City, Tien Giang Province, Vietnam**

No	Name	Designation	Office	Mailing address	Email	Telephone/Fax	Mobile phone
1	Dr. Phạm Văn Tấn	Senior scientist, Vice Director of the Institute	Southern Sub-Institute of Agricultural Engineering & Post-harvest Technology (SIAEP)	54 Tran Khanh Du Street, Tan Dinh Ward, District 1, Ho Chi Minh City.	<a href="mailto:tavisydney@yahoo.com.au">tavisydney@yahoo.com.au</a>	08 3526 7192 08 3843 8842	01265748560
2	Mr. Vũ Công khanh	Head of Agricultural Engineering Department	SIAEP	As above	<a href="mailto:vkhanh2001@yahoo.com">vkhanh2001@yahoo.com</a>		098.656.1019
3	Mr. Võ Hùng Anh	Researcher	SIAEP	As above	<a href="mailto:anh.vohung2008@gmail.com">anh.vohung2008@gmail.com</a>		0918 981 099
4	Mr. Trần Ngọc Linh	Researcher	SIAEP	As above	<a href="mailto:siaep.khoahoc@gmail.com">siaep.khoahoc@gmail.com</a>		0988 960 865
5	Ms. San Trâm Anh	Researcher	SIAEP	As above	<a href="mailto:tramanhbiotec@gmail.com">tramanhbiotec@gmail.com</a>		0902 855 493
6	Dr. Phan Hiếu Hiền	Senior scientist	Nong Lam University (NLU)	Linh Trung Ward, Thu Duc, District, Ho Chi Minh City	<a href="mailto:phhien1948@yahoo.com">phhien1948@yahoo.com</a> <a href="mailto:phhien@hcm.vnn.vn">phhien@hcm.vnn.vn</a>	08 37220725	0913 127 481
7	Dr. Bùi Ngọc Hùng	Senior scientist, Head of the faculty	Faculty of Engineering, NLU	As above	<a href="mailto:hungbuongoc@gmail.com">hungbuongoc@gmail.com</a> <a href="mailto:buingochung@hcmuaf.edu.vn">buingochung@hcmuaf.edu.vn</a>	08 3896 0721 08 3896 0721	0913 609 635
8	Dr. Nguyễn Phú Hòa	Senior scientist, Deputy Head of the department	Department of International Relations, NLU	As above	<a href="mailto:phuhoa0203@gmail.com">phuhoa0203@gmail.com</a>	08 3896 6946	0903 946 880
9	Mr. Nguyễn Bồng	Senior lecturer	College of Engineering Technology, Can Tho University (CTU)	3/2 Street, Can Tho City	<a href="mailto:nbong@ctu.edu.vn">nbong@ctu.edu.vn</a>		0908 410 806
10	Dr. Nguyễn Ngọc Đệ	Senior scientist	Mekong Delta Development Research Institute, CTU.	As above	<a href="mailto:nnde@ctu.edu.vn">nnde@ctu.edu.vn</a>	071 03831253	0918 246 700
11	Ms. Rica Flor	IRRC anthropologist	International Rice Research Institute (IRRI)	DAPO Box 7777, Metro Manila, Philippines	<a href="mailto:r.flor@cbiar.org">r.flor@cbiar.org</a>		
12	Dr. Tonya Schuetz	Impact specialist	IRRI	Martin Odei Block, CSIR Campus Airport Residential Area, Accra.	<a href="mailto:T.SCHUETZ@CGI.AR.ORG">T.SCHUETZ@CGI.AR.ORG</a> <a href="mailto:tonyaonthemove@yahoo.de">tonyaonthemove@yahoo.de</a>		
13	Mr. Hồ Hùng	Journalist	The Saigon Times, Can Tho Office	35 Nam Ky Khoi Nghia Street, District 1, Ho Chi Minh City	<a href="mailto:hohung@thesaigontimes.vn">hohung@thesaigontimes.vn</a>	08 3829 5936 08 3829 4294	0913 136 102
14	Mr. Nguyễn Thanh Tùng	Engineer, Director of the centre	The Agricultural Extension Centre, Long An province	8 T National Road No.1A, Thanh Xuan Residential Area, Ward 5, Tan An Town, Long An province.	<a href="mailto:nttung.ttknla@gmail.com">nttung.ttknla@gmail.com</a>	072 3826 996	0918 310 009

No	Name	Designation	Office	Mailing address	Email	Telephone/Fax	Mobile phone
15	Mr. Lê Hữu Mã	Mechanical engineer, Head of technical division	Long An Mechanical Company (LAMICO) (for paddy combined harvester)	at km 1954 The National Road No. 1A, Khanh Hau Village, Tan An Town, Long An province	<a href="mailto:lamico-vn@vnn.vn">lamico-vn@vnn.vn</a> <a href="mailto:cokhilongan@hcm.vnn.vn">cokhilongan@hcm.vnn.vn</a>	072 3511 761 072 2511 328	0902 932 243
16	Mr. Trần Văn Thành	Director of the company	Nhat Thanh Mechanical Company (for paddy combined harvester)	364 The National Road No. 1A, Ward 4, Tan An Town, Long An province	<a href="mailto:ngoctran310583@yahoo.com">ngoctran310583@yahoo.com</a>	072 3838 179 072 3829 494	0919 677 008 0913 798 049
17	Mr. Trịnh công Minh	Engineer, Vice director of the department	Department of Agriculture and Rural Development (DARD), Tien Giang province	Trung Luong Residential Area, Ward 10, My Tho City, Tien Giang province.	<a href="mailto:Minhtg69@yahoo.com">Minhtg69@yahoo.com</a>	073 3501 372 073 3856 008	0918 217307
18	Mrs. Trần Thanh Phong	Engineer, Vice director of the centre	Tien Giang Agriculture & Fishery Extension Centre (under DARD), Tien Giang province.	Trung Luong Residential Area, Ward 10, My Tho City, Tien Giang province	<a href="mailto:tphongtg@yahoo.com.vn">tphongtg@yahoo.com.vn</a> ; <a href="mailto:tphongtg@gmail.com">tphongtg@gmail.com</a>	073 3858 229 073 3855 042	0918 287 639
19	Mr. Nguyễn Văn Tám	Head of the division	The Agricultural Division, Cho Gao District, Tien Giang province	Residential Area No. 1, Cho Gao Town, Tien Giang province		073 3835 217 073 3835 217	0918 561 767
20	Mr. Nguyễn Văn Thiện	Mechanical engineer, Vice director	Tu Sang Engineering Manufacturer (for paddy combined harvester)	Thong Luu Bridge on the National Road No. 1A, Cau Xeo Residential Area, Hau Thanh Village, Cai Be District, Tien Giang Province	<a href="mailto:kysunguyenthien@gmail.com">kysunguyenthien@gmail.com</a>	073 3819 503	0913 641 751 0918 369 416
21	Mr. Phạm Tấn Khương	Farmer and Paddy drying contractor		Binh Phu Quoi Commune, Dang Hung Phuoc Village, Cho Gao District, Tien Giang province		073 3656 274	01668545056
22	Mr. Phan Văn Khổng	Director of the centre	Ben Tre Agricultural Extension Centre, Ben Tre province	8 Nguyen Trung Truc Street, Ward 1, Ben Tre Town, Ben Tre province	<a href="mailto:knbentre@yahoo.com.vn">knbentre@yahoo.com.vn</a>	075 3814 172	0913 147 783
23	Mr. Huỳnh Quang Đức	Extension agent	Ben Tre Agricultural Extension Centre, Ben Tre province	8 Nguyen Trung Truc Street, Ward 1, Ben Tre Town, Ben Tre province	<a href="mailto:knbentre@yahoo.com.vn">knbentre@yahoo.com.vn</a>	075 3814 172	0918 738 338
24	Mr. Phan Tấn Tài	Director of the centre	Vinh Long Agricultural Extension Centre, Vinh Long province	35/10 Tran Phu Street, Ward 4, Vinh Long City, Vinh Long province	<a href="mailto:tantaiphantkn@yahoo.com">tantaiphantkn@yahoo.com</a>	070 3822 702 070 3832 124	0918 025 959
25	Mr. Nguyễn Văn Trọng	Extension agent	Vinh Long Agricultural Extension Centre, Vinh Long province	35/10 Tran Phu Street, Ward 4, Vinh Long City, Vinh Long province	<a href="mailto:vantrangknvl@yahoo.com.vn">vantrangknvl@yahoo.com.vn</a>	070 3822 702 070 3832 124	0919 439 043
26	Mr. Lê Văn Lâm	Director of the centre	Tra Vinh Agriculture and Fishery Extension Centre, Tra Vinh province	560B Nguyen Dang Street, Ward 6, Tra Vinh Town, Tra Vinh province	<a href="mailto:trungtamkhuynno@gmail.com">trungtamkhuynno@gmail.com</a>	074 3840 171 074 3840 174	0918 256 512
27	Mr. Mã Văn Út	Engineer, Extension agent	Tra Vinh Agriculture and Fishery Extension Centre, Tra Vinh province	560B Nguyen Dang Street, Ward 6, Tra Vinh Town, Tra Vinh province	<a href="mailto:ut_kntv@yahoo.com">ut_kntv@yahoo.com</a>	074 3840 171 074 3840 174	0978 685 673
28	Mr. Lưu Văn Phúc	Engineer, Extension agent	Tra Vinh Agriculture and Fishery Extension Centre, Tra Vinh province	560B Nguyen Dang Street, Ward 6, Tra Vinh Town, Tra Vinh province	<a href="mailto:luu_phuc76@yahoo.com">luu_phuc76@yahoo.com</a>	074 3850 481 074 3840 174	0908 147 666
29	Mr. Mai Quốc Dũng	Farmer, paddy harvesting contractor and lecturer	Tra Vinh University	Vinh Truong commune, Hoa Thuan Village, Chau Thanh District, Tra Vinh province		074 3844 700	0919 900 857
30	Mr. Lê Văn Bé Thuận	Engineer, Deputy Director of the division	The Rural Development Division (under DARD), Dong Thap province	16, 30/4 Street, Ward 1, Cao Lanh City, Dong Thap province	<a href="mailto:levanbethuan@yahoo.com.vn">levanbethuan@yahoo.com.vn</a>	067 3852 361 067 3858 021	0913 890 629
31	Mr. Đoàn Vĩnh Phúc	Engineer,	Dong Thap Agriculture and Fishery	12 Nguyen Van Banh Street, Ward 1,	<a href="mailto:ttkndt@yahoo.com">ttkndt@yahoo.com</a>	067 3870 167	0913 938 790

No	Name	Designation	Office	Mailing address	Email	Telephone/Fax	Mobile phone
		Director of the centre	Extension Centre, Dong Thap province	Cao Lanh City, Dong Thap province	<a href="#">vn</a>		
32	Mr. Lê Tấn Đại	Director	Dai Loi Engineering Manufacturer (for paddy combined harvester)	27 Pham Huu Lau Street, Ward 4, Cao Lanh City, Dong Thap province		067 3854 909	0913 698 089

**Appendix 5: Abbreviations and terms used in network maps <sup>2</sup>**

	Vietnamese Name	Acronym	Full Name	Type of Organization	Group 1 Researchers	Group 2 Farmers & priv.sect.	Group 3 Gov. Ag.1	Group 4 Gov. Ag.2
1	Ngân hàng Phát triển Châu Á	ADB	Asian Development Bank	Bank	x		x	x
2	Ngân hàng Thế giới	WB	World Bank	Bank	x			
3	Viện Nghiên cứu Lúa gạo Quốc tế	IRRI	International Rice Research Institute	Research institution	x		x	x
4	Tổ chức Lương Nông Liên Hiệp Quốc	FAO	Food and Agriculture Organization	International organisation	x	x	x	
5	Bộ Nông nghiệp & Phát triển Nông thôn	MARD	Ministry of Agriculture and Rural Development	Governmental agency	x	x	x	x
6	Sở Khoa học & Công nghệ	DOST	Department of Technology & Science	Governmental agency	x	x	x	x
7	Cục Chế biến Nông sản và Nghề Muối	DFP	Department of Agricultural Products Processing	Governmental agency		x	x	
8	Trung tâm Khuyến nông Việt nam	VNAEC	Vietnam Agricultural Extension Center	Governmental agency	x	x	x	
9	Sở Nông nghiệp & PTNT	DARD/ SONN	Department of Agriculture and Rural Development	Governmental agency	x	x	x	x
10	Trung tâm Khuyến nông tỉnh/TTKN	AEC	Agricultural Extension Centre (Provincial)	Governmental agency	x	x	x	x
11	Trung tâm Khuyến Công tỉnh/TTKC	IEC	Industrial Extension Centre (Provincial)	Governmental agency	x	x	x	
12	Đại học Nông Lâm TP. Hồ Chí Minh	NLU	Nong Lam University	Research institution	x	x	x	x
13	Viện Chính sách - Chiến lược (thuộc Bộ NN & PTNT)	IPSARD	Institute of Policy and Strategy for Agriculture and Rural Development	Research institution	x	x	x	
14	Đại học Cần Thơ	CTU	Can Tho University	Research	x	x	x	x

<sup>2</sup> Please note: To capture the actors in the networks, the participants were presented with a list of actors, see appendix 5a identified in the Vietnam national PIPA – LA workshop in Vung Tau, earlier in May 2009. The groups were asked to mark the actors they think are also relevant for their region and identify additional ones (specific) for their regions. The above table is a processed product of the table below and the postharvest network maps produced by the groups.

	Vietnamese Name	Acronym	Full Name	Type of Organization	Group 1 Researchers	Group 2 Farmers & priv.sect.	Group 3 Gov. Ag.1	Group 4 Gov. Ag.2
				institution				
15	Viện Nghiên cứu Lúa Đồng bằng sông Cửu Long	CLRRI	Cuu Long Rice Research Institute	Research institution	x	x	x	x
16	Viện Cơ điện Nông nghiệp & Công nghệ Sau Thu hoạch	VIAEP	Vietnam Institute of Agricultural Engineering and Postharvest Technology	Research institution	x		x	x
17	Phân Viện Cơ điện Nông nghiệp & Công nghệ Sau Thu hoạch	SIAEP	Southern Sub-institute of Agricultural Engineering and Postharvest Technology	Research institution	X			
18	Tổng Công ty Lương thực Miền Nam	VINAFOOD II	Food Corporation	State-owned company		x	x	
19	Tổ chức Phi Chính phủ	NGO	Non-Government Organization	Non-Government Organization	x	x		x
20	Ủy Ban Nhân Dân tỉnh	UBND tỉnh	People's Committee (provincial)	Governmental agency	x	x	x	x
21	Nhà Tài trợ	Sponsor	Sponsor	Sponsor		x	x	x
22	Trường Đại học	University	Univesity (general)	Research institution		x		
23	Viện Nông nghiệp		Agronomy Institute	Research institution			x	
24	Viện Quy hoạch		Planning Institute	Research institution	x	x	x	
25	Viện lúa		Rice Institute (general)	Research institution		x	x	
26	Doanh nghiệp		Company (general)	Company	x	x	x	x
27	Hiệp hội của nông dân		Farmer group/ cooperative (small). Association	Farmer association	x	x	x	
28	Ngân hàng	Bank	bank	bank	x	x	x	x
29	Nhà máy xay sát gạo		rice miller	Private enterprise	x	x	x	x
30	Nhà máy chế tạo thiết bị		equipment manufacturer	Private/state-owned enterprise	x	x	x	x

	Vietnamese Name	Acronym	Full Name	Type of Organization	Group 1 Researchers	Group 2 Farmers & priv.sect.	Group 3 Gov. Ag.1	Group 4 Gov. Ag.2
31	Dịch vụ sửa chữa thiết bị		equipment repairing service	Private servicing groups	x	x	x	x
32	Dịch vụ kinh doanh		business service (general)	Private servicing group	x	x	x	x
33	Nông dân		farmer (general)	Farmer	x	x	x	x
34	Ủy ban Nhân dân xã		people's committee (village level)	Governmental agency	x	x	x	x
35	Viện + Trường		University + Institute (general)	Research institution		x	x	
36	Chính phủ + Cơ quan Trung Ương		Government & Central government entities	Governmental agency		x		
37	Khuyến Nông/ Khuyến Công		Agricultural Extension/ Industrial Extension	Governmental agency		x	x	
38	Chính phủ		Government	Governmental agency			x	
39	Trạm Khuyến Nông		Agricultural Extension station (commune or district level)	Governmental agency	x	x	x	x
40	Thương lái		Middlemen/ intermediaries	Private enterprise	x	x	x	x
41	Dịch vụ Vận chuyển		Transportation services	Private enterprise	x	x	x	x
42	Cơ quan Truyền thông/Thông tin Đại chúng		Mass media			x	x	x
43	Tổ chức Đoàn thể		Organization	Political organisation	x		x	x
44	Trung tâm Khuyến Nông Quốc Gia	NAEC/TTKN QG	National Agricultural Extension Centre	Governmental agency	x	x	x	x
45	Phòng Nông nghiệp (cấp huyện)		District level DARD	Governmental agency	x	x	x	x
46	Hợp tác xã Nông nghiệp	HTXNN	Farmers Cooperative	Jointventure	x	x	x	x
47	Chủ trang trại		large-scale farmers	Private enterprise			x	

	<b>Vietnamese Name</b>	<b>Acronym</b>	<b>Full Name</b>	<b>Type of Organization</b>	<b>Group 1 Researchers</b>	<b>Group 2 Farmers &amp; priv.sect.</b>	<b>Group 3 Gov. Ag.1</b>	<b>Group 4 Gov. Ag.2</b>
48	Bộ Khoa học & Công nghệ	BKH&CN	Ministry of Science and Technology	Governmental agency			x	
49	Bộ Công Thương	BCT	Ministry of Industry and Trade	Governmental agency			x	
50	Sở Công Thương	SCT	(Provincial) Department of Industry and Trade	Governmental agency			x	
51	Công ty Cơ khí Long An	LAMICO	Mechanical Company of Long An Province	Shareholder company		x		x
52	Nhà máy chế tạo máy nông nghiệp	Machine producer	Agricultural machinery producer	Private/state-owned enterprise		x	x	
53	Chủ máy Nông nghiệp	Machine owner	Agricultural machinery owner (service provider)	Private servicing group	x	x	x	x
54	Hội- Đoàn thể	Mass org	Mass organization (includes women, farmers etc)	Political organisation		x	x	x
55		GTZ			x			
56		CIDA	Canadian International Development Agency		x			
57	Công ty TNHH Cơ khí Công Nông nghiệp	Bùi Văn Ngộ	Bui Van Ngo Company	Private company		x		
58	Khuyến Nông viên Cơ sở		Agricultural extension agents	Governmental agency			x	
59	Ban Nông nghiệp xã		Village agricultural division	Governmental agency			x	

**Appendix 5a: List of actors as identified in Vung Tau for the Vietnam postharvest network**

Acronym	Full Name	Location
ADB	Asian Development Bank	
WB	World Bank	Ho Chi Minh City
IRRI	International Rice Research Institute	Ha noi City
FAO	Food and Agriculture Organization	Ha noi City
MARD	Ministry of Agriculture and Rural Development	Ha noi City
DOST	Department of Technology & Science	Every province
DFP	Department of Agricultural Products Processing	Ha noi City
VNAEC	Vietnam Agricultural Extension Center	Ha noi City
DARD/SONN	Department of Agriculture and Rural Development	Every province
AEC	Agricultural Extension Centre (Provincial)	Every province
IEC	Industrial Extension Centre (Provincial)	Every province
NLU	Nong Lam University	Ho Chi Minh City
IPSARD	Institute of Policy and Strategy for Agriculture and Rural Development	Ha noi City
CTU	Can Tho University	Can Tho City
CLRRI	Cuu Long Rice Research Institute	Can Tho City
VIAEP	Vietnam Institute of Agricultural Engineering and Postharvest Technology	Ha noi City
SIAEP	Southern Sub-institute of Agricultural Engineering & Postharvest Technology	Ho Chi Minh City
VINAFOOD II	Food Corporation	Ho Chi Minh City
NGO	Non-Government Organization	
UBND tinh	People's Committee (provincial)	Every province
Sponsor	Sponsor	
University	University (general)	
	Agronomy Institute	
	Planning Institute	
	Rice Institute (general)	
	Company (general)	
	Farmer group/ cooperative (small). Association	
	rice miller	
	equipment manufacturer	
	equipment repairing service	
	business service (general)	
	farmer (general)	
	people's committee (village level)	
	University + Institute (general)	
	Government & Central government entities	
	Agricultural Extension/ Industrial Extension	
	Government	
	Agricultural Extension station (commune or district level)	
	Middlemen/ intermediaries	
	Transportation services	
	Mass media	
	Organization	
NAEC/TTKNQG	National Agricultural Extension Centre	Hanoi and Ho Chi Minh
	District level DARD	Every district
HTXNN	Farmers Cooperative	
	large-scale farmers	
BKH&CN	Ministry of Science and Technology	Hanoi City
BCT	Ministry of Industry and Trade	Hanoi City
SCT	(Provincial) Department of Industry and Trade	Every province
LAMICO	Mechanical Company of Long An Province	Long An province
Machine producer	Agricultural machinery producer	
Machine owner	Agricultural machinery owner (service provider)	
Mass org	Mass organization (includes women, farmers etc)	
GTZ		
CIDA	Canadian International Development Agency	
Bui Van Ngo	Bui Van Ngo Company	Ho Chi Minh City
	Agricultural extension agents	
	Village agricultural division	
	Bank	

## Appendix 6: Current postharvest network and vision

### Group 1: Researchers

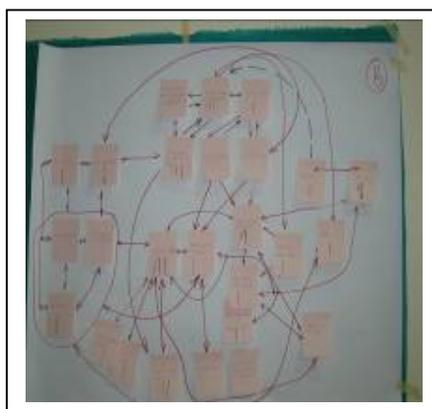


Pointed out by the group leader during the presentation of present network map:

- *Important actors in the postharvest network are CTU, CLRRRI, NLU, VIAEP, MARD, AEC, FAO, IRRI, CIDA, ADB, (OXFAM, CARE), GTZ, DARD, IEC, people's committee (provincial), agricultural extension stations (district level), people's committee (district and village levels), farmer associations, women associations, agricultural machinery producers, agricultural machinery owners, rice millers, rice business, equipment repairing service and banks.*
- *Beneficiaries in the postharvest network are farmers, farmers co-operatives and agricultural machinery producers.*

Words from the network map	Corresponding organisations/institutions from the actors list /or actual meaning
AES	Agricultural extension station (district level)
UBND Huyện & Xã	People's committee (district & village levels)
Hội ND	Farmer association
Hội phụ nữ	Women association
DN Chế tạo máy	Agricultural machinery producer
DSTE	DOST (Department of Science & Technology)
Radio - TV	Mass media

### Group 2: Farmers and private sectors



Pointed out by the group leader during the presentation of present network map:

- Important actors in the postharvest network are farmers, agricultural extension centre (AEC) (provincial level), DARD, MARD, people's committee (provincial), ADB, IRRI, CTU, NLU, equipment manufacturers, agricultural machinery owners, equipment repairing service, rice millers, farmers associations and Vietnam Food Association.*

Words from the network map	Corresponding organisations/institutions from the actors list /or actual meaning
HIỆP HỘI LƯƠNG THỰC	Vietnam Food Association
Hàng xáo + DN vận chuyển	Middlemen + transportation services
Dịch vụ cơ khí sửa chữa	Equipment repairing service

### Group 3: Governmental Agencies 1



Pointed out by the group leader during the presentation of present network map:

*Important actors in the postharvest network are agricultural extension stations (district level), district level DARD, local governments, AEC, IEC, DARD, MARD, companies (rice millers, agricultural machinery producers, food corporations, etc.), institutes and universities, ADB and other banks.*

Words from the network map	Corresponding organisations/institutions from the actors list / or actual meaning
Phòng NN	District level DARD
CQ địa phương	Local governments
Sở KHCN	Department of Science and Technology (DOST)
CQ NGHIÊN CỨU	Universities + Institutes (general)
CP	The (central) government
Trạm KN-KN	Agriculture and fishery extension station (district level)
TTKN-KN	Agriculture and fishery extension centre (provincial level)
TRUYỀN THÔNG	Mass media
KNQG	National Agricultural Extension Centre

#### Group 4: Governmental Agencies 2



Pointed out by the group leader during the presentation of present network map:

- *Important actors in the postharvest network are agricultural extension stations (district level), rice millers, middlemen, banks, mass media, NLU, VIAEP, agricultural extension centre (AEC) (provincial level), DARD, VNAEC, DSTE (or DOST), MARD and people's committee (provincial).*
- *Beneficiaries in the postharvest network are farmers co-operatives and large-scale farmers.*

Words from the network map	Corresponding organisations/institutions from the actors list / or actual meaning
DSTE	Department of Science and Technology (DOST)
UBND HUYỆN	People's committee (district level)
Dịch Vụ SỬA CHỮA MÁY	Equipment repairing service
Trang trại	Large-scale farmers
HTX	Farmers co-operative

## Appendix 7: Components of the Learning alliance in the Northern provinces of Hau river

“Go-around” at the end of Day 1 detailed responses of participants

- *Diversity of the participants*
- *Lack of millers and traders at the workshop*
- *Earn more knowledge and get more useful information from the workshop*
- *Active and interesting but tired*
- *Need to improve the participant registration stage of the workshop*
- *Take care more about the logic of the workshop agenda*
- *Good, useful and impressive workshop*
- *Interesting*
- *High energy, get more information*
- *Active, got useful information*
- *Happy, tired*
- *Happy, useful information, hope got best results*
- *Happy*
- *Scale out result of this workshop*
- *Similar*
- *Tired, but useful*
- *Useful, earn more knowledge*
- *Good, take care more about logic*
- *Time (not enough)*
- *Useful, good*
- *Lack of millers and traders in the meeting*
- *Useful, diverse*
- *Useful, receiving participants is not good*
- *Impressed*
- *Appreciate sympathize for all activities*

### End of workshop evaluation

WHAT TO IMPROVE	WHAT WORKED WELL
<ul style="list-style-type: none"> <li>• The participant registration stage of the workshop should be improved</li> <li>• The workshop had too much content.</li> <li>• Time for the workshop was not enough (2)</li> <li>• The workshop needs more time for discussion to have better results.</li> <li>• Logic of the workshop agenda was not good enough</li> <li>• IRRI specialists and the Vietnamese organisers should agree on workshop agenda before the workshop.</li> <li>• The workshop should be organised better.</li> <li>• The workshop participants from each province should consist of 4 partners: Farmer, governmental agencies, companies/enterprises and researchers</li> <li>• Lack of millers and traders at the workshop</li> </ul>	<ul style="list-style-type: none"> <li>• Diversity of the participants</li> <li>• Right participants with high energy</li> <li>• Well prepared and organized workshop</li> <li>• good method and excellent contents</li> <li>• Good combination between theory and practice as well as demonstrations</li> <li>• Supply of much knowledge and useful information</li> <li>• Active participants and interesting matters</li> <li>• Appreciated activities</li> <li>• Good, useful and impressive workshop</li> <li>• Good grouping at the workshop, facilitating good exchanges of knowledge and experience between all participants.</li> <li>• Good collection of different ideas and opinions from participants</li> <li>• Good results from the workshop</li> <li>• The workshop helped participants to have a full picture of postharvest problems and solutions.</li> <li>• Good completion of the workshop objectives</li> <li>• Clarification of project objectives</li> <li>• Creation of a network of project stakeholders</li> <li>• Good determination of strategies, next steps, who, what, and when for the project.</li> </ul>

### Dartboard Evaluation

MyTho 21-22/072009	1	2	3
Clarify project objectives and regional plan	0	7	13
Identify key stakeholders and foster ownership	0	4	14
Identify project's impact pathways OLM	0	0	17
Clarify the LA	0	5	12
Venue	0	12	8
Organization + Facilitation	2	12	4
Methodology PIPA, part. approaches	0	6	12
Materials provided	1	7	9

