

Participatory Impact Pathway Analysis (PIPA)
Regional Workshop Report
Rice Postharvest Management in Vietnam

3-4, August 2009
Can Tho University, Can Tho 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

*Tonya Schuetz and Rica Flor with contributions from Nguyen Ngoc De
Funded by Asian Development Bank (ADB) and
Swiss Agency for Development and Cooperation (SDC)*

Table of Content

1. Background	3
Rationale	3
Objectives.....	4
Workshop deliverables	4
Workshop languages.....	4
Schedule of sub-regional workshop series.....	4
2. The PIPA process.....	5
Participation.....	5
3. The workshop.....	7
Day 1: Status of postharvest, beginning impact pathways for new project	7
Network mapping.....	9
Day 2, morning: Outcome Logic Models and Learning Alliance	10
4. Furthering the learning alliance in the region	14
5. Self assessment, participants contribution to the project.....	16
6. Next steps	17
7. Workshop monitoring and evaluation	18

Table of Appendices

Appendix 1: Key information about the new ADB funded project and its linkages	20
Appendix 2: Schedule of Workshop Series and responsible Partners	25
Appendix 3: Agenda	26
Appendix 4: List of Participants	28
Appendix 5: Abbreviations and terms used in the network maps.....	31
Appendix 6: Current Postharvest networks and vision for necessary changes	31
Appendix 7: Monitoring and Evaluation of the Workshop.....	33
Simplified After Action Review	33
Dartboard Evaluation	33

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 26th-28th 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 (useful for planning and monitoring sector level integration)
- 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 Philippines in so-called logic models
- Identification of likely members of the Vietnam Regional (Southern provinces of Hau river, Mekong delta *Region*) Postharvest Learning Alliance
- 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 CanTho 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 identify 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 48 participants (including 7 women) in the workshop (see appendix 4 and worksheet participants in *VTN_5_WS_Workbook_CnTho_ENG.xls*) were staff from government agencies (8), extension (11), researchers working on postharvest (18), journalist (1), representatives from the private sector manufacturers (4), farmers and representatives from farmer collectives or non-government organizations (6). Dr. Nguyen Ngoc De and Dr. Vu Anh Phap facilitated the workshop in CanTho supported by Dr. Phan Hieu Hien, expert consultant, and the translator Le Van Thuy Tien. 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_CanTho_ENG.xls* see Figure 2.*

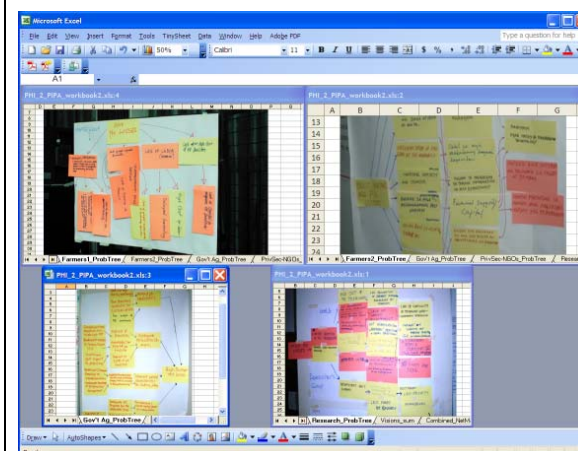


Figure 2: Excel workbook containing problem trees and other group work outputs

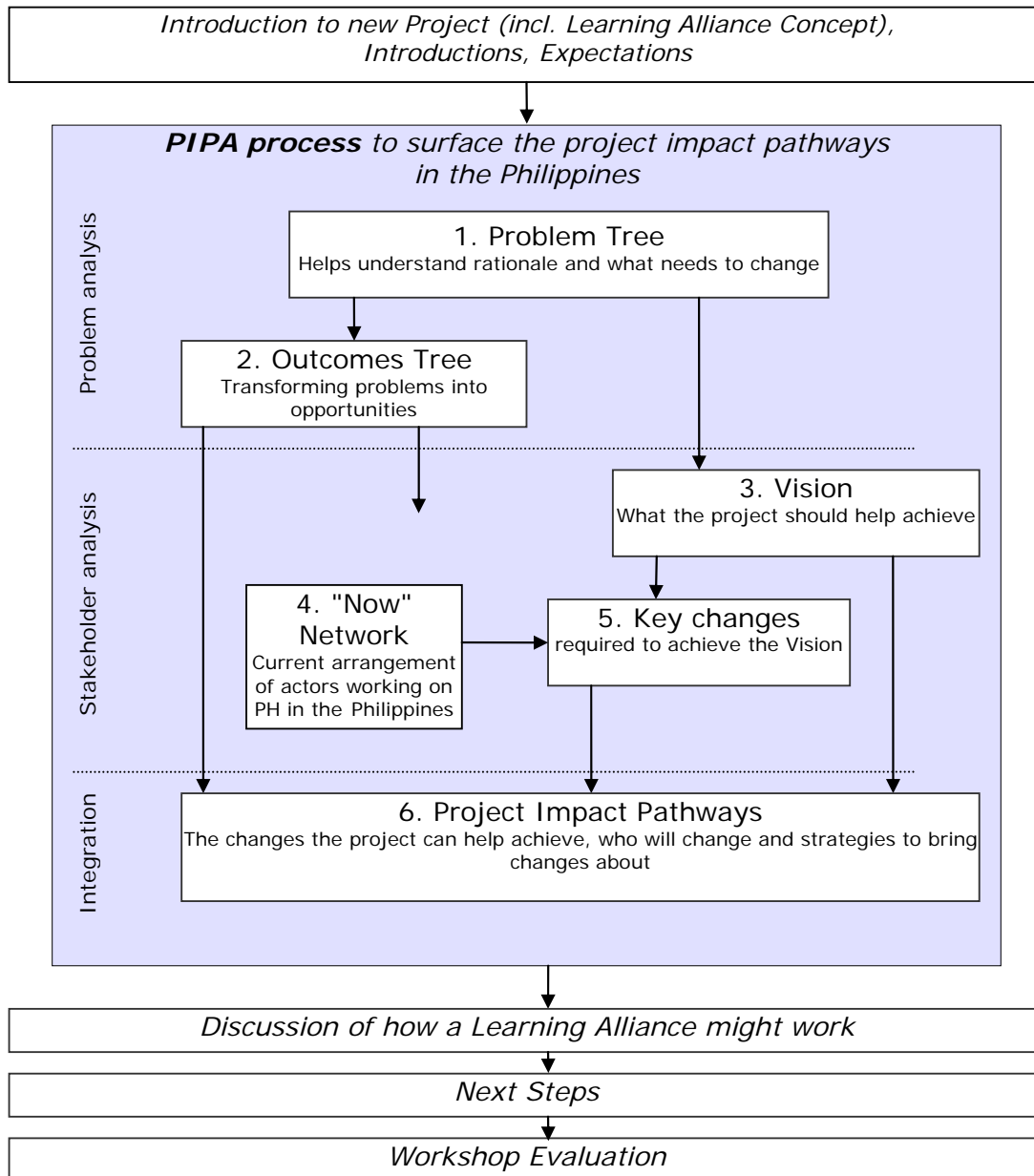


Figure 3: Workshop Road Map

3. The workshop

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

The workshop was opened by Dr. Tran Than Be, Director of the Mekong Delta Development Research Institute, Can Tho University. Dr. Phan Hieu Hien gave an overview of the postharvest situation in Vietnam, then Dr. Nguyen Duy Can presented the region-specific situation. A background of the IRRI 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. Folders containing materials as well as a CD of all presentations and workshop documentation were provided to participants.

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
	Farmers and Farmer Cooperatives		Government Agencies
1	Vo Van Chua (Dong Thap)	1	Nguyen Tran Thuc (Ca Mau AEC)
2	Lam Ngoc Quang (Hau Giang)	2	Duong Giai Phong (Tra Vinh IEC)
3	Nguyen Thanh Tinh (Bac Lieu)	3	Duong Minh Hoang (Soc Trang AEC)
4	Doan Van Bau (Kien Giang)	4	Phu Khi Nguyen (Kien Giang AEC)
5	Tram Len Su (Soc Trang)	5	Le Huu An (Bac Lieu AEC)
6	Nguyen Van Trai (Dong Thap)	6	Nguyen Thi Kieu (Can Tho PPD)
7	Nguyen Son Dang (Can Tho)	7	Vo Xuan Tan (Hau Giang AEC)
8	Quang Thanh Truong (Dong Thap)	8	Bui van Luong (Dong Thap PC)
9	Huynh Thanh Tam (Dong Thap)	9	Le Hoang Nam (Dong Thap PC)
10	Ca Quoc Khanh (Dong Thap)	10	Nguyen Van Thong (Dong Thap PC)
11	Hoang Tuyen (Saigon TT)	11	Chau Van Bo (Dong Thap PC)
12	Lam Quang Hien (Soc Trang)		
	Researchers		Private Sectors
1	Vu Anh Phap (CTU)	1	Nguyen Thi Hong Dieu (Can Tho AEC)
2	Nguyen Duy Can (CTU)	2	Pham Hoang Thang (HT Company)
3	Le Thanh Duong (CTU)	3	Tran Tan Thanh (GENTRACO)
4	Duong Thai Cong (CTU)	4	Bui Phong Luu (BVN Company)
5	Le Thu Thuy (CTU)	5	Phan Hieu Hien (NLU)
6	Tran Thanh Be (CTU)	6	Bui Ngoc Hung (NLU)
7	Nguyen Ngoc De (CTU)	7	Pham Thi Phan (CTU)
8	Ong Huynh Nguyet Anh (CTU)	8	Nguyen Thanh Tam (CTU)
9	Pham Van Tan (SIAEP)	9	Huynh Nhu Dien (CTU)
10	Huynh Hiep Thanh (AG)	10	Le Xuan Thai (CTU)
12	Nguyen Van Viet (Tra Vinh AEC)	11	Truong Thi Anh Dao (CTU)
13	Nguyen The Ha (BVN)	12	Le Van Thuy Tien (CTU)
		13	Le Canh Dung (CTU)

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 3 a and b) 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 4a (left): Extensionists group discussing and Figure 3b (right): their problem tree (right)

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 in Table 2.

Table 2: The vision example of Farmer group:

What are the next users doing differently? How are men benefiting? How are women benefiting?	<i>Extension workers changed extension methods</i> <i>Researchers created appropriate technologies</i> <i>Manufacturers improved technology, quality and acceptable price</i> <i>Investors identified major sectors and proper regions for investment</i> <i>Traders changed their attitude and create confidence to farmers</i>
How are project outputs disseminating (scaling out)?	<i>Establishment of effective models</i> <i>Mass media played important role</i> <i>Extension becomes key players</i>
What political support is nurturing this spread (scaling up)	<i>Policies on rural services improved, value chain upgraded</i> <i>Loans scale and bank interest more favorable</i> <i>Agricultural insurance developed</i>
What are the end users doing differently? How are they benefiting?	<i>Change in production process and marketing attitude</i> <i>Income improved</i> <i>Living condition improved</i> <i>Participating in building up Viet Nam rice trade mark</i> <i>Expanding quality rice market</i>

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

Table 3: Summary of visions of the groups

Stakeholder	Change
Farmers	<i>Understanding and using PH equipments effectively</i> <i>Farm income improved by 10%</i> <i>New agricultural production</i> <i>Farmers incorporated into new agricultural organizations</i> <i>Farmers active in production process</i> <i>Farmer Association changes its activities</i> <i>Better practices</i> <i>Producing rice followed proper production methods</i>

Stakeholder	Change
	<i>Application of advanced technologies, profit improved</i> <i>Knowledge/skill improved</i> <i>Group production established</i> <i>Change in production process and marketing attitude</i> <i>Living condition improved</i> <i>Participating in building up Viet Nam rice trade mark</i> <i>Expanding quality rice markets</i> <i>To 2014 fully use of harvesting, drying machines and storage facilities</i>
Manufacturers	<i>More investment for large scale production of PH equipments with standard quality</i> <i>More investment and linkage in several issues</i> <i>Manufacturers improved technology, quality and acceptable price</i>
Banks	<i>Policies on financial assistance (loans/credit)</i> <i>Loans scale and bank interest more favorable</i> <i>Agricultural insurance developed</i>
Investors	<i>Investors identified major sectors and proper regions for investment</i>
Government	<i>Learning alliance more effective in pilot models</i> <i>More investment for PH</i> <i>Policy on Agriculture, Farmers and rural development effective</i> <i>Proper policy to encourage NGOs and private sectors involved in PH</i> <i>Well zoning and planning of rice production</i> <i>Policies for linkage among research-production-communication-finance and trade</i> <i>Policies on rural services improved, value chain upgraded</i>
Researchers	<i>Research and extension on PH strengthened</i> <i>Effective use of government 's demand promotion capital for research and production</i> <i>Researchers created appropriate technologies</i>
Extensionists	<i>Intensification of rice production, consultating and technology transfer</i> <i>Organization of production links</i> <i>Extensionist's knowledge/skill improved</i> <i>Improving knowledge/skill for farmers</i> <i>Strengthening information exchange</i> <i>Establishing new production models with financial assistance</i> <i>Dissemination of information</i> <i>Use of mass media, Mass media played important role</i> <i>Study tours</i> <i>Extension workers changed extension methods</i> <i>Establishment of effective models</i> <i>Extension becomes key players</i>
Rice processing factories	<i>To 2014 rice processing systems standardized</i>
Rice Traders	<i>Traders changed their attitude and create confidence to farmers</i> <i>Corporation with farmers</i>

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 5). 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

Actors	Examples	People and/or organizations ...
First users	Extensionists, Government agencies: CTU, AGU, CLRRI, AEC, IEC, DARD	... who directly use project outputs (technology, methods, knowledge)
Final Users	Farmers	... that ultimately benefit
Politically-important Actors	Government agencies: MARD, IPSARD	... whose support is needed for project success
Donor	ADB	... who provide funding
Project Implementer	IRRI, PhilRice, Researchers	... who work on project activities

Notes: CTU: Can Tho University, AGU: An Giang University, CLRRI: Cuu Long Rice Research Institute, AEC: Agricultural Extension Center, IEC: Industrial Extension Center, DARD: Department of Agriculture and Rural Development, MARD: Ministry of Agriculture and Rural Development, IPSARD: Institute for Policy and Strategy for Agriculture and Rural Development, ADB: Asian Development Bank, IRRI, International Rice Research Institute, PhilRice: Philippine Rice Research Institute



Figure 5 (left): Map of the postharvest network drawn by Government agencies group

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 asked to fill a table with actors identified in their network map (see Appendix 5). Appendix 6 shows the groups' current postharvest networks and captures key issues.

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.

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 and to share any suggestions for improvement (see Annex 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_CanTho_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.

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 Southern provinces of Hau river, Mekong Delta of Vietnam

Bolded = Project intervention, normal = project can help facilitate, *italics = beyond the scope of the project*,

Actor (or group of actors)	Change in practice	Change in Knowledge, Attitudes or Skills	Strategies for achieving these changes in KAS and practice?
FARMERS AND AGRICULTURAL COOPERATIVES	- Change in cultural practice, cooperation in production (1,2,3,4) - Application of advanced technology and new PH facilities/machines (1,4) - Improvement of production efficiency, standard produce with trade mark and	- Change in attitude through training on business management (1,2,4) - Good knowledge on PH technology (1,2,3) - Better production management (2,3) - Prestige in linkage and cooperation (3,4)	- Improve knowledge/skill in production (1,2) - Facilitate the better linkage to develop agricultural services (1,2,4) - Build the advanced production model (1) - Develop the information networks on science, technology and market (1,2) - Access to financial sources for

Actor (or group of actors)	Change in practice	Change in Knowledge, Attitudes or Skills	Strategies for achieving these changes in KAS and practice?
	competitiveness (2,4) - Access to domestic and international markets, well response to market mechanism (4)		buying PH machines/equipments (1,2) - Establish the new Agricultural community to bring its products to consumers, become the professional commodity delivery agent (3,4)
GOVERNMENT	- Change vision, provide favorable policies (3,4) - Support for finding market, research and facilitate the farmers, agriculture and rural development policies (1,3) - Expand the land use limit policy (1) - Direct the production towards market economy (1,4) - Improve extension methods (1) - Facilitate the appropriate technology transfer (2) - Establish the pilot model for agricultural production and PH technology (1,2)	- Improve knowledge/skill on PH (1,4) - Strengthen the capacity of government staff (1,2,4) - For farmers and support farmers (3) - Improve knowledge responsive to integration with WTO (4)	- <i>Expand the land use limit (1)</i> - Improve capacity of all stakeholders through training on PH (1,2) - Expand rice market (1) - Strengthen linkages to build the bridge from farmer to market (1,2) <i>- Develop the comprehensive investment policies and establish the complete model for PH (1,2)</i> - Diversify the extension works with concrete projects (2) <i>- Develop favorable policy package (3)</i> - Change their vision, develop strategies suitable for certain regions (4) - Promote cooperative and large farm movement (4)
RESEARCHERS	- New approach in research and application of research findings suitable for production needs (1,2,4) - Training and transfer the new technology and equipments (1,3) - Diversify applied technologies (2) - Expand the international collaboration (4)	- New research approach, new technology, closed link to production reality (1,3) - Well understanding the production need (1) - Understanding the technology chain (2) - Develop the standardized technology process (2) - Improvement of technology transfer capacity/skill to communities (4)	- Improve knowledge/capacity in research and technology transfer towards market demands (1,3,4) - Involve in linkages (1) - Link research to production and market (1) - Consult the government to produce favorable policies to PH development (1) - Access and introduce new technologies for PH development (2,4) - Involve in setting up product standards (equipments, crop products) (2) - Human resources development (2)
CONSULTATIVE GROUPS	- Improve community and socio-economic knowledge (4)	- Support all stakeholders to access to various potential funding sources (4)	- Promote sustainable economic growth and environmental consideration (4)
BUSINESS COMPANIES	- Change in investment attitude and behavior to deal with farmers (1) - Change in market orientation towards high	- Change in management perception and more responsive to farmers and society (1,4)	- More financial and human resource input for PH technology improvement (1) - Involve in agricultural and industrial extension programs

Actor (or group of actors)	Change in practice	Change in Knowledge, Attitudes or Skills	Strategies for achieving these changes in KAS and practice?
	quality products (1,2) - Proper policy to buy farm produces (2) - Reduce production cost and selling performance (2) - Organize distribution networks, buying and selling channels in-country and oversea (3,4) - Sharing profit with producer communities (4)	- ISO, HACCP, Global GAP (2) - Better cooperation between producers and traders (3) - Sharing ideas with communities (4)	towards market economy for farmers (1) - Need assessment and capacity building for farmers to participate into market of agricultural products (2) - Application of advanced technology in PH (2) - Establish the technology transfer-services and supervision model to producers (2) - Develop programs for standard product registration (2) - Cooperate with new agricultural communities to build up the trade mark for their products and organize “made to order” production (3) - Consider farmers as strategic partners and potential stock holders (4)
MANUFACTURERS	- Apply new technology in building agricultural machinery plants and provide good material and equipments (1,2,3)	- Industrialized production of PH machines with high and stable quality (3)	- Change to new technology manufacturing to improve the product values and meet the modern agricultural production demand (3)
AGRICULTURAL SERVICES AGENCIES	- Meet farmers' demands (2) - Response to production demands quantitatively and qualitatively (3)	- Strengthen marketing promotion/advertisement (2) - Improve business service profession effectively (3)	- Organize the agricultural input and output services with high quality (3)
BANKS	- Provide enough capital for farmers (1) - Better loans/credit policies and services (3)	- Implement Government to farmers support programs (3)	- Simplify the procedure for getting loans/credit and provide enough capital for farmers (1) - Establish the “fair relation” between the banks and agricultural communities (3)
DONORS	- Promote ideal models for the wealth of farmers and farming communities (4)	- Disseminate such models among farming communities (4)	- Develop market-oriented strategies for agricultural products and responsible cooperation with producers (3) - Widen linkages and integrate among donors and with other projects in the regions (4)
Notes: (1) Researcher group (2) Government group (3) Private business companies (4) Farmers and farmer cooperatives			

4. Furthering the learning alliance in the region

Then, participants were introduced to the concept of a **Learning Alliance**, which is shown in Figure 6. They understood that the PIPA workshop represented the first stage in planning for a learning alliance.

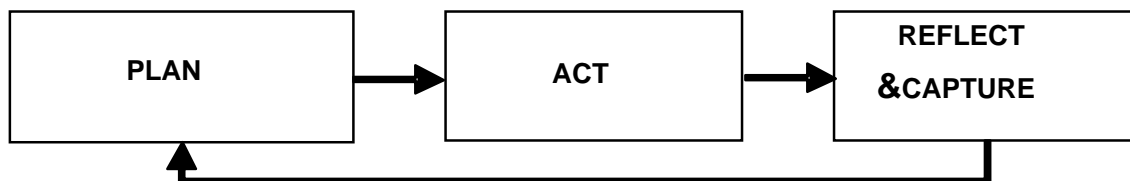


Figure 6: Learning Alliance repeated learning circle

In four groups the participants discussed what a postharvest Learning Alliance in the Philippines might look like using four 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 and 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 Café¹ Session and brought together to populate the Learning Alliance concept for the Southern provinces of Hau river, Mekong River Delta (MRD) (“CanTho region”) 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.

What do we share - Topics?

- *Experience and technical knowledge sharing: suitable rice varieties, good agricultural practice (GAP), good PH management*
- *Training on PH technology*
- *Experience on the formation of New Agricultural Community in Tam Nong district, Dong Thap province*

How do we share our learning?

- *Establishment of Learning Alliance sites, Formulation of farmer groups and Cooperatives for PH, Strengthening the agricultural extension networks*
- *Building close linkage with people organizations (Farmer association, Women Union, Youth Union, ...)*
- *Information sharing and dissemination through email communication, workshops, using Mass media for dissemination of PH technologies, distribution of PH leaflets/posters, training ,...*

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

How do we document our learning?

- *PH information database: Building a PH Website*
- *Leaflets/posters*
- *Video clips*

Who (stakeholders) should participate?

- *Farmers in 7 provinces*
- *Farmer organizations (Agricultural cooperatives, farmer groups)*
- *Tam Nong Agricultural Stock Company, Gentraco, Bui Van Ngo Co.*
- *Business/Enterprises: Rice mill, agricultural machinery manufacturer, Food companies*
- *Government: policy maker, national and local authorities, DARD, AEC*
- *Researchers: College of Agriculture and Applied Biology, College of Technology, MDI (CTU), NLU, An Giang University (AGU), SIAEP*
- *Agricultural services providers*
- *Banks*
- *Saigon Tiếp thị newspaper*

And what is their role?

- *Farmers: directly practice PH technologies for yield loss reduction and better quality products*
- *Business companies: closer link and cooperation with farmers toward benefit sharing and responsible for the final products to customers*
- *Researchers: Find and Create appropriate technologies to provide to farmers and other stakeholders*
- *Government: Create favorable policies and environment*
- *Agricultural services providers: Provision of satisfied services according to farmer's demands*
- *Banks: Financial support*
- *Saigon Tiep Thi newspaper: Promotion of good practices and making linkages*

What action is needed (Next Steps)

- *Lessons learned from this workshop and plan for next steps*
- *Establishment of pilot demonstration of PH technology*
- *Formulation of New Agricultural Communities, first in Tam Nong district, Dong Thap province*
- *Experience sharing seminars, study tours, workshops, PH dissemination through mass media*

Following the training of the regional facilitating team and the national coordinators on participatory methodologies, a discussion on whether they would take on the PIPA and the learning alliance as a mechanism for them to use (e.g. for monitoring and learning) was done.

5. Self assessment, participants contribution to the project

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 7: **Self assessment of participants with respect to what and how they can contribute to the project**). This provides a good starting point the initial activities in the provinces.

Table 7: Self assessment of participants with respect to what and how they can contribute to the project

	Name of Participant	What/How they can contribute to the project
Business Community	Nguyen The Ha (BUI VAN NGO Co.)	Writing investment project proposal to establish the Agricultural Stock Company with farmers involvement, Supplying information about equipments for milling machine
	Tram Tan Thanh (GENTRACO)	Summarizing the existing models
Government Sector	Huynh Hiep Thanh (An Giang)	Organizing study tour and training courses, Implementing project, Propose suitable policies
	Phu Khi Nguyen (Kien Giang)	Member in implementing demonstration plots, Sharing information about Post harvest
	Nguyen Thi Hong Dieu (Can Tho)	Supplying information, pictures about project in the local area
	Vo Xuan Tan (Hau Giang)	Implementing project, Writing reports and news
	Duong Minh Hoang (Soc Trang)	Supplying pictures
	Lam Quang Hien (Soc Trang)	Training, Disseminating good PH models
	Le Huu An (Bac Lieu)	Training and organizing visiting tours
	Nguyen Tran Thuc (Ca Mau)	Writing and transmitting information about the project
	Duong Giai Phong (Tra Vinh)	Supporting project to organize provincial workshop, Member in implementing project in the province
	Nguyen Van Viet (Tra Vinh)	Collecting secondary data about Post harvest
	Bui Van Luong (Dong Thap)	Leading and transmitting solutions to reduce Post harvest loss, specifically, the Tam Nong Agricultural Stock Company
	Le Hoang Nam (Dong Thap)	Establishing cooperative, implementing and transmitting project
	Nguyen Van Thong (Dong Thap)	Managing and implementing project in local area
	Quang Thanh Truong (Dong Thap)	Involvement in the establishment of New agricultural community in Tam Nong, Dong Thap
	Ca Quoc Khanh (Dong Thap)	Participating in visiting tours and training courses
Vo Van Chua (Dong Thap)	Participating in drying rice	
Researcher	Nguyen Ngoc De (CTU)	Research and summarize models, techniques, social – economic model, Facilitate the linkage, Project consultant
	Vu Anh Phap (CTU)	Breeding and selecting new rice varieties that can resist to lodging and suitable cultural practice
	Phan Hieu Hien (NLU)	Member in establishing Learning alliance about Post harvest
	Bui Ngoc Hung (NLU)	Linker for Learning alliance

	Name of Participant	What/How they can contribute to the project
	Pham Van Tan (SIAEP)	Training about Post harvest, Doing surveys about Post harvest models
Farmers	Lam Ngoc Quang (Hau Giang)	Mobilizing farmers to participate on the project
	Nguyen Thanh Tinh (Bac Lieu)	Establishing cooperative, technology about Post harvest
	Doan Van Bau (Kien Giang)	Actively involve in PH development
	Tram Len Su (Soc Trang)	Participating in training and mobilization of farmers on PH technology
	Nguyen Van Trai (Dong Thap)	Joining the Tam Nong Agricultural Stock Company
	Nguyen Son Dang (Can Tho)	Dissemination of PH technology for farmers
Job Firm	Hoang Tuyen (Saigon Tiep Thi Newspaper)	Linking producers and distributors

6. 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

What activities to take	Who will do it	When
1. Finalize regional project proposal	NLU, CTU	Sept.-Oct. 2009
2. Establishment of PH pilot model	AEC of 7 provinces	2010-2014
3. Formulation of PH active team	NLU, CTU ?	?
4. Formulation of New Agricultural Communities	Rural Development Department & Farmer Association of An Giang Tam Nong district, Dong Thap Bui Van Ngo Co. Others partners	2009-2010
5. Training on PH	NLU, CTU, SIAEP and AEC of 7 provinces	March-April 2010-2014
6. Study tours on PH	AEC of 7 provinces	Jan-Feb. 2010-2014
7. Monitoring of PH program	AEC of 7 provinces	
8. Establishment of PH Information Center	Saigon Tiep Thi Newspaper Bui Van Ngo Co. IRRI, NLU, CTU and Learning Alliance	2009-2010
9. Assessment of current PH model	MDI, SIAEF	2010
10. Monitoring & Evaluation workshops	AEC of 7 provinces	Sep.-Oct. 2010-2014
11. Dissemination of good PH model		
12. Policy Advocacy on PH	AEC and Department of Rural Development - An Giang province	2010-2014

7. Workshop monitoring and evaluation

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. *not enough time (11), So many work in a short time (too much pressure) (2), Send workshop document to participant before the workshop though email (1), Need to clarify the opportunity for the local (1), Lacked of participants: people who do agricultural service or process, rice miller, representative of miller or dryer factories (2)*. Some examples of comments on ‘WHAT WORKED WELL’ are *Good organization, focus on specific problems, having good results (9), Profound content (4), Achieved the target (3), Shared too much information and knowledge (3), Ebullient atmosphere, enthusiasm participants (3), Established learning alliances (2)*. For detailed statements see appendix 7.

In the dartboard evaluation overall 82% of the participants’ marks indicated that we have hit the target, top score of 3 for the given criteria and 18% voted for the score of 2, and 0% were marked 1 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.
Countries	China, Thailand and Vietnam	Cambodia, Philippines and Vietnam
Timeframe	5 years, 1-2 year inception phase	5 years with a 1-2 year inception phase 10 years for wide scale impact
Approach	Mainly research Some field trials Multi stakeholder meetings	Outreach to min. of 300,000 of farmers Impact pathway orientation Learning alliance platforms

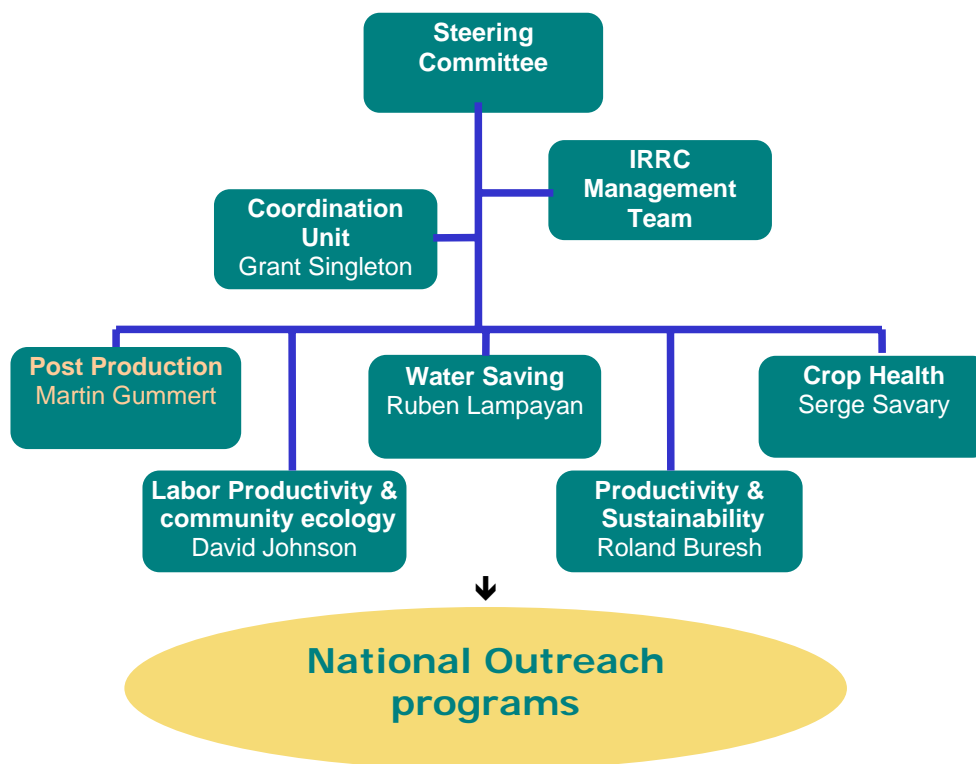
Postharvest sub component of the ADB Reta No. 6489

- **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)

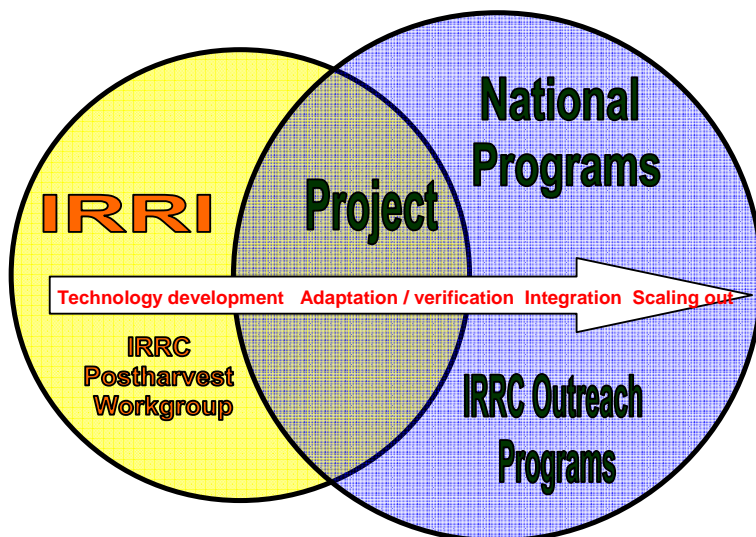
At IRRI we consider the new ADB Reta No. 6489 postharvest component as complementary to the Postproduction Workgroup of the Irrigated Rice Research Consortium (IRRC). The IRRC is a consortium consisting of IRRI and NARES in Southeast Asia working on best agricultural practice in five problem oriented 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 IRRI
- 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 st - 22 nd 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, tavisydney@yahoo.com.au , 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> ducnguyenduy2003@yahoo.com	Nguyen Phu Hoa, PhD, deputy head of the International Relation Department, Aquaculture and Aquatic Resource Mgt., NLU Email: phuhua0203@gmail.com Tel: 08 3896 6946, Cell phone: 0903 946 880 San Tram Anh, MSc, Researcher, SIAEP; tramanhbiotec@gmail.com Cell phone: 0902 855 493
24 th - 25 th Jul.	Nha Trang WS 2	Nong Lam University NLU	Nguyen Le Hung, PhD, Vice Rector, NLU HCMC Mob: +(84) 913768957; Email: lehungn@gmail.com Nguyen Van Xuan, MSc, Director, Centre of Energy and Agricultural Machinery NLU Mob: +(84) 918 002 312; Email: vanxuan310156@gmail.com Bui Ngoc Hung, PhD, Vice Dean, Faculty of Agricultural Engineering & Technology, Nong Lam University, Ho Chi Minh City hungbuingoc@gmail.com Tran Van Khanh, MSc, Lecturer Centre of Energy and Agricultural Machinery NLU Mob: +(84) 903 737 498, Email: tvkhanh1958@yahoo.com.vn Dr. Phan Hieu Hien, Consultant, Nong Lam University, Ho Chi Minh City 091 312 7481 phhien1948@yahoo.com , phhien@hcm.vnn.vn	Truong Thuc Tuyen, Lecturer, Faculty of Food Science & Technology Nong Lam University, HCMC thuctuyen@hcmuaf.edu.vn , thuctuyentruong@gmail.com Nguyen Thi Hong Ngoc, Director, Ideal Agriculture Joint-stock Co.
27 th - 28 th 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) chieuthuy64@yahoo.com Mr. Nguyen Quang Lich, Lecturer, Faculty of Engineering and Technology, HUAF ngqlich@yahoo.com , ngqlich@gmail.com	Ve Ouoc Linh, Department of Engineering and Technology, HUAF
30 th - 31 st 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) tranthimai05@yahoo.com Dr. Nguyen Thi Duong Nga, Lecturer, Faculty of Economics and Rural Development, Hanoi University of Agriculture ngatd@hua.edu.vn , ngantd@gmail.com	Dinh Thi Tam, Vice Head Division of Science, training and International Cooperation, VIAEP dinhthamvn2002@yahoo.com
3 rd -4 th Aug.	Can Tho WS 5	CanTho University CTU	Dr. Nguyen Ngoc De, Mekong Delta Development Research Institute, Can Tho University nnde@ctu.edu.vn Dr. Vu Anh Phap, Mekong Delta Development Research Institute, Can Tho University vaphap@ctu.edu.vn	Le Van Thuy Tien, Librarian Mekong Delta Development Research Institute, Can Tho University lvtien@ctu.edu.vn

Appendix 3: Agenda

Time min.	Description of topic and activity
	<i>Day 1</i>
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
	Day 2
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, 3rd –4th August, CanTho, Vietnam**

No	Name	Designation	Office	Email	Mobile phone
	Group 1: Researchers				
1	Pham Van Tan	Vice director	HCM Mechanical Institute	taviydney@yahoo.com.au	0126 5748560
2	Nguyen Duy Can	Vice director	MDI	ndcan@ctu.edu.vn	0918 670578
3	Le Thanh Duong	Senior Lecturer	MDI	ltduong@ctu.edu.vn	0918 181474
4	Le Thu Thuy	Lecturer	MDI	lethuy@ctu.edu.vn	0919 015501
5	Vu Anh Phap	Lecturer	MDI	vaphap@ctu.edu.vn	0986 000616
6	Huynh Hiep Thanh	Director	An Giang Agricultural Extension	hhthanhknag@vnn.vn	0918 435108
7	Nguyen Van Viet	Vice head of department	Tra Vinh Agricultural Extension	vietkntv@yahoo.com.vn	0918 821254
8	Duong Thai Cong	Dean	Faculty of technology	dtcong@ctu.edu.vn	0913 815945
9	Nguyen The Ha	Advisor	Bui Van Ngo Company	nguyentheha@gmail.com	0918 517963
10	Tran Thanh Be	Director	MDI	ttbe@ctu.edu.vn	0915777860
11	Nguyen Ngoc De	Senior Lecturer	MDI	nnde@ctu.edu.vn	0918246700
12	Ong Huynh Nguyet Anh	Lecturer	MDI	ohnanh@ctu.edu.vn	0903618672
	Group 2: Government agencies				
13	Nguyen Tran Thuc	Vice director	Ca Mau Agricultural and Fishery Extension Center	tranthuckn@yahoo.com	0918 891333
14	Duong Giai Phong	Vice head	Tra Vinh Industrial and Comercial Department	giaiphong007@gmail.com	0982 590909
15	Duong Minh Hoang	Vice director	Soc Trang Agricultural and Fishery Extension Center		0918 351166
16	Phu Khi Nguyen	Vice director	Kien Giang Agricultural and Fishery Extension Center	phukhinguyenkg@yahoo.com.vn	0919 020364
17	Le Huu An	Vice director	Bac Lieu Agricultural and Fishery Extension Center	lehuuan_knbl@yahoo.com.vn	0918 628195
18	Nguyen Thi Kieu	Head	Can Tho Plan Protection	kieubvtv@yahoo.com	0918 707297
19	Vo Xuan Tan	Vice head	Hau Giang Agricultural and Fishery Extension Center	vxttan@gmail.com	0903 199508

No	Name	Designation	Office	Email	Mobile phone
20	Bui van Luong	District party committee secretary	Tam Nong district, Dong Thap province	tamnong@dongthap.gov.vn	0918 055802
21	Le Hoang Nam	Vice chairman	People Committee of Tam Nong district, Dong Thap province	tamnong@dongthap.gov.vn	0913 126515
22	Nguyen Van Thong	Vice head	Tam Nong district, Dong Thap province	Tien 259 emeil.com@.vn	0919 150246
23	Chau Van Bo	Vice head of Administration	People Committee of Tam Nong district, Dong Thap province	tamnong@dongthap.gov.vn	0122 5899917
	Group 3: Private sectors, Business Companies				
24	Nguyen Thi Hong Dieu	Director	Can Tho Agricultural and Fishery Extension Center	hongdieuct@yahoo.com.vn	0974 567801
25	Pham Hoang Thang	Director	Hoang Thang Company	Hoangthangh_px@yahoo.com	0977 395979
26	Tran Tan Thanh		Gentraco Company	Trthanh2009@yahoo.com	0918 406756
27	Bui Phong Luu	Director	Bui Van Ngo Company	buiphongluu@yahoo.com	0903 828847
28	Phan Hieu Hien	Lecturer	Nong Lam University		
29	Bui Ngoc Hung	Lecturer	Nong Lam University		
30	Pham Thi Phan	Lecturer	MDI	ptphan@ctu.edu.vn	
31	Nguyen Thanh Tam	Researcher	MDI	ngttam@ctu.edu.vn	
32	Huynh Nhu Dien	Researcher	MDI	hndien@ctu.edu.vn	
33	Le Xuan Thai	Lecturer	MDI	lxthai@ctu.edu.vn	
34	Truong Thi Anh Dao	Admin officer	MDI	ttadao@ctu.edu.vn	
35	Le Van Thuy Tien	Librian	MDI	lvttien@ctu.edu.vn	
36	Le Canh Dung	Lecturer	MDI	lcdung@ctu.edu.vn	
	Group 4: Farmers and Farmers Cooperatives				
37	Vo Van Chua	Vice Chairman	People Committee of Tam Nong district, Dong Thap province		0913720510
38	Lam Ngoc Quang	Farmer	Vi Thuy district, Hau Giang province		0916470238
39	Nguyen Thanh Tinh	Phu Vinh cooperative	Hoa Binh district, Bac Lieu province		01275820312
40	Doan Van Bau	Chairman	Thanh Hoa cooperative, Chau Thanh district, Kien Giang province		0945436805
41	Tram Len Su	Farmer	Soc Trang province		0984543118
42	Nguyen Van Trai	Tan Cuong	Tam Nong district,		0976605193

No	Name	Designation	Office	Email	Mobile phone
		cooperative	Dong Thap province		
43	Nguyen Son Dang	Farmer	Tan Thoi I cooperative – Can Tho		0918877504
44	Quang Thanh Truong	Head	Tam Nong district, Dong Thap province		0918324699
45	Huynh Thanh Tam	Head	Tam Nong district, Dong Thap province		0913705168
46	Ca Quoc Khanh	Vice head	Tam Nong district, Dong Thap province		0919246346
47	Hoang Tuyen	Journalist	Sai Gon Tiep Thi		0913974161
48	Lam Quang Hien	AEC staff	Soc Trang Agricultural and Rural Development Department		0982828090

Appendix 5: Abbreviations and terms used in the network maps

Acronym	Full Name	Location
Acoop.	Agricultural Cooperative	In each province
ADB	Asian Development Bank	Representative office
AEC	Agricultural Extension Center	In each province
AGU	Angiang University	An Giang province
AMM	Agricultural Machinery manufacturer	In each province
ASP	Agricultural Service providers	In each province
Bank	Banks	In each province
CLRRI	Cuu Long Rice Research Institute	Can Tho city
CTU	Cantho University	Can Tho city
DARD	Department of Agriculture and Rural Development	In each province
FA	Farmer Association	In each province
FAO	Food and Agriculture Organization	Rome, Italy
Farmer	Farmers	In each province
FPEC	Food Processing and Export Company	In each province
IEC	Industrial Extension Center	In each province
IPSARD	Institute for Policy and Strategy for Agriculture and Rural Development	Hanoi and HCM city
IRRI	International Rice Research Institute	Philippines
MARD	Ministry of Agriculture and Rural Development	Hanoi
MM	Middlemen	In each province
MRS	Machinery repair shops	In each province
NGO	Non-Government Organization	Working in Vietnam
NLU	Nong Lam University	HCM city
RM	RiceMill	In each province
Sponsor		
UBND	People's Committee	In each province
UNDP	United Nations Development Program	Working in Vietnam
VIAEP	Vietnam Institute of Agriculture, Energy and Postharvest Technology	HCM city
VINAFOOD II		HCM city
VNAEC	Vietnam Agricultural Extension Center	Hanoi and HCM city
WB	World Bank	Working in Vietnam
WU	Women Union	In each province
YU	Youth Union	In each province

Appendix 6: Current Postharvest networks and vision for necessary changes

Group 1: Researchers



NOW:

- Poor coordination

AFTER 5 YEARS

- Better coordination through Learning alliance

Group 2: Government Agencies



NOW:

- Each province has its own programs

AFTER 5 YEARS

Farmers-Government-Business sectors and Researchers integration

Group 3: Private Sector, Business Companies



NOW:

- Difficult to work together with Farmers

AFTER 5 YEARS

Better understanding between Business companies and their farmers partners

Group 4: Farmers and Farmer Cooperatives



NOW:

- Difficult to work together with business companies

AFTER 5 YEARS

Sharing responsibility and benefit on the common products (quality rice)

Appendix 7: Monitoring and Evaluation of the Workshop

Simplified After Action Review

WHAT TO IMPROVE	WHAT WORKED WELL
<i>Unsuitable time (11)</i>	<i>Good way of organization (2)</i>
<i>Lacked of participants: people who do agricultural service or process, rice miller, representative of miller or dryer factories (2)</i>	<i>Good organization, focus on specific problems, having good results (9)</i>
	<i>Profound content (4)</i>
	<i>Shared too much information and knowledge (3)</i>
<i>Lacked of young and beautiful MC (1)</i>	<i>Established problem tree (1)</i>
<i>Didn't have specific solution for problem tree (1)</i>	<i>Ebullient atmosphere, enthusiasm participants (3)</i>
<i>Need to clarify the opportunity for the local (1)</i>	<i>Achieved the target (3)</i>
	<i>Established learning alliances (2)</i>
<i>Send workshop document to participant before the workshop though email (1)</i>	<i>Suitable time (2)</i>
	<i>Defined impact line (1)</i>
<i>So many work in a short time (too much pressure) (2)</i>	<i>Knew more partners (1)</i>
	<i>Understood more about project's direction (1)</i>
	<i>Good accommodation (1)</i>
	<i>Provided enough document for the workshop (1)</i>
	<i>Easily understandable presentation (1)</i>

(Number in parentheses): Numbers of participants have the same idea

Dartboard Evaluation

<i>Can Tho 3-4 August 2009</i>	1	2	3
<i>1. Clarify project objectives and regional plan</i>	16	2	0
<i>2. Identify key stakeholders and foster ownership</i>	14	4	0
<i>3. Identify project's impact pathways OLM</i>	12	6	0
<i>4. Clarify the LA</i>	18	0	0
<i>5. Venue</i>	16	2	0
<i>6. Organization + Facilitation</i>	14	4	0
<i>7. Methodology PIPA, part. approaches</i>	10	8	0
<i>8. Materials provided</i>	18	0	0

Evaluation wheel

