# Translating Research Findings into Knowledge Accessible to Extension Workers and Farmers

## 12 – 14 November 2012, Bogor, Indonesia

# Writeshop Report

## I. Introduction

The writeshop on translating research findings into knowledge accessible to extension workers and farmers, organized under SATNET, took place from 12 to 14 November 2012 at CAPSA in Bogor, Indonesia. This capacity-building event aimed to improve the existing knowledge gap between research and practice that was also confirmed by the baseline study of SATNET in May-June 2012. The main objective of the writeshop was to enhance the capacity of research organizations to identify the most compelling findings from their work, and package, present and disseminate these findings to the intended audience. While it offered the opportunity to enhance participants' communication skills – by learning to write clearly for a targeted audience and produce tailored knowledge products – it also encouraged sharing of best practices and strengthening the SATNET network. The methodology consisted of the following key elements:

- Conducting a pre-writeshop questionnaire to better understand participants' communication needs to re-fine the agenda.
- Understanding knowledge needs of different audiences through role-playing.
- Hands-on training through practical exercises to improve writing skills, simplify technical or complex issues for end users, and review research papers.
- Sharing experiences and bestpractices in sustainable agriculture.
- Producing technology factsheets based on existing research.
- Conducing a knowledge, attitude, practice (KAP) survey to assess changes after the event.

The programme targeted SATNET participants from Southeast Asia. A total of 19 persons participated in the writeshop, representing the following countries: Cambodia (2), Laos (4), Indonesia (7), Myanmar (4), and the Philippines (2). Out of these participants, 14 represented SATNET's associate organizations, one represented Component 1, two came from the Philippines and one included a staff member from CAPSA.

## II. Programme
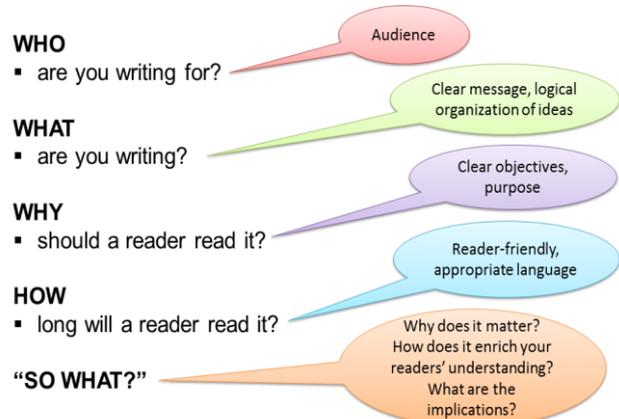
Below is the summary of the writeshop programme.

| Day 1 | Day 2 | Day 3 |
|---|---|---|
| ▪ Welcome | ▪ Review of Day 1 | ▪ Review of Day 2 |
| ▪ Introduction | ▪ Brief presentations of individual research studies | ▪ Preparation of factsheets |
| ▪ Principles of effective communication | ▪ Peer review of individual studies | ▪ Presentation of factsheets |
| ▪ Researchers versus practitioners | ▪ Re-writing the studies based on comments & new skills | ▪ Group review of factsheets |
| ▪ Role playing | ▪ Writing effective summaries | ▪ Reflection |
| ▪ Making complex documents simple | ▪ Organizing ideas to produce knowledge-sharing products | ▪ Evaluation |
| ▪ Reflection | ▪ Identifying key research findings/facts for dissemination through factsheets | ▪ Closing |
| | ▪ Reflection | |

## III. Key learning outcomes

The combination of interactive sessions, practical exercises and individual work on turning research studies into technical factsheets led to a number of learning outcomes.

## Principles of effective communication

During this session, participants learned about reader-centred writing, which refers to writing clear messages for the targeted audience. In particular, they practiced simplifying given text intended for (i) policy makers, and (ii) local NGOs and farmers, by writing short sentences, using simple words, and avoiding clutter (jargon and unnecessary words). Participants were encouraged to use 'WHO, WHAT, WHY, HOW and SO WHAT (as indicated in the figure) to guide them during the writeshop.



**WHO**
- are you writing for?

Audience

**WHAT**
- are you writing?

Clear message, logical organization of ideas

**WHY**
- should a reader read it?

Clear objectives, purpose

**HOW**
- long will a reader read it?

Reader-friendly, appropriate language

**"SO WHAT?"**

Why does it matter? How does it enrich your readers' understanding? What are the implications?

## Research and practice

The session "Where is the problem between research and practices rooted?" addressed key factors creating the gap between research and practice. Mr Oswald Marbun from the Assessment Institute for Agricultural Technology in West Java, under the Indonesian Agency for Agricultural Research and Development (IAARD) enriched the session by sharing Indonesia's experience in addressing this gap and reaching farmers with agricultural technologies.

## Role playing

During a role-playing exercise, participants assumed assigned roles to try to think from different perspectives.In this case, they explored the perspectives of researchers, extensionists (representing the needs of farmers) and policy makers to identify their key knowledge needs and intended actions based on the given evidence.

The three groups read and discussed the content of a given case study – the experience of mini-hatcheries in Bangladesh. Researchers focused on the following: "What do we want policy makers and farmers to know?" Policy makers discussed:"What evidence do we need that could feed into long-term policy?"Extensionists focused on: "What do we need to know from these findings that can make a difference in the lives of farmers?"



The three groups eventually got together to discuss the research findings and their specific knowledge needs as a basis for action. The participants managed to internalize their assumed roles and understood that when writing, they need to think about sending clear and targeted messages to the audience they are trying to influence or reach. They also realized that in order to put research findings into practice and to have a large impact, they need a dialogue and consensus with all stakeholders involved.

## Making complex documents simple

The outcome of this session was learning about how to deal with clutter. In writing, clutter usually refers to unnecessary words, roundabout constructions and meaningless jargon – special language used in business, science, government and development work that tries to make the message and its sender seem important by using long, impressive words. To deal with clutter, the participants were introduced to 'Plain English' that gets its meaning across clearly and concisely to its intended audience (Plain English Campaign 2007, www.plainenglish.co.uk). In particular, they learned to write from the readers' point of view (WHO, WHAT, HOW LONG, WHY, SO WHAT?), keeping sentences short, using active writing, turning nominalizations (words formed from verbs) into verbs, choosing simple words, using lists where appropriate and avoiding unnecessary words.

## Writing effective summaries

During this session, participants learned to identify key messages in long and complex texts and translate this into a compact presentation of a large number of ideas. While processing this information, they learned to be as concise, accurate and objective as possible. Some of the knowledge products in which they will be able to use these skills include abstracts, conclusions, executive summaries, factsheets, posters and standfirsts (leads) in stories. While practicing writing their own summaries, they followed six steps:
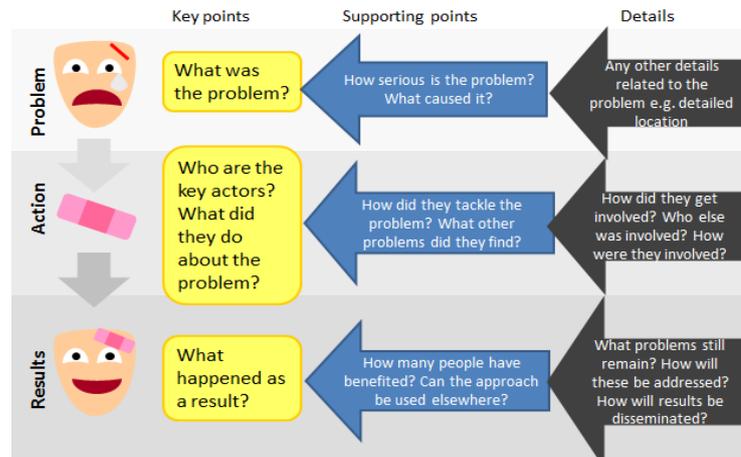


*Source: Paul Mundy*

1. Get to know the material you will summarize, take time to become comfortable with it.
2. Read and review it repeatedly, breaking down the material into sections.  It is often helpful to summarize smaller sections as you go (mini-summaries or sub-headings).  These sections can help you better understand the material.
3. Think about the paper's structure, its key points, supporting points, and details. Then prioritize the information.
4. Decide what to include, and how much of it, based on how much space you have to construct the summary.  Always choose to include the main points.  If you have space, you can present supporting points.  If even more space is available, you might include some details.
5. Use the notes and "mini-summaries" (rather than the original text) that you constructed during the second step.  This will make it easier to put the points into your own words.
6. Check your summary against the original for accuracy. You might also use this review to check for subjectivity and remove it.

The abovefigure was used to help participants prioritize information in terms of problem, action, result and work backwards – from a large amount of data and information available, to a summary.

## Organizing ideas to produce knowledge-sharing products

The summarizing activity led directly into the introduction to knowledge-sharing products, which provided more tips on how to organize ideas more effectively. The participants learned about the differences between inductive and deductive writing. While inductive writing implies writing from general to specific – presenting data first, developing the main points and arriving to the conclusion, deductive writing implies moving from specific to general – start with the conclusion, give the main points and end with supporting examples and evidence. Participants will be able to apply the skills learned during this session to produce success stories/case studies, proposals, executive summaries, abstracts, policy briefs and factsheets.

## Factsheets

Factsheets were used as an example of deductive writing. They come on a single sheet of paper and list important facts about an issue usually aiming to get the reader's attention to take action.  Before starting to produce factsheets, participants understood that they need to ask themselves some key questions:

- What message do you want the facts to convey?
- Who is going to read it?
- Why do you want them to read it?
- So what? How does it matter?

Participants appreciated learning some practical steps on how to make a factsheet and things to avoid such as overdoing percentages, stretching the truth, using unscientific surveys and being repetitive. They were encouraged to keep in mind that factsheets should come on maximum two pages. They should include the main facts that speak for themselves and that they need to verify to ensure that the facts come from reputable sources. The factsheet should be readable with appropriate font and lists. It is important to keep the most important information rather than getting lost in details. The factsheet must be self-contained without referring to previous documents assuming that readers would remember the information. Finally, factsheets should provide readers all the information they need to take action such as references and contacts.



**Technology factsheets**

All the learning outcomes led to the production of technology factsheets based on the research papers that each participant brought to the writeshop. While most of them worked individually, some preferred working in groups. Simone Kathrin Kriesemer from the Food Security Centre, University of Hohenheim, one of SATNET's key partners, presented the structure of the technology factsheets to be disseminated through the project (see Annex 2).

Participants followed the structure and prepared 13 factsheets listed belowwhich were then peer reviewed and ranked in terms of presented evidence, conciseness, completeness, language and visual aspects. Four of these factsheets (in bold) were ranked as the best ones and received a prize:

- **Determining the efficient level of nitrogen fertilizer for rice varieties in Indonesia**
- **System of rice intensification in Cambodia**
- **Sustainable and mobile fish drier to be introduced in Cambodia and Laos**
- **Planting soybean on forestland in Indonesia**
- Strengthening rice organic agricultural production in Laos
- Mukibat grafting system in cassava production in Indonesia
- Quick drying equipment for cooperatives of soybean seeds growers in Indonesia
- Low cost and maximizing profit summer rice production in delta area of Myanmar
- Farmers-led quality product promotion of sesame in Myanmar
- Improved Kharif Paddy Production System in India (based on the paper received through the first call for applications for best practices in sustainable agriculture)
- Biofertilizer containing selected beneficial micro-organisms to increase rice productivity in Sri Lanka (based on the paper received through the first call for applications for best practices in sustainable agriculture)
- Enhancing shelf life of lanzones fruits in the Philippines
- Vermicompost and vermimeal for fish culture in the Philippines

All factsheets will be screened by FSC and further information might be sought to complete them. Final technology factsheets will be published through the SATNET website.

## Annex 1: Writeshop evaluation and KAP survey

Eighteen participants completed the writeshop evaluation questionnaire. This section presents a summary of the evaluation report.

### I. General feedback

**Expectations**
The majority of participants (56%) indicated that the writeshop met their expectations to a large extent. For six (33%) and two (17%) participants the expectations were met to very large and moderate extent respectively.

**Usefulness and quality of the writeshop**
The three sessions that most participants evaluated as excellent in terms of usefulness and quality included: role playing between researchers, extensionists and policy makers (61%), principles of effective communication (50%) and writing effective summaries (50%). Other sessions marked by most participants as 'good' in terms of usefulness and quality included: working on individual research cases (72%), organizing ideas to produce knowledge-sharing products (61%), making complex documents simple (56%), and problems between researchers and practitioners (56%).In terms of processes such as agenda and flow, knowledge sharing, facilitation and feedback, as well as logistics, most participants ranked them as 'good'. Overall, the majority of participants (67%) ranked the writeshop as good and five (28%) as excellent.

> "Write to express, not to impress – intelligence is not demonstrated by the complicated words you use. It is in making others understand what you are saying," said Mara Shyn M. Valdeabella, participant from the Philippines

**Aspects to be improved in the future**
Seven out of 18 participants indicated insufficient time allocated for different sessions as a key constraint. This includes insufficient time to work on individual cases, hear people's best practices and success stories, practice writing and use participants as facilitators. Another constraint related to Skype meetings. There was a feeling that Skype conversations and presentations should be avoided in future because of problems with the sound system. In case such presentations do take place, it would help to see the presenter. Other aspects to be improved related to the possibility of including sessions on improving verbal communication andidentifying relevant material on technologies, working on a single case rather than on many different cases, involving more facilitatorsto follow each participant more often, using even more real examples of gaps between researchers and practitioners, and providing more explanation on the structure of factsheets.

### II. Knowledge, attitude, practice

This section is a basis for evaluating changes in knowledge, attitude and practice of trainees over time. Another such evaluation will be conducted after six or twelve months following the writeshop.

**Key learning being taken away from the writeshop**
The three key areas in which participants felt that they learned most included: effective communication (clear, simple, jargonless communication that gets its message across), writing effective summaries, and writing and using factsheets to transfer research findings.

> "Simple sentence is the best way to express our idea (research result). The easier it is for readers to understand, the more successful we are to disseminate our technologies," Zuziana Susanti, participant from Indonesia, pointed out.

**Changes/improvements to be made as a result of the writeshop**
Participants indicated some planned changes or improvements that they are willing to make in their work as a result of the writeshop. Most of these changes related to changing their writing style by focusing on more reader-centred communication, and producing more effective summaries by making them more simple, focused and brief. Other related to improving written products on technical matters such as factsheets, training others in writing targeted products, ensuring that researchers and grassroots people meet to discuss research findings/needs, improving English and communication in general.

**Ability to use new knowledge and skills**
All participants indicated that they will be able to use these new practices and skills in their work. About 44% of participants indicated they will be able to use most of the new knowledge and skills, 34% will be able to use it all and 22% will be able to use about half.In particular, participants mostly indicated the following specific knowledge and skills that they will apply in practice:

- Writing clear, simple and understandable research findings from different point of view.
- Using reader-centred writing, power of verbs and de-cluttering.
- Simplifying sentences.
- Producing and using factsheets for internal and external communication.
- Producing effective summaries.
- Using information from a case study to produce a factsheet.
- Being able to identify key points/messages.
- Using presentation, decision-making and problem solving skills used in the writeshop.

**Understanding the writeshop content**
Fourteen out of 18 participants (78%) indicated that they fully understood the writeshop content. Four participants did not fully understand the content because of the following reasons:

- Language problem.
- Factsheets for different audiences required more explanation.
- The given factsheet template is very technical.

**Training others**
Thirteen participants indicated that they will train others following the writeshop. In particular, most of them are planning to train their organization's staff and colleagues. Others envision training their partners (mostly NGOs), junior researchers, information officers and extension team leaders and workers. Those who are not planning to train others indicated that they are willing to share their knowledge and experiences gained during the writeshop with their colleagues in any case.

This evaluation will be taken into consideration when designing other writeshops in the future. The KAP part of the evaluation will serve as a basis for evaluating changes in knowledge, attitude and practice of trainees after six or twelve months following the writeshop.

## Annex 2: Template for technology factsheets to be disseminated through SATNET

| | |
|---|---|
| **Name of the technology** | |
| **Description:**<br>    What is the technology? What is the purpose of the technology? *Please briefly describe the technology. If the technology is composed of separable modules, please also name and describe each module.*<br><br>    Summary of key aspects provided below<br><br>    Photos of technology (e.g. in operation) | |
| **Table of contents**<br>  &bull;  **Technical details**<br>  &bull;  **History**<br>  &bull;  **Context**<br>  &bull;  **Typical adopters**<br>  &bull;  **Technological aspects**<br>  &bull;  **Economic aspects**<br>  &bull;  **Environmental aspects**<br>  &bull;  **Social aspects**<br>  &bull;  **Possible issues for replication**<br>  &bull;  **Composite sustainability indicator**<br>  &bull;  **Contacts**<br>  &bull;  **Related topics**<br>  &bull;  **References**<br>  &bull;  **Useful links** | |
| **History of technology**: How was it developed? How did it spread? | |
| **Context** where the technology works well. *Please describe the geography, topography, climatic conditions, soil conditions, water sources and availability, access to roads and markets or any other relevant information that isa key component of the current success of the technology.* Name the country from which you are reporting the technology. | |
| Typical successful **adopters**? *Please describe the key characteristics that distinguish successful adopters from non-adopters and from unsuccessful adopters.* | |
| **Technological aspects** | |
| What does it consist of? How does it work? What is needed?<br><br>Photos of technological details, technical drawings, | |
| Specification of one production unit and production cycle:<br>    What is the production unit you are referring to for the technology?*(E.g. per hectare, per production unit consisting of 50 chicken, per cow, etc.) Please provide all further information such as gross value and variable costs etc. referring to the production unit that you define here.* | |
|     What is the time frame of a production cycle? *How long does one production cycle take? (e.g. 5 months)* | |
|     How many production cycles can be operated in one year? *Example 1: the technology produces year round, if one production cycle takes 5 months (see 5.3), there are 2.4 production cycles in a year.*<br>*Example 2: the technology is dependent on seasons and therefore takes place only once a year.*<br>*Example 3: the technology is dependent on seasons but 2 cycles can be produced during the suitable months* | |
| Initial investment cost for one production unit*(as defined above). Please indicate local currency.* | |
| Expected life cycle of technology: How long do adopters expect to use the technology before it might break or be out of date, if applicable? *Please indicate the expected life cycle of technology (in* | |

| | |
|---|---|
| *months). Provide a rough estimation when no information or experience is available.* | |
| **Economic aspects:** | |
| Gross margin = gross value – variable costs (for a defined reference base) | |
| What gross value (total sales) can be achieved per unit during one production cycle (as described above)? *(Please indicate local currency)* | |
| What are the variable production costs per unit during one production cycle (as described above)? *(Please indicate local currency)* | |
| Work load/ time requirements to operate the technology: How much time do adopters spend? Please state the number of working hours (household and non-household) required to operate one unit during one production cycle *(as described above)* | |
| **Environmental aspects:** | |
| How much water (in $m^3$) is used to operate one unit during one production cycle *(as defined above)*? (1 $m^3$ = 1000 liters) | |
| How much energy (in kWh) is used to operate one unit during one production cycle *(as defined above)*? | |
| Autarky: Total share (in %) of inputs needed to operate one unit during one production cycle (see above) that comes from outside the community? | |
| Recycling: Total share (in %) of inputs needed to operate one unit during one production cycle (see (see above) that are by-products of other farming activities? *What share of the inputs is recycled from other farming activities?* | |
| **Social aspects:** | |
| Employment aspect: How many persons (household members and employed persons from outside the household) are involved in the production process of one unit and production cycle (see above*)*? | |
| Gender aspect: What is the share (in %) of women adopting the technology? | |
| Land ownership: How much agricultural land must be owned or rented at minimum (in $m^2$) to be able to operate the technology? (1 $m^2$ = 10.764 square feet = 1.196 square yards, 1 square foot = 0.0929 $m^2$) | |
| **Possible issues for replication** | |
| **Composite sustainability indicator** *(to be calculated by FSC)* | |
| **Name and contact details of expert(s)** | |
| **Related topics** | |
| **References** | |
| **Useful links** | |