



A practical guide for rural electrification trainers and facilitators

Village Management Team Training Manual

Writing Team:

Amalia Suryani, Robert Schultz, Erwina Darmajanti, Atiek Puspa Fadhilah, Masri J. Vani, Akbar Ario Digdo, Agustinus Wijayanto, Langgeng Arief Utomo, Dwiati Novita Rini

Energising Development (EnDev) Indonesia, 2014



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DIREKTORAT JENDERAL
ENERGI BARU, TERBARUKAN
DAN KONSERVASI ENERGI

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Preface

“Conservation and rural-life policies are really two sides of the same policy; and down at bottom this policy rests upon the fundamental law that neither man nor nation can prosper unless, in dealing with the present, thought is steadily taken for the future” – Theodore Roosevelt

Sustainable development activities in rural area often focus on the utilisation of natural resources, which are directly connected with communities. Natural resources are a community’s “safety net” and are critical to their livelihood. It therefore stands to reason that rural development can only occur if social aspirations and natural resource opportunities (and limitations) are addressed in an interwoven, holistic manner.

Rural electrification using renewable energy sources has become an important part of sustainable development in rural areas. Access to modern energy opens new hitherto untapped potentials, both socially and economically.

As it is with all potential though, it needs to be harnessed and groomed with care and often coerced into fruition through patience and consistent action.

This manual is a tool. It was formulated, based on several years of experience in Indonesia, and compiled to be user-friendly as well as comprehensive. This tool has one singular objective: to provide rural facilitators and VMT members with the means to conduct their challenging tasks. May it serve you well.

EnDev Indonesia

Ing ngarsa sung tulada

Di depan, seorang guru memberi teladan

In front, a teacher sets examples

Ing madya mangun karsa

Di tengah-tengah, seorang guru menciptakan prakarsa dan ide

In the middle, a teacher creates initiatives and ideas




Tut wuri handayani

Dari belakang, seorang guru memberikan dorongan dan arahan

From the back, a teacher provides encouragement and direction

[Ki Hajar Dewantara, Indonesian education figure]

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TOT Training	A	B	C
VMT Training			C

Glossary and Abbreviation

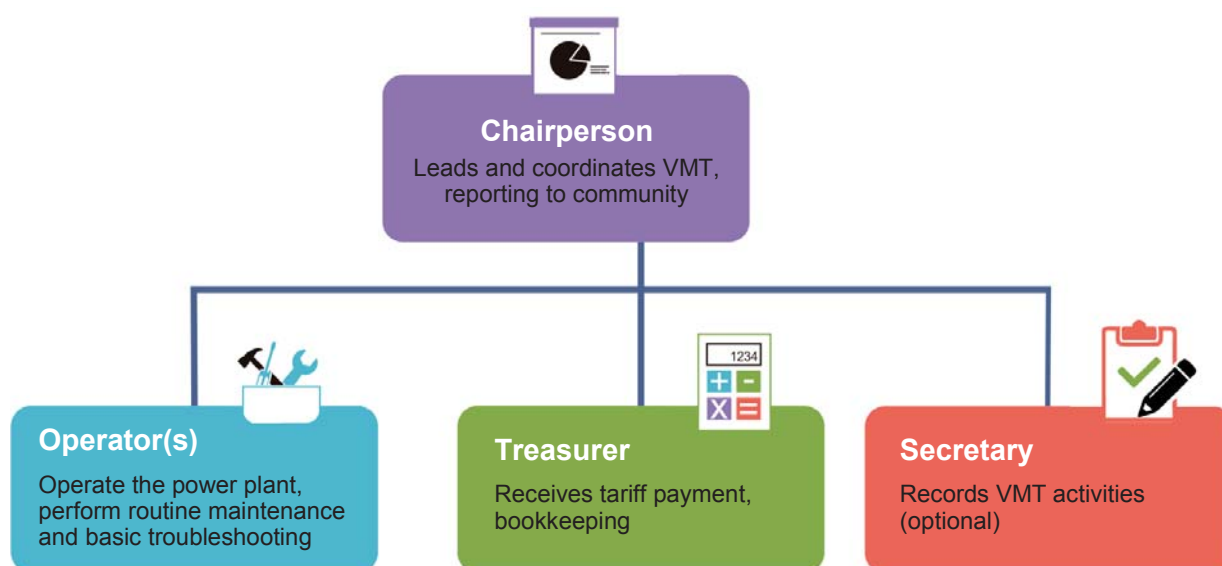
Danida	Danish International Development Agency
EnDev	Energising Development, an international programme implemented by GIZ in over 20 countries, to increase communities' access to modern energy, facilitates energy access to households, social institutions and small and medium-sized enterprises in developing countries in Africa, Asia and Latin America
Facilitator	A person in a position of mentoring, teaching and training persons through a participatory and interactive approach
FGD	Focus Group Discussion, a dedicated information exchange platform and activity, involving several different stakeholders, with common interests
GIZ	<i>The Deutsche Gesellschaft für Internationale Zusammenarbeit</i> , an international agency, based in Germany, implementing development programmes internationally
LCD	Liquid-crystal display
LMP	<i>Lingkungan Mandiri Perdesaan</i> , is a green or environment component of PNPM
MHP	Micro Hydro Power, generally range from 5 to 200 kW capacity (the Indonesian term is <i>Pembangkit Listrik Tenaga Mikro Hidro</i>)
NRM	Natural Resources Management, a science of different approaches to promote efficient, effective and accountable exploitation of natural resources
PMD	<i>Direktorat Jenderal Pemberdayaan Masyarakat dan Desa</i> , is a government directorate, under the Indonesian Ministry of Home Affairs, overseeing PNPM
PNPM	<i>Program Nasional Pemberdayaan Masyarakat</i> , is a national programme on community empowerment
Ppt	PowerPoint® presentation is a software used to compile and edit presentation
PSDA	Pengelolaan Sumber Daya Alam (Natural Resource Management)
PUE	Productive Use of Energy/Electricity; within this manual, PUE is defined as a small-scale activity, using a renewable energy-based electric energy source for providing a service or adding value to a product in order to sell the product and/or service to a willing market
Q and A	Questions and Answers
RE	Renewable Energy or in other context could also be Rural Electrification
SMG	Solar Mini-Grid, is using photo voltaic technology generally range from 5 to 150 kW capacity (the Indonesian term is <i>Pembangkit Listrik Tenaga Surya</i>)

TOT	Training of Trainers is a training approach specifically catering for trainers/ facilitators who subsequently train end beneficiaries
VMT	Village Management Team, is a small organization in the village whose responsibilities are to operate and maintain MHP and SMG; VMT can be formal or informal
VPS	Village Power Systems
YAPEKA	<i>Pemberdayaan Masyarakat dan Pendidikan Konservasi Alam</i> is an NGO working on natural conservation education and community empowerment

What is a VMT?

Village Management Team (VMT) is a community organization whose responsibilities are to operate, maintain, manage and administer electricity provision to their village through an MHP and/or SMG. VMT members are elected or appointed by the community and report to the community.

A typical structure for a VMT is shown in the diagram below.





INTRODUCTION

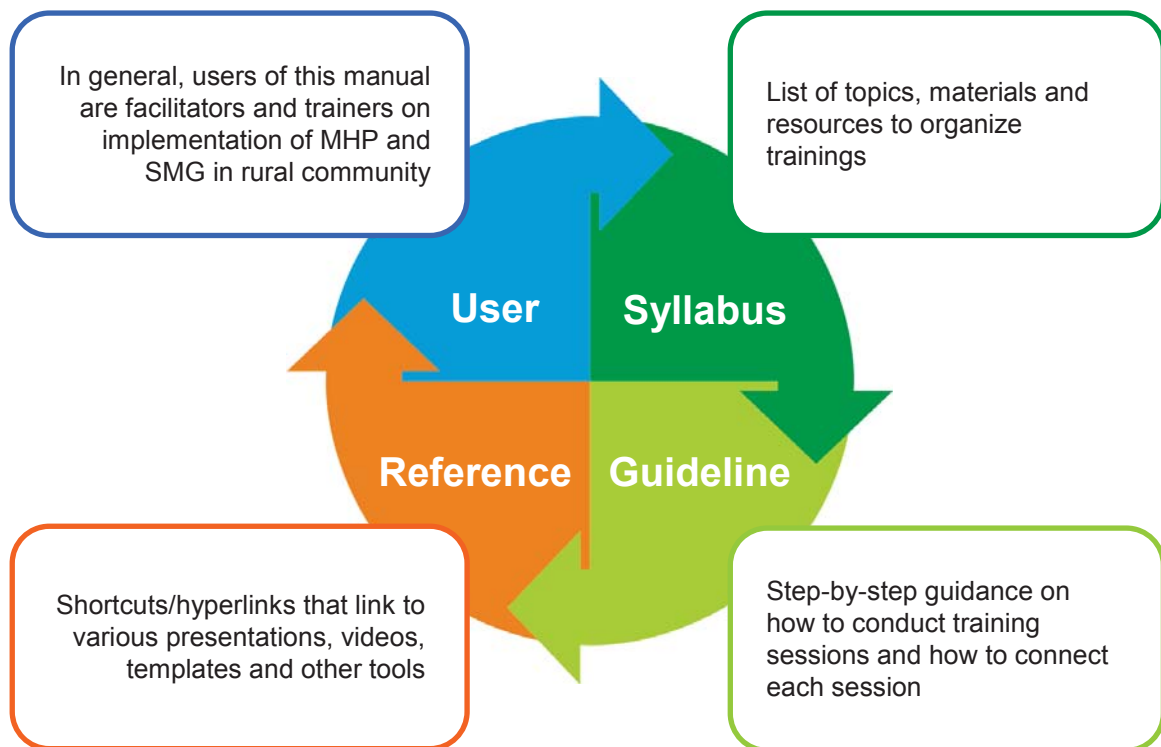
1 About The Manual

“Tell me and I forget, teach me and I may remember, involve me and I learn.” — Benjamin Franklin

This is a practical manual for facilitators and trainers on how to establish and capacitate a community VMT to maintain and manage a micro power generation plant and rural mini-grid.

The manual comprises two sets of training materials:

1. **Module A and B:** Training of Trainers (TOT) materials for facilitators and trainers, suitable for improving training and facilitation skills.
2. **Module C:** VMT training materials to be used by facilitators and trainers for providing essential knowledge and tools to VMT members.



Pre-condition:

Participants should have a basic understanding of natural resource management and renewable energy technologies and have some experience in facilitating rural community activities regarding natural resources management and managing MHP and SMG infrastructure.

Time required:

Ideally the training will require four (4) full days, including field visit (if feasible). A sample of itinerary is included in this manual.

Resource person(s):

Experienced facilitators and other experts as required.

Expected results of TOT training:

Participants are able to:

1. Recognize and understand facilitation philosophy and skills in the context of natural resources management and renewable energy.
2. Understand the key elements of successful learning sessions in classroom and under field conditions.
3. Demonstrate skills to undertake participatory social and ecological mapping.
4. Understand the contents of VMT training materials.
5. Be able to deliver training to VMT members.

Expected results of VMT training:

Participants are able to:

1. Understand the basic technical functionality and requirements of an MHP or SMG in order to operate, maintain, and conduct simple troubleshooting.
2. Demonstrate skills necessary to effectively manage and administer village-based electrification through an MHP or SMG (organizational structure, roles and responsibilities, technical and financial record keeping).
3. Understand how to optimize the performance and sustainability of the MHP or SMG through PUE and other measures.

2 Syllabus Components

*“The best way to learn is to do; the worst way to teach is to talk.”
— Paul Halmos*

There are four (4) components in the training syllabus: training segment, media and tools, activities, and references. It is essential to understand these elements and how to incorporate them to develop VMT training.



TRAINING SEGMENTS are parts of training sessions which typically are divided into four (4) main segments: introduction, main session, assessment and closing.



1 Introduction gives opportunity to warm up and create positive and relaxed atmosphere. This segment also serves to quickly assess the participants' experience, which is useful during next segments and assists to control the pace of the class, and adjust the level of information delivery.

2 Main Session is where actual content is delivered to participants. Knowledge about the participants from previous segment allows to adjusting pace. In this segment the trainer may explore the participant a bit more and ignite sharing opportunities if participants have more knowledge and experience. In long or heavy session (e.g. technical session which provides much detail) it is advisable to make short break or use an icebreaker game, as soon as participants become unresponsive.

3 Assessment is for evaluating whether participants have captured information. A question and answer, quiz, or pre- and post-test methods can be considered.

4 Closing is to wrap up and reinforce the messages. Thanking everybody for their support and participation is also appropriate. This session also serves to address logistical issues and provide a preview for any next sessions.



MEDIA AND TOOLS are essential for making training sessions practical, interactive and entertaining. Adjust and set media and tools according to topic and local circumstances (participants, time allocation, culture, etc.). For example, accessing Internet during training in rural area may not be a good idea because data connection is usually bad. Check presentation, marker, paper, pens, etc. beforehand and make sure everything is running well. Always consider for Plan B, for example make sure electricity generator is available when rely on electrical equipment such as projector and computer.



ACTIVITIES are ideal for delivering or emphasizing particular information and to maintain positive learning environment. As with media and tools, be sensible of local circumstances.



REFERENCES are books, documents or other media required by the trainer (and perhaps by the participant later on) to properly implement the training. Generally these resources are reviewed as part of preparing for the training. They offer valuable confidence to the trainer to deliver training in a knowledgeable and informed manner.

3 Training Syllabus

“The key is not to prioritize what's on your schedule, but to schedule your priorities.”
— Stephen Covey

The syllabus is divided into three main modules:

- Module A for Facilitation and Community Empowerment
- Module B for Village and Rural Community
- Module C for Village Management Team in Rural Electrification

Each module contains specific tools, activities and references required for implementing training segments.

MODULE A

Facilitation and Community Empowerment

MODULE B

Village and Rural Community

Module A and B are designed for participants to improve their facilitation skills within rural context. The implementation of both module A and B should be done by someone who already has good knowledge/skills in rural facilitation.

MODULE C

Village Management Team in Rural Electrification

Module C caters for VMT members and it is presented by the facilitator (who has improved skills through understanding Module A and B). This module provides all the necessary basic information for VMT members to understand their responsibilities and be able to fulfil them.

MODULE A

Facilitation and Community Empowerment

Topic 1: Basics of Facilitation

Topic 2: Facilitation in Community Empowerment Activities

Topic 3: Facilitation in Natural Resources Management and Renewable Energy Activities in Rural Area

 Training Segment	 Media and Tools	 Activities	 References
Introduction <ul style="list-style-type: none"> Brief explanation on the class session Quick assessment through brainstorming 	<ul style="list-style-type: none"> PowerPoint presentation Meta-plan Marker pens (multi colours preferred) Sticky wall/plano paper LCD projector 	<ul style="list-style-type: none"> Program presentation Learning rules Introduction games Brainstorming session: managing expectation (wishes, concerns) using meta-plan 	<ul style="list-style-type: none"> Games list
Main course/ session, focus on: <ul style="list-style-type: none"> A1 Basics of Facilitation A2 Facilitation in Community Empowerment Activities A3 Facilitation in Natural Resources Management and Renewable Energy Activities in Rural Area 	<ul style="list-style-type: none"> PowerPoint presentation (A1, A2, A3) Sticky wall/plano paper Sample movie to develop discussion LCD projector Marker pens (multi colours preferred) Double tape or masking tape 	<ul style="list-style-type: none"> Program presentation Practicing issues of mapping using results from brainstorming session above Role-playing using FGD approach: select 4-6 topics to discuss per groups, preferably topics required by the whole program (will connect to other activities later on) Games: ice breaker, brain gym after 60 minutes. Might need more during "after lunch session" 	<ul style="list-style-type: none"> A1: Basics of Facilitation A2: Facilitation in Community Empowerment Activities A3_ Facilitation in NRM and RE A1_Video_Brain Gym_Hands A3_Video_Green PNPM Best Learning C1_Video_General Information of MHP A2_Seni Memfasilitasi Masyarakat I A2_Seni Memfasilitasi Masyarakat II A2_Seni Memfasilitasi Masyarakat III A3_Buku Panduan Energi Terbarukan I A3_Buku Panduan Energi Terbarukan II A3_Poster_PSDA-DANIDA A3_Booklet_Manual Pelatihan PSDA - DANIDA
Assessment Provide time for Q and A about the topic delivered	<ul style="list-style-type: none"> PowerPoint LCD projector Meta-plan Marker pens (multi colours preferred) 	<ul style="list-style-type: none"> Record Q and A to PowerPoint directly (note taker is recommended) When necessary, participants are allowed to write in meta-plan and give it to facilitator 	
Closing Conclusion from the whole discussion	<ul style="list-style-type: none"> PowerPoint LCD projector 	<ul style="list-style-type: none"> Outlining main ideas from the previous sessions Brief introduction to the next session Extra time is allocated to anticipate participant's condition 	

MODULE B

Village and Rural Community

Topic 1: Village and Its Dynamics

Topic 2: Village as Landscape

Topic 3: Village and Target Group

 Training Segment	 Media and Tools	 Activities	 References
Introduction <ul style="list-style-type: none"> Brief explanation on the class session Quick assessment through brainstorming 	<ul style="list-style-type: none"> PowerPoint presentation Meta-plan Marker pens (multi colours preferred) Sticky wall/plano paper LCD projector Double tape or masking tape 	<ul style="list-style-type: none"> Program presentation Learning rules Introduction games Brainstorming: reviewing previous sessions 	<ul style="list-style-type: none"> Games and icebreaker games list (need to be developed or adapted from other sources. Might need formal request)
Main course/ session, focus on: <ul style="list-style-type: none"> B1 Village and Its Dynamics B2 Village as a Landscape B3 Village and Target Group 	<ul style="list-style-type: none"> PowerPoint presentation (B1, B2, B3) Sticky wall/plano paper Sample movie to develop discussion LCD projector Marker pens (multi colours preferred) Double tape or masking tape Basic map (may use Google Earth or other sources) 	<ul style="list-style-type: none"> Presentation Group division: use games Simulation 1: develop participatory mapping → social-ecological, spatial approach, relevant to the renewable energy issues (indoor) and infrastructure mapping Simulation 2: develop seasonal calendar to provide temporal context to the map Simulation 3: develop simple trend analysis based on relevant issues Group presentation 	<ul style="list-style-type: none"> B1: Village and Its Dynamics B1_UU No 6 Tahun 2014 Desa B1_UU RI No 26 Tahun 2007_Rencana Tata Ruang B1_Village Midterm Development Plan (Could be obtained at the village) B1_Village Statistics (Could be obtained at district office) B1_Village Regulation-environmental and renewable energy issues B2_Village as Landscape B3_Village and Target Group
Assessment Providing time for Q and A about the topic delivered	<ul style="list-style-type: none"> PowerPoint LCD projector Meta-plan Marker pens (multi colours preferred) 	<ul style="list-style-type: none"> Record Q and A to PowerPoint directly (note taker is recommended) When necessary, participants are allowed to write in metaplan and give it to facilitator) 	
Closing Conclusion from the whole discussion	<ul style="list-style-type: none"> PowerPoint LCD projector 	<ul style="list-style-type: none"> Outlining main ideas from the previous sessions Brief introduction to the next session 	

MODULE C

Village Management Team in Rural Electrification

Topic 1: Basics of Village Power Systems

Topic 2: VMT Institutional and Legal Base

Topic 3: Management Aspect



Topic 4: Financial Aspect

Topic 5: Technical Aspect

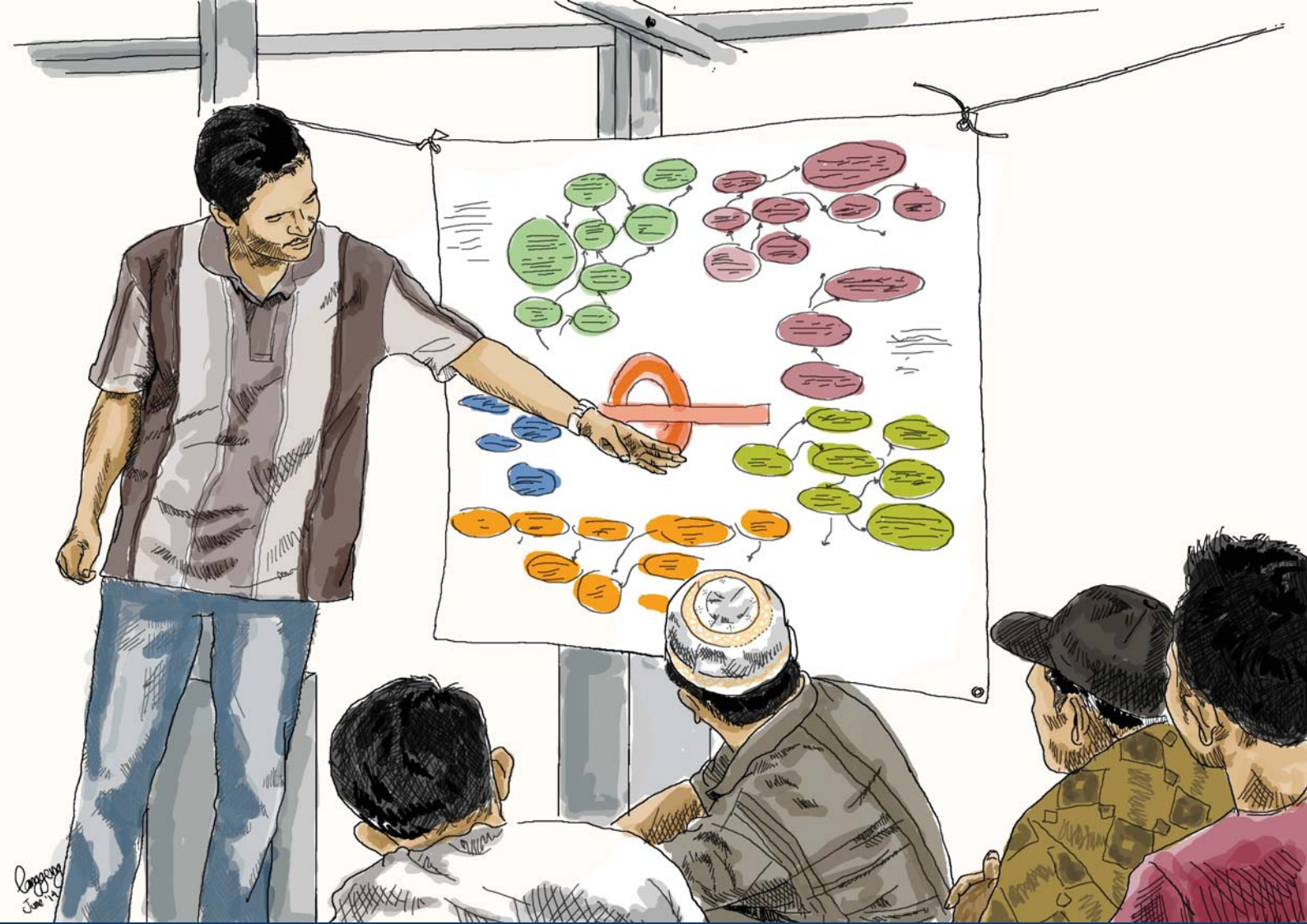
Topic 6: Productive Use of Energy

Topic 7: Environmental Safeguard

Topic 8: Monitoring and Evaluation

 Training Segment	 Media and Tools	 Activities	 References
Introduction <ul style="list-style-type: none"> Brief explanation on the class session Quick assessment through brainstorming 	<ul style="list-style-type: none"> PowerPoint presentation Meta-plan Marker pens (multi colours preferred) Sticky wall/plano paper LCD projector Double tape or masking tape 	<ul style="list-style-type: none"> Program presentation Learning rules Introduction games Brainstorming: reviewing previous sessions 	Games list (need to be developed or adapted from other sources, might need formal request)
Main course/ session, focus on: <ul style="list-style-type: none"> C1 Basic of Village Power Systems C2 VMT Institutional Forms and Legal Base 	<ul style="list-style-type: none"> PowerPoint presentation (C1, C2,) + specific MHP and PVVP Sticky wall/plano paper Sample movie to develop discussion LCD projector, Marker pens (multi colours preferred) Double tape or masking tape 	<ul style="list-style-type: none"> PowerPoint presentation Activity 1: develop roles and responsibility of VMT personnel (indoor) Activity 2: develop the village policy on MHP and SMG management (indoor) Group presentation 	<ul style="list-style-type: none"> C1_Introduction to MHP C1_Introduction to SMG C1_Principles of Electricity Utilization C1_Video_General Information on MHP C2_Legal Aspect of Village Power Systems C2_Video_Institutional Setup C2_Contoh AD ART
SPLIT SESSION: Management <ul style="list-style-type: none"> C3 Management Aspect C4 Financial Aspect 	<ul style="list-style-type: none"> PowerPoint presentation (C3, C4) Sticky wall/plano paper LCD projector, Marker pens (multi colours preferred) Double tape or masking tape 	<ul style="list-style-type: none"> PowerPoint presentation Activity 3: practice to use adminbooks Group presentation (for technical team) at the end of the split session 	<ul style="list-style-type: none"> C3_Institutional Development C3_Secretarial Administration I C3_Secretarial Administration II C3_Poster_VMT C3_Buku Pelanggan C3_Buku Kegiatan C3_Simulation on Capacity C4_Financial Management I C4_Financial Management II C4_Electricity Cost Calculation C4_Electricity Tariff Setting C4_Video_Financial Management C4_Load and Tariff Tool C4_Buku Tarif C4_Buku Kas C4_Contoh Perhitungan Tarif

<p>SPLIT SESSION:</p> <p>Technical</p> <ul style="list-style-type: none"> • C5 Technical Aspect MHP/ SMG • C6 Productive Use of Energy/ Electricity • C7 Environmental Safeguard (specific needs for MHP/SMG) • C8 Monitoring and Evaluation 	<ul style="list-style-type: none"> • PowerPoint presentation (C5) • Sticky wall/plano paper • LCD projector • Marker pens (multi colours preferred) • Double tape or masking tape • Emphasize on MHP or SMG, depends on the need • PowerPoint presentation (C6, C7, C8) • Sticky wall/plano paper • LCD projector • Marker pens (multi colours preferred) • Double tape or masking tape 	<ul style="list-style-type: none"> • PowerPoint presentation • Activity 4: practice use log book • Group presentation (for management team) at the end of the split session • PowerPoint presentation • Activity 5: focus on example of environmental protocol/safeguard issues (indoor) • Activity 6: develop monitoring plan and safeguard plan (annually) 	<ul style="list-style-type: none"> • C5_Technical Aspect of MHP • C5_Technical Aspect of SMG • C5_Poster_Troubleshooting for MHP • C5_Poster_Troubleshooting for SMG • C5_Video_Technical Aspect of MHP • C5_Video_Technical Aspect of SMG • C5_Buku Log PLTMH • C5_Buku Log PLTS • C5_Good and Bad MHP Vol I • C5_Good and Bad MHP Vol II • C5_Pemecahan Permasalahan Turbin Aliran Silang • C6_PUE Introduction of PUE • C6_PUE I Concept of Business Development • C6_II Steps of Business Development • C6_Cooperative Establishment Process • C6_EnDev - PUE Pilot Project • C6_Video_Productive Use of Energy Concept • C6_Video_Productive Use of Energy • C6_Manual_Productive Use of Energy • C7_Environmental Safeguard MHP • C7_Poster_Catchment Area Protection MHP • C7_Pengamanan Sosial dan Lingkungan Hidup PLTMH • C8_SMS Gateway • C8_Poster_SMS Gateway PLTMH • C8_Poster_SMS Gateway PLTS
<p>Assessment</p> <ul style="list-style-type: none"> • Provide time for Q and A about the topic delivered 	<ul style="list-style-type: none"> • PowerPoint • LCD projector • Meta-plan • Marker pen 	<ul style="list-style-type: none"> • Record Q and A to PowerPoint directly (note taker is recommended) • When necessary, participants are allowed to write in meta-plan and give it to facilitator 	<ul style="list-style-type: none"> • C8_Key Performance Indicators Questionnaire
<p>Closing</p> <ul style="list-style-type: none"> • Conclusion from previous discussion 	<ul style="list-style-type: none"> • PowerPoint • LCD projector 	<ul style="list-style-type: none"> • Outlining main ideas from the previous sessions • Brief introduction to the next session (field visit) 	



HOW TO CONDUCT THE TRAINING

4 Training Preparation

“Before anything else, preparation is the key to success.”
— Alexander Graham Bell

Essential preparation ahead of delivering training includes:



Ensuring the suitable time and place of training



Ensuring accommodation of participants and other required logistics, for example meals and transportation



Preparing and distributing invitation to the members of VMT, ensuring their presence in training is confirmed



Preparing materials to be delivered in training



Preparing stationery and other necessary tools in training

Tips! Consider this manual, and all available reference and resource materials in detail, to ensure that you are able to provide this training.

Tips! Games that have key messages are excellent tools for ensuring the participants' attention.

5 Introduction Stage

“Teaching is the highest form of understanding.”
— Aristotle



This stage provides general information about training course. Total length depends on the participants' background. This stage also initiates positive attitude amongst participants. Alternatively, this stage can be integrated directly into the modules as well.

Participants are expected to develop positive relations among themselves, facilitators and trainers during the training, since open communication and information exchange during the training session will improve overall training quality and experience.

Facilitators could adopt the following steps:



Welcome the participants and pay respects for their attendance. To warm up the training atmosphere, ask these questions: Do you already know each other? Is an introduction necessary? Just to recall names of our friends and get to know recently met friends? Have you travelled far?



In a 15 minutes introduction round, participants can be invited to introduce themselves formally or through informal interactive approach like “Reporter Interview” and “Self Comic”. Participants, facilitators and organizers could all be included in establishing communicative and fun atmosphere (see “Various Games”).



Explore the philosophy of the game (see “Various Games”). Ask participant to provide feedback of their impression about the game. Write down their opinion on board. Underline key words and review the purpose and meaning of the game, then link it to the training.



Lastly, give affirmation to the meaning of the game: participants, facilitators and organizer need to know each other. Not just limited to the name, but also the personality and character of each person. Such acquaintance will create a friendly and respectful interaction and productive training.

6 Learning Purpose and Process

“If you can’t explain it simply, you don’t understand it well enough.”

— Albert Einstein



This section emphasizes purpose, expectation, and method that will be implemented during the training. Participants focus and contribute actively in the process.

After facilitator explains the purpose and process of learning, participants should be able to explain the purpose and process of training correctly and set expectations and concerns more realistically.

Facilitator could adopt the following steps:

Description
(5 minutes)

Provide description of the flow of training process that includes subject matter and objectives, delivery methods or techniques used, and the length of time required for discussion of each material.

List of Expectations
(15 minutes)

Develop list of participant expectation and concern. Ask participants to fill one meta-plan paper with one expectation. Collect all of these papers and start to group by putting it into larger plano paper.

Brief Explanation
(5 minutes)

Give a brief explanation of adult training methodologies. In principle, it requires that all participants are expected to be actively involved throughout the discussion process. This is thus not a passive learning through absorption, but learning through sharing.

Purpose of Training
(10 minutes)

After training methodology, expectation and concern are understood, explain the purpose of training, which is: to improve the participants’ facilitation skill and skill of VMT, including its institutional development as MHP/SMG manager.

7 Organizing Class

*“We build too many walls and not enough bridges.”
— Isaac Newton*



After both facilitators and participants have an agreement on class organization and learning rules, the participant is expected to be able to:

- Select a class manager who will organize the participant’s needs during learning process
- Establish order, learning schedule, and duty schedule which will help the process of learning.

Facilitators could adopt the following steps:



Select and choose a class committee



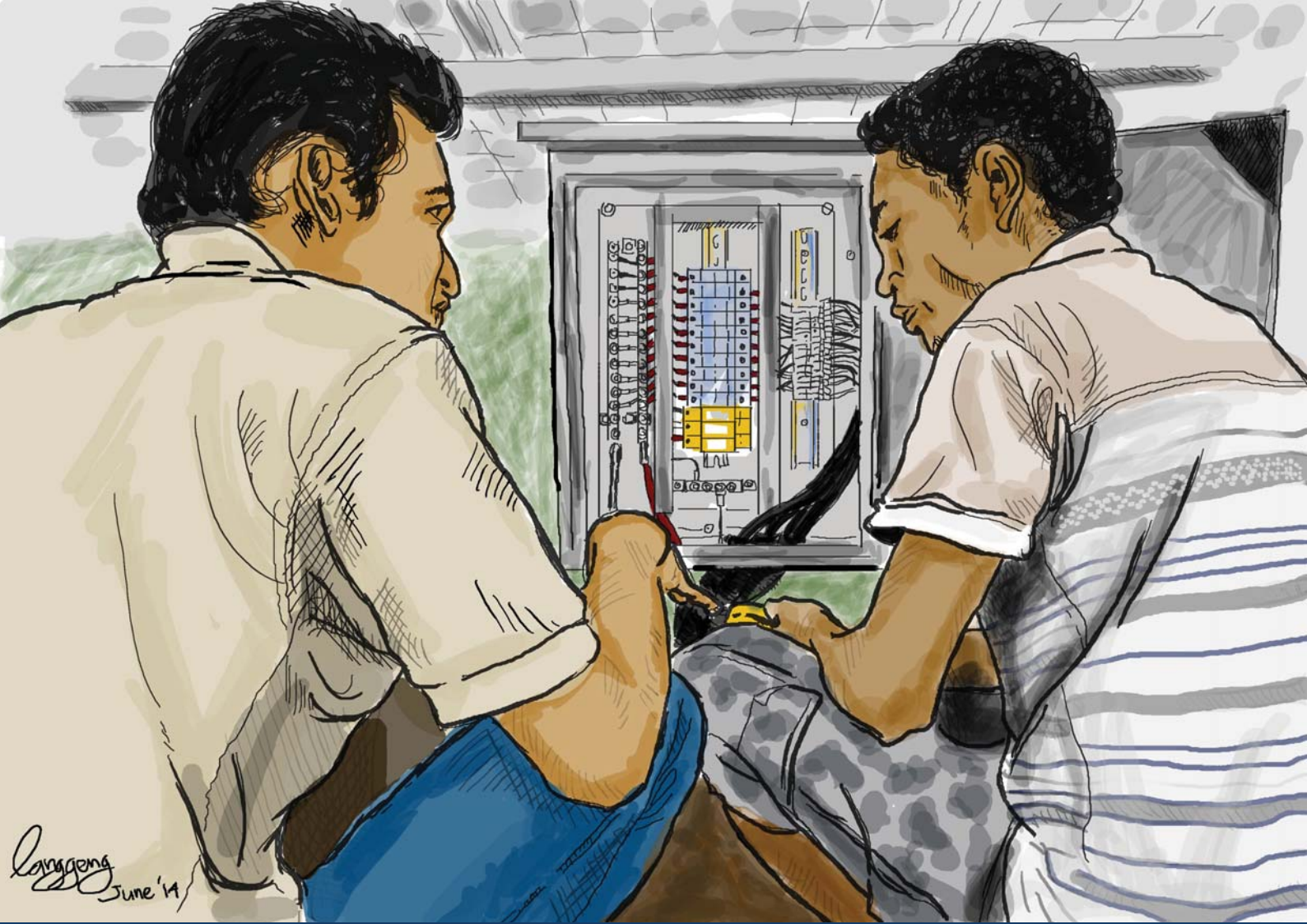
Suggest and determine class rules



Confirmation of committee and rules by all participants

Tips!

- Allocate time for a simple test in the beginning (pre-test) and the end of each module (post-test). Use the same set of exercise format to compare result.
- Organize class notes and activity results. It will be useful when we are organizing a work plan.
- Develop a follow-up plan for things to be completed beyond the training session. In a follow-up plan, the elements that should be covered are:
 - What needs to be done?
 - When they need to be completed?
 - Who will be in charge for specific action?



MODULES

8 Modules

“Tell me and I forget, teach me and I may remember, involve me and I learn.”
— Benjamin Franklin

GENERAL DIRECTION ON SYMBOLS:



Time duration of training session process (in minutes)



Hyperlink button directly to the associate file(s)



Available in video file format



Google Earth

Participants need to know the philosophy and benefit of facilitation to implement community empowerment activities well in the field. Participants' ability and knowledge in facilitating processes in community are important to guide them before they engage a rural community.

Learning outcome: Participants understand basic facilitation techniques, to philosophy behind facilitation and the benefits of facilitation.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purpose and expected outcomes of the subject
<p>Main Session (20 minutes)</p>	<ul style="list-style-type: none"> • Present material on "Basics of Facilitation" which relates to participant's prior knowledge • Give a chance to participants to give opinion about the topic discussed • See training syllabus (Chapter 3)
<p>Assessment (5 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants' understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

After participants have basic understanding of facilitation, they need to know the facilitation techniques suitable for community empowerment in general, and for VMT members specifically. Participant should be sensitive to village conditions and able to offer solutions to challenges in the community regarding natural resource management and renewable energy.

Learning outcome: Participants understand how to facilitate for VMT members, in the context of nature resources management and renewable energy.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (30 minutes)</p>	<ul style="list-style-type: none"> • Present the material on "Facilitation in Community Empowerment Activities" which relates with participant's prior knowledge • Give a chance to participants to give opinion about the topic discussed • See training syllabus (Chapter 3)
<p>Assessment (5 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants' understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

Tips! Basic attitude of successful facilitators

There are five basic rules of facilitation. These are essential for successful facilitation, both in a class and in a real environment. Each of the rules can be trained and strengthened by simulation, role-playing and interactive discussion. These rules are:

- Enthusiasm (to instil eagerness in accepting new knowledge)
- Empathy (to reflect respect and understanding of challenges)
- Positive thinking (to ensure that confidence is built in applying new knowledge)
- Trust within the group (to encourage open sharing)
- Simple approach to community (to avoid over complicating new knowledge)

Tips! Why are facilitators needed?

- Community facilitation often becomes the focal point of rural development processes. Facilitators are key components to integrate technical aspect of development program and the community component. They will somehow “calibrate” both components to maintain development momentum.
- A facilitator is a partner for community to discuss issues related to his/her scope of work. He/she also becomes key contact of knowledge sharing within community. A facilitator needs to be able to address and engage rural community, characterized by its diversity (ecologically, socially, culturally and economically).
- Facilitator is an agent of change. He/she needs to address changes driven by development as well as to maintain momentum of community empowerment and track/anticipate its direction.

Participants' ability in providing training on management will be developed. Facilitation is the process through which a community learns to manage its natural resources and renewable energy technology. To provide good management training classes, participants need plenty of exercise. Exchange of experiences among participants will also significantly develop their facilitation skill as rural facilitation has unique aspects.

Learning outcome: Participants are able to facilitate natural resources management and renewable energy activities in rural context.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (30 minutes)</p>	<ul style="list-style-type: none"> • Present the material on “Facilitation in Natural Resources Management and Renewable Energy Activities in Rural Area” • Games and movie important to develop session • See training syllabus (Chapter 3)
<p>Assessment (5 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants' understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

In this session, participants need to be aware that knowledge about village and its dynamics is essential before being able to facilitate rural community in the field.

Learning outcome: Participants will recognize characteristics of village, the dynamics of local community and be able to express observation through a basic spatial map.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (25 minutes)</p>	<ul style="list-style-type: none"> Present the material on “Village and Its Dynamics” Simulation: develop seasonal calendar and use example from the presentation to showcase a seasonal calendar, how to create it and discuss what type of information are useful for MHP/SMG See training syllabus (Chapter 3)
<p>Assessment (25 minutes)</p>	<ul style="list-style-type: none"> Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> Conclude the material which have been discussed End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

Participants need to view a village as an integral part of a larger landscape, but also the village as a whole within itself. With the knowledge of its natural landscape, participatory social and ecological map of a village can be developed along with the rural community. Simulation is an approach used by participants in constructing seasonal calendar to provide information on village's landscape.

Learning outcome: Participants can identify the territory of a village, the landscape of a village, and are able to develop participatory social and ecological maps.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (25 minutes)</p>	<ul style="list-style-type: none"> • Present the material on "Village as a Landscape" • Simulation: participatory mapping to cover natural resources, social and infrastructures • Identify important elements for MHP/SMG • See training syllabus (Chapter 3)
<p>Assessment (25 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants' understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

Facilitators need to understand the village and target groups before they facilitate further. Facilitators can then identify target group and whether they are suitable as managers of MHP/SMG. Beneficiaries also need to be identified within community and how their relation is to natural resources. Information is refined through seasonal calendars and simulation will assist in developing simple trend analysis of related issues.

Learning outcome: Participants can identify existing organizational structures in a village, the beneficiaries of MHP/SMG, and are able to develop interim information through participatory seasonal calendar and trend analysis.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (25 minutes)</p>	<ul style="list-style-type: none"> Present the material on "Village and Target Group" Simulation: develop simple trend analysis based on map and seasonal calendar exercise. Apply "a scenario" into previous map and seasonal calendar, landscape and connect the prediction with the MHP/SMG context See training syllabus (Chapter 3)
<p>Assessment (25 minutes)</p>	<ul style="list-style-type: none"> Provide time for Q and A to check participants' understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> Conclude the material which have been discussed End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

VMT members are the target participant in this module. VMT members are responsible for operation, maintenance, management and administration of the village mini-grid installation, using renewable energy technologies (specifically micro-hydro power or MHP and solar photovoltaics mini-grid or SMG).

Learning outcome: Participants understand the basics of MHP/ SMG.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (40 minutes)</p>	<ul style="list-style-type: none"> • Present the material about “Basic of Village Power Systems” • Use the video as discussion media • See training syllabus (Chapter 3)
<p>Assessment (10 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

In this topic, VMT members learn about various VMT institutional forms and their legal base as it relates to the country of training. This information will clarify VMT’s tasks in the context of managing an MHP and SMG.

Learning outcome: Participants understand different VMT institutional structures and legal basis.

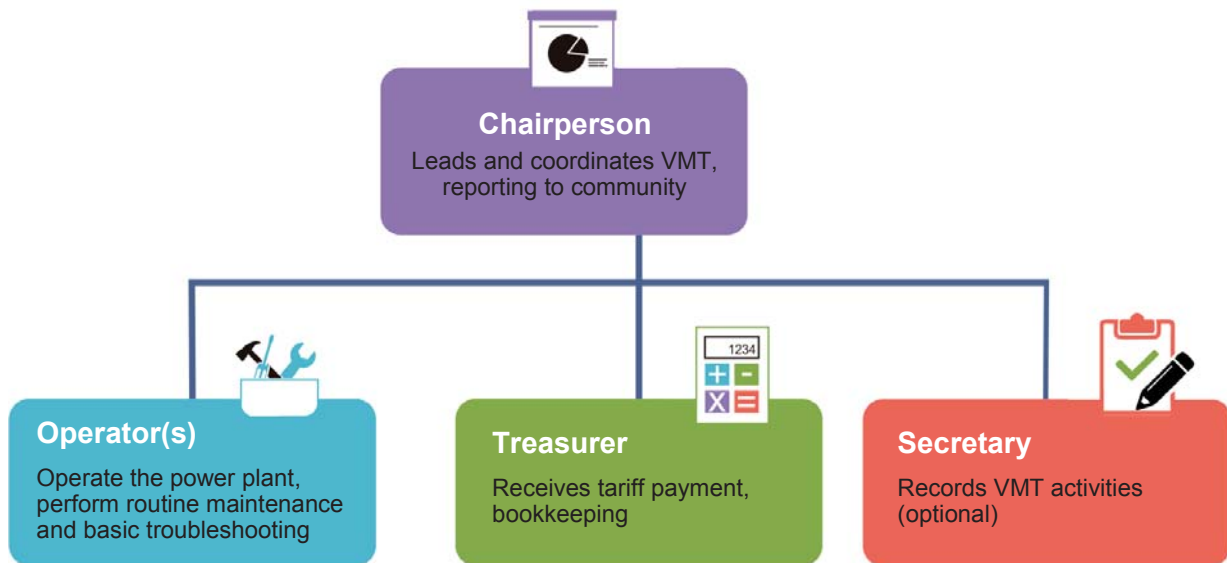
Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (40 minutes)</p>	<ul style="list-style-type: none"> • Present the material about “VMT Institutional Forms and Legal Base” • Include topic on cooperative and possible support from district government cooperative office • See training syllabus (Chapter 3)
<p>Assessment (10 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

VMT Structure



VMT Roles and Responsibilities

Chairperson

- Prepare legal documents for VMT
- Lead and coordinate VMT
- Planning and budget preparation
- Approve planning and financial reports
- Engage work relation with village/local government
- Report VM activities to local community

Treasurer/ Secretary

- Receive electricity payments
- Financial accounting
- Manage bank book(s)
- Prepare monthly and annual financial reports
- Record all VMT activities
- Record outgoing and incoming letters

Operator(s)

- Operate the power plant
- Perform routine maintenance
- Install a new electrical grid connection for new customer (ONLY if operator has enough experience and uses appropriate equipment)
- Repair and replace small parts
- Fill and report log book

VMT members need to understand the intricacies of managing an MHP and SMG in a rural context and learn from cases or previous documents from other areas. Simulation is an important part in this topic as well as providing useful hands-on experience in dealing with challenges. Participants should be able to ask the facilitators directly how to overcome various challenges.

Learning outcome: Participants fully understand all management aspect regarding MHP/SMG.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (20 minutes)</p>	<ul style="list-style-type: none"> • Present the material on “Management Aspects” • Ask participants to create a list of challenges that need to be addressed by VMT after their establishment • See training syllabus (Chapter 3)
<p>Assessment (5 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

This topic improves skills of VMT members in management and administration of financial aspects. Participant learns to use related books and documents, such as cash book. Facilitator will provide an example of tariff setting to stimulate participant. An exercise using actual cash book is essential to provide real experiences for participants.

Learning outcome: Participants fully understand financial aspects required for managing an MHP/SMG and are able to use financial management tools properly.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (20 minutes)</p>	<ul style="list-style-type: none"> • Present the material about “Financial Aspects” • Practice to set tariff and how to use admin books • Presentation by each team • See training syllabus (Chapter 3)
<p>Assessment (5 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

VMT members receive information to strengthen the basic technical skills for operating and maintaining MHP/SMG. They will exercise by filling in the “technical log book”. In addition, the facilitator should use this session to develop a simple work plan related to technical aspect. This could be included when develop a follow-up plan.

Learning outcome: Participants fully understand basic technical aspects of MHP and SMG .

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (70 minutes)</p>	<ul style="list-style-type: none"> • Present the material on “Technical Aspects” • Practice to use the log book • See training syllabus (Chapter 3)
<p>Assessment (10 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

Treasurer's Costumer Book, Electricity Tariff Book, and Cash Book

Customer Book

To record customers' data and their power consumption based on appliances owned or used.

No	Customer Name	Contract No	Installation Date	Power Consumption	Appliances Owned

Electricity Tariff Book

To record customers name and their monthly payment.

No	Customer Name	Month: _____		Month: _____		Month: _____	
		Date	Payment	Date	Payment	Date	Payment

Cash Book

To monitor income, expense and savings. The most important information to be recorded monthly.

Date	Transaction	Income (cash-in)	Expenditure (cash-out)	Balance

*Above are examples of administration books (activity, costumer, electricity tariff, and cash books). For the ready-to-print template, please refer to **Admin Books MHP and SMG** in "Tool Box".*

Operator's Log Book

Log Book

To record the performance of power plant operation, so problems could be recognized before becoming critical.

Date	Hour meter (h)	Battery state of charge (V)	kWh meter 1	kWh meter 2	kWh meter 3	Faults observed	Maintenance and repairs done

Above is an example of a log book to record MHP and/or SMG performance. For the ready-to-print template, please refer to **Admin Books MHP and SMG** in "Tool Box".

Chairman's Activity Book

Activity Book

To record the result at each activity such as a meeting. This record will become basis for management.

Date	Attended by	Items discussed	Notes on actions to be taken		
			What?	By who?	When?

Above is an example of an activity book to note activities and meetings related to MHP/SMG. For the ready-to-print template, please refer to **Admin Books MHP and SMG** in "Tool Box".

Tariff Setting Calculation Tool

OUTPUT: Dashboard of Results

SUMMARY

ELECTRICITY SUPPLY

Total generation capacity: 17 kW

Total load: 10 kW

Total energy demand: 42 kWh/day

Energy surplus/deficit: 43 kWh/day

If energy deficit, you need to reduce your electricity demand!

CUSTOMER TARIFFS

Basic tariff: 36,066 IDR/month

SI proportion: 5%

Number of non-paying HH: 0

HH Basic: 37,869 IDR/month

HH Medium: 51,675 IDR/month

HH High: 51,675 IDR/month

Tailor: 56,803 IDR/month

Egg hatchery: 378,689 IDR/month

OTHER

Required number of PV modules: 100

Required number of batteries: 145

Required land area: 573 m²

Estimated infrastructure cost: 3,007,000,000 IDR

VMT EXPENDITURE

Operator 1: 500,000 IDR/month

Operator 2: 400,000 IDR/month

Treasurer: 300,000 IDR/month

Secretary: 300,000 IDR/month

Chairperson: 300,000 IDR/month

Chairperson: 1,800,000 IDR/month

2) Monthly maintenance: 100,000 IDR/month

3) Repair expenditure: 100,000 IDR/month

4) Expected saving: 200,000 IDR/month

Total EXPENDITURE: 2,200,000 IDR/month

Total INCOME: 2,897,362 IDR/month

Actual Profit/Deficit: 697,362 IDR/month

ELECTRICITY SUPPLY

Electricity generation capacity: 20 kW

Efficiency and Availability factor: 85%

Available capacity: 17.0 kW

Generation hour per day: 5 hours

Energy generation per day (supply): 85.0 kWh

Energy consumption per day (demand): 41.7 kWh

Energy surplus/deficit per day: 43.3 kWh

Total number of HH in the village: 61 HH

ELECTRICITY DEMAND

Demand of household (HH)		W per HH	Wh per HH	# Connection	Total kW	Total kWh
HH Basic	140	480	7.00	50	7.00	24.00
HH Medium	115	655	1.15	10	1.15	6.55
HH High	475	655	0.48	1	0.48	0.66
Total HH demand					8.625	31.205

Demand of social institution (SI)		W per SI	Wh per SI	# Connection	Total kW	Total kWh
School	120	960	0.12	1	0.12	0.96
Streelights	10	80	0.50	50	0.50	4.00
Type 3	0	0	-	0	-	-
Total SI demand					0.62	4.96

Demand of rural business (PUE)		W per PUE	Wh per PUE	# Connection	Total kW	Total kWh
Tailor	360	720	0.36	1	0.36	0.72
Egg hatchery	200	4800	0.20	1	0.20	4.80
Type 3	0	0	-	0	-	-
Type 4	0	0	-	0	-	-
Total PUE demand					0.56	5.5

Above is an example calculation tool for determining the load and tariff of a SMG. For more detail, please refer to **Admin Books MHP and SMG** in "Tool Box".

This session introduces another aspect that can improve the performance, income and sustainability of MHP/SMG, particularly the benefits of using energy productively. Examples are given on enterprises and businesses suitable for most MHP and SMG. This session can use village social-economic mapping and questionnaires to identify economic opportunities and impacts.

Learning outcome: Participants understand the concept and benefits of productive use of energy and are able to identify them within their communities, as well as can prepare a PUE work plan.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (40 minutes)</p>	<ul style="list-style-type: none"> Present material on “Productive Use of Energy/Electricity” (needs community mapping to understand specific PUE) Questionnaire can be one of tools to strengthen understanding of the area See training syllabus (Chapter 3)
<p>Assessment (10 minutes)</p>	<ul style="list-style-type: none"> Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> Conclude the material which have been discussed End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

VMT members are expected to understand environmental safeguard of MHP and SMG. Facilitator provides examples of social and environmental safeguard. In this topic, the practices of making plans for social and environmental safeguards is connected or merged with the result from Module B “Community Empowerment in Rural Context”.

Learning outcome: Participants understand environmental safeguard of MHP and SMG and can prepare a safeguard work plan.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (40 minutes)</p>	<ul style="list-style-type: none"> • Present material on “Environmental Safeguard” • Create safeguard work plan to demonstrate measures taken to minimize negative impacts • See training syllabus (Chapter 3)
<p>Assessment (10 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes

VMT members learn how to monitor and evaluate MHP and SMG performance and what key performance indicators are useful. Facilitator gives examples on how to implement proper monitoring and evaluation. End of the session, VMT members are invited to develop a monitoring and evaluation plan. Use results from previous modules and topics as the reference to develop realistic monitoring plan.

Learning outcome: Participants understand the importance of monitoring and evaluation, and can design a monitoring and evaluation plan.

Process of training session:



<p>Introduction (5 minutes)</p>	<ul style="list-style-type: none"> • Greet the participants then explain the purposes and expected outcomes of the subject
<p>Main Session (40 minutes)</p>	<ul style="list-style-type: none"> • Present material on “Monitoring and Evaluation” • Introducing the SMS Gateway poster • See training syllabus (Chapter 3)
<p>Assessment (10 minutes)</p>	<ul style="list-style-type: none"> • Provide time for Q and A to check participants’ understanding
<p>Closing (5 minutes)</p>	<ul style="list-style-type: none"> • Conclude the material which have been discussed • End the session with a summary and confirmation of important points

Notes: Media that should also be prepared are plano papers, meta-plans, markers, LCD projector, and double tapes



TOOLS AND TEMPLATES

9 Tools and Templates

"It always seems impossible until it's done."

— Nelson Mandela

Field Visits



Initial Check

- Check before conducting field visit to determine the location. Field visit should be conducted on the last day of training, with the distance 2-3 hours from training venue.



Permit Check

- Prepare a clearance letter from government to submit to the to-be-visited village. Describe the timing, exact location and how many people will join the visit.
- Consult with relevant agencies if a field visit into a restricted area requires a permit. A formal letter from government might be required as well.



Safety Check

- Ideally divide participants into groups that each consists of 5-7 people with a coordinator to manage the group.
- Identify safety and accident risks and take necessary precautions. Always travel with a first aid kit.
- Identify nearby health and safety facilities and evacuation plan such as hospital, police office, etc.

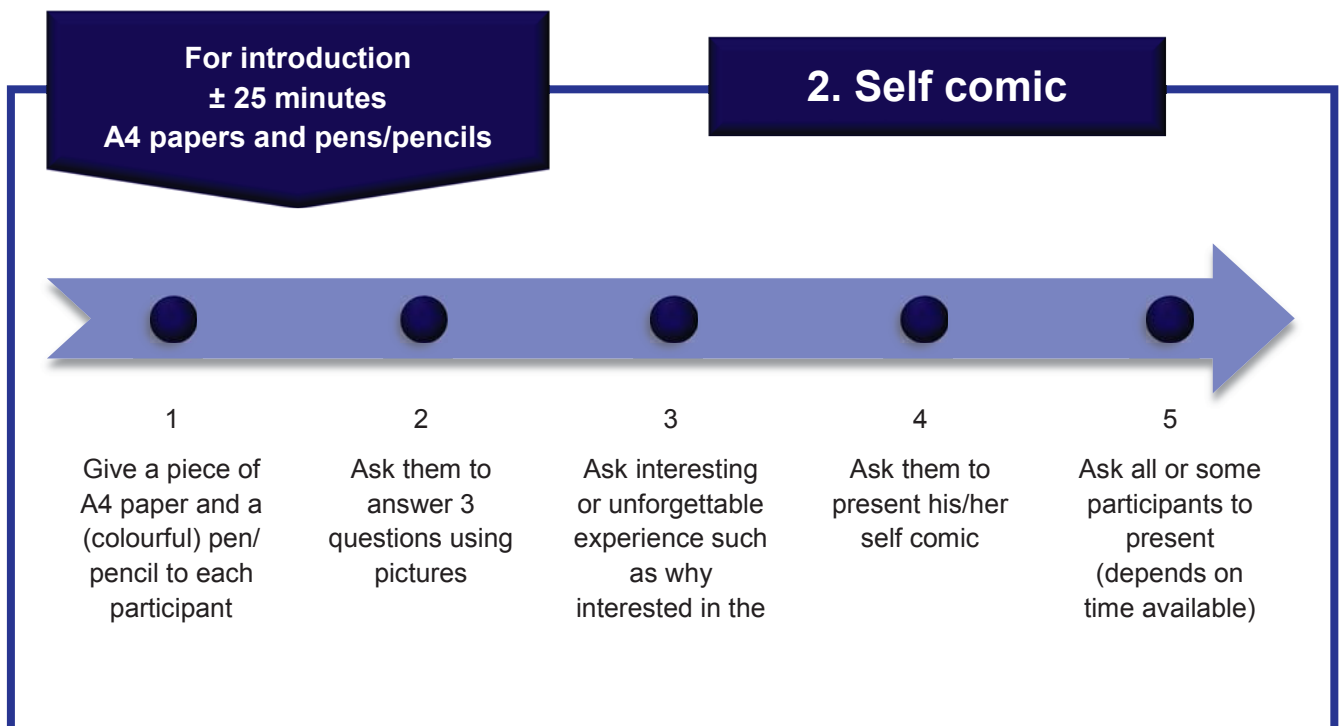
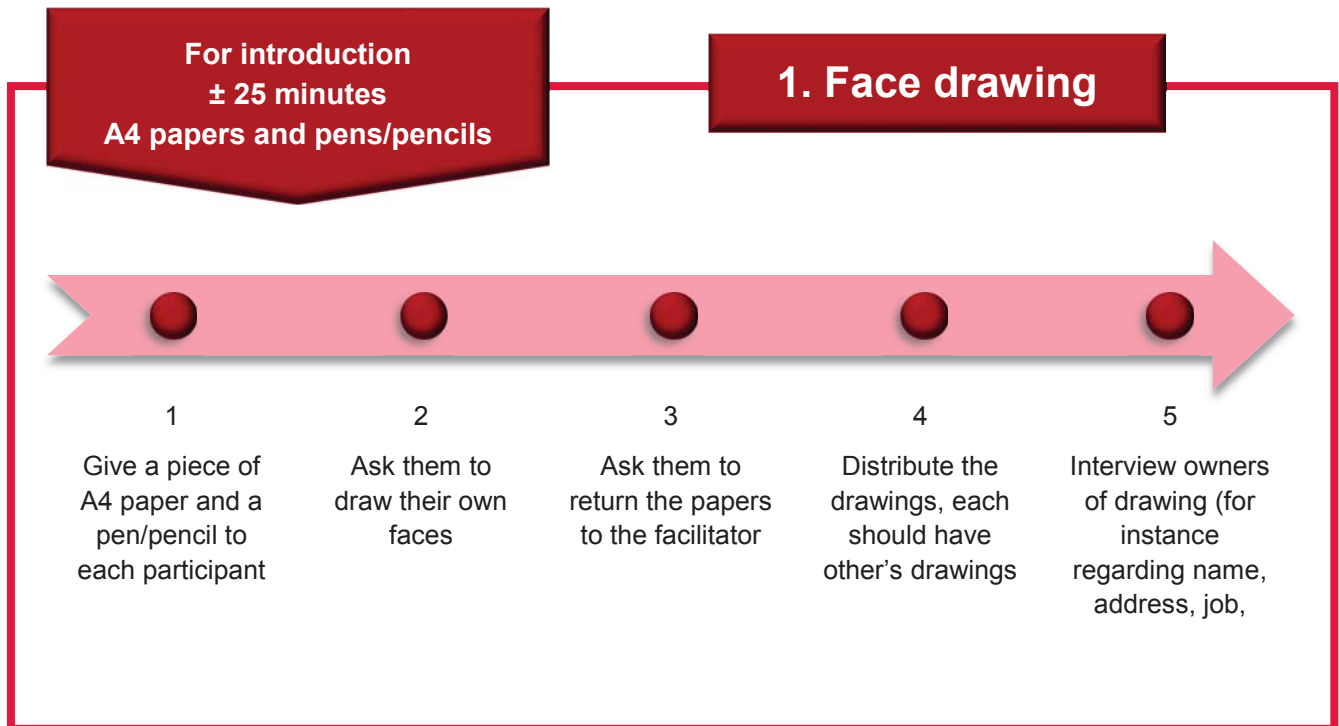


Logistical Check

- Itinerary: it is important to manage time.
- Transportation: find the appropriate transportation based on road conditions.
- Accommodation and meals: should be prepared well to anticipate the participant's well-being during trip.
- Local guide: a person familiar with the location and local condition.
- Check for small detail: Useful small items might include raincoat, umbrella, camera, notebook, flash lights, knife, etc.

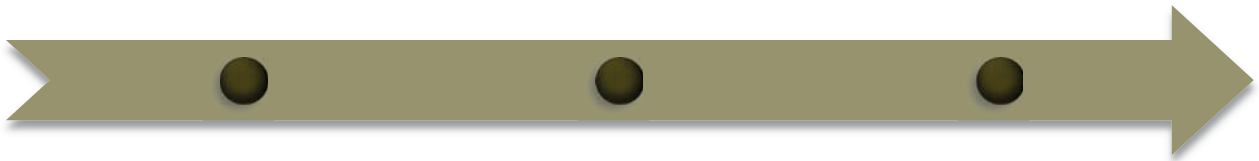
Various Games

Games can be used for introduction, energizer, focus stimulation, and to build togetherness in problem solvings.



For introduction
± 20 minutes
A ball

3. Ball-throwing introduction



1

Participants form a circle and each mention their names participant

2

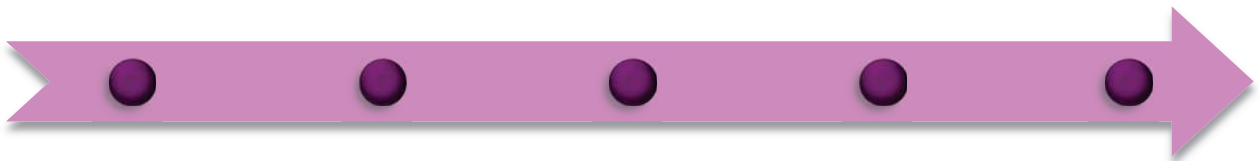
Throw the ball to the person in front of him/her and he/she should mention his/her name

3

The recipient catch the ball and say "Thank you, (thrower's name) for the ball". The recipient throw the ball to the next person

For energizer
± 20 minutes

4. Tongji-Tongji



1

Say "Tongji-tongji" (left hand is raised and right hand touches left elbow)

2

Say "La-la" (clap your hands twice)

3

Say "Yim-yim" (move both hands)

4

Say "Tole-tole" (turn head to the left and then the right side)

5

Repeat from the beginning, faster each time in each repetition

For energizer
± 15 minutes

5. Hand clap



1

Asked each participant to pick a partner

2

If facilitator say "one", the participants clap hands once and then clap their partner's hands once

3

If facilitator say "two", the participants clap hands twice and then clap their partner's hands twice, and so on

4

Mention a number and participants do the same pattern as many as the number mentioned

5

The game ends if there is a mistake

6

It can continue with changing the participants formation in groups of three or four, instead of two

To build togetherness in solving problems
± 20 minutes

6. Tangled hands



1

Participants make a small circle where shoulders bump each other

2

Participants extend their right hand to the person in front them and hold that person's right hand

3

It is not allowed to hold hand with the person next to them

4

The same also applies to the participants' left hand

5

The game ends if there is a mistake

6

After all the participants hold hands, next task is to make a big circle without letting go of the hands they hold

To build togetherness in solving problems
± 20 minutes
50 cm ropes, as many as the number of participants

7. Tangled hands (with ropes)



1

Facilitator holds the ropes in his/her hand, and the participants stand in a circle

2

Participants take a random grab at the part of a rope above the facilitator's hand using right hand

3

Participants take a random grab at the part of a rope below the facilitator's hand using their left hand

4

After all participants hold parts of the ropes in their hands, next task is to make a big circle without letting go

For stimulating concentration
± 15 minutes
2 objects representing 'apple' and 'bottle'

8. Apple and bottle



1

Participants and the facilitator make a big circle

2

Facilitator gives a 'bottle' to the first person to his/her left by saying, "This is a bottle". The recipient asks the giver, "What?" And the giver

3

The person that is holding the 'bottle' now gives it to the second person on the left by saying, "This is a bottle"

4

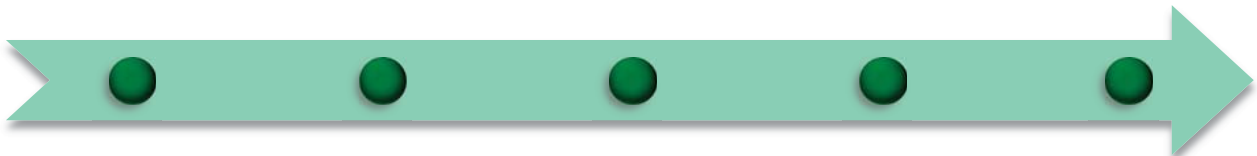
The recipient asks the giver, "What?" and the giver says, "It's a bottle". And so on

5

The same pattern is done with apple but in the opposite direction

For ice breaking
± 15 minutes

9. Chain messages



1

Participants
make two groups
and form two
lines

2

Facilitator
whispers a
message to one
end of each line.
The message
must be
forwarded until
the last person

3

Message from
beginner until
end of line must
be the same

4

If not, then the
facilitator should
find out where
exactly the
message altered

5

Two groups
competing on
which group can
forward the
message
correctly from
one end to the
other end

Sample of Training Agenda

Topic: Village Management Team (VMT) Training of Rural PNPM Institutional Strengthening for Renewable Energy (ISRE) in Sulawesi Barat and Sulawesi Selatan

Objective: To strengthen the capacity of VMT members to carry out tasks related to maintenance, operation and financial administration of micro hydro power (MHP) facility in order to ensure the sustainability of electricity supply

Target group: Rural facilitators

Total number of participants: 20 to 40 persons in each training

Estimated date: 10-13 May 2014

Course language: Bahasa Indonesia

Course duration: 4 days

Venue: Hotel Maria, Mamuju, Sulawesi Barat

Day 1

Time	Topic/Main Agenda	Material	Trainer/ Speaker
08:00 - 08:30	Registration		
08:30 - 09:00	Opening	Speech from GIZ/organizer	
		Opening speech	
09:00 - 09:30	Coffee break		
09:30 - 10:00	Ice breaking	Introduction, class organization, pre-test and learning contract	
10:00 - 11:00	Maintenance	Maintenance of MHP facility based on Rural PNPM experiences	
11:00 - 11:30	Get to know MHP	MHP and the institutional set up	
11:30 - 12:30	Electricity utilization	Good principles in utilization of electricity from micro hydro power	

Time	Topic/Main Agenda	Material	Trainer/ Speaker
12:30 - 13:30	Lunch break		
13:30 - 14:30	Environment and micro hydro power	Why and how to protect environment as well as its relation with micro hydro power	
14:30 - 15:30	Micro hydro power introduction	Micro hydro power and its operation	
		Video of micro hydropower introduction (10 minutes)	
15:30 - 16:00	Coffee break		
16:00 - 17:30	Introduction of micro hydro power management	Principles of micro hydropower management	
		Video on Institutional set-up of MHP (7 minutes)	

Day 2

Time	Topic/Main Agenda	Material	Trainer/ Speaker
08:00 - 08:30	Registration		
08:30 - 09:00	Opening	Review of day 1 and plan of day 2	
09:00 - 09:15	Coffee break		

Time	Topic	Material	Topic	Material	Trainer/ Speaker
	Split session: Managers		Split session: Operators		
09:15 - 10:15	Institutional set up	Structure, role, responsibilities and task division	Introducing technical aspects of MHP	Component of MHP	
10:15 - 10:30	Coffee break				
10:30 - 12:00	Admin management	Group discussion	Technical operation	Technical operation of MHP	
12:00 - 13:00	Lunch break				

Time	Topic	Material	Topic	Material	Trainer/ Speaker
13:00 - 14:00	Tariff setting and management	Calculating and determining tariff of electricity	Maintenance and repair	Video of Technical Aspect of MHP (8 minutes)	
14:00 - 14:30	Financial management	Financial management (part 1)	Maintenance and repair	Maintenance of electrical-mechanical equipment	
14:30 - 15:30	Financial management	Financial management (part 2) and practice	Maintenance and repair	Maintenance of civil work facility	
15:30 - 16:00	Coffee break				
16:00 - 16:10	Financial management	Video of Administration and Financial Management (5 minutes)	Maintenance and repair	Practice of turbine maintenance	
16:10 - 17:00	Financial management	Group discussion on financial management			

Day 3

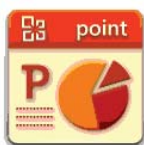
Time	Topic/Main Agenda	Material	Trainer/ Speaker
08:00 - 08:30	Registration		
08:30 - 09:00	Opening	Review of day 2 and plan of day 3	
09:00 - 10:00	Legal Aspect of VMT	Legal aspect of MHP: Preparing MHP statutes, village regulation, and their application	
10:00 - 10:15	Coffee break		

Time	Topic/Main Agenda	Material	Trainer/ Speaker
10:15 - 11:30	MHP legal form	Introduction to cooperatives, one option of VMT legal form	
11:30 - 12:30	Introduction to productive use of micro hydro power	<ul style="list-style-type: none"> • What is productive use of energy (PUE) • Questionnaire regarding PUE potential in participants village 	
12:30 - 13:30	Lunch break		
13:30 - 15:00	PUE from micro hydro power	Video of Productive Use of Energy (4 minutes)	
		Steps for developing business and access to micro credit	
15:00 - 15:30	Coffee break		
15:30 - 17:00	PUE from micro hydro power	Lessons learnt from GIZ PUE pilot project, group discussion	

Day 4

Time	Topic/Main Agenda	Material	Trainer/ Speaker
08:00 - 08:30	Registration		
08:30 - 09:00	Opening	Review of day 3 and plan of day 4	
09:00 - 10:00	Action plan	Introduction to action plan	
10:00 - 10:15	Coffee break		
10:15 - 11:30	Discussion	Regarding follow up action plan	
11:30 - 12:00	Post Test	Post test	
12:00 - 12:30	Closing ceremony		
12:30 - 13:30	Lunch break		

10 List of Materials



Code	Title/Topic	Source	File Name
A1	Basics of Facilitation	YAPEKA	A1_Basics of Facilitation_en
A2	Facilitation in Community Empowerment Activities	YAPEKA	A2_Facilitation in Community Empowerment Activities_en
A3	Facilitation in Natural Resources Management (NRM) and Renewable Energy (RE) Activities in Rural Area	YAPEKA	A3_Facilitation in NRM and RE_en
B1	Village and Its Dynamics	YAPEKA	B1_Village and Its Dynamics_en
B2	Village as a Landscape	YAPEKA	B2_Village as a Landscape_en
B3	Village and Target Group	YAPEKA	B3_Village and Target Group_en
C1	Basics of Village Power System	GIZ	C1_Introduction to MHP_en
			C1_Introduction to SMG_en
			C1_Principles of Electricity Utilization_en
C2	VMT Institutional Forms and Legal Base	GIZ	C2_Legal Aspect of Village Power System_en
C3	Institutional Development	GIZ	C3_Institutional Development_en
C3	Secretarial Administration I	GIZ	C3_Secretarial Administration I_en
C3	Secretarial Administration II	GIZ	C3_Secretarial Administration II_en
C4	Financial Management I	GIZ	C4_Financial Management I_en
C4	Financial Management II	GIZ	C4_Financial Management II_en
C4	Electricity Cost Calculation	GIZ	C4_Electricity Cost Calculation_en
C4	Electricity Tariff Setting	GIZ	C4_Electricity Tariff Setting_en
C5	Technical Aspect of MHP	GIZ	C5_Technical Aspect of MHP_en
C5	Technical Aspect of SMG	GIZ	C5_Technical Aspect of SMG_en
C6	Introduction to PUE	GIZ	C6_Introduction to PUE_en
C6	Concept of Business Development	GIZ	C6_PUE I Concept of Business Development_en
C6	Steps of Business Development	GIZ	C6_PUE II Steps of Business Development_en
C6	Cooperative Establishment Process	GIZ	C6_Cooperative Establishment Process_en
C6	EnDev - PUE Pilot Project	GIZ	C6_EnDev - PUE Pilot Project_en
C7	Environmental Safeguard for MHP	GIZ	C7_Environmental Safeguard MHP_en
C8	Monitoring and Evaluation	GIZ	C8_SMS Gateway_en



Code	Title/Topic	Source	File Name
A3	Training Manual on NRM (In Indonesia Only)	DANIDA	A3_Poster_PSDA-DANIDA_id
C3	Poster of Village Management Team for Off-grid Rural Electrification	GIZ	C3_Poster_VMT_en
C5	Troubleshooting poster for MHP	GIZ	C5_Poster_Troubleshooting for MHP_en
C5	Troubleshooting poster for SMG	GIZ	C5_Poster_Troubleshooting for SMG_en
C7	Poster of Catchment Area Protection in Micro Hydro Power Scheme	GIZ	C7_Poster_Catchment Area Protection MHP_en
C8	SMS Gateway PLTMH (in Indonesian only)	GIZ	C8_Poster_SMS Gateway PLTMH_id
C8	SMS Gateway PLTS (in Indonesian only)	GIZ	C8_Poster_SMS Gateway PLTS_id



Code	Title/Topic	Source	File Name
A1	Ice Breaking: Brain Gym - Hands	Youtube	A1_Video_Brain Gym_Hands_en
A3	Best Learning from Green PNPM	YAPEKA	A3_Green PNPM Best Learning_en
C1	General Information on MHP	GIZ	C1_Video_General Information on MHP_en
C2	Institutional Setup	GIZ	C2_Video_Institutional Setup_en
C4	Financial Management	GIZ	C4_Video_Financial Management_en
C5	Technical Aspect of MHP	GIZ	C5_Video_Technical Aspect of MHP_en
C5	Technical Aspect of SMG	GIZ	C5_Video_Technical Aspect of SMG_en
C6	Productive Use of Energy Concept	GIZ	C6_Video_Productive Use of Energy Concept_en
C6	Productive Use of Energy	GIZ	C6_Video_Productive Use of Energy_en



Code	Title/Topic	Source	File Name
A2	The Art of Community Facilitation/Facilitation in Community Empowerment Activities (in Indonesian only)	PMD	A2_Seni Memfasilitasi Masyarakat I_id
			A2_Seni Memfasilitasi Masyarakat II_id
			A2_Seni Memfasilitasi Masyarakat III_id
A3	Renewable Energy Guide (in Indonesian only)	PMD, DANIDA	A3_Buku Panduan Energi Terbarukan I_id
			A3_Buku Panduan Energi Terbarukan II_id
A3	Booklet_Training Manual on NRM-DANIDA	DANIDA	A3_Booklet Agroforestri_id
			A3_Booklet Bokashi_id
			A3_Booklet DTA_id
			A3_Hutan Bakau_id
			A3_Booklet Penanaman_id
			A3_Booklet Persemaian_id
			A3_Booklet Satwa Liar_id
A3_Buku Manual Pelatihan_id			
B1	Indonesian Law No. 6/2014 on Village (in Indonesian only)	Indonesian Ministry of Home Affairs	B1_UU No 6 Tahun 2014_Desa_id
B1	Indonesian Law No. 26/2007 on Spatial Planning (in Indonesian only)	Indonesian Ministry of Public Works	B1_UU RI No 26 Tahun 2007_Rencana Tata Ruang_id
B1	Village Midterm Development Plan	Village Office	(Could be obtained at the village)
B1	Village Statistics	District Office	(Could be obtained at district office)
B1	Village Regulation (environmental and renewable energy issues)	Village Office	(Could be obtained at the village)
C2	Sample of Basic Statute/Bylaws (in Indonesian only)	GIZ	C2_Contoh AD ART_id
C3	Customer Book (in Indonesian only)	GIZ	C3_Buku Pelanggan_id
C3	Activity Book (in Indonesian only)	GIZ	C3_Buku Kegiatan_id
C3	Simulation on Capacity	GIZ	C3_Simulation on Capacity_en
C4	Load and Tariff Tool	GIZ	C4_Load and Tariff Tool_en
C4	Tariff Payment Book (in Indonesian only)	GIZ	C4_Buku Tarif_id
C4	Cash Book (in Indonesian only)	GIZ	C4_Buku Kas_id
C4	Sample of Tariff Calculation (in Indonesian only)	GIZ	C4_Contoh Perhitungan Tarif_id

Code	Title/Topic	Source	File Name
C5	Log Book for MHP (in Indonesian only)	GIZ	C5_Buku Log PLTMH_id
C5	Log Book for SMG (in Indonesian only)	GIZ	C5_Buku Log PLTS_id
C5	Good and Bad of MHP Volume I	GIZ	C5_Good and Bad MHP Vol I_en
C5	Good and Bad of MHP Volume II	GIZ	C5_Good and Bad MHP Vol II_en
C5	Troubleshooting for Cross Flow Turbine (in Indonesian only)	GIZ	C5_Pemecahan Permasalahan Turbin Aliran Silang_id
C6	Manual for Productive Use of Energy	GIZ	C6_Manual_Productive Use of Energy_en
C7	Environmental Safeguard for MHP (in Indonesian only)	GIZ	C7_Pengamanan Sosial dan Lingkungan Hidup PLTMH_id
C8	Key Performance Indicators Questionnaire	GIZ	C8_Key Performance Indicators Questionnaire_id

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