

Educational
Support to
Children of
Underserved
Populations
(ESCUP)

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Integrated Pest Management (IPM): Trainers Manual

**For Core Group Members, School Directors,
IPM Facilitators and Community
Representatives**



ESCUP partners include:

American Institutes for Research (AIR)

World Education, Inc.

Kampuchean Action for Primary Education (KAPE)

CARE

**INTEGRATED PEST MANAGEMENT (IPM) ORIENTATION WORKSHOP
FOR
CORE GROUP MEMBERS AND SCHOOL DIRECTORS**

Session 1: Introduction, Objectives and Desired Outcomes		
Topic and over-view	1.1 Introduction: This session introduces participants to each other, to the facilitator, the overall session plan schedule, and sets some ground rules of the workshop.	
Time required:	10 Minutes	
Suggested materials:	<ul style="list-style-type: none"> ▪ Workshop schedule poster 	
<i>Objective</i>	<i>Presentation</i>	<i>Participant Tasks</i>
<ul style="list-style-type: none"> ○ Participants are arranged in a way that facilitates discussion and participation. ○ Participants know each other which facilitates open discussion. ○ Participants agree on rules of work and session plan schedule during the workshop ○ Participants know the schedule which helps to prepare themselves for active 	<p><u>Group Arrangements</u></p> <ul style="list-style-type: none"> ○ Before starting, the workshop facilitator should arrange the workshop place in the way that all participants can participate actively and ensure that participants can move easily. The facilitator can ask participants to sit in U-shape or in a circle using tables/chairs or sit on mats on the floor depending on the place. <p><u>Introductions</u></p> <ul style="list-style-type: none"> ○ The facilitator begins the workshop with a warm welcome followed by an introduction of facilitator and participants. In case participants know each other, a detailed introduction is not necessary. <p><u>Workshop Rules</u></p> <ul style="list-style-type: none"> ○ The facilitator reviews some of the rules of the workshop by discussing the following points: <ul style="list-style-type: none"> ● Times of Start -End of the workshop? ● Times for breaks ● Speaking one at a time and listen to each other ● Respect the agreed times ● Financial details <p>The results from the discussion should be written on a large paper and displayed on a wall in the workshop room as a reminder for the whole period of workshop.</p> <p><u>Present the workshop schedule</u></p> <p>Distribute the schedule of the workshop and give enough time for participants to read and ask questions.</p> <ul style="list-style-type: none"> ○ Facilitator should adjust the schedule if necessary and reconfirm it with participants. 	<ul style="list-style-type: none"> ○ Participants assist in arranging the place for workshop. ○ Each participant and facilitator introduces him or her self by telling name, title and other relevant details. ○ Seek agreement and modifications to the rules for implementation during the workshop. ○ Participants agree on the schedule.

participation.		
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Topic and over-view	1.2 Objective and Desired outcomes of the workshop: This session introduces participants to the purpose of the workshop, its objectives, and desired outcomes.	
Time required:	30 Minutes	
Suggested materials:	<ul style="list-style-type: none"> ▪ Poster : Objectives of the workshop ▪ Handout : Objectives of the workshop 	
Objective	Presentation	Participant Tasks
<ul style="list-style-type: none"> ○ Participants can explain the objectives of the workshop. ○ Participants can state the desired outcomes. 	<ul style="list-style-type: none"> ○ The facilitator tapes a poster on the board that summarizes objectives of the workshop. ○ Explain to the participants about the purpose of the workshop, its objectives, and desired outcomes as displayed on the poster. <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">Poster</p> <p><u>Objectives of the workshop</u> Provide knowledge for workshop participants from all schools so that they are able to lead, and extend the IPM concept to school and community. <u>Specific objective:</u> After this workshop the participants are able to:</p> <ul style="list-style-type: none"> • Select two IPM resource persons for participation in training at provincial town and to conduct field training for students. • Select students who will participate in IPM student field school. • Identify the field for the student field school and get the agreement of the owner. • Inform the parents and community as about IPM program. • Set up an IPM school support group. <p><u>The outcome of workshop</u></p> <ul style="list-style-type: none"> • Action plan for preparation of IPM student field school for each individual school. </div>	<ul style="list-style-type: none"> ○ Participants listen to the facilitator's review of the poster.
<ul style="list-style-type: none"> ○ To evaluate the participants' understanding. 	<ul style="list-style-type: none"> ○ Facilitator asks questions to assess participants' understanding. For example: What is the specific objective of this workshop? What is the most important thing that this workshop should produce? 	<ul style="list-style-type: none"> ○ Participants answer questions raised by the facilitator.

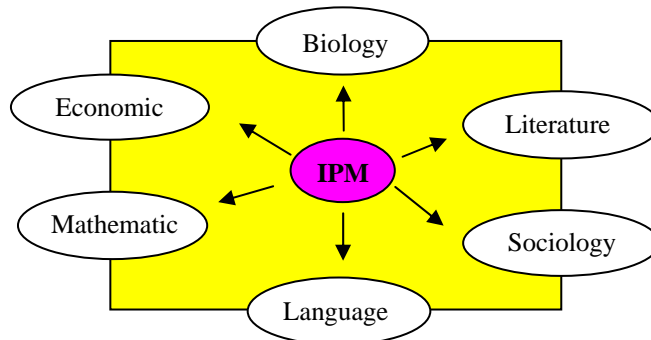
	<p>How long is the workshop?</p> <ul style="list-style-type: none"> ○ The facilitator distributes a handout with objectives of the workshop to all participants. 	
Session 2: Description of the IPM program		
Topic and over-view	<p>2.1 What is IPM? This session introduces participants to the meaning of IPM and other key terminology regularly used in IPM.</p>	
Time required:	05 Minutes	
Suggested materials:	<ul style="list-style-type: none"> ▪ Poster: IPM and definition of IPM key words ▪ Handout: What is IPM? 	
<i>Objective</i>	<i>Presentation</i>	<i>Participant Tasks</i>
<ul style="list-style-type: none"> ○ Participants understand the definition of the word IPM. 	<ul style="list-style-type: none"> ○ The facilitator writes down the word IPM on the board and starts the discussion by raising the question <i>What is IPM?</i> ○ The facilitator writes down all the answers on the board ○ Facilitator explains the meanings of IPM as follows: - IPM is a special way of farming IPM is an agricultural approach for farmers to learn how to grow healthy crops, increasing their yields by using <i>integrated methods</i> (see poster) to minimize the impact caused by insects and diseases on their crops. ○ Facilitator presents the poster and explains that in IPM farmers consider all different factors effect to their crops. For farmers IPM means Integrated Pest Management. <div style="text-align: center;"> </div> <ul style="list-style-type: none"> - IPM is a way of learning During IPM implementation, participants plant the crops in the field and conduct regular monitoring of its growth until harvesting. Participants are divide into small groups responsible for their own plots, thought the process called AESA (Agro Ecosystem Analysis), participants are able to analyze the situations in the plots, particularly the presence, numbers and different kinds of insects, and make decisions about the management of their influence. Experiments are also conducted to 	<ul style="list-style-type: none"> ○ Participants answer the questions according to their understanding. ○ Participants listen to the facilitator carefully.

learn more about the ecology of crop field, stages of development of plants and the effects of insects, other pests, weeds and disease on the health of the crop. At harvest time, input costs and yields are calculated to enable participants to compare direct results from the different management techniques used in each small plot.

The emphasis in IPM is always on learning from what is really happening in the field, not from textbooks. Therefore it is usually described as "the field is the book". For teachers IPM is a new way of teaching and organizing learning. For them **IPM means "Improving Pedagogical Methods"**

IPM = Improving Pedagogical Methods
IPM = Integrated Pest Management.

- Facilitator asks what kind of subjects children could learn from IPM? Collect all answers written by participants and place them on the board around the word IPM (as below).



- Facilitator conclude that the IPM field schools are very effective ways to learn and practice the new style of teaching that the MoEYS calls " child-center learning"
- Facilitator posts the poster on the board, which describes some key words regularly used in IPM and explains them.

- Participants understand the definition of the key words regularly used in IPM.

- Participants think of answers, write them down on A4 paper and give it to facilitator.

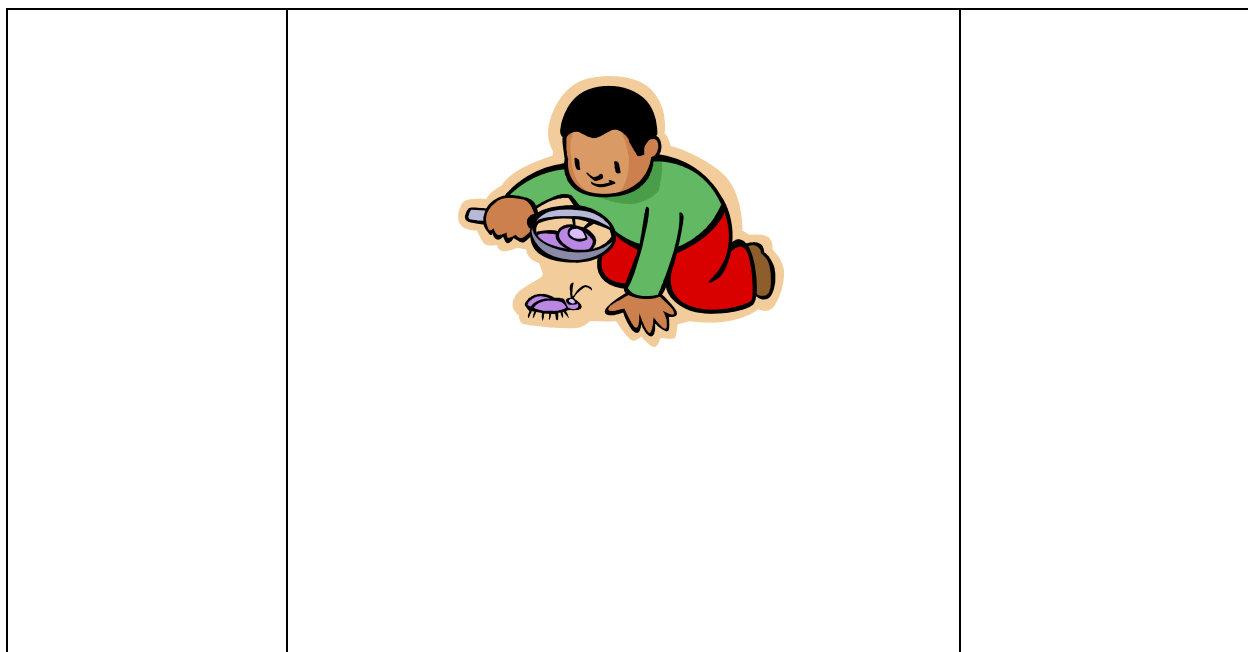
- Participants listen to the facilitator review the poster carefully and ask questions when necessary.

	<p style="text-align: center;"><u>KEY WORDS IN IPM</u></p> <p style="text-align: center;">IPM field school A season long training (18 weeks for rice crops, 14 weeks for vegetable crops).</p> <p style="text-align: center;">IPM Student Field School an IPM field school run for about 30 students</p> <p style="text-align: center;">IPM Teacher Field School an IPM field school run for teachers(25-30)</p> <p style="text-align: center;">IPM Farmer Field School an IPM field school run for about 30 farmers</p> <p>○ Facilitator distribute handout “what is IPM” to participants.</p>	
<p>Topic and over-view</p>	<p>2.2 Objective of inserting IPM in school curriculum In this session, participants will learn about the objectives and principles of IPM and how this can be used as a learning activity for students.</p>	
<p>Time required:</p>	<p style="text-align: right;">30 Minutes</p>	
<p>Suggested materials:</p>	<ul style="list-style-type: none"> ▪ Poster summarizes objectives, and principle of IPM ▪ Handout Objective of IPM 	
<p style="text-align: center;"><i>Objective</i></p>	<p style="text-align: center;"><i>Presentation</i></p>	<p style="text-align: center;"><i>Participant Tasks</i></p>
<p>○ The participants understand the objectives of IPM in school.</p>	<p><u>IPM objective</u></p> <p>○ The facilitator tapes a poster to the board that summarizes the objectives of IPM program.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">Poster <u>IPM objectives</u></p> <ol style="list-style-type: none"> 1. To transfer the appropriate farming techniques (ecological friendly way) to students and emphasize on an education process in which students are introduced to learn directly from their own observations. (CFS dimension #2) 2. To make education more relevance to the daily life of children by providing life skills and stimulation of critical and analytical thinking (CFS dimension #2). 3. To improve and strengthen relationships between school and community. (CFS dimension #5). </div>	<p>○ Participants listen to the facilitator review the poster carefully.</p>

- The facilitator explains that:
 - The IPM Student Field School is not just a way to transfer agricultural knowledge to students, it ***uses a child-center learning methodology*** ” which is in line with the Child Friendly School approach promoted by Ministry for Education, Youth and Sport. In IPM, students are introduced to learn directly from their own observations and practice in the field and classroom.
 - Most Cambodian students come from farmers’ families, especially in the rural areas. Therefore IPM is a very suitable life skill for students in rural schools. They can use those skills to assist their family and gain valuable agricultural experience that may help them make a living when they leave school.
 - The IPM school program provides good opportunities to ***increase and strengthen relationships between school and community.***
 1. Community members are involved in their children's learning process by participating in the IPM teaching team.
 2. IPM Student Field School is managed by a local level IPM support group.
 3. Students will bring the knowledge and skills from the IPM course home to share with their parents.
 4. Student Field Schools promote the idea that schools are accountable to the community for the student learning outcomes of education activities. This is organized by inviting parents to attend the Field Day where they can see what their children have learned.

IPM Student Field School

- Using the field as the book
- Learning based on real practical experience
- Study period for the whole season of the crop
- The curriculum depends on the environmental situation and is adaptable to its specific needs.



3. Organizing an IPM Student Field School		
Topic and overview	3.1 Set up an IPM support group at school level: In this session participants will discuss about the importance of an IPM support group at school level and decide on composition and roles of IPM support group.	
Time required:	30 Minutes	
Suggested materials:	Handout: Composition and roles of IPM support group. Flipchart papers, markers and tape.	
<i>Objective</i>	<i>Presentation</i>	<i>Participant Tasks</i>
<ul style="list-style-type: none"> ○ Participants discuss if a school support group is needed and make their own decision to set up an IPM support group in their school or not. ○ Participants 	<ul style="list-style-type: none"> ○ The facilitator explains that there are more tasks that need to be accomplished before starting the actual implementation of SFS. Those tasks are hard to accomplish by one or two persons only. The facilitator introduces the idea to establish an IPM support group to assist IPM facilitators and asks if the participants agree with this idea. ○ If the group has come to an agreement, the facilitator asks participants to divide themselves into small groups (4 – 6 participants). The facilitator then hands out flipchart paper and markers to each group. ○ The facilitator write the following questions on the board: "Who should be members of the IPM support group?" "What are their roles in the IPM implementation process?" <p>Ask a participant to read the questions out loud and ask the group to discuss the questions and record the results from discussions on flipchart</p>	<ul style="list-style-type: none"> ○ Participants discuss the idea of establishing a school support groups and what the benefits can be. ○ Participants read out the questions to the group members. ○ Participants discuss who could be suitable persons to

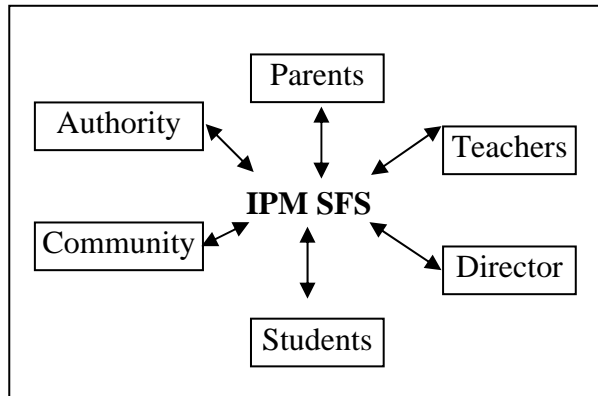
<p>determine the composition and roles of IPM support groups.</p>	<p>paper for presentation in a plenary session. Possible answers are mentioned below:</p> <div style="border: 1px solid black; padding: 5px;"> <p>Composition of IPM support group</p> <ul style="list-style-type: none"> - School director - IPM facilitators - Representative from SSC/parents <p>Roles of IPM support group</p> <ul style="list-style-type: none"> - Identify a suitable field and get permission of owner to use it for SFS. - Identify two IPM resources persons (IPM school facilitators) who are interested in teaching IPM to students. - Identify 25 – 30 students based on volunteerism (see next section for details) - Disseminate information about the IPM program to the community, and especially the student’s parents. - Monitoring and evaluation of the IPM implementation process - Assist in arranging the Field Day for parents </div> <p>The facilitator asks the groups to present their findings to come to an agreement on the composition and roles of the IPM support group.</p> <p>The facilitator closes this session with the distribution of the hand-out “composition and roles of IPM support group”.</p>	<p>support the IPM implementation.</p> <ul style="list-style-type: none"> ○ Participants make records of the discussions and present the results to the large group.
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<p>Topic and over-view</p>	<p>3.2 Preparation for an IPM Student Field School: In this session participants will discuss about the site selection for field demonstrations, characteristics of IPM facilitators, students who will participate in IPM activities and how to disseminate the information about the IPM program to the community, especially parents.</p>	
<p>Time required:</p>	<p>60 Minutes</p>	
<p>Suggested materials:</p>	<p>Handout: Preparation for an IPM Student Field School</p>	
<p><i>Objective</i></p>	<p><i>Presentation</i></p>	<p><i>Participant Tasks</i></p>
<ul style="list-style-type: none"> ○ Participants understand the criteria for selection field for SFS. 	<ul style="list-style-type: none"> ○ The facilitator explains that in order to implement an IPM Student Field School successfully the IPM support group should prepare some steps in advance. ○ The facilitator asks participants what are those steps. ○ After participants have identified the 4 steps, then the facilitator can ask participants to go in groups to discuss the questions per step. 	<ul style="list-style-type: none"> ○ The participants think about those steps and give answers. ○ Participants discuss the question in

	<p>A. Identify a field for implementation of the Student Field School and a suitable study area near the field.</p> <p>For IPM implementation, we need a field for students to practice the actual works.</p> <ul style="list-style-type: none"> ○ Facilitator asks participants to divide in to small groups (4-6 each group) distribute the large paper and marker to all groups. ○ Facilitator writes the question “What kind of field should we select for implementation of IPM SFS?” on board and ask participant to discuss in small group. ○ Facilitator can assist the groups to discuss by giving some ideas such as distant from school to the field, easiness of borrowing the field from the owner, access to water sources. ○ Facilitator made conclusion all the answers for using as the guideline for field selection of IPM student field school. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Remarks</p> <ul style="list-style-type: none"> ★ Land needed for implementing IPM student field school one place should be <ul style="list-style-type: none"> - 1000m² for IPM student field school implementing rice crops. - 100m² for IPM student field school implementing vegetable gardens ★ IPM support group in each school should make agreement with owners. ★ Study place for IPM can be use the classroom or under the tree it would be good if the study place not far from field. </div>	<p>small group and record the out come from discussion for presentation.</p> <ul style="list-style-type: none"> ○ Small groups come back to the plenary session and make presentation the outcome from discussion.
<ul style="list-style-type: none"> ○ Participants agree on the criteria for selection IPM facilitators. 	<p>B. Identify IPM facilitator</p> <ul style="list-style-type: none"> ○ Facilitator explain that we need two persons who can lead students implementation SFS. These persons will receive training at provincial town before they come to lead IPM student field school. ○ Facilitator asks question what kind of person we should select for teaching IPM in our school. ○ Facilitator then asks participants to split themselves into small groups again for discussion the question. Facilitator distributes the large papers and makers to each group for recording the outcome from discussion. ○ Facilitator can assist the groups to discuss by giving some points to consider such as he 	<ul style="list-style-type: none"> ○ Participants discuss the question in small group and record the out come from discussion for presentation ○ Small groups

<ul style="list-style-type: none"> ○ Participants determine the student who should participate in IPM. ○ Participants determine the persons who should involve in IPM. ○ Participants understand the importance of meeting with all people who involve in IPM. 	<p>should interest in farming, willing to learn new things, like to work with children, good model for children.</p> <ul style="list-style-type: none"> ○ Facilitator made conclusion all the answers for using as the guideline for IPM facilitators selection. <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><u>Remark</u></p> <ul style="list-style-type: none"> ★ A among the 2 IPM resource facilitator one should select from teacher who is interested in agriculture activity or part time farmer and the other one should be the experienced farmer. ★ The selection of IPM resource persons must be agreed by among the IPM support group in those schools. </div> <p>C. Selecting of students</p> <ul style="list-style-type: none"> ○ Facilitator explain that for implementation an IPM SFS there are some physically demanding task to perform it is better to have at least some bigger children in the group. Therefore, each school should select only students from grade 5 or 6. <ul style="list-style-type: none"> - Number of students for one IPM student field school is around 30. Student can all from one class or mixed classes from the same school or from mix schools in the Cluster so long as they do not have to travel too far. - The class should be 50 % male and 50% female. ○ Facilitator gives some time for participant discuss their situation band feedback. <p>D. Meeting with parents and other</p> <ul style="list-style-type: none"> ○ Facilitator explains that for implementation an IPM SFS there are several people involve who are they? Then facilitator write the word IPM SFS on the board and ask participants to think who should involve or benefit from this program and write it down on A4 paper post it around the word IPM SFS. 	<p>come back to the plenary session and make presentation the outcome from discussion.</p> <ul style="list-style-type: none"> ○ Participant discuss their situation with other participants from the same school whether they have enough number of students from grade 5 and 6 or not. ○ Making question to facilitator ○ Participants individually try to seek the answer write it on the 4 paper and post it around IPM SFS word.
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Possible answers



- Facilitator continues asking the question: Why those people involve in IPM SFS?

Base on the result of the prior session facilitator drawing table on the board

Person involved (1)	Reason of involvement in IPM SFS (2)
Students	- Practicing their knowledge - Learning new skill
Teachers	- Involve in teaching -
Director	- Provide place - Support the training process
Parents	- Better future for their children - Encourage children to come to school regularly - Share their experiences with children
Community	- Transfer agriculture knowledge to children. - Involvement in school activities
Authority	- Understand concept of SFS and the benefits for the whole community.

- Facilitator can use a brainstorm session or group discussion to find the answers for filling up the second column.

After finish, this tasks facilitator than asks participants. Did all people we described above know about IPM already or not yet?

Expect answer is **NOT** than the facilitator explain that it is importance for all those involve in IPM SFS to have one meeting with IPM support group in order to inform them about IPM program and confirm their role and responsibility in IPM SFS and request them to fully involvement in this activity.

Note : It is importance for the parents to understand that school does not use their child labor in IPM Student Field School but promote learning by doing and the experience gained from the course will benefit for children life as well as the families.

- Participants discuss with their partners and giving the answer to facilitator.

Topic and overview	3.3 Budget In this session participants will learn about the process of funds disbursement and reconciliation which is needed for operating an IPM SFS.	
Time required:	30 Minutes	
Suggested materials:	Poster of IPM expenses Handout IPM budget	
Objective	Presentation	Participant Tasks
<ul style="list-style-type: none"> ○ Participants understand clearly about the process for fund disbursement. ○ Promote transparency in using cluster budget. 	<ul style="list-style-type: none"> ○ The facilitator explains that all schools which already put IPM in their Cluster School Improvement Plan and received approval are entitled to request budget for implementing IPM. The facilitator will first discuss the details of the costs of the activity, followed by an explanation of the procedures to request for the funds. The cost estimations and disbursement procedures are displayed on posters, as follows: <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><u>IPM EXPENSES:</u></p> <ul style="list-style-type: none"> ★ Per diem for 2 IPM facilitators 2 persons x 2.5\$ x 18 days (IPM for rice crops) or 2 persons x 2.5\$ x 14 days (IPM for vegetable crops) ★ Refreshments 30 students x 0.125 x 18 days (IPM for rice crops) or 30 students x 0.125 x 14 days (IPM for vegetable crops) 30 \$ for field day/parent visit ★ Training materials and stationary 200\$ (Normally purchased by ESCUP staff) <p>Total Request: 350 \$ IPM for rice crops 320 \$ IPM for vegetable crops</p> </div> ○ Facilitator explains that if this budget is not enough for operating an IPM SFS, schools could request support from the community to use their locally available resources, especially for the visit of parents. ○ For the budget withdrawing process, school directors whose school planned for IPM should request the IPM budget to the cluster school director with a clear plan of IPM implementation and total budget need for the month. The money received is as advance the 	<ul style="list-style-type: none"> ○ Participants listen to the facilitator review the poster and ask clarifications when necessary. ○ Participants raise questions

	<p>IPM support group needs to reconcile later with present of the actual expense receipt.</p> <ul style="list-style-type: none"> ○ Facilitator gives enough time for participants to discuss and ask questions. Then distribute handout to all participants. 	
Topic and over-view	<p>3.4 Planning In this session participants will develop an action plan for preparation of the IPM SFS. They list each activity into a Planning sheet, which indicates when the activity takes place.</p>	
Time required:	45 Minutes	
Suggested materials:	Handout planning sheet	
<i>Objective</i>	<i>Presentation</i>	<i>Participant Tasks</i>
<ul style="list-style-type: none"> ○ Develop implementation plan for IPM at school level. 	<ul style="list-style-type: none"> ○ The facilitator asks participants who come from the same school to form a group to prepare the action plan. ○ After grouping, the facilitator explains that after this workshop schools are expected to be able to implement the IPM activity. To make the preparation and implementation successful, an action plan will be developed. ○ The facilitator hands out the planning sheet to all groups, followed by an explanation on how to use the planning sheet. The facilitator asks if there are any questions or clarifications needed before starting the group work. ○ During the exercise, the facilitator will support and assist the groups where necessary to ensure a successful completion of the individual school action plan for implementing IPM. ○ The facilitator closes the workshop by thanking the participants for their involvement and time. The facilitator confirm that the IPM support group is responsible for making SFS start and wishes the schools success with the implementation of the IPM activity and explains who the schools can contact in case of problems. <p>Note: The planning form should be made in two copies, one for school use and one for ESCUP.</p>	<p>Participants prepare the action plan in small groups per school. The steps for implementation will be clearly described as well as who is responsible for the implementation of each activity</p>