



**T6123-REG  
Promoting Effective Water Management  
Policies and Practices (Phase 3)**

**Pilot Demonstration Activity  
of Developing and Testing  
Environmental Education and Awareness  
Methodologies and Tools**

**Community Theatre Guide  
Water Awareness Program**

**Tonle Sap – Cambodia  
October 2004**

**Prepared for the Asian Development Bank**

**A Live & Learn Environmental Education Publication**

*Disclaimer: This report was prepared by consultants for the Asian Development Bank. The findings, interpretations, and conclusions expressed in it do not necessarily represent the views of the Asian Development Bank (ADB) or those of its member governments. ADB does not guarantee the accuracy of the data included in this report and accepts no responsibility for any consequences of their use.*

## TABLE OF CONTENTS

I.	Introduction.....	2
II.	Key concepts.....	3
III.	Things to remember.....	4
IV.	Warm up Games.....	5
	The Name Game.....	5
	Environmental Words.....	6
	Fish/Water bird/ Lake.....	6
	This is a .....!	7
	Where Do You Stand?.....	8
V.	Expectations check.....	9
	Brainstorm.....	9
	Paper shape.....	9
VI.	Environment – basic understandings.....	10
	Basic statues - Bodies can be anything!.....	10
	Basic Statues – Describing the environment.....	11
	Story board - environment past and present.....	11
	Story telling.....	12
VII.	Ecology, ecosystems and sustainable environment.....	13
	Environment Picture List.....	13
	Web of life.....	14
	Field trip –.....	15
	A sustainable environment: Introduction to sustainable development and sustainable agriculture.....	15
VIII.	Conflict situations role plays.....	16
	Role Plays.....	16
	Action.....	18
	Finishing exercises and Evaluation.....	20
	Performance.....	21
IX.	Fact Files.....	22
	FACT FILE 1 WETLANDS.....	22
	FACT FILE 2 THE TONLE SAP REGION.....	23
	FACT FILE 3 BIODIVERSITY ON THE TONLE SAP.....	24
X.	References.....	25

## **I. INTRODUCTION**

Community theatre workshops are a way of:

- Exploring participant's knowledge, experience, feelings and awareness of environmental issues.
- Exploring the local context and then the wider social, economic and cultural context of environmental issues.
- Agreeing on collective and individual action to stop degradation of the environment and ensure environmental sustainability.

Workshops with groups of people are a good way of allowing the group to examine attitudes and gain information. Many people are aware of issues such as overfishing, waste disposal, water pollution and logging but have never thought of the consequences of these or other developments on the environment. Or they may be aware of these as environmental issues and have not had an opportunity to meet with other people, explore the issues and decide what they can do about it. In a workshop using interactive drama techniques it is possible for people voice some of their attitudes and concerns, to examine and discuss them and agree on actions to take together and as individuals.

Community theatre workshops are concerned with action people can take as individuals and as a community to contribute to environmental change while maintaining and improving their livelihoods.

## II. KEY CONCEPTS

**Participation** – in a community theatre workshop everyone in the group is encouraged to have a voice. People listen and learn from each others stories, knowledge and experience. Participants don't need to be able to read or write.

**Critical thinking** – participants engage in critical reflection of their own situation.

**Action** – during the workshop participants decide on actions they can take to contribute to environmental change

**Indigenous knowledge** –The workshops don't assume the superiority of outside 'Western' knowledge. Peoples own knowledge and experience are valued. Traditional games, stories and theatre can also be used throughout the workshop process.

**Adaptation** – there is no formula to running a community theatre workshop. Workshops are adapted by facilitators depending on the context (the make up of participants ie. elders, young people, women), the cultural context (ie. what is appropriate), how much knowledge the participants have, the amount of time there is for the workshop etc.... Workshops also change during the workshop as the facilitators get to know the participants their expectations and level of understanding.

### **III. THINGS TO REMEMBER**

***Participants*** – an ideal number of participants is between 15 and 25 although it is possible to work with larger or smaller groups.

***Gender*** - when organising the workshop it is good to have an equal number of men and women, unless the workshop is just for men or just for women.

***Venue*** – depending on the size of the group, the venue should be big enough for energetic activities. It is also good to have an outside space that can be used for some activities.

At the start of the workshop give everyone a nametag and a program with general topics and a timetable.

## IV. WARM UP GAMES

Warm up games are a way of participants getting to know each other. They are a way of breaking down barriers, building up friendships, trust and communication amongst participants so that they can relax, feel comfortable and also start to think about environmental issues, but most of all have fun! There are many 'getting to know you games', these are just some examples. You may know some that can also be used. For example, traditional Khmer children's games or songs can be led by a volunteer participant.

### **The Name Game**

If the participants do not all know one another this is a very simple and easy way to start the workshop.

#### *What You Need*

- An empty space and people!

#### *How To Play*

- Make a circle with everyone standing close together and no gaps.
- The leader goes into the centre of the circle carrying out an action (which can be something relating to the environment or not...) and saying their name. Or they can walk, jump, cry, sing, be an animal, be replanting a tree, catching a fish, sowing or harvesting rice. But they must repeat the action until they reach the centre of the circle.
- When they reach the centre of the circle they say, 'My name is.....' loudly and clearly and stay in the centre.
- Everyone else in the circle copies the action, following the leader into the centre of the circle and then repeating the leader's name.
- Everyone goes back to his or her place in the circle.
- The person on the right of the leader goes next.
- They must choose a different action and go into the centre of the circle and then say their own name.
- The whole group copies them and they all go back to the circle.
- The next person goes into the middle.
- Everyone in the circle must have a turn.

#### *Suggestions*

- Encourage people to say their name again if they can't be heard.
- Tell people to try to do a different action from the one the person before them did.

Wan Smolbag 2002

## **Environmental Words**

### **Fish/Water bird/ Lake**

This game is intended to introduce words linked with the environment and even linked to ecosystems. You could have tree, fish, water bird, snake, river, lake, forest, soil. (2 specifics and one all-embracing) and change the words to whatever you like when you play it. You may prefer to use 'language' words.

#### *What You Need*

- Enough chairs for everyone except the team leader.

#### *How To Play*

- The designated team leader stands in the middle of the circle, with everyone else in a circle sitting on a chair.
- The leader goes round the circle giving everyone a name alternately e.g.: fish, water bird, fish, water bird, until everyone in the group is either a fish or a water bird (or whichever words associated with the environment you choose to use.)
- Make everyone with the name fish stand up and then the people in the water bird group. This is to make sure that everyone is clear which group they are in.
- Explain the game: the object of the game is to find an empty chair and not to be left standing in the middle!
- When the person in the middle of the circle says 'fish' all the people in that group must change chairs.
- The person in the middle must try and grab an empty chair. Pushing, pulling and cheating are allowed providing it does not get too rough!
- If the person in the middle says 'water bird' then all the people in that group must change chairs.
- If the person in the middle says 'lake' then everyone in the circle must change chairs.
- The person left in the middle must say 'fish', or 'water bird' or 'lake' and then the game starts again.
- The game finishes when everyone is exhausted.

#### *Suggestions*

- Ask people to do it differently. Say 'Anyone who likes fishpaste' Then all those people who like fish paste must change chairs. 'Anyone who wants to save the flooded forests'. People wanting to save the forests must change chairs.
- If there are not enough chairs available, you can use a large concrete area or sandy area and draw circles to represent the chairs or use floor mats or old rice bags and specify how many people can sit on each mat/bag. You can even say that 3 people can sit on all mats except one which can only have 2 people on it!

Wan Smolbag 2002

## ***This is a .....!***

This game works at whatever level you want. It can be played just for fun or to get everyone thinking on their feet...or played with a message about the environment. Below it gives the example of dealing with our waste.....at the end of the game you can ask questions on the subject matter.

### *What You Need*

- An empty space.
- A banana skin.
- A plastic bag.

### *How To Play*

- The group stands in a circle round the team leader, who is holding the banana skin in one hand and the plastic bag in the other.
- The team leader holds out the banana skin to the person on their right and say, 'This is a banana skin!'. The person on the right does not take the banana skin yet, but says, 'A what?'. The team leader repeats 'This is a banana skin!'
- The person on the right takes it and says to the person on their right, 'This is a banana skin!'. This person then says 'A what?' to the person who has just given it to them. The person who is handing over the banana skin then turns back to the team leader and says 'A what?'. The team leader replies 'This is a banana skin!'
- The words 'This is a banana skin!' are repeated until they reach the person who is being given the banana skin.
- Each time the banana skin is passed on, the question, 'A what?' has to be passed all the way back to the team leader and the response, 'This is a banana skin!' has to go all the way back to the person who is being given the banana skin.
- When the banana skin gets part way round the circle, the team leader can start to hand out the plastic bag in the opposite direction.
- The team leader says, 'This is a plastic bag' and hands it to the person on their left. They pass it on in the same way, coming back to the leader each time it is handed on to ask, 'A what?'
- When the banana skin and the plastic bag are handed to the same person the game usually ends in confusion and chaos!

### *Suggestions*

- If people get confused, don't worry! Just start the game again. Don't worry if you don't finish.
- It is a nice effect when the group is all turning their heads to ask the question, one after the other.
- At the end of game you could ask of everyone what is the best way to dispose of a banana skin and a plastic bag that is sensitive to the environment.
- You can substitute the banana skin and plastic bag for anything you like...for example a picture of a car and climate change.....climate change you would have to act out as best you can.....at the end of this you could ask of everyone what is the association between the car and climate change.

Wan Smolbag 2002

## **Where Do You Stand?**

We all have opinions and beliefs shaped by the society we live in and the family we come from. We often hold opinions that we have never discussed or examined critically. This game, which is used by many organisations, makes us examine and discuss these opinions

### *What You Need*

- Three cards or pieces of paper, with the words Agree, Disagree and Don't Know written on them.

### *How To Play*

- Place the 3 papers in different areas of the room.
- Make a statement about something to do with the environment. It can be anything and you should try and make it relevant to your situation.  
Here are some examples:
  - Cutting too many trees in the flooded forests is bad for the environment.
  - Plastic bags should be banned.
  - Over-fishing is bad for the environment
  - Rubbish and other waste can cause bad health
- Ask the group to go and stand by the paper they agree with. If we take the first statement, Over fishing is bad for the environment, those who think this is true stand by the paper that says Agree, those who are not sure stand by Don't Know and those who think it is wrong stand by Disagree.
- The groups must then discuss the reasons they have for thinking as they do and choose a member of the group to explain these reasons to the other groups.
- Each group listens to the others and then they are allowed to ask questions if they want the other group to explain anything more fully.
- The team leader then gives everyone a chance to change groups, if they have changed their mind.

### *Suggestions*

- When the group has finished their discussion, the team leader can draw out the main points of the discussion and talk about their own beliefs.

Wan Smolbag 2002

## V. EXPECTATIONS CHECK

It is important to listen to what the group expects they will learn from the workshop.

The facilitator can then slightly adapt the workshop to the needs of the participants. Below are a couple of activities. You can either choose one or do both.

### **Brainstorm**

*What you need* – A piece of butchers paper and a texta.

*How to do* - An easy way of doing an expectations check is to do a group brainstorm of peoples expectations on a piece of butchers paper. The piece of paper is kept up on the wall during the workshop.

### **Paper shape**

This is especially good if some of the participants can't read or write.

*What you need* – a piece of coloured paper for each participant.

*How to do* - Each participant is given a piece of coloured paper and asked to make a shape of what one of their expectations are. They can either fold or tear the paper or do whatever they like. They then present the shape to the group.

Note: A common question is about the process of community theatre. The facilitator needs to explain that community theatre workshops are different from other workshops are not a traditional lecture style but starts with peoples individual knowledge, experience, feelings, and awareness of environmental issues.

The facilitator can then say a couple of things that is expected of the participants ie. It is important that everyone arrives on time and is able to come to the whole workshop.

## VI. ENVIRONMENT – BASIC UNDERSTANDINGS

These techniques can be used to help young people explore issues about the environment in general or their environment in their own country.

Statue techniques, described below, can make simple environmental themes new and interesting or create a new way of looking at simple environmental issues.

These techniques are also used in plays to signal the end of a sequence or to create a picture for the audience to look at.

### **Basic statues - Bodies can be anything!**

To start statue work you need to divide the group into pairs. One person is a piece of wood; the other is the sculptor. The person, who is the piece of wood, has to stand completely still and the sculptor shapes them.

There are two ways to do the shaping -a) and b):

- a) The sculptor moves the person they are working with, using their hands to move the body into the position they want to create.
- b) The sculptor does not touch their partner but guides them into position, keeping a few centimetres distance between their hand and their partners' body. The partner responds to the sculptor's hand movements by moving. The second way of doing statue work requires much more concentration and can be better for groups who do not know each other very well and who find touching too personal or sensitive.

The idea of the statues is to make interesting shapes with the body. Nobody should be uncomfortable, or in a position they cannot hold. For example, you would not expect someone to stand on one leg without falling over! You could, however, give them a chair to put their leg on and achieve the effect of having one leg raised. The statues can show people working or fighting or hunting or fishing. They do not have to have any theme at all, BUT they do have to remain completely still!

When the sculptors have made their partner into a shape they are happy with, they should go and sit down. When all the statues are finished, all the sculptors walk round and look at what they have done. You can ask them to talk about what the statues are, as they look round.

When they have finished looking round the process starts again, but this time the sculptors become the piece of wood and they are shaped. The new sculptors sit down when they have finished shaping the wood and then they go round and look at the statues again.

Wan Smolbag 2002

### **Basic Statues – Describing the environment**

The next stage is asking a group to make body pictures of important environmental areas or issues through statues.

- Make groups of 6 - 10.
- Each group is given a topic e.g.
  - What makes up a lake
  - What makes up a river system
  - What makes up a flooded forest systemor they are all given the same topic.
- All the members of the group are involved in the body pictures.
- Each group must show their picture to the others, who must then guess what everyone in the picture represents.
- Two or three people or more, can join together to make a piece of reef or a tree.
- Once the groups have had a chance to show their initial ideas through pictures the next set of pictures could then be:
  - What do people use the lake for
  - What do people use the rivers for
  - What do people use the flooded forest for

Follow up with a discussion about why the lake or river or flooded forest are important.

Wan Smolbag 2002

### **Story board - environment past and present**

*What you need* – A large piece of paper and some art materials

*What to do* - Participants are divided into groups and asked to discuss what their local environment was like in the past and what it is like in the present. Many people may have heard stories about what the environment was like in the past, or may have a traditional or religious story about the past environment. If this activity is done on day 2 the participants can be asked to talk to elders about past environments and bring the story back to their small groups. Each small group are then given a large piece of paper and some art materials and asked to fold it in half draw the past and present environments.

Guevara 1995

## **Story telling**

Each group presents their past and present environments to the rest of the group as a set of pictures using a series of statues. The group can also choose to have a narrator.

### *Discussion*

The audience then explains what they have seen

- a) The group then discusses the past environment and ie. traditional Khmer (or other ethnic group) stories and religious (ie. Buddhist) beliefs presented. What are the message of the stories and beliefs? Are these things important to people now? (religious beliefs may be presented therefore discussed in the next section)
- b) The group then discusses the present and the consequences of certain actions on the environment.
  - ie.
    - what happens to rivers and lakes when we cut down all the trees and shrubs on the banks?
    - what happens when there are no more fish in the lake?
    - the different things that kill fish
    - what happens when you remove all the trees in the flooded forest?
- c) After every group has finished the group leader could then ask how things in the present could be changed:
  - how the harvesting of the flooded forest could be done in a way that might still retain the mangrove system or
  - how logging could be done in a way that prevents problems like erosion or silting of rivers and lakes.
  - how waste could be better managed

N.B. This is a lot of discussion and can take time so is best judged by the facilitator how much is discussed and at what level.

Wan Smolbag 2002

## **VII. ECOLOGY, ECOSYSTEMS AND SUSTAINABLE ENVIRONMENT**

### ***Environment Picture List***

*What you need* – Paper, art supplies, a board (or wall).

*What you do* - From the drawings of the past and present environments participants identify various parts of the environment that they then draw or write on a piece of paper and the facilitators then stick it on the board. A volunteer is then asked to classify the pictures, and then other people can volunteer to change or amend it with encouragement from the audience. They then explain the basis for their classification.

The facilitators then introduce the concept of living and non-living things and other classifications such as land, water or air organisms, plants, and man-made or natural objects.

Guevera 1995

## **Web of life**

*What you need* – a ball of string

*What you do* -

### Introducing parts of the environment

Each participant is given a picture (12 – 18 is a good number). Split into two or three groups if there is a larger group. Have representative plants, animals, decomposers, a human and you can have representative ecosystems such as forests, rivers, rice- fields. Each person introduces their picture through movement and sound. As people are being introduced everyone is asked to think about the interrelationship between the part that is introduced and the part that they have.

### Establishing the web

Everyone sits in a circle and thinks about the relationships they have with one another. These relationships are established with a string that is passed from one person to the other. As the string is passed people must state the relationship that exists between them and the person they are passing the string to. With each pass participants must hold onto the string. Encourage them to pass the string to those who have not received it yet. Feeding relationships and positive relationships generally are the first ones that people say, encourage participants to come up with negative relationships as well.

When everyone has received the string at least once, a web-like network has been established. Ask participants what they see in the centre of the circle. What does this structure or image indicate about the relationship of the various parts of the environment to each other?

Generally someone will say “if one part of the environment is lost, everything is affected”.

### Testing the web

Give the group a concrete example like “what will happen if the trees are all gone”? The person who is a tree holding the string lets go of the string. There is a slackening of the string. What happened to the web? What does this mean for the environment? Have we proved the statement that if one part of the environment is lost, everything is affected?.

### Direct and indirect relationships

To prove that if one part of the environment is lost, everything is affected, one of the participants is asked to tug the string. Participants are asked to also tug the string if they feel a tug. Eventually the whole web is moving.

### Simulating the niche concept

Redistribute the tags at random. Ask the group to think of new relationships based on the number of bits of string they have. Ie. the human who originally held the most bits of string may become bacteria. Most relationships will be direct and some may be indirect. This is to encourage the ecological concept of ‘niche’ that all parts of the environment are equally important, based on the specific function that they play in sustaining life.

Guevera 1995.

### **Field trip –**

#### *What you need*

Handouts of food chain energy flow and water cycle photos of animals facing extinction (obtain from local environmental NGO's).

#### *What you do*

Visit an outside location to observe food chains and energy flows (particularly the water cycle). Give out handouts with pictures explaining food chains and the water cycle. Participants can then go off on their own and make observations that they bring back to the group. Discuss the issue of extinction and share photos of animals facing extinction with the group such as the white winged duck, the white shouldered ibis and the giant ibis.

### **A sustainable environment: Introduction to sustainable development and sustainable agriculture.**

Small lecture and discussion.

*Sustainable development* means that people don't overuse natural resources to the point that there is nothing left for future generations. Ecosystem conservation is part of sustainable development. It is important to take on issues of pollution water, loss of species habitats and reduction of biodiversity.

*Sustainable agriculture* is the "management of resources for agriculture to satisfy changing human needs while maintaining or enhancing the quality of the environment and conserving natural resources". It is concerned with

- **food security** – the ability of an agricultural system to meet the demands of people from generation to generation
- **economic and social concerns** – there is equitable economic returns to everyone in the community. People don't lose income; in fact they save money over time by preserving the environment for themselves and future generations.

SEAMEO Module 1

*Group discussion* - Discuss these issues as they relate to the local context

## VIII. CONFLICT SITUATIONS ROLE PLAYS

### ROLE PLAYS

Role plays are an ideal tool to use when introducing controversial environmental issues. This exercise is to give people a chance to imagine they are in one of a number of difficult situations and to try and solve them. People can create their own roleplays or you can set scenarios that are relevant to the local context. There are two different types of role plays. The first is with people working in pairs and the second is working in bigger groups with people taking on different character roles.

#### Role Play in PAIRS

##### *What You Need*

- People in pairs.
- Role play situations - either those suggested below or ones you have made up.
- A space for each group to work in.
- You can also have someone who acts as mediator making sure that the situation remains realistic.

##### *What You Do*

- Each pair is given a role play - either those suggested below or ones you have made up.
- The aim is to resolve the problem in a way which will have the least impact on the environment. A compromise needs to be found so that neither side feels the other has won.
- You can act out the role plays and then give each pair five or ten minutes to work out their arguments and then get them to act it out to other pairs.

Wan Smolbag 2002

##### *Example Situation For Pairs Work*

You are walking with your friend he/she throws a plastic bag into the lake.

You are concerned about the effect of the plastic bag and the fact that it could be eaten by a turtle or fish which could choke on it.....

Your friend just wants to get rid of the plastic bag and it has to go somewhere!

## Role Play in Groups

### *What You Need*

- Split into groups with 5 or 6 people in each group.
- Role play situations - either ones you have made up or that the groups make up themselves.
- A space for each group to work in.

### *What You Do*

- Each group is asked to think of a conflict scenario (or are given one) at a local or national level and make it into a role play. Each person in the group must take on a character and act out the situation which must also be resolved in some way.

### *Example situation from the Solomon Islands*

The chief of the village, unknown to his village community, has just signed a ten year agreement with a logging company based in the city to come and cut trees from the community forest. He arrives back in the village with representatives from the company. He calls a village meeting for that evening to tell of the logging plans to the community forest.

Possible roles involved:

1. Chief  
The chief in this instance wants to convince the community to log the forest. Possible lines of argument could be that he is thinking of work for his community or the need for money to build a community school or he could just be thinking of himself and hides this fact.....
2. Community representatives 1  
This part of the community could be well behind the chief in cutting the forest. They are interested in the work and the money they would get in return for the trees.
3. Community representatives 2  
This part of the community could be against the idea of the logging. They do not like the thought of losing their forest as they use it everyday to hunt in, to collect firewood, to get housing materials, to shelter and picnic in and it is where they get their custom medicine....and what about their wild yam project?
4. Logging company representative  
They are keen to get everyone behind the logging operation as they do not want to have to face delays. They may be good at promising all sorts of things for the village....but do they really mean what they are saying .....
5. Forestry Department representatives  
They may be there to get a fair deal for both the logger and the community....or are they....

Wan Smolbag 2002

The audience discusses what they have seen and what they think of the solution. Are there any other possible solutions to the conflict?

## **Action**

### **WASTE MANAGEMENT CARD GAME**

Waste and its management is a challenge for any community, school, town council, and government. There is a lack of awareness of appropriate waste management practices and the consequences associated with the dumping of waste in certain locations e.g. in rivers or in the sea. There is also lack of understanding on the issue of burning waste. This is a simple game to get people thinking and talking about waste and where and how best to deal with it. It gets people thinking and talking about the consequences of their actions.

#### *What You Need*

- Lots of pieces of card or paper with drawings of as many different kinds of waste as you can think of – bottles, plastic bags, cans, metal, car tyres, food wastes.
- Card or paper with pictures or words associated with the disposal of the waste - bin, bury, burn, recycle, garden, forest, sea...
- The whole class or community split into small groups.

#### *What You Do*

- Place the cards with the waste disposal methods written on, across the floor space.
- Divide up the cards or paper with the different waste types giving one to each of the six groups.
- Give each of the groups time to discuss amongst themselves the best way of disposing of the waste in the cards they have been given.
- Then shout “GO” to get each of the six groups to place their cards against the waste disposal method of their choices. Get them to do this as fast as possible.
- The first group back gets to choose the order in which the groups will respond ... explaining their choices
- Get a member of the group to come and stand at the waste disposal spot and say what they put there and why. Ask the other participants whether they think this is correct...or to ask questions.
- Repeat this with the next waste disposal spot and so on ...until they are all finished.
- Continue this with each group until this is finished.

Wan Smolbag 2002

## **PACER**

### *What you need*

Large bit of butchers paper to write on, or the discussion can be just verbal if the participants are unable to read.

### *What to do*

From issues arising throughout the workshop participants are asked to have a discussion surrounding realistic actions that they can take to improve management of natural resources and ensure environmental sustainability. The facilitator can steer the discussion around the following framework. PACER – Problem, Area, Cause, Effect, Response.

People in the group commit to collective actions in areas that they can influence that they will take together.

Ie. awareness campaign about waste management.

Guevara 1995

## **Individual action**

What is something in your daily life that is not environmentally friendly that you can reduce or stop doing? Everyone is encouraged to share this with the group and to make a commitment.

## **Group vision - puzzle**

*What you need* – painting or drawing materials, a long piece of butchers paper.

*What to do* –

Spread a long piece of paper on the floor. Ask everyone in the group to individually paint and draw and contribute to the group vision. They can either draw their own picture or add to someone else's picture. While they are doing this everyone else in the group is silent. When everyone has had a turn people come together to complete the mural. Then each person is asked to express his/her interpretation of the mural.

It is then cut up and each person takes a piece of the mural away with them.

Guevara 1995

## **Finishing exercises and Evaluation**

At the end of the workshop it is good to have a finishing game that brings everyone together. It can be done with a song or it can be done with a game.

Groups can also be encouraged to come up with a song before the last day, that they can sing to the group or the group can learn together.

### **COMING TOGETHER**

#### *What You Need*

- An empty space and people!

#### *How To Play*

- Make a wide circle with everyone standing close together and holding hands.
- Ask everyone to be quiet and to close their eyes.
- The leader tells everyone to walk forward very slowly still holding hands.
- They must be aware of the people around them and be sure not to walk into anyone.
- Everyone walks forward.
- Everyone must keep their eyes tightly closed.
- When they are very close to each other in the middle of the circle, but not yet touching, they stop.
- Stay still for a minute in the centre of the circle, then ask everyone to walk slowly back to where they started.
- When everyone is back tell them to open their eyes.

Wan Smolbag 2002

Evaluation should also be done at the end of each day, but it is most important to do at the end of the workshop.

### **Evaluation**

Participants are encouraged to get into small groups, discuss the following questions and bring their reflections to the larger group. As people talk about what they have learnt they are also encouraged to talk about what some of the limitations and strengths of the workshop were ie. What was the most useful? What was not useful? What did they think about the facilitators? What did they think about the venue? Any suggestions/changes for next time?

## **Performance**

### **Group performance**

The group can put together a performance based on some of the activities and learnings from the workshop. Also traditional cultural tools such as shadow puppets can be used in the performance. This can be performed in small groups to each other or in a large group to a wider audience ie. community members and then a discussion can take place after the performance about what was learnt and what are some actions that can be taken by everybody.



Performance about endangered sea turtles, Vanuatu

## **IX. FACT FILES**

### **FACT FILE 1 WETLANDS**

70% of the earth is covered by water. Only 2.5% is fresh water. About 1.3 billion people face water shortage. The figure is expected to double in the next 25 years. Fresh water is vital for all life. It is a renewable, but finite, natural resource. Access to safe water is considered a basic human right by most people yet today 1.3 billion people are without an adequate supply and more than double that lack basic sanitation. Exploiting freshwater resources for agriculture, energy generation, industry and transport has enabled many countries to advance economically, yet increasing competition for water among such uses is degrading the very natural resources on which they depend. The natural water cycle, and the freshwater ecosystems such as lakes, rivers and wetlands that support it, provide the primary means by which fresh water is collected, stored and released in

the environment. Freshwater ecosystems also provide a wide variety of other goods and services, such as food, employment, pollution control and flood management. Yet these ecosystems are threatened by human overuse, as are the species that depend on them such as fish, frogs, crocodiles, cranes, and dolphins. Up to half of these species are in serious decline on all continents indicating significant degradation of freshwater ecosystems world-wide. Climate change is already compounding these effects through increased frequency of extreme weather events. In short, the environment is sending a warning signal that is being largely ignored at present. Why protect our freshwater ecosystems?

At present levels of water consumption and existing standards of mismanagement, two thirds of the world's population could experience water shortages by 2025.

Nature is the source of water, a multi-tasker absorbing rainfall, cleansing, generating supply for drinking, cooking, cleaning, supporting plants and animals, and giving us raw products to make goods. Water resources, and the natural processes that maintain them, need to be managed wisely. Agriculture and logging operations represent a major threat to the conservation of freshwater habitats and biodiversity.

Natural resources in wetlands and rivers represent millions of dollars in economic benefits and a life support system on which people, plants and animals all depend.

Wan Smolbag 2002

## **FACT FILE 2 THE TONLE SAP REGION**

### **General**

The Tonle Sap, the largest freshwater lake in South East Asia, covers an area of 250,000 – 300,000 hectares (ha) in the dry season and around four times this area in the wet season.

Threats to the Tonle Sap include over-exploitation of fisheries and wildlife resources, encroachment during the dry season, and cutting of the flooded forest. In the watersheds, the degradation of natural vegetation is destroying habitats and resulting in deteriorating water and soil quality and increased siltation rates.

The large wetland system supports one of the world's most productive freshwater fisheries and the ecosystem is essential to the survival of many globally significant species. Although the lake provides for a huge population, human population and development pressures are increasing.

Tonle Sap, which provides significant benefits in the form of fisheries production and bio-diversity conservation, has been severely degraded due to overpopulation, agricultural encroachment, forest fires, and harvesting for fuel and construction.

Meanwhile, Siphandon, whose channels serve as passageway for migratory fishes, and acts as critical habitat for many fish species, waterfowl, and other wetland flora and fauna, is also in danger of severe depletion if environmental safeguards are not put in place.

### **Poverty**

Despite the richness of the lake the Tonle Sap region has higher poverty rates than most other areas of Cambodia. Between 40-60% of houses in the provinces next to the lake are below the official poverty line, with some areas as high as 80%. Most households are completely dependent on fishing and foraging with access to common property areas under dispute. There are many female headed households which are particularly disadvantaged. There is also a high proportion of ethnic minorities along the lake who are not included in decision making and therefore have less opportunity to improve their livelihoods. It is important to achieve a balance between production and preservation.

ADB 2004

## **FACT FILE 3 BIODIVERSITY ON THE TONLE SAP**

The ecosystem is important for the survival of many globally significant species of birds, mammals, and reptiles found around the lake during migration.

Note: there is poor documentation of flora and fauna in the region. Numbers below are just estimates.

*Flora* - The flooded forest of the Tonle Sap is the largest remaining example of this type of habitat in Southeast Asia. About 200 species have been recorded and the flora is different from many other wetlands along the Mekong river.

*Fish* – The fisheries of the Tonle Sap represent 50-70% of the catch for Cambodia. The fisheries productivity in the lake is one of the highest in the world, which is mainly due to the flooded forest. There are 107 species in the lake and even more in the Tonle Sap river and new species are often being discovered.

*Invertebrates (animals with no backbone)* - invertebrates are very important to the Tonle Sap ecosystem. There is a very wide variety of molluscs and zooplankton, and a many crabs and prawns. They are an important source of food for people and wildlife.

*Mammals* – There are currently at least 15 species of mammals in the Tonle Sap region. Some large species such as elephant and tiger used to migrate from the uplands area before there were a large number of farms.

*Birds* – The Tonle Sap (mainly at Prek Toal and Boeng Tonle Chhmar) has the largest colonies of waterbirds in IndoChina. Its floodplain is an important breeding area for ducks, jacanas, bustards, rails, herons and egrets, cormorants, darters, ibises, pelicans, and storks. 225 species of birds have been recorded.

*Reptiles and Amphibians* – There are approximately 42 species of reptiles (including one water snake, seven turtles and one crocodile).

*Threatened Species* – Rapid human population growth and associated development pressures, as well as demand for natural resources, are affecting biodiversity. Many species are classified as endangered by the World Conservation Union, such as the white winged duck, the white shouldered ibis and the giant ibis. See [www.redlist.org](http://www.redlist.org).

ADB website 2004

## **X. REFERENCES**

Asian Development Bank Website (2004) [www.adb.org](http://www.adb.org)

Guevara, R (1995) Renewing Renew: A Restoration Ecology Workshop Manual  
CEC, Philippines.

SEAMEO Regional Centre for Graduate Study and Research in Agriculture (?)  
Sustainable Agriculture for the Uplands Training Manual Module 1, SEAMEO  
Philippines.

Wan Smolbag (2002) Drama in Environmental Education – A Guide: Fighting  
Poverty through the Protection of the Environment, A Wan Smol Bag Theatre  
Publication, Vanuatu.

World Conservation Union Redlist Website (2004) [www.redlist.org](http://www.redlist.org)