Facilitator's Guide

Community Tools for Managing Land and Water Resources in the Caribbean

Global Environment Facility-funded
Integrating Watershed & Coastal Areas Management in Small Island Developing States (GEF-IWCAM) Project

IWCAM
Integrating Watershed and Coastal Areas Management in Caribbean Small Island Developing States

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Purpose of the CBRA Facilitator's Guide

This Facilitator's Guide has been developed to assist you to effectively use the Community-Based Resource Assessment (CBRA) Toolkit to train the communities in which you work to protect surrounding ecosystems and sustainably manage their natural resources, particularly watersheds and coastal zones. This Guide accompanies the CBRA Toolkit to give more details on the process for setting up, organizing and holding an effective workshop.

This Guide therefore is primarily written for facilitators and provides the essential information to organize and implement a training workshop for communities on Community Tools for Managing Land and Water Resources in the Caribbean towards developing necessary action plans for environmental sustainability in communities across the Region. Facilitators are reminded that it is important to read and familiarize themselves with the entire CBRA Toolkit prior to organizing a community workshop.

The Guide will take you through each of the four modules of the CBRA Toolkit providing examples of ways in which you can impart the information contained therein in an engaging, informative, and entertaining format thereby fostering high levels of interaction in the workshop towards building stronger community partnerships.

The Guide also will provide examples of some of the many facilitation tools and tips that you can use to effectively train community members.

In order for you to effectively facilitate a CBRA Workshop within your community:

- You must have a thorough knowledge and understanding of the material contained in the CBRA Toolkit and is prepared to answer any questions about it. You may also wish to read other material on partnerships to enhance your knowledge of the subject.
- You must be skilled in group facilitation and have a variety of facilitation tools at hand. This is the most important of the trainer prerequisites as you will have to develop and adapt most of the agenda, based on the needs of the participants, which often emerge only during the course of the workshop.
- You must have a very clear understanding of what the participants want to accomplish by the end of the workshop and the means to guide the group to this end.

Therefore, this Facilitator's Guide also will provide you with an effective tool to plan, participate in and conclude a CBRA workshop or any other community-based workshop. We know that many of the skills, resources and approaches for community facilitation are skills many of you

will have already been developing: some of you already have some formal training in these skills. This Guide therefore also serves as a step forward or a refresher for some of you. Remember as well that this Guide has been designed to be adapted, as issues and challenges facing one community may not be the same as those in another. So the Guide simply highlights basic opportunities for effective community facilitation and defines various approaches that may be useful and help to explain the CBRA Toolkit.

The Facilitator's Guide is divided into eight units each made up of tips that you can effectively use to build the capacity of members of your community. The first four units provide general information on workshop planning (covering the essential information you need to prepare for the workshop) and on teaching techniques and facilitation skills; the last four units provide suggested approaches, presentations and exercises for introducing the CBRA Toolkit and for teaching each module in the Toolkit.

This Facilitator's Guide is designed to enable facilitators to:

- **prepare for a workshop**
- **conduct pre-workshop activities**
- **structure and conduct the CBRA Workshop itself using the Toolkit**

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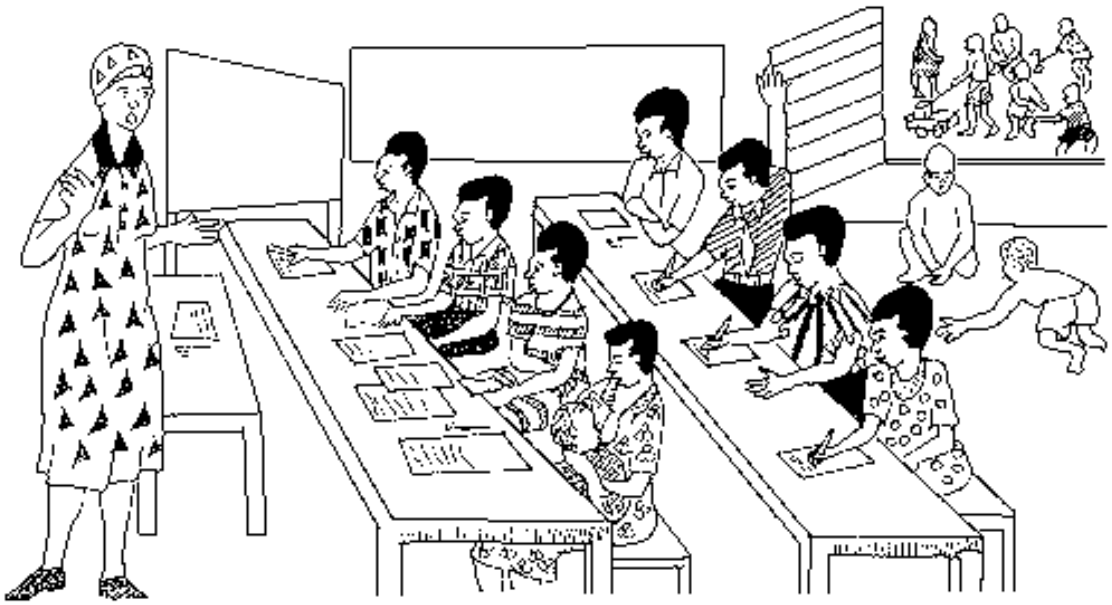
Getting Organized before the Workshop



Key Tips for Planning Workshops

There are many details involved in scheduling and planning workshops. It is not a simple task of just making a few calls and sending a few messages! Below are some useful questions and tips for planning workshops.

- Should there be a workshop in the first place – is a workshop necessary at this time?

- Determine the purpose of the workshop – write clear statements of purpose or objectives for the meeting
    - What is the end result you expect to achieve through a workshop?
    - Some examples: By the end of the meeting I want the group to…leave with an action plan…develop a road-map to solve some of the immediate problems in our community…etc…..

- Should a field trip be included in the workshop? If so, what topic or issue should the field trip address? What are some possible sites? Contact persons in charge of potential sites early to determine availability of site for the proposed dates and times.

- How long should the workshop last? When is the best time to hold it?

- Who should attend? List the meeting participants. Is it ok for participants to send someone else in their place (an alternate)? Send out invitations at least 2 weeks in advance

- Develop the meeting agenda before the meeting and send off to participants. Include in the agenda:
    - The meeting objectives
    - The list of topics to be covered, who will address them and for how long

- Circulate background materials to participants before the meeting – giving them sufficient time to review and prepare for the meeting

- What facilities, equipment (computer/projector/DVD etc) and materials are required? How should the room be arranged?

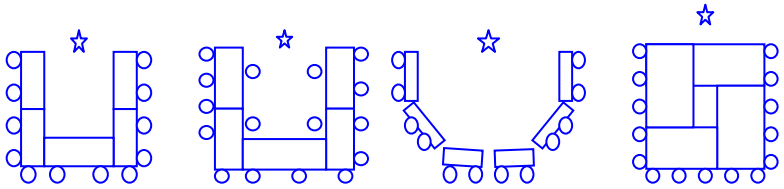
Checklist for Planning Workshops

Considerations	Meeting Planner/Team Leader Notes
OVERALL LOGISTICS **Some questions include:** • **How are participants notified?** • **Has a venue been determined and confirmed?** • **Are other confirmations required?**	
EQUIPMENT AND SET UP **Some questions include:** • **Is equipment (computer. projector, DVD player etc) needed and arranged?** • **Is the room set up determined and confirmed?** • **Do we need flip charts, paper, markers, tape etc. Who will get these?**	
SUPPLIES AND MATERIALS **Some questions include:** • **Do you have handouts? Are they copied?** • **Any presentations, slides, materials etc.**	
PROGRAMME AND PRESENTATION **Some questions include:** • **Did you walk-through and finalize the agenda?** • **Are all presenters confirmed and prepared?** • **Is there a back-up plan in case of any interference?**	

Sample Room Set-up

Overall Room Set-Up

- Main work area table arrangement alternatives:



- One table in front for placing workshop materials
- One table on back or on side of room for snacks, coffee and other refreshments
- One table for materials and display, in back or side of room
- One table near room entrance for registration, check in, name tents, schedule, payments

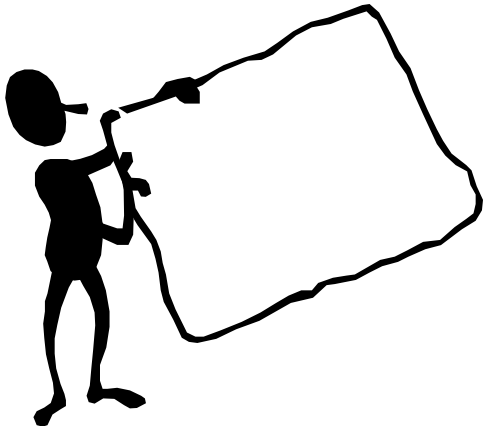
- Chairs, one per person plus extras
- Flip chart stands, with solid backs, or movable white boards
- Blank walls to hang charts on
- A large wall space in the front of the room, unbroken by windows, shelves, etc., approximately 9-12 feet in width
- Good lighting; natural light from windows, or good overhead lights
- Breakout spaces for team. If main meeting room is large enough, and the acoustics are good, these spaces can be in one room.
- Brief quotes on the role and style of the facilitator printed on colored paper to use as wall décor.

Developing a Workshop Agenda

Notes to the Facilitator

The agenda is the roadmap for the workshop – it paints a clear picture of the workshop to be held. The agenda helps keep the workshop focused. Agendas normally include the following:

- Workshop start time
- Workshop end time
- Workshop location
- Purpose/objectives of workshop as well as learning outcomes (knowledge, performance and attitude)
- Key topics or problems to be discussed
- The time each topic is expected to last
- The person discussing a particular agenda item



For each topic to be discussed on the agenda:

- Determine what needs to be done/accomplished
- How the topic will be handled
- Who will present the topic
- How much time will be allocated

Sample Agenda for the CBRA Workshop for Communities

Community-Based Resource Assessment (CBRA) Workshop

Day 1

- Registration — 8:30 am – 9:00 am
- Opening Session — 9:00 am – 10:00 am
  - Welcome and Opening Remarks
  - Pre-test
  - Ice-Breaker/Warm-up Exercise
  - Objectives of the Workshop
- Coffee Break — 10:00am – 10:30 am
- Session 1 — 10:30 am – 1:00 pm
  - Turning the Pages of the Toolkit
  - Getting Familiar with the Content
- Lunch — 1:00 pm - 2:00 pm
- Session 2 - Facilitating Module 1 of the CBRA Toolkit — 2:00 pm – 5:00 pm
  - Discussing Integrated Water Resources Management Community - Roles and Responsibilities
  - The Construct of an IWRM Plan
  - Sharing Experiences and Insights
  - Discussing Indicators and their Importance to Good Environmental Management
  - Exploring a Watershed - Use of Pictures and Images to Explore the Topic
  - Determining Approaches for Enabling Communities to Understand the Uniqueness of Watersheds and their relationship with Rivers, Land and the Coast

Day 2

- Session 3 - Facilitating Modules 2 & 3 of the CBRA Toolkit — 8:30 am – 10:00 am
  - Exploring Ways of Educating about Rivers and Land
    - Pictures, Quizzes, Worksheets and Exercises
  - Impacts of Human Activity on Rivers and Land
    - Creating Stories and Songs to Explore Topic
  - Viewing of Video Segments
    - Discussing ways of including multi-media in training sessions

- Coffee Break 10:00 am – 10:30 am
- Session 3 (continued) - Facilitating Modules 2 & 3 10:30 am – 12:30 pm
    - Viewing of Video Segments
    - Exploring Indicators, Mapping and Monitoring related to Rivers
    - Undertaking an Assessment of Land Degradation
        - A Pictorial Approach using the Indicators of Land Degradation
- Lunch 12:30 pm – 1:30 pm
- Session 3 (continued) - Facilitating Modules 2 & 3 1:30 pm – 5:00 pm
    - Exploring Methodologies for Developing Action Plans in Communities
        - Case Studies
    - Exploring the Advanced Participatory Method for Action Planning
        - Doing a Victory Circle
        - Undertaking a Current Reality Exercise
        - Brainstorm Commitment of the Community
        - Brainstorm key actions
        - Preparing the Front Wall during the Action Planning Process
    - Information on Field Trip

Day 3

- Field Trip 8:30 am – 11:00 am
- Session 4 - Facilitating Module 4 of the CBRA Toolkit 11:00 am – 1:00 pm
    - Coastal Environment - Measuring, Monitoring and Taking Action
    - Understanding Coastal Degradation
    - Impacts of Human Activity on Coastal Resources
    - Understanding the Coastal Zone Assessment Worksheet
    - Using an Interesting Method - Song, Music, Skit to Share What's Going on at a Beach Near You
- Lunch 1:00 pm – 2:00 pm
- Session 5 – Post-test and Workshop Evaluation 2:00 pm – 3:30 pm
    - Post-test
    - Workshop evaluation
    - Distribution of Certificates
    - Closing

Creating Workshop Objectives/Outcomes

Workshop objectives are also referred to as workshop outcomes or learning outcomes.

- Objectives enable you to determine what you expect to achieve by the end of the workshop
- Objectives help to plan workshops
- Objectives help to determine what the agenda looks like
- Objectives inform participants of the most important things that they should have by the end of the meeting
- Objectives give you concrete measures against which you can determine if your workshop was successful
- Objectives help you to continuously improve your workshop process

Objectives serve the following purposes:

- They relate the content of the training to the knowledge, skills, and attitudes identified in task analysis, which is based on the desired job performance of the participants.
- They make planning and implementation of training focused, effective, and efficient.
- They are the standards used to evaluate the training.

In preparing objectives write down a phrase or several phrases to complete the sentence:

- **By the end of the meeting, I want the group to….**

Depending on the focus of the group your ending to the sentence above might include phrases such as:

- **… buy-in to the action plan… find ways to solve some of the problems in our community…**

Small Group Exercise – Creating Objectives

Discuss the objectives of the CBRA Workshop and determine if these were designed as good objectives. Define some objectives for your upcoming community workshops.

Good Planning = Effective Workshops

Effective workshops require:

- **Preparation**
- **Implementation**
- **Follow-up**

Developing Session Plans

Defining the objectives of a workshop helps the facilitator to be able to prepare session plans. Session plans help the trainer organize the workshop. They are like a recipe that guides the facilitator in conducting the lessons. Session plans are written instructions for the training. They describe in detail how the training will be conducted and are based on the tasks that the participants need to learn. A session plan outlines what the facilitator needs to prepare for each training session and how to conduct and evaluate the workshop.

The table below shows a session plan format.

Session Title:				
Objectives for the Session: (SMART* statements describing what the participants will learn)				
Time	**Topic**	**Teaching Methods**	**Resources**	**Evaluation**
Indicate the duration of the session and of each activity.	List the topic which the lesson will cover. List the sub-topics (skills, knowledge, & attitudes) which will be taught	List the training methods which will be used. Write down instructions which the trainer will follow.	List resources needed for the session. • Resource materials used for planning session (books, manuals, audio-visual aids). • Co-trainers, experts and personnel contributing to the lesson. • Transportation and other requirements.	Write down indicators trainer will use to measure how well objective was achieved.

*SMART - Specific, Measurable, Attainable, Realistic and Timely

The session plan should include:

- Objectives of the session
- Time necessary to teach each objective
- Teaching methods to be used during the session
- Resources needed for the session
- Evaluation techniques for measuring achievement of objectives

Small Group Exercise – Creating A Session Plan

Using the table above create a session plan for one of the modules contained in the CBRA Toolkit.

Facilitation Skills

Tips for the Facilitator

- Gain as much understanding about the group you are facilitating in advance of the session as is possible (numbers, work done to date, issues and concerns).
- As a facilitator you must have a very clear understanding of what needs to be accomplished by the end of the session and the means you will use to guide the group to this end.
- Be flexible. Plan your process in advance, but be ready to change or adapt to meet the needs ofthe group.
- Don't make the process too complex. You do not want the process to get in the way of learning and discussion. The larger the group, the simpler the process should be.
- Don't try to cram too much activity into the time you have. Allow time for meaningful discussion. Often, the sharing of ideas and discussion has the most value for participants.
- There is a balance to strike between giving people time to express themselves and keeping the process on track.

Exploring Facilitator Styles

Facilitators are guides, not participants. They ask open-ended questions designed to elicit the utmost in creativity and insight. They assume every contribution has an insight behind it and in fact, it is the task of the facilitator and the group to gain that insight for the collective good. Facilitators do not give answers, but ask question after question to draw out wisdom, clarify it, build on it with other insights, and help the group forge out a concrete consensus to which the whole group can commit itself. They sometimes ask intentionally naïve questions, intending to get at the roots of apparent disagreement, thereby revealing a difference in understanding or values and providing a basis for resolution. They assume that every participant has an important perspective to contribute and draw out naturally quiet people even if that requires asking naturally dominant people to listen more often than is their habit. They promote clarity by enabling participants to contribute to their wisdom in short, succinct phrases which convey concise images.

Facilitators prepare extensively. They then set a clear context for the task at hand, requesting data from participants on their anticipations, regarding desired results from the group's interaction. They have clearly in mind the objective of the interaction, the time allotted to consideration and the needed impact on participants. In many interactions, one experiential objective is for the group to conclude that it already has the power and authority to implement its decisions. Facilitators familiarize themselves with the community organization's history, current external operating environment, and internal working atmosphere.

Facilitators are concerned both with process and results. They keep the interaction moving toward a decision. When there is no consensus in a critical arena, they facilitate a decision about the process necessary to produce consensus. Consensus within the group becomes the building factor, not presumed right or wrong. They assume that reality will reveal itself in due time as the group continues its work. They believe that not every issue has to be sorted out at the instant of its being raised.

Facilitators are reflective human beings. They regularly make time for the group to reflect on the significance of their work. They demonstrate and elicit humour which releases tension and provides relief from intensive work. They facilitate intuitive leaps which spark creativity, a highly motivating force which produces commitment. They require clear conclusions regarding decisions made and ensure objective documentation of the group's work for every participant, thereby paving the way for implementation.

Qualities of a Good Facilitator

Qualities of a good facilitator

- Trust in others and their capacities (both co-facilitators and participants)
- Good listening skills
- Good presenting skills
- Confidence without arrogance
- Ability to create an atmosphere of confidence among participants
- Respect for the opinion of others (not imposing ideas)
- Flexibility in changing methods and sequences as needed
- Knowledge of group process, including the ability to sense the group's mood at any given time and adjust the programme accordingly
- Familiarity with the culture, needs, strengths, and limitations of participants, and respect for individual differences
- Organisation: equipment, supplies, time schedule
- Ability to strike the delicate balance between being directive and non-directive, and to know when each stance is needed at different points during the workshop

In addition to these qualities, facilitators also should have relevant knowledge and experience in evaluation planning and implementation, and/or a good understanding of typical barriers and benefits of treatment evaluation. Formal scientific training is advantageous for certain types of evaluation, but is no guarantee of good facilitation.

Good Facilitating Behaviour

Setting the Stage

- Set up a space in a design functional for the requirements of the event. In a participatory planning session, people should be seated so they can see one another and track the "group memory."
- The space should communicate that something important is going to happen here.
- Décor such as wall charts, quotations, meeting groundrules, plants and art objects can help set the tone and remind the group of its task or purpose.
- State clearly the purpose and expected outcomes of the meeting and ensure that the group understands and concurs.
- Propose a process for achieving the purpose of the meeting and get the group's agreement on this. It may help later in the meeting. E.g. "remember, we said we would brainstorm alternatives before beginning to evaluate them."
- Outline the proposed timeline for the meeting and ask for the group's assistance in staying on track. Stick to it, or ask the group to make changes as the need arises.

Encouraging Participation

- Encourage participation by each individual present. Every person's involvement is critical to the success of the meeting.
- Encourage participation for the entire time. Coming and going by some participants can be distracting.
- Don't over-dominate the discussion. Contextual overview, procedural guidelines, and clarifying questionss and statements are sufficient. The facilitator stays focused on the process, allowing the participants to contribute 100% of the content of the meeting.
- Don't be afraid of silence. People need thinking time, especially for more complex or critical matters.
- Do ask for quality and informed participation: ask for details and examples, encourage the group to avoid generalizations; encourage people to be comprehensive, look at all angles and probe into the depths of the issue; encourage creativity and innovative thinking; and encourage honest, open and helpful dialogue.

Enabling the Flow

- Be attentive to the pace: keep it lively during brainstorming, slow it down for more reflective, pondering questions.

- Be positive and encouraging: model affirmation by honoring all individual and group work.
- Have fun and enable the group to enjoy being together: enliven with humour, affirmation and authentic enthusiasm.
- Create and work with the "group memory," a written record of the group's work that is available for all to see, to ensure that ideas are visible to the group, and to reflect the consensus as it develops.
- Use body language – to show attentiveness, to bring into the process people who are not participating, to bring the group's attention back to the "group memory," etc.
- Help the group maintain its focus: review where your are in the process ("where we've been and where we're going"); repeat the focus question; re-issue instructions, etc.

Dealing with Problem Participation

- Avoid allowing one or two people to dominate the discussion; ask that they summarize for the "group memory" and move on to somone else.
- Affirm multiple and diverse points of view; ensure that they are recognized as significant.
- Don't answer questions the group should answer for themselves. Give the question back to them so they can own the decisions.
- Don't be defensive. If someone in the group questions the way you are conducting the meeting, ask the group if they are still comfortable with the decisions made at the beginning or would they like to make some changes.
- Take time to make meeting or team ground rules at the beginning, and enable the group to hold itself accountable for following them; call attention to their disregard by certain participants if necessary, in order to change behaviours.
- Accept/legitimize/deal with or defer: this is a general method of dealing with problem participation.
    - Accept the criticism or the feeling that has been expressed;
    - Acknowledge that it may have legitimacy;
    - Stop and deal with the issue if possible and relevant to the meeting; or
    - Defer it to a later time, e.g., "can we wait until the end of the meeting, and if your issue has not been addressed, we'll deal with it at that time?"
- Don't let your leadership prejudice or bias the group's thinking. If you are attached to a particular outcome for the meeting, don't facilitate. The final product should not reflect your thinking. If there are pre-determined outcomers or boundaries within which decisions must fit, make that clear at the beginning; otherwise your facilitation will be suspected of manipulating the group's work.

Exploring Ways of Facilitating in Local Communities – Stimulating Discussion from Participants – Helping Groups Make Decisions and Generate Ideas

In many workshops designed for community groups, one of the goals is to promote collaboration and sharing of information, knowledge and experiences. The following lists some critical elements for encouraging effective participation in the workshop:

Verbal Techniques for Encouraging Participation	Non - Verbal Techniques for Encouraging Participation
Ask open ended questions: • **How do you feel about that?** • **How can we improve the way…**	**Show attentiveness:** • **Pay attention to the person talking** • **Establish good eye contact with the speaker** • **A few nods of the head to show your understanding will encourage the speaker to continue**
Acknowledge and positively respond to contributions: • **Thank you** • **That's a good idea** • **Let's put down that idea**	**Use your voice and facial expressions:** • **Speak clearly and loud enough for everyone to hear** • **Smile and keep a positive expression on your face**
Ask for more specific examples: • **Can you give us some examples?** • **What do you mean by…** • **Can you be more specific?**	**Silence (a critical tool for meeting management)** • **Learn to pause, wait and say nothing** • **Pause after asking a question** • **Try not to get anxious to restate your question if you don't get an immediate response**

Verbal Techniques for Encouraging Participation	Non - Verbal Techniques for Encouraging Participation
Ask for and encourage different points of view: • **What do the rest of you think about that?** • **I'd like to throw this question out to the entire group** • **This relates to something that Stacy said earlier… Stacy what do you think?**	

Training Methods and Materials

Training is a highly specialized skill. Each trainer uses his or her own experience, talents, and style to implement the workshop. Training methods and materials are the techniques and resources the trainer uses to implement the workshop and transfer new knowledge, skills, and attitudes to participants.

Teaching Methods – General Tips

- When choosing teaching methods for a particular lesson, consider the following questions:
    - Is the method suitable for the objective?
    - Does the method require more background knowledge or skills than the participants possess?
    - How much time does it take to prepare? To use? Is that time available?
    - How much space does it take? Is that space available?
    - Is the method appropriate for the size of the learning group?
    - What kind of teaching materials does it require? Are they available?
    - Does the method require special skills to use? Does the trainer possess these skills?

Teaching Methods for Knowledge

- Teach only those facts which the participants need to know
- Get the participants' attention - explain why they need to know the topic. Tell a story that shows why it is important
- Give a summary. Explain the main themes you are going to cover
- Present the facts and information
- Use handouts and manuals to reinforce the lecture or lecturette. Participants learn more by listening and actively participating than by taking detailed written notes
- Ask participants to tell stories about how the facts will be used
- When possible, use audio-visual aids
- Plan an exercise for participants to practice the knowledge they learned

Training Methods for Skills

- Name the skill
- Tell why it is important
- Explain when to use it
- Describe the steps involved in performing the skill
- Demonstrate the skill
    - The demonstration must use effective methods which are applicable to the work environments of the participants
    - Use only equipment which is available to participants in the field
    - All participants must be able to see what you are doing
    - Explain what you are doing (a written handout with pictures will help reinforce the explanation)
- Arrange practice sessions - This is the most important part of teaching skills
    - Take time to practice
    - All participants must practice the skill
    - Each participant must receive feedback from the trainer/facilitator

Types of Training Materials

Written materials are useful when teaching knowledge. They may already be available at the appropriate learning level or the trainer may have to develop new materials.

- Things to consider when developing and using written materials:
    - They contain only the knowledge that participants need to know.
    - They are clear.
    - Layout is very important. Keep pages looking 'clean' and uncluttered.

- Use language and diagrams appropriate to participants' level of knowledge. For example, only use graphs if participants can read a graph.

Audio-visual materials are useful for teaching knowledge and skills. Examples of audio-visual materials

- black board
- flip charts
- charts and diagrams
- models
- photographs
- overheads
- slides
- videos

- Things to consider when choosing audio-visual materials:
  - How does the material enhance active learning?
  - Is the material appropriate to the knowledge level of the participants?
  - How will the trainer use the material?
  - Is the material available for the training?
  - Will all the participants be able to see and/or hear the material?
  - Does the method require any supplemental materials? Are the supplemental materials available? (For example, to show a film you need a screen or blank white wall; to use a flip chart you may want to use different color markers.)
  - Are the facilities appropriate for use of the material?

The trainer will implement the workshop by choosing training methods and materials which are suited to the objectives of the lesson and which require active participation of the persons attending the workshop.

Teaching Techniques

- Discussions/Brainstorming/Buzz Groups
- Case studies
- Field trips, site visits
- Projects
- Role play, games, simulations
- Investigations
- Using art, music, drama, poetry
- Audio-visual presentations – posters, slides, transparencies, videos etc
- Situation analysis
- Debates

- Values clarification, values analysis, moral dilemmas
- Research

Understanding the Different Teaching Techniques

Teaching Technique	What is it? Guidelines
Discussion	**An oral exchange of ideas and information usually considering points for and against an issue.** ***Guidelines:*** To be effective, discussions must be carefully planned and facilitated. Do not allow participants to stray from the topic; and allow only accurate information. Plan questions of recall as well as analysis in advance. Variations include: **buzz groups** in which 2-3 persons talk for 4-5 minutes; **brainstorming** in which ideas flow freely from all group members for 10-15 minutes.
Debate	**A discussion about different sides of an issue**. It is excellent for engaging participants in discussions on ethical and controversial topics that do not have correct or incorrect answers. Participants discuss the pros and cons of different options and the trade off involved in making decisions. Debates develop research, critical thinking and communication skills, and through them participants can also develop skills of analysis and evaluation of their opponents' position. ***Guidelines:*** Debate topics must have clear pro and con sides. Teams of 3-4 per side must have clear time limits for opening statements, rebuttals and closing statements.
Simulation	**A contrived activity that models aspects of the real world**. It is a simple representation of a complex natural situation. A simulation can take the form of a **game** or an **imaginary field trip**, for example, and is useful for involving participants in social issues. **Computer simulations** generate creative, manipulative environments that allow participants to ask "what if" questions, to make decisions, and to receive immediate feedback as simulated consequences. This could give repeated practice for dealing with real world situations. ***Guidelines:*** Help participants to distinguish what is realistic and what is not realistic about a simulation. End simulations with discussions about different perceptions of the issue, how participants felt about the issue, how conflicts were resolved, and what actions may be taken in the future.

Role Play	**A type of simulation in which individuals act out roles** to better understand how others feel about given issues and to appreciate the complexity of real life problems. ***Guidelines:*** Make procedures clear about roles, time limits. Be sure that key ideas and issues are included in a realistic way.
Using the Senses	**Outdoor or indoor activities that use the senses**: seeing, hearing, touching, smelling, and tasting (with caution!) to help participants learn about their environment first hand and to discover on their own. These help to promote positive feelings about the environment.
Art Forms	**Creative expressions of how people feel, think and act** in forms such as drama, dance, music, song, poetry, proverbs and literature. Art forms can fantasize real life experiences; for example, when an object takes on human characteristics like speech. Folk songs, folk tales and popular music often have environmental themes. Studying these can help us to understand ourselves, our country and our total environment. Art forms can promote critical thinking when they focus on economic, social and political issues and allow individuals to compare and analyze lifestyles and cultures, for example.
Situation Analysis	**A comprehensive examination of environments and situations**. Such analysis allows participants to identify the different factors that interact. These can be clarified, compared, and prioritized. Situation analysis is an important first step before planning to solve environmental problems.
Field Trips	**A unique outdoor, first hand, concrete experience**. Experiences can take place anywhere: in fields, wetlands, and forests looking at natural resources, land use and pollution issues; in urban areas looking at the built environment; in industries looking at business practices or at zoos, nature centres or museums. Field trips can increase participants' knowledge, skills, interest in, and appreciation of their environment. ***Guidelines:*** Activities before, during and after a trip must be planned in detail.

	Visit the site before taking the trip with participants to note potential dangers and understand how learning will take place. Get the necessary permission from owners etc. and from the parents and school, if participants are minors. Make adequate transportation arrangements. Inform participants of the objectives, activities and required behaviours, dress and your expectations. Plan definite tasks for during and after the field trip to focus attention on specific objectives, link activities to objectives and maximize the learning experience.
Project	**An in-depth study of a topic or theme** through the application of skills that were learned earlier. It may involve explorations, open-ended investigation, inventions, community action, etc. Projects involve planning, especially through topic webs, collecting resources, outlining key events, doing and recording, concluding, interpreting and producing some kind of final products which are shared. Products may take a variety of forms: written, illustrated reports, models, videos, audiocassettes, photographs, journals, diaries, portfolios. Action projects enable participants to improve environmental conditions. Projects can be done singly or in groups and encourage growth in knowledge, skills, participation and understanding of problems. ***Guidelines:*** The facilitator's role is to guide, suggest alternatives, observe work as it progresses, listen, question, assist especially in locating resources, encourage and evaluate project participants.
Demonstration	**An opportunity to see a phenomenon that would not be observed otherwise**. It is usually done by one person in front of a group. Demonstrations make use of models, specimens, pictures and photographs, apparatus of some kind. They are done in situations of lack of equipment or danger. Theatrical demonstrations on puzzling topics have the greatest impact. ***Guidelines:*** All in the group should be able to see and hear the demonstration. Rehearse demonstrations and ensure that the intended concepts and skills are clearly demonstrated.
Audio Visual Presentation	Information presented through **films, slides, overhead transparencies** etc. in interesting and efficient ways. ***Guidelines:*** Preview presentations and decide where they will fit best. Prepare introductory comments and questions which could be given to participants before viewing to focus them and after viewing. Guide discussions at appropriate times during and after the viewing.

Investigation	**A procedure that is planned and carried out for gathering data in order to answer questions**. Data collected has to be interpreted and conclusions drawn. Investigations can be structured, controlled **experiments** e.g. to find out the type of soil that a plant grows fastest in, or they can involve **surveys, interviews and/or observations** e.g. looking at how waste is dealt with in a community or investigating the plant and animal interaction in a swamp.
Values' Clarification	Values' clarification approaches aim to help participants to realize and be comfortable about their own values and beliefs. They do this by making choices between positions, weighing pros and cons, evaluating consequences, acting on their values, and accepting that others can have different values and beliefs.
Moral Dilemma	Presentation of a moral conflict situation that allows participants to wrestle with their own beliefs and values and to experience higher level moral reasoning skills. At levels of higher moral reasoning, people do not only conceive of what is right and what is wrong, but they also understand that people can change existing community and societal rules for the betterment of society. Taking action to protect the environment for future generations is an example of higher moral reasoning. ***Guidelines:*** Create simple, open-ended scenarios that have moral implications for the characters. Popular dilemmas, for example, involve individuals making decisions around conflicting problems where family economic values conflict with employers' or community values. Facilitators of moral dilemmas should remain neutral, while encouraging participants to listen to each other and interact.
Case Studies	Case studies bring together ideas and issues from real life, for analysis and discussion. The scope of the study may be geared to a particular context and audience but they can be developed around any aspect of the environment. Case studies are also a good way of using the ideas and talents of a group to carry out tasks. To be effective however, they have to be properly developed and related activities must be properly planned. Tasks and responsibilities are assigned to group members and activities have to be carefully monitored. Case studies also require good group facilitation skills that help participants reflect on the tasks, explore options, arrive at conclusions and make decisions. Case studies capture interest, immerse participants in the issues, and are a positive way of persuading or educating people to revise their opinions and actions. Case studies are a popular and effective tool to encourage people to speak freely and to promote teamwork. Through this approach, learners can:

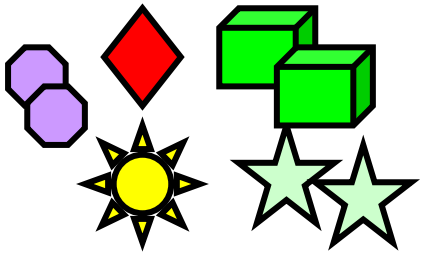
	• analyze material and extract meaning • clarify personal values and viewpoints • examine issues from various viewpoints • evaluate their own opinions or those of others • make decisions based on these evaluations • suggest and weigh alternatives for solving problems These skills are essential for everyday living. The ability to make choices is particularly important, since promoting a sustainable future involves making choices that must always follow the path of greatest good to the environment.

Adapted from: Lifeline - An Environmental Education Resource Kit to Promote Sustainable Development in Jamaica

A Closer Look at Brainstorming

From Advanced Participatory Methods, APM, Level 1

BRAINSTORM



OVERVIEW:

- rapidly elicit initial thinking from each individual
- ensure all participants are involved in contributing ideas
- catalyze intuitional thinking about the topic

STEPS

Briefly:

1. Individually list responses to the workshop question.
2. Share lists in teams of 2-5; assign a minimum # of ideas to write on cards (5-10).
3. Collect 1 or 2 cards from each team, read aloud & post randomly on wall or board.

PROCEDURAL TIPS

Give individuals time to do their own thinking. Ask for silence. Have individuals write down the ideas – quickly, intuitively, many rather than few.

Organize into work teams; at least two participants to a team but not more than six. Give verbal and written instructions on how to discuss their ideas. Post instructions for writing on cards:

Teams select several ideas and write them on cards. You will need about 30 - 45 cards for the workshop. Ask teams to develop between 4 – 7 idea cards (exact assignment depends on how many teams, time limit, degree of complexity, and other factors).

At the start of the group plenary session, ask each team to present 2 idea cards.

Read each card and post it randomly on the wall, spreading them out.

- Accept & acknowledge all responses equally
- Indicate to the group that there are no wrong answers
- Answer questions of clarity only, let the team whose idea it was answer any questions from the group; an abbreviated discussion focused on the idea cards
- Judgmental or 'editorial' comments from you or others will cut off the participation of some participants
- If you don't quite understand what a particular card means, ASK rather than trying to interpret

CONSENSUS:

This step begins to reveal common ground as the group consents to honor and treat each idea with equal merit. Teams practice collaboration and compromise in selecting ideas.

A Closer Look at Field Trips – Field Trip Planning Checklist

- Discuss needs and interests of members
- Determine objectives of trip
- Determine site of trip
- Determine date and time of trip
- Obtain administrative permission from site (if required)
- Make transportation arrangements and determine cost
- Confirm accompanying staff
- Determine cost of admission (if applicable)
- Determine other costs
- Determine name of contact person at site
- Conduct a pre-trip site visit
- Note potential hazards
- Develop tentative trip schedule/rest stops, etc.
- Confirm arrangements in writing
- Source equipment/materials to carry
- Determine required clothing
- Establish and disseminate trip rules
- Identify responsibilities of participants
- Decide on data collection
- Conduct pre-trip activities e.g. practice using equipment
- Teach emergency response procedures
- Note special needs of any participant
- Conduct post-trip activities:
    - Debriefing
    - Trip report
    - Make presentations
    - Send thank you letters

Safety Considerations for Outdoor Experiences

Safety considerations are important for any outdoor experience. Possible environmental risks should be considered and managed in an appropriate manner. No matter how carefully activities are planned, there is always a chance that an incident can occur.

Depending on the kind of incident that occurs, group leaders should consider the following:

- the affected person/persons
- getting emergency service, as needed

- the needs of the remainder of the group
- notifying college administrators

The following precautions should be observed when working outdoors:

In a built environment – urban or rural

- Know meeting times and places
- Meet in groups away from the main street
- Use pavements
- If there are no pavements, walk in single file facing oncoming traffic
- Use pedestrian crossings
- Stay within the group to which you are assigned

At ponds/ rivers or other bodies of water

- Walk on firm ground in sight of others
- Watch your footing
- Do not splash up water
- Wear rubber gloves when working in the water to avoid getting diseases like leptospirosis
- Wear rubber boots or over shoes, as appropriate
- Have a safety line available, as appropriate

On a farm

- Avoid dangerous farm equipment
- Wear gloves and/or rubber boots in areas that have manure, since manure can contain dase causing organisms.
- Do not chase animals
- Be careful of the plants you touch. Most are harmless but some may be poisonous.

In general you must be careful when using equipment with glass or equipment with sharp points and edges. Hand lenses, for example, can start fires if they are not used properly.

From: Guidelines for Environmental Clubs – Joint Board of Teacher Education

Starting the Workshop

Opening Session including Welcome and Introductions

The objective of the introduction is to orientate the participants by giving them some background information about the workshop and its purpose. It prepares the ground for the workshop and its associated activities and is intended to create a safe and comfortable space for participation over the entire period of the workshop.

Time Frame:

10 to 15 minutes depending on the size of the group (group size should be between 15 to 25)

Notes to the Facilitator

It is very important to confirm that all participants understand the objectives of the workshops as well as have an opportunity to express their expectations for the workshop. Post the workshop objectives and expectations where everyone can see them or include them in the agenda for the workshop. Use this information at the end of the workshop when conducting the training evaluation to ensure that participants' expectations have been met and to summarize the results of the workshop.

Activities

- Introduction of facilitators and organizers of the workshop
- Remarks from workshop sponsors and other key stakeholders
- Presentation of the key objectives of the workshop and the motivation for the workshop
- Explain to participants what they should expect over the duration of the workshop
- Allow participants to introduce themselves, the organizations they represent and include their expectations – sometimes this part of the welcome and introduction is tied to an ice-breaker or a warm-up exercise
- Review the agenda for the workshop. Ask if there are any questions.

Preparation Required:

- Have a participant sign-up sheet ready to circulate among the participants.
- If you'd like to, you can have labels ready for participants to write their first name.
- Provide participants with their workshop kits – that may include agenda, materials, handouts and other writing materials
- You may want to have refreshments available or a jug of water and some glasses.

Expected Outcomes of the Session

At the end of this session participants will understand who the facilitators and sponsor organization(s) are. They will know what the purpose of the workshop is and what format it will take.

Ice-Breakers

Time Frame:

10 to 15 minutes

Notes to the Facilitator

"Ice-breaker" exercises are good ways to start a workshop or training session. Ice-breakers create a positive group atmosphere and help people to relax. They help people to get to know each other better; they can lead to persons learning new things about fellow community members, even when persons know each other well. Ice-breakers motivate participants to work together towards a common goal.

Some examples of ice-breaker exercises are provided below. The selection of ice-breaker depends on the amount of time available and the size of the group. Ice-breakers can be designed to focus on the content of the workshop setting the stage or providing a sense of what is to come or they can be just fun.

Sample Ice Breakers

Ice Breaker #1

1. Write pairs of easily identifiable words on separate pieces of paper (e.g. environmental management; watershed degradation; natural resources etc.) and put them in a container or a large envelope.
2. Ask each participant to pick one of these papers then walk around the room and try to find their matching pair. When they do, give them a few minutes to talk to their partner.
3. Each will later introduce the other to the group.
4. You can take this further by asking them to explain what the issue they have at hand means – either in words, song or action.

Do this step (1) before workshop

Ice Breaker #2

1. Write words and concepts from CBRA Toolkit on separate bits of paper.
2. Create small/buzz groups and use these concepts or words for discussion in these groups.
3. Groups then present their concepts

Ice Breaker #3 - Animal Characterization

Ask each participant to select an animal that he/she thinks has some characteristics that are like him/her. Ask the participants to then introduce themselves and say which animal they have chosen and explain why.

Ice Breaker #4 - Alphabetical Characterization

Ask each participant to introduce him/her self and state one of his/her characteristics. The first person to speak has to use a characteristic that begins with "A"; the second has to use "B"; the third "C" etc.

Ice Breaker #5 - Telephone

Establish a consecutive ordering of the participants – by asking them to line up or go in a circle or simply "count off" assigning themselves a number in succession: 1-2-3-4 etc. Ask the first person in the line to whisper to the next person a statement explaining what he/she expects to get out of the workshop. Then ask the second person to repeat what the first person said, to the third person; and so on, until the last person has been told the statement. Have the last person say out loud what the statement is. Compare with the original statement.

Ice Breaker #6 - General and Fun Icebreaker Questions

A great way to help people open up is to ask them fun questions that allow them to express their personality or interesting things about them. Here is a list of safe, useful questions to help break the ice:

- If you could have an endless supply of any food, what would you get?
- If you were an animal, what would you be and why?
- What is one goal you'd like to accomplish during your lifetime?
- When you were little, who was your favorite super hero and why?
- What's your favorite thing to do on the weekend?
- If they made a movie of your life, what would it be about and which actor would you want to play you?
- If you were an ice cream flavor, which one would you be and why?
- If you could visit any place in the world, where would you choose to go and why?
- Are you a morning or night person?

- What are your favorite foods?
- What's the weirdest thing you've ever eaten?
- Name one of your favorite things about someone in your family.
- Tell us about a weird or quirky habit of yours.
- If you had to describe yourself using three words, they would be…
- If someone made a movie of your life would it be a drama, a comedy, a romantic-comedy, action film, or science fiction?
- If you could be anybody besides yourself, you would be…

Pre-tests and Post-tests

Time Frame for Pre Test:

20 to 30 minutes

Notes to the Facilitator

Pre-tests and post-tests constitute components of the monitoring and evaluation of any community training programme **or workshop**. Monitoring and evaluation are processes of collecting and analyzing information in order to assess the effectiveness of the **workshop**. These tests represent the evaluation of the course and determine how much participants knew prior to the start and what they have learnt. The questions designed will seek to determine each participant's understanding of the topics to be taught, i.e. to pre-test their knowledge of the CBRA Toolkit and issues related to land and water resources. The pre-test will be administered before the workshop begins and the post-test after it ends. The results of the pre-tests and post-tests should be tabulated to determine the effectiveness of the training and could be presented along with the overall evaluation of the workshop.

The pre-tests and post-tests are the same.

The idea of the pre-tests and post-tests is to test a trainee's level of knowledge both before and after he or she is trained.

Pre-test

The pre-test constitutes part of monitoring that is conducted at the start of the training. The pre-test will guide facilitators in the areas in which participants need most attention. It would also determine the level at where the overall class is. Pre-tests will allow the facilitators to see if what is being covered in the workshop is already mastered.

Pre-tests help measure true learning. By comparing pre-tests and post-tests, facilitators can see what participants actually learned from the training. Pre-tests can also give participants a preview of what will be expected of them.

Pre-tests can help generate ideas for future learning. Depending on the way the pre-tests are created and conducted, facilitators might find knowledge gaps that they did not expect. Armed with this knowledge they can make changes to the workshop content.

Guiding Principles Governing the Pre-tests and Post-tests

1. Pre-tests will be administered before the workshop begins and after the ice-breaker

2. Questions for pre-tests and post-tests are the same. The questions, based on the workshop content, are designed to determine the participants' understanding before and after the workshop

3. Facilitators will allow about 30 minutes for participants to do the pre-test. If the level of literacy or educational levels of the participants is low, the facilitator may choose to read the questions out and allow some minutes for the participants to answer before going on to read the next question

4. Facilitators will emphasize to participants that the purpose of the questionnaire is not to evaluate them personally and explain to participants that their identities and answers will remain confidential and that the results will be displayed only as group results. Facilitators will try not to refer to the pre-tests as "tests." During the break, the facilitator can tally the scores of the pre-test in order to determine how the class as a whole did on each question (for example, 60% of the class answered a given question correctly)

5. Facilitators will use a log sheet to keep track of every person who completes a pre-test and post-test. It is important to evaluate participants by matching pre-test and post-test results. Assign IDs that are consistent in format and anonymous for each test-taker – the facilitator can use various symbols or ID numbers or letters of the alphabet. Prepare a log sheet to keep track of participants' names and IDs (so that names and numbers can be matched up for pre-test and post-test). This log sheet is to be kept private. (See sample log sheet.)

6. Facilitators should not discuss answers with participants after administering the pre-test – the idea is to use this same test as the post-test.

7. Facilitators must remember to put each participant's pre-test and post-test scores in a register.

Resources Needed for the Pre-tests and Post-tests

- Copies of the pre-test and post-test for each participant, ensuring that these are properly logged
- Log Sheet for pre-test and post-test results
- A flip chart, which can be used to show the participants at the end of the lunch break on the first day how the group as a whole performed on the pre-test, for each question
- Calculator to tally the scores of the pre-test

Sample Pre-test and Post-test

1. What is the **best** definition of Integrated Water Resource Management?
    a. The sustainable management of surface water, ground water and seas to ensure community access to water
    b. The coordinated management of water, land and coastal resources for the sustainable use of these resources to achieve economic, social and environmental benefits
    c. The involvement of politicians, technicians, environmentalists and community members to measure the water quality of rivers

2. What is a watershed?
    a. A ridge of high land that divides drainage basins
    b. Water that completely fills the ground space of rocks or sediments
    c. The sloping land area over which water, from rainfall, flows downhill to a coast

3. Which of the following activities will NOT harm a watershed?
    a. Burning vegetation to clear land
    b. Washing clothes with detergent containing phosphates
    c. Using organic pesticides and fertilizers
    d. Building a pig sty beside a river

4. What is an environmental indicator?
    a. A piece of litmus paper that turns pink or blue depending on the quality of a river
    b. A numerical value that helps provide insight into the state of the environment
    c. A system that evaluates the components of an ecosystem

5. Which of the following is NOT a typical water quality indicator?
    a. Faecal coliform bacteria
    b. Avian influenza virus
    c. Transparency
    d. Temperature

6. Which of the following are pollutants of rivers, lakes and seas?
        I. Animal wastes
        II. Nutrients
        III. Pesticides
        IV. Sediment
    a. I only
    b. I and III
    c. I, III and IV
    d. All of the above

7. Which of the following ecosystems are part of a coastal area or coastal zone?
        I. Seagrass bed
        II. Coral reef
        III. Beach
        IV. Mangrove
    a. III only
    b. III and IV
    c. I and II
    d. All of the above

8. Which of the following problems is caused primarily by soil erosion?
    a. Spread of waterborne diseases
    b. Siltation of coral reefs
    c. Reduced fish catches
    d. Narrowing of beaches

Answer key:

1. b 2. c 3. c 4. b 5. b 6. d 7. d 8. b

Sample Log Sheet Pre-test and Post-test

Names	Symbol	Pre-test Scores						Post-test Scores					
		Q1	Q2	Q3	Q4	Q5	Average	Q1	Q2	Q3	Q4	Q5	Average
Lisa John	A												
	B												
	C												
	D												
	E												
	F												
	G												
	H												
	I												
	J												
	K												
	L												
	M												
	N												

Session 1 – Introduction to the CBRA Toolkit

Turning the Pages of the Toolkit

Time Frame

2 ½ hours

Notes to the Facilitator

Turning the pages of the Toolkit simply means taking participants through the Toolkit page by page – simply a high-level familiarization exercise. Participants will be introduced to the structure of the Toolkit – the number of modules and a snapshot of the types of information included in each module. Prior to the start of "turning the pages", the facilitator would indicate to participants that the CBRA Toolkit is a practical tool to better enable communities to manage ecosystems, particularly land and water resources.

During the “turning the pages” exercise the facilitator points out the main topic of each page to the participants. There is no discussion of content at this point.

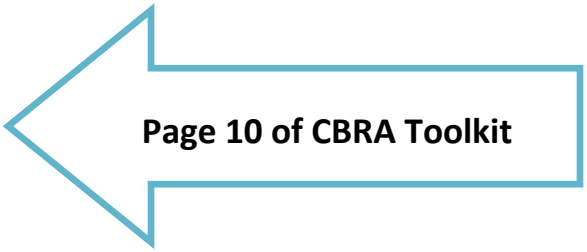
At the end of the group exercise and discussion that follows at the end of the ‘turn the pages” segment, the facilitator will close and segue to next section: indicate to participants that after the lunch break we will begin discussing Module 1 of the Toolkit – the specific content and ways in which Module 1 could be taught, including introduction of some facilitation techniques.

Some additional tips for the facilitator on this section:

- **Resist temptation to teach – facilitate**
- **Resist temptation to answer all the questions – reflect back**
- **Resist temptation to convince – use questions**
- **Make the conversation flow**
- **Help participants see the bigger picture**

Activities

1. The facilitator will briefly share with participants the purpose of the manual, introducing it as a practical tool in ecosystems management
    - To provide basic information about land and water resources
    - To provide simple methods to monitor and assess the condition of these resources in their communities
    - To provide approaches on how community groups and other interested persons can identify problems first hand and come up with creative and sustainable solutions themselves
    - To provide best practices for taking action, towards more sustainable management of ecosystems in communities
2. Using audio visual equipment the facilitator will turn the pages of the Toolkit simply to enable participants to familiarize themselves visually with the contents of the Toolkit.
3. After 15 – 20 seconds the page will be turned; this step is followed until the last page
4. Group Exercise and Discussion on the CBRA Toolkit



Resources Needed

- Multimedia projector
- Computer
- Projector screen or clean wall to project on
- Printed copy of the CBRA Toolkit
- Note paper for participants
- Flip chart and coloured markers

Group Exercise and Discussion

The facilitator will present to the group a number of questions topics for discussion and feedback on the Toolkit. Essentially the facilitator should invite participants to provide preliminary comments on the images, messages and topics raised.

- Has anyone in the group read through the manual previously?
- Has anyone in the group used the Toolkit? – if yes, what was their experience
- Are there ways in which the CBRA Toolkit can be applied in managing community resources?
- Are there any opportunities and challenges you foresee for its use?
- Is it visually appealing?
- Would community members be able to use it, would they like it?
- What insights or patterns did you see?

Expected Outcomes of Session 1

At the end of this session participants will have a good sense of the key elements of the CBRA Toolkit and be able to begin to make connections between the modules contained in the Toolkit. They will also know that the Toolkit is designed as an interactive manual in which they can draw on other resources to enhance the understanding of various elements contained therein.

Session 2 - Facilitating Module 1 of the CBRA Toolkit: IWRM

Module 1 begins on page 8 of the Toolkit and ends at page 17

Time Frame

3 hours

Notes to the Facilitator

Facilitators will present to participants the topics that would be discussed over the three hours. The objectives of Session 2 are to enable participants to:

- Understand the key concepts of integrated water resources management (IWRM)
- Identify the specific aims of an IWRM plan
- Understand the role indicators play in good environmental management and be able to identify indicators

The topics to be addressed in this session are:

- **Discussing Integrated Water Resources Management - Community - Roles and Responsibilities**
- **The Construct of an IWRM Plan**
- **Sharing Experiences and Insights**
- **Discussing Indicators and their Importance to Good Environmental Management**
- **Exploring a Watershed - Use of Pictures and Images to Explore the Topic**
- **Determining Approaches for Enabling Communities to Understand the Uniqueness of Watersheds and their relationship with Rivers, Land and the Coast**
- **Exploring Ways of Facilitating Module 1 for Local Communities**

Activities

Discussing Integrated Water Resources Management (IWRM)

(Pages 12 and 13 of Toolkit)

This session will focus on sharing the experiences and insights of participants. Encourage participants to draw upon their experiences. The benefits and challenges of managing natural resources become more tangible when they are tied to personal experience and stories.

Ask participants to take a moment to think. They can shut their eyes if they desire.

After about 5 minutes, ask them to turn to their neighbor and:

- Share with their neighbour how IWRM is conceptualized in their communities.
- Discuss the roles and responsibilities of different stakeholders
- Share their experiences and lessons they have learned, including specific examples or evidence

Have neighbours share what they have heard. Let the group decide what the best practices are and allow someone to put the best practices on a flip chart.

End this session by defining for participants what integrated water resources management is, including the construct of an IWRM plan.

Discussing Indicators and their Importance to Good Environmental Management

(Pages 14 and 15 of Toolkit)

Present the key elements of pages 14 and 15 of the toolkit. Provide information to participants on the importance of monitoring resources using the example of water resources in the toolkit.

Using the definition on page 14 for indicators, explore this with participants and in the open group, discuss using examples how indicators really help us determine the state of the environment. Explore the examples in the Toolkit as well as look at the picture below and see if there is any indication that can be drawn about the state of the environment from it.

Group Exercise and Discussion

Have participants do the exercise "Is your community water stressed?" on page 15 of the Toolkit.

If participants believe that their community is water stressed, discuss ways in which they can conserve water.

Discuss water conservation – get participants, opinions and definitions of this concept. Help them define water conservation.

Defining Water Conservation - refers to activities designed to reduce the demand for water, improve efficiency in use and reduce losses of water through wastage. Using water wisely will reduce pollution and health risks, lower water costs, and extend the useful life of existing supplies and waste treatment facilities.

Some Additional Facts on Water

Water is the most important and probably the most widely known substance on earth. The availability of and access to water are basic aspects of human existence. Approximately 70% of the Earth's surface is covered by water however, only 2.5% is freshwater. Of this only a fraction, approximately less than 1% is accessible groundwater or surface water available for drinking. Ultimately, the freshwater available to a region depends upon the amounts of rainfall, local hydrology and the geology of a given area.

The average adult uses between 568.3 and 681.9 litres of water per day. Our excessive water use habits deplete potable drinking water supplies and return trillions of litres of wastewater to streams and coastal waters. Water conservation practices not only save water, they save money.

Have a group discussion on the benefits of conserving water

The benefits of engaging in water conservation include:

- Improving the utilization and extending the life of existing facilities including both water supply facilities and wastewater treatment facilities
- Avoiding new source development cost
- Improving drought or emergency preparedness
- Improving reliability and margins of safe and dependable yields
- Protecting and preserving environmental resources

Based on the above, put participants in buzz groups and have them come up with tips on conserving water that they can employ in their homes, in the schools, in the community and in their workplaces.

Some Tips on Water Conservation

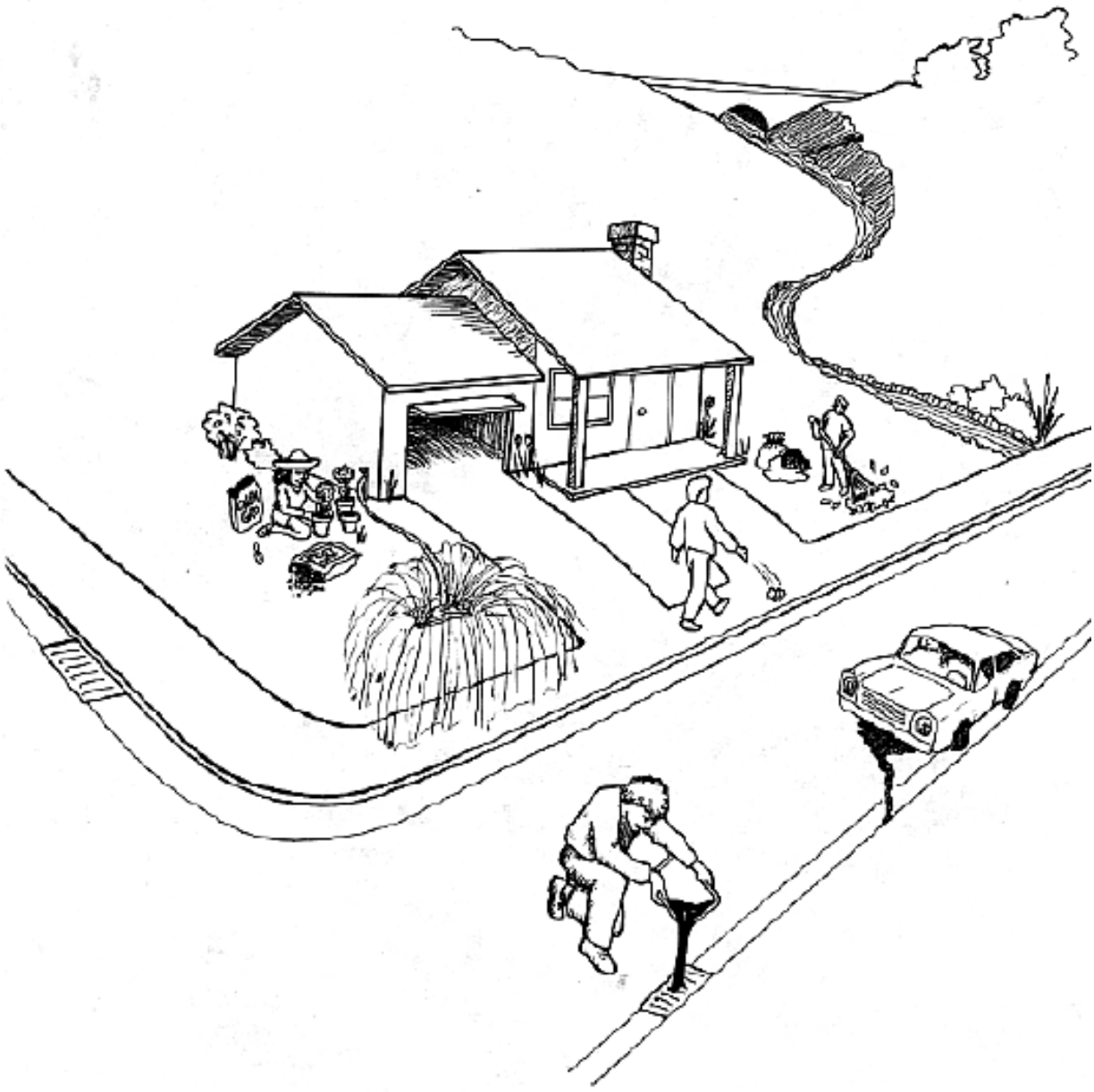
- Repair leaks in faucets and toilets. A leaky faucet can waste 75 litres or more of water per day, while a leaky toilet can waste as much as 200 hundred litres of water per day (equivalent to 100 2L soda bottles full).
- Turn off taps/shut off water when not in use.
- Avoid unnecessary flushing of toilets. Don't use the toilet as a garbage disposal. Dispose of tissues and cigarette butts in the garbage receptacles.
- Check toilet tanks for leaks and repair promptly. This can be done by dropping food colouring in the tank (12 drops). If the toilet is leaking, colour will appear in the toilet bowl within 30 minutes. Flush as soon as test is done, since food colouring may stain tank. Leaky toilets can usually be repaired inexpensively by replacing the flapper.
- Install toilet dams or displacement devices such as a plastic/glass bottle to cut down on the amount of water needed for each flush. Ensure that devices do not interfere with the toilets mechanical parts. Never put bricks or blocks in toilet tanks; they disintegrate over time.
- Collect and reuse grey water from kitchen areas for irrigation. Grey water can be reused for gardening, lawn maintenance, landscaping etc.

A girl fills a bucket with water from a community standpipe in the town of Duckensfield, Jamaica

- Do not let the tap run while cleaning vegetables, fruits etc. Instead, rinse them in a sink or bowl filled with clean water. It is possible to save up to 3 gallons of water per minute by using this technique.
- Steam, rather than boil vegetables whenever possible. Use a tight lid on the pot, and as little water as possible. Depending on pot size, this may save up to 5 gallons of water.
- Use mulch around trees, shrubs and in garden beds. This reduces the amount of water loss through evaporation and so reduces the need for watering.
- Report all significant water losses (broken pipes, open hydrants, errant sprinklers, abandoned free-flowing wells, etc.) to the property manager, property owner, local authority etc.

Alternative Exercise on Water Conservation - #1

Have participants look at the picture below and determine which activities being undertaken will result in wasting water and which activities would contribute to water pollution. Do they see any similar problems in their community?



From: US Environmental Protection Agency

Alternative Exercise on Water Conservation - #2

In this exercise, allow participants to calculate how much water they use (based on the graphic below) on a daily or weekly basis and have them compare with one another. Use the results as basis of discussing the importance of water conservation or how each person can use less water.

Water Use for Daily Activities

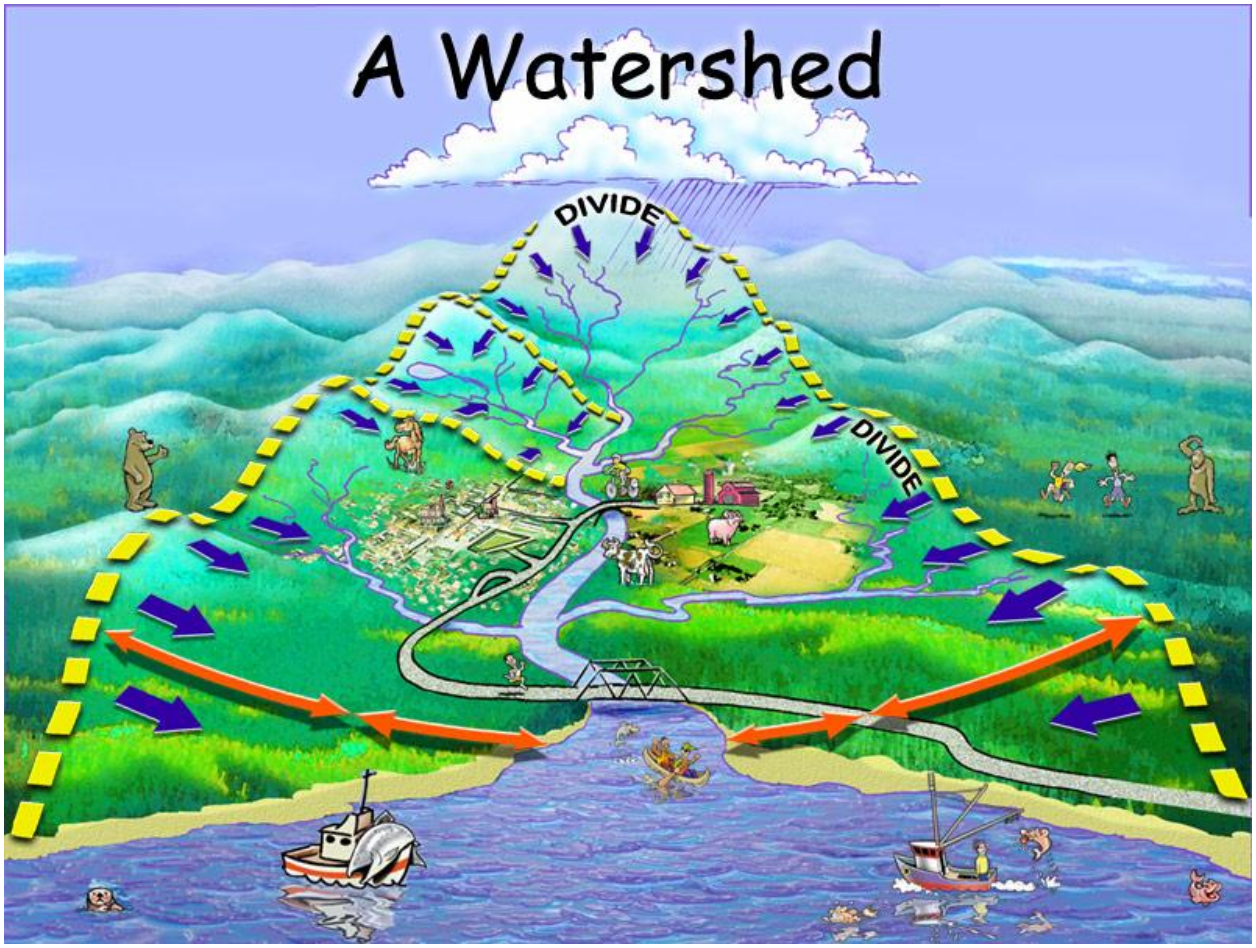
Activity	liters	gallons (U.S.)
Brushing teeth, tap on	4	1.0
Brushing teeth, tap off	4	1.0
Shower	20 per minute	5 per minute
Bath	80	21.0
One flush of toilet	20	5.0
Washing dishes by hand	25	6.5
Using dishwasher	55	14.5
One load of laundry	200	53.0
Drinking/cooking (daily)	15 per person	4 per person
Wasted water	50 per person	13 per person

Adapted from Red Cross Society, "Waterlogged," World Day Handbook.

Exploring Watersheds

(Pages 16 and 17 of Toolkit)

Point participants to the picture on the screen. Ask participants to focus on the picture and explore the ecosystems and/or elements in the picture that they think are part of the watershed. Use this exercise to present to participants a definition of watersheds.



Explore and fully explain to participants what a watershed is, based on the definition in the Toolkit. Use the definition of the watershed to draw the linkages between the watershed and the different modules presented in the toolkit - rivers and lakes, land and coasts. Explain briefly to participants the importance of rivers and lakes, land and coasts to watersheds and the health of watersheds.

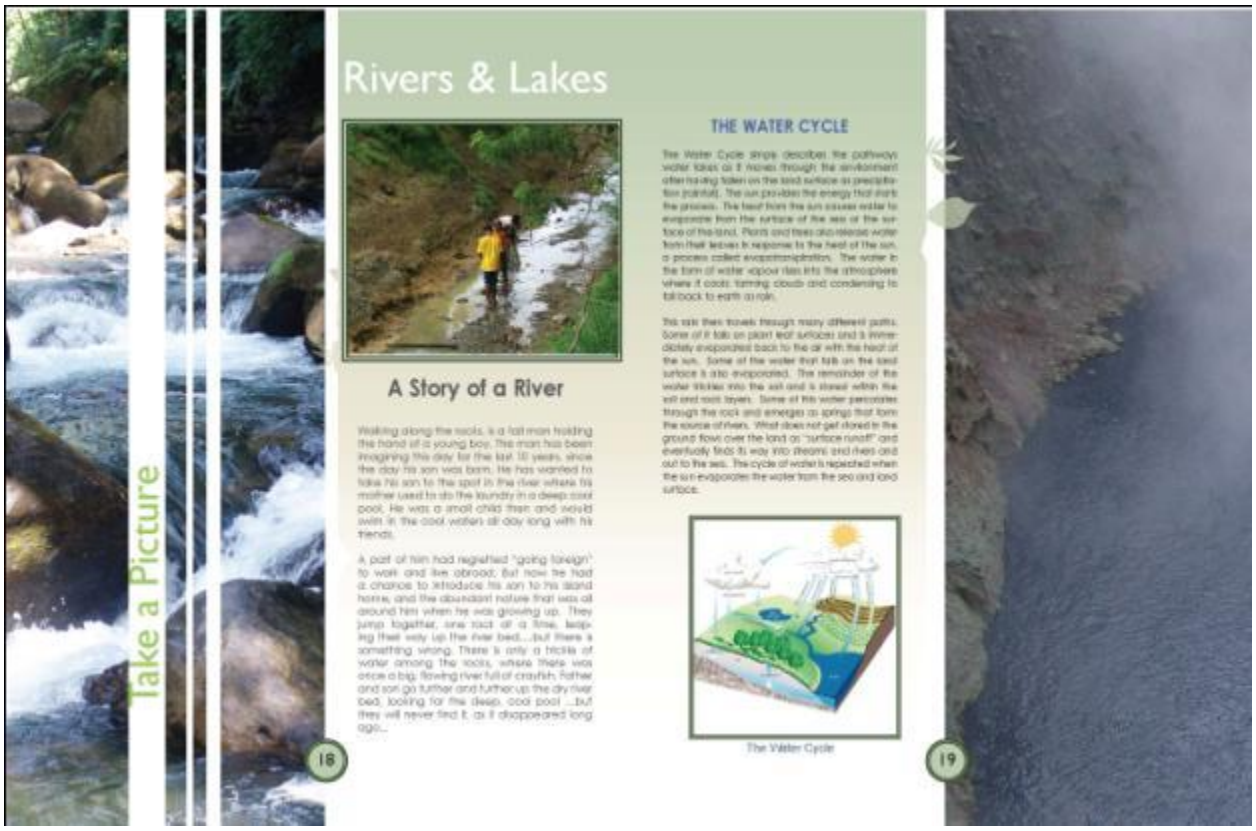
Expected Outcomes of Session 2

At the end of this session participants would be able to:

- Know what integrated water resource management is and the key elements of an integrated water resource management plan
- Understand the importance of monitoring resources and the relationship between monitoring and good environmental management
- Understand the interconnections between watersheds and other ecosystems, namely rivers and lakes, land and coasts
- Work effectively in a team

Session 3 - Facilitating Module 2 (Rivers & Lakes) and Module 3 (Land) of the CBRA Toolkit

Module 2 begins on page 18 of the Toolkit; Module 3 begins on page 38.



Time Frame

7 hours or an entire day

Notes to the Facilitator

Facilitators will present to participants the topics that would be discussed over the day. The objectives of Session 3 are to enable participants to:

- Understand the importance of ecosystems, particularly rivers and lakes and land
- Identify how human actions can have an impact on these ecosystems and contribute to degradation of these ecosystems

- Understand the concept of cause and effect with respect to ecosystem degradation – how activities in one part of an ecosystem or in another ecosystem can have significant impacts affecting the health of a particular area
- Develop action plans to protect watershed ecosystems

The topics to be addressed in this session are:

- **Discussing Relationship between Rivers & Lakes and Land within a Watershed**
- **Cause and Effects of Water Pollution and Land Degradation**
- **Measuring Water Pollution and Land Degradation**
- **Creating Monitoring and Action Plans**
- **Exploring Ways of Facilitating Modules 2 and 3 for Local Communities**

Understanding the Connections Between Rivers, Lakes and Land

(Pages 18 to 27 of Toolkit)

Facilitators should draw the participants' attention to a number of key topics in the section on rivers and lakes. The facilitator should present for discussion the following topics related to an understanding of rivers and lakes and their interaction with land:

- The water cycle
- The linkages between the river and watersheds and the role rivers play in maintaining healthy watersheds
- The role of healthy rivers and lakes
- The main types of pollutants
- The impacts of water pollution

Call Participants' attention to the statement on page 20 in the CBRA Toolkit:

"The quantity and quality of water in our rivers & lakes will tell us much about the health of our water catchment."

This statement indicates that the activities that take place throughout the watershed – on the land, as well as within the rivers and lakes – will affect the amount of water in the rivers and lakes as well as how well the water body can support the desired uses e.g. bathing, washing, irrigation etc.

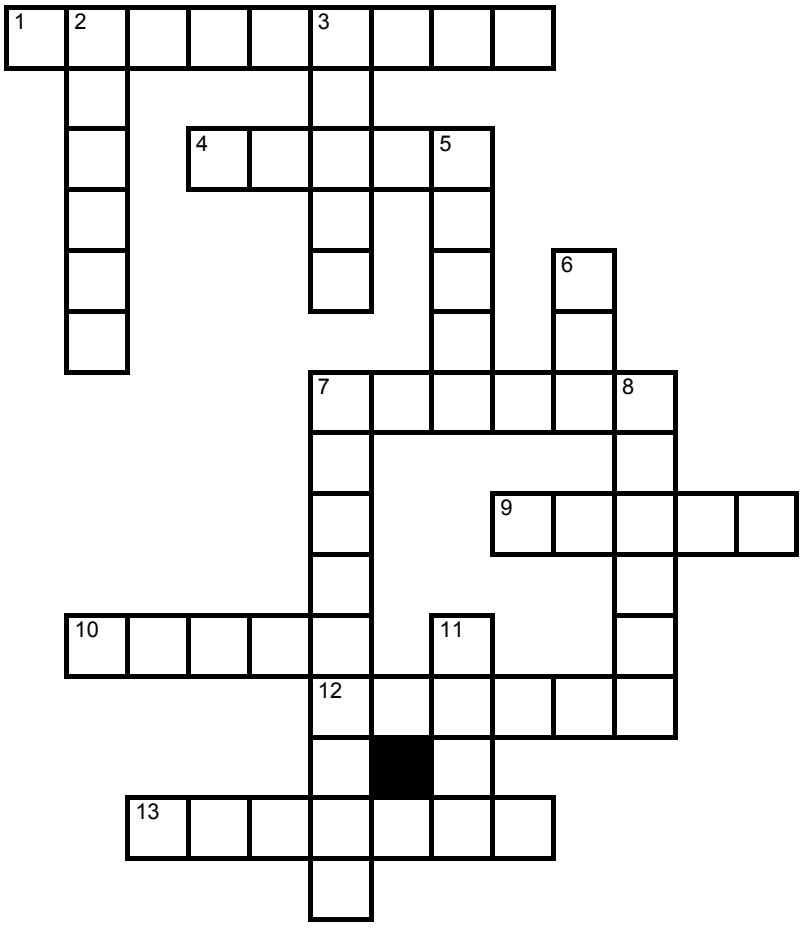
The following exercises will explore this connection.

Activities

What do you know about rivers?

Participants will attempt to do the crossword puzzle below. This crossword puzzle will then form the basis for a discussion on rivers in general but also will set the framework for a broader discussion on the role that rivers play in human and social well-being and what healthy rivers sustain.

See pages 18 to 27 of CBRA Toolkit



Across

1. A place where a river goes over a cliff.

4. Some rivers do this after heavy rains.

7. Fast flowing water that goes over rocks.

9. The end of a river; the place where it flows into a lake or ocean.

10. A flowing body of water.

12. Something that crosses a river.

13. The place where a river flows.

Down

2. The largest river in the world.

3. A river is a body of water that _____.

5. Some rivers do this during a drought.

6. The bottom of a river.

7. The side of a river.

8. The start of a river.

11. The longest river in the world.

Exercise – One change in the environment leading to a chain reaction of negative events

Classroom activities: "Story of a River"

Activity Purpose:

To involve participants in a story that demonstrates how land-use within a river catchment contributes to pollution and shows that schools are also part of a catchment, linked to rivers through storm-water drains. It shows that action taken within the school can have an impact on the surrounding environment.

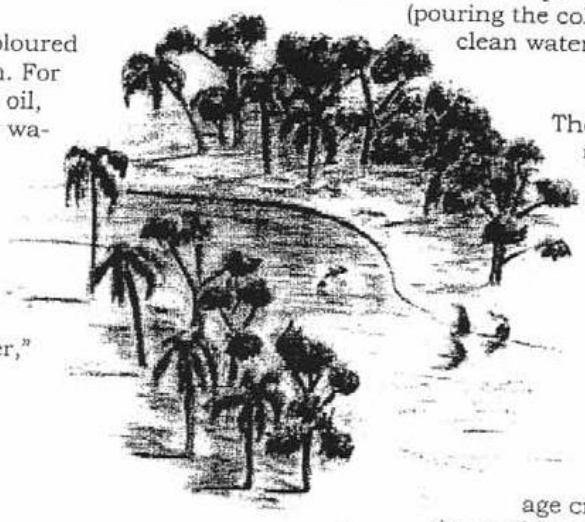
You will need:

- Clear container to hold water (5—10 l)
- 5 x small containers with coloured liquid representing pollution. For example coffee = silt, coke = oil, raspberry = pesticide, soapy water = fertilizer, pineapple = sewage and torn up paper = rubbish pollution.
- Large name tags for each 'and-use' eg, "Laloo the logger," and further names for a villager, cane farmer and factory manager.

How to do it:

Start with a clear container 2/3 filled with clean water. Ask students to close their eyes and imagine that it contains the water from the river at the beginning of its journey in the mountains, ask them to visualise swimming and drinking from it.

Make up a story about the Rivers journey from the mountains to the sea, with a student role playing each land-use along the way. For example "Kesa the Cane Farmer" will add pesticide and fertisliser to the water (pouring the coloured liquid into the previously clean water container).



The story continues until the River reaches the sea and the large container becomes horribly polluted. The last land-use should be the school, ask every student to add a small piece of rubbish to the container to represent that the school is also part of the catchment.

Discuss the story of the River with the class by asking questions to encourage critical thinking about the pollution problems and possible solutions.

From Draft River Care Manual, Dominica

Exercise – Brainstorming Session on Cause and Effect

Undertake a brainstorming session with participants. Create buzz groups and using the guidelines for brainstorming in the "Teaching Techniques" table of this Guide, ask participants to discuss the types of pollution in their watershed, which human activities in the watershed may have caused this pollution, and their potential long-term impacts upon rivers, specific to a community they are familiar with. Discuss and list some of your experiences with the river and the impact on the community.

Share these with the rest of the group.

Exercise – Debate on Sustainable Development

Undertake a debate with participants to discuss the concepts of sustainable use and management of rivers and watersheds and how by so doing these contribute to sustainable livelihoods.

Use the guidelines for Debate under "Teaching Techniques" of this Guide and ask participants to debate the following premise:

"In order to provide food for local communities and export, it is necessary to maximize agricultural yields by using as much land as possible for farms and by using the strongest chemical pesticides and fertilizers."

Create two teams, one making the argument FOR the premise, and one AGAINST. Also, assign the following responsibilities to other participants:

- Moderator – to ensure the teams stay on track and do not stray from the topic and to ensure that both teams have equal opportunity to speak
- Recorder – to record the main points made by each team (on a flip chart)
- Judging panel (at least 3 persons) – to decide on the winner

Key issues that could arise include:

Arguments FOR

- Food security
- Agriculture provides much employment
- Provides valuable foreign exchange

Arguments AGAINST

- Clearing land for farms may remove valuable forests
- Pesticides contaminate rivers and lakes and maybe groundwater
- Fertilizers can cause algal blooms in rivers
- Can potentially have negative effect on other economic sectors like fishing and tourism

Understanding the Water Quality and Land Degradation Assessment Worksheets

(Pages 79 and 74 to 75 of Toolkit)

Working through the Water Quality and Land Degradation Assessment Forms

Have participants work in pairs. Let them examine the Water Quality Assessment Form, looking at the definitions on pages 60-61. Clarify any terms that are unclear and discuss the relevance of the various elements, focusing on those which may not be obvious.

Ask them the following questions?

- Why is it important to note the site conditions?
    - Wind
    - Weather on the day before
    - Weather on the day
    - Nature of the water surface
    - Presence of solid waste
- What kinds of information should be included in the "General Observations and Comments"?

Have participants examine the Land Degradation Assessment Form, looking at the definitions on pages 66-69. Clarify any terms that are unclear and discuss the relevance of the various elements, focusing on those which may not be obvious.

Ask them the following questions?

- What kinds of information should be included in the "General Land Use Description"?
- What kinds of information should be included in the "Other Observations"?

Understanding How to Conduct Water Testing

(Pages 28 to 29 of Toolkit)

Have participants read the section on Selecting Your Test Site in preparation for viewing videos on how to conduct water testing. Have the participants keep the following questions in mind when viewing the videos:

- What is the location in the river at which the testing is taking place?
- What are the weather conditions?
- What features are visible within the river?
- What features are visible on the surrounding land?

Viewing of Video Segments on Water Testing

Participants will view video segments on water testing.

Setting up a Monitoring Plan

(Pages 32 to 33 of Toolkit)

Have participants work in pairs. Ask each pair to select a particular problem related to a polluted river in their community. Ask them to think through **Question 1 – What are your objectives?** – for their selected problem. Walk participants through the remaining steps required to design a monitoring plan, clarifying any concepts or ideas that are not clear.

Something to keep in mind

The Toolkit states on page 33: **"After obtaining these results it is important to analyze them so that you can understand the condition of the stream or river you have been monitoring."** It is important to compare your results against national, regional or international standards. For example, there are established standards for faecal coliform levels; if values are above this level, local health authorities should be contacted. Displaying results of these levels over time will display the frequency and timing of breaches of this standard at particular locations.

Check with your national health or environmental agency for water quality standards used in your country.

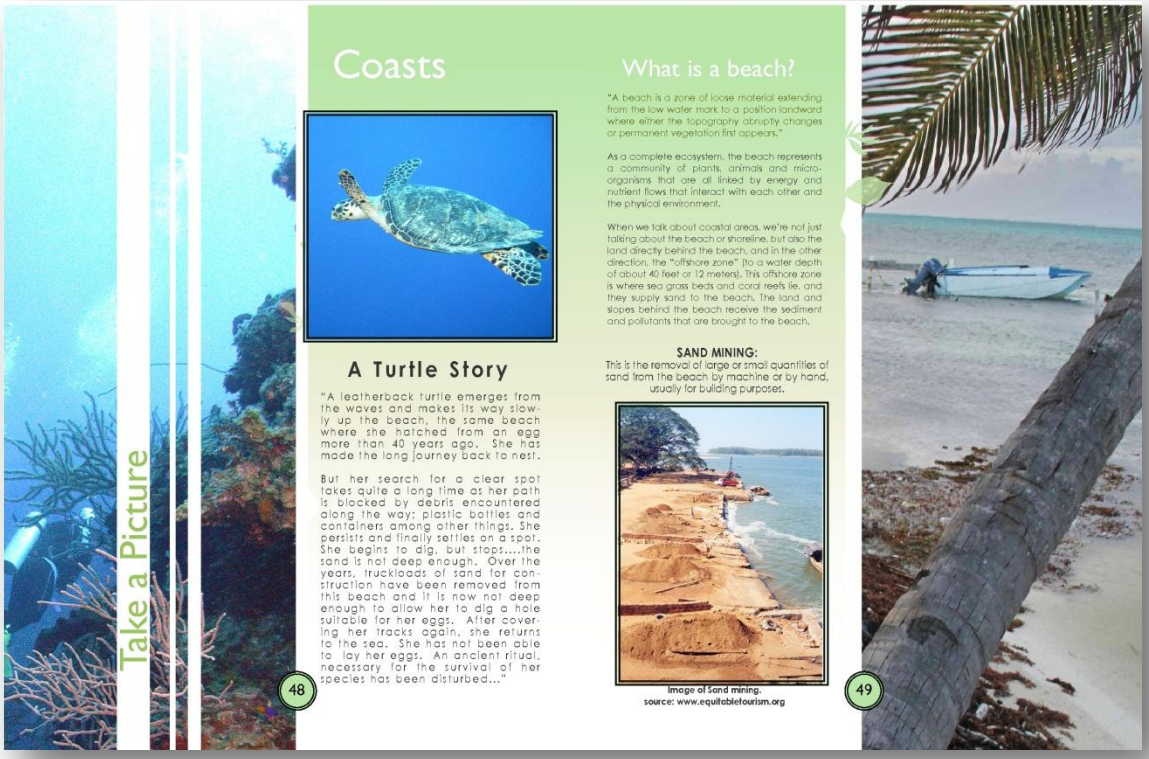
Expected Outcomes of Session 3

At the end of this session participants would be able to:

- Understand the importance of ecosystems, particularly rivers, lakes and land
- Identify how human actions can have an impact on these ecosystems
- Understand the concept of cause and effect with respect to ecosystem degradation
- Develop action plans to protect watershed ecosystems

Session 4 - Facilitating Module 4 of the CBRA Toolkit: Coasts

Module 4 begins on page 48 of the Toolkit and ends on page 57



Time Frame

2 hours

Notes to the Facilitator

Facilitators will present to participants the topics that would be discussed over the two hours. The objectives of Session 4 are to enable participants to:

- Understand the components of coastal areas and the factors that contribute to coastal area degradation
- Understand the links between coastal areas and other parts of the watershed
- Measure and assess coastal area degradation
- Create an action plan to protect coastal resources

The topics to be addressed in this session are:

- **Discussing the Components of the Coastal Area**
- **Discussing Coastal Area Degradation**
- **Discussing Impacts of Human Activities on Coastal Resources**
- **Exploring Links between the Coastal Area and other Parts of the Watershed**
- **Understanding the Coastal Area Assessment Worksheet**
- **Preparing for an Action Plan**
- **Exploring Ways of Facilitating Module 4 for Local Communities**

Understanding the Coastal Area

(Pages 48 to 51 of Toolkit)

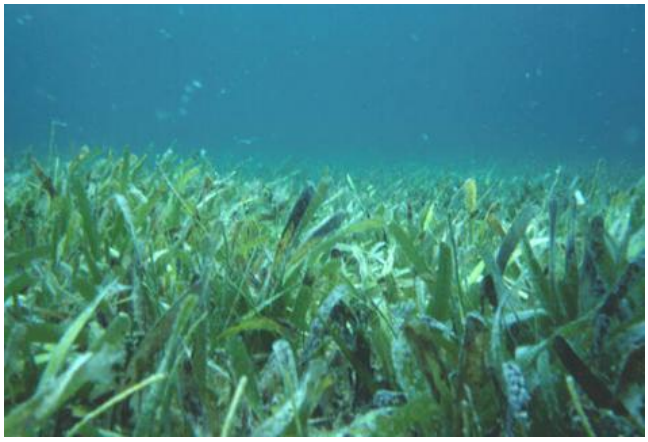
Using the following pictures, the facilitator should point out to participants that the coastal area is more than the beach (as stated on page 49).

Components of the Coastal Area

Land behind beach -- which may include mangroves

Beach

Offshore zone – which may include sea grass beds and coral reefs



Values and Attitudes Discussion

Note that the coastal area includes some aspects which persons may consider undesirable. For example, mangroves and seagrass beds are often removed to create “nice beaches” even though these ecosystems have important roles to play in protecting coastal area resources. Explore these attitudes with participants – do they feel mangroves and/or seagrass beds are ugly? Should they be removed?

Then explore and guide discussion of the invaluable services provided by coastal ecosystems. This answers the question on page 50: **Why? Why are coasts a critical part of the watershed?**

Some services provided by coastal ecosystems

Mangroves	Seagrass beds	Coral reefs
• **Source of energy** • **Nursery habitat for juvenile fish and invertebrates** • **Roosting and nesting habitat for wading birds** • **Source for timber production** • **Buffers in decreasing storm impacts along coastlines** • **Contribute to tourism and fishing industries**	• Maintain estuaries and coastal marine environments • Reduce the effects of waves and consequently the rate of erosion and sedimentation • Provide refuge from predators for small fish and crustaceans • Act as nurseries for some species • Act as a "carbon sink," thereby helping to reduce atmospheric CO_2 levels and contributing to climate change mitigation • Contribute to fishing industry	• Help prevent sediments from washing up and damaging the shoreline • Act as a physical barrier to storms protecting the coastline • Create sand for beaches • Sequester CO_2, which helps create an environment that continues to attract marine biodiversity • Can be harvested for use in medicines • Fish and marine plants can be harvested for use in aquariums • Contribute to tourism and fishing industries

Understanding Coastal Area Degradation and the Links to Other Areas of the Watershed

(Pages 50 to 53 of Toolkit)

Call participants' attention to the statements on page 50:

Our coasts are directly linked to all other areas of the watershed. What happens on the land has a tremendous impact upon the health of the coastal areas.

Coastal degradation is the result or the evidence of serious problems on the land. Coastal degradation is usually caused by damaging practices on the land. Polluted water reaching the coast via rivers and drains also has a negative effect upon coastal water quality.

Brainstorming Session on Coastal Degradation

Conduct a brainstorming session with participants on what are possible causes of coastal area degradation. Separate these possible causes into four categories:

1. Damaging practices on land higher up in the watershed (recall discussions in Modules 2 and 3)
2. Activities that pollute rivers and drains (recall discussions in Module 2)
3. Activities that occur on the land portion of the coastal area e.g. beaches, mangroves
4. Activities that occur in the sea

Measure: Understanding the Coastal Area Assessment Form

(Pages 76 to 78 of Toolkit)

Working through the Coastal Area Assessment Form

Have participants examine the Coastal Area Assessment Form in pairs. Clarify any terms that are unclear and discuss the relevance of the various elements, focusing on those which may not be obvious.

The following table includes some of the elements from the Coastal Area Assessment Form and useful information.

Element	Notes
Number of bird, crab species	This shows how well the area supports biodiversity
Species of mangrove	See Annex II for pictures of the different types of mangroves
Signs of mangroves dying out	This might indicate the diversion of fresh water that usually come to that area via rivers
Solid waste	It could be useful to record the type of waste (under the "General Observations and Comments" section) as this may provide information as the source of this waste and therefore possible solutions
Presence of sea urchins	This may provide a clue to the health of the coral reefs; urchins eat algae and are therefore important to keep reefs free of algae
Juvenile fish	This indicates the health of the mangroves and their ability to provide habitat for young fish
Turtle activity	Many turtles found in the Caribbean are endangered. If evidence of turtle activity is found, the local environmental agency should be informed so they can ensure that beach is part of the national programmes to monitor and conserve turtles.

Monitor and Take Action

Taking Action – Preparing for Action Planning

This exercise will tie the coastal area indicators back to likely causes. The causes of the coastal problems will help to determine what possible actions may be taken in order to remedy the problems.

Have participants work in pairs. Listed below are some possible results from a coastal area assessment. For each indicator, have each pair provide examples of human activities that could have caused that condition. (Use the results of the brainstorming session conducted earlier to help.)

For the causes of the problems, have them provide some suggestions for actions that can be taken.

Indicator	Value	Explanation of Possible Causes	Possible Actions/Solutions
Turbidity	High		
Coliform bacteria	High		
Dissolved oxygen	Low		
Nitrates	High		
Phosphates	High		
Algae level	High		
Solid waste	High		
Mangrove canopy	Sparse		

A Community Activity for Coastal Area Protection – International Coastal Cleanup Day

Each year, the Ocean Conservancy organizes an International Coastal Cleanup Day. Since it started, twenty-five years ago, it has become the world's largest volunteer effort for ocean health. Nearly nine million volunteers from 152 countries and locations have cleaned 145 million pounds of trash from the shores of lakes, streams, rivers, and the ocean on just one day each year.

However, the purpose is not merely to remove garbage and debris from beaches. Each volunteer records every item picked up on a data sheet provided by the Ocean Conservancy and submits this information at the end of the day. This provides a picture of the types of garbage that are on the beach, which can lead to solutions to preventing it from ending up on the beach in the first place. One easy fix may simply be to provide more garbage receptacles on the beach, although we have seen that much waste is likely to come from more distant sources. Numerous Caribbean organizations and communities have participated in this international initiative and they have been successful in drawing attention of community members to the problem.

For information on how to set up an International Coastal Cleanup Day event, contact the Ocean Conservancy at www.oceanconservancy.org or find out who in your country is organizing one, and join in!

Bringing it All Together

Page 49 in the CBRA Toolkit shows a photo of illegal sand mining on a beach which is a serious problem in the Caribbean. Using the article on the following page, engage participants in a discussion regarding the issues highlighted in the article.

Note: As a facilitator, you can look for and bring in news articles of particular relevance to the community that may help to generate discussion.

Key questions to ask in order to generate discussion leading to action within the community include:

- What are the human activities that have caused the problem?
- Are there any factors not related to human activities that contribute to the problem?
    - E.g. weather, too little/too much rainfall etc.

- What are the impacts of these human activities on the coastal area or coastal resources?
- What are the impacts on the country in general of this coastal area degradation?
- Who are the key actors?
- What has been or is being done to combat the problem?
- What can be done in the future to combat the problem?

Sand Thieves Shrinking Caribbean Beaches At An Alarming Rate

DANICA COTO | October 26, 2008 11:18 AM EST |

SAN JUAN, Puerto Rico — Ahh, the Caribbean. Sun, surf. But where's the sand?

It is disappearing at alarming rates as thieves feed a local construction boom.

Caribbean round grains, favored in creating smooth surfaces for plastering and finishing, are being hauled away by the truckload late at night. On some islands not much bigger than Manhattan, towns and ecologically sensitive areas are now exposed to tidal surges and rough seas.

In Puerto Rico, thieves once mined the dunes in the northern coastal town of Isabela, said Ernesto Diaz of the Department of Natural Resources. But now they are stealing the beaches of the tiny island of Vieques _ 52 square miles where the U.S. military only recently halted its controversial bombing practice.

Among the hardest hit is Grenada, where officials are building a $1.2 million seawall to protect the 131-square-mile island. Large-scale sand thefts have exposed north-coast towns to rough seas, said Joseph Gilbert, the minister of works and environment.

One of the region's largest sand thefts targeted Jamaica, where nearly 100 truckloads were swiped from private property in the northwest, exposing protected mangroves and a limestone forest to wind and waves.

Roughly 706,000 cubic feet of sand were taken in late July, enough to fill roughly 10 Olympic-sized pools, said Jamaica Mines Commissioner Clinton Thompson, who suspects government officials were involved.

"I was surprised at the amount," he said. "This one could not have been stolen without persons knowing about it."

Illegal sand mining in the Caribbean began in the 1970s, when people with shovels stole small amounts for construction because most homes were built with wood. But the thefts increased as builders switched to concrete homes and have only gotten bigger with the rise in construction of resorts and hotels _ built, ironically, for tourists drawn by the Caribbean's immaculate beaches. An estimated 80 new hotels and resorts are expected to open in the Caribbean through 2012, according to Smith Travel Research.

Some islands offer local quarries or designate certain beaches for mining, but large-scale nighttime thefts persist despite police patrols. Front loaders and other heavy equipment are now used instead of shovels to steal sand, which sells for nearly $200 for 1 cubic yard.

"If we continue to mine the beaches the way we've been doing, we will have no sand to boast about. Just sea and sun," Gilbert said.

No one knows how much sand in all has been carted away, but the islands of Tortola, Anguilla and St. Vincent are now vulnerable to flooding, said Gillian Cambers, associate researcher at the University of Puerto Rico. Up to two-thirds of sand dunes in Tortola and Nevis have been decimated, she added.

On Grenada's 13-square-mile Carriacou island, population 6,000, the beach is shrinking by 3 linear feet every year from illegal sand mining, Gilbert said.

In Barbuda, illegal sand miners dug a 23-foot crater that damaged a freshwater aquifer. Saltwater seeped in, and droppings from cows and donkeys contaminated the exposed aquifer, which is now unusable, said local environmentalist John Mussington.

Hurricane damage also has bumped up demand for sand, with residents using concrete blocks to rebuild homes and sand to finish them, according to the government of Antigua and Barbuda.

If caught, thieves face light fines and jail time that critics say are unequal to the crime. Grenada, for example, imposes up to $190 in fines, less than the cost of a single load of sand.

"One could go out, engage in sand mining, pay all the fines and ... still come out making a profit," said Randolph Edmead, director of St. Kitts' planning and environment department.

Grenada legislators expect to triple that amount and extend prison terms from three months to two years. Jamaica also plans to approve new maximum fines of $11,000 and allow police to seize sand-mining equipment.

Some islands have considered importing sand to replenish their beaches, but say it is expensive and worry about shifting the problem elsewhere.

Gilbert said he is "appalled" and called for more oversight to prevent loss of the region's treasured shores.

"We should take action now," he said. "Or otherwise we will lose our beaches."

Filed by Nick Graham | Report Corrections

Role Play Exercise – Sand Mining

Assume that sand mining is occurring at a beach in your community. Using the guidelines in the "Teaching Techniques" table in this Guide, conduct a role play exercise to act out the issues which are discussed in the article.

Roles:

- **Owner of nearby hotel** – sees the quality of the beach deteriorate
- **Owner of construction company** – uses the sand to in building projects
- **Leader of community group** – represents community which includes persons who work at the construction company and at the hotel as well as fisherfolk
- **Town Mayor**
- **Coastal resources manager in environmental agency** – responsible for ensuring ability of beach to provide its ecological services (including protection of the land against storms)
- **Housing developer** – contracts construction company to provide building materials

Exploring the Advanced Participatory Method for Action Planning - Developing your Community Action Plan

(Refer to Pages 34 and 35 of Toolkit which focuses on taking action)

Facilitators should go through each of the 7 steps for taking action with the group. In developing the community action plan, facilitators will take participants though an action planning session that includes the following key elements:

- Visioning exercise
- Current reality exercise
- Brainstorming for action plan development

This process, adapted from Advanced Participatory Methods, Module 1 is presented below.

7 Steps to Creating Your Action Plan

- **Forming your group**
- **Deciding on your projects…start with easy wins**
- **Identifying pollution "hot spots"**
- **Inform the appropriate people**
- **Who to involve in your projects**
- **Communication and consultation**
- **How to work with the media**

Participants will use this Action Planning Method to develop an action for a community towards protecting its land and water resources.

ACTION PLANNING METHOD

RATIONAL OBJECTIVE:

Group develops a detailed action plan to produce a short-term, specific outcome.

EXPERIENTIAL OBJECTIVE:

Group is energized and motivated to follow through on implementing the plan; a sense of shared ownership.

CONTEXT

Introduction

"In this session, we will build an Action Plan that will organize a set of activities, implement projects or a campaign, or plan an event, etc."

1. **Contract**
   Outline the time and process, intended results, expectations, & roles.

3.Establish Boundaries

Rehearse what has already been decided….

- Who?
- What?
- When?
- Why?
- How?
- Where?

List these various "givens" on board or flip chart.

VICTORY

1. **Victory Circle**
   Ask the group to imagine the project is complete. What were results achieved? Put responses in circle on flip chart.

2. **Current Reality**
   List strengths and weaknesses in the current situation. Talk through potential benefits and pitfalls which may result during or after implementation. Make notes on flip chart.

3. **Commitment**
   Read through VC & CR. Then brainstorm elements of the group commitment to the task ahead. Write a statement that summarizes the specific "bottom-line" commitment at this point.

KEY ACTIONS

1. **Brainstorm**
   Individuals brainstorm 5 Actions to undertake. Teams further refine tasks & write 5 – 10 cards. Collect, read, and post on wall.

2. **Organize and Name Task Arenas**
   Quickly cluster the actions into several clusters. Name each by task arena.

CALENDAR & ASSIGNMENTS

1. **Task Force Planning**
   Put victory date at end of calendar on the front wall or board. Divide the calendar horizontally into the number of task arenas. Place actions along the tracks by "launch", and "on-going". Place "victory complete" on right-hand side.

2. **Task Force Reports & Calendar Coordination**
   - Task forces report on their action plan.
   - Review and coordinate activities across task forces.

3. **Team Roles, Leadership, Logistics, Costs**
   - Agree on overall coordination & leadership.

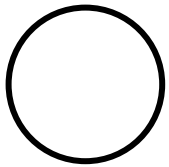
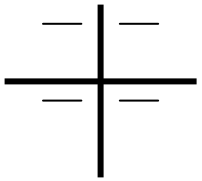
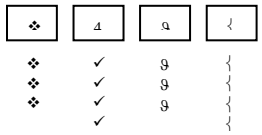
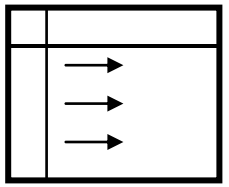
REFLECTION

1. **Review**
   Discuss results and implications of action plan.
   - Breakthroughs?
   - Team experience?
   - Critical success factors?

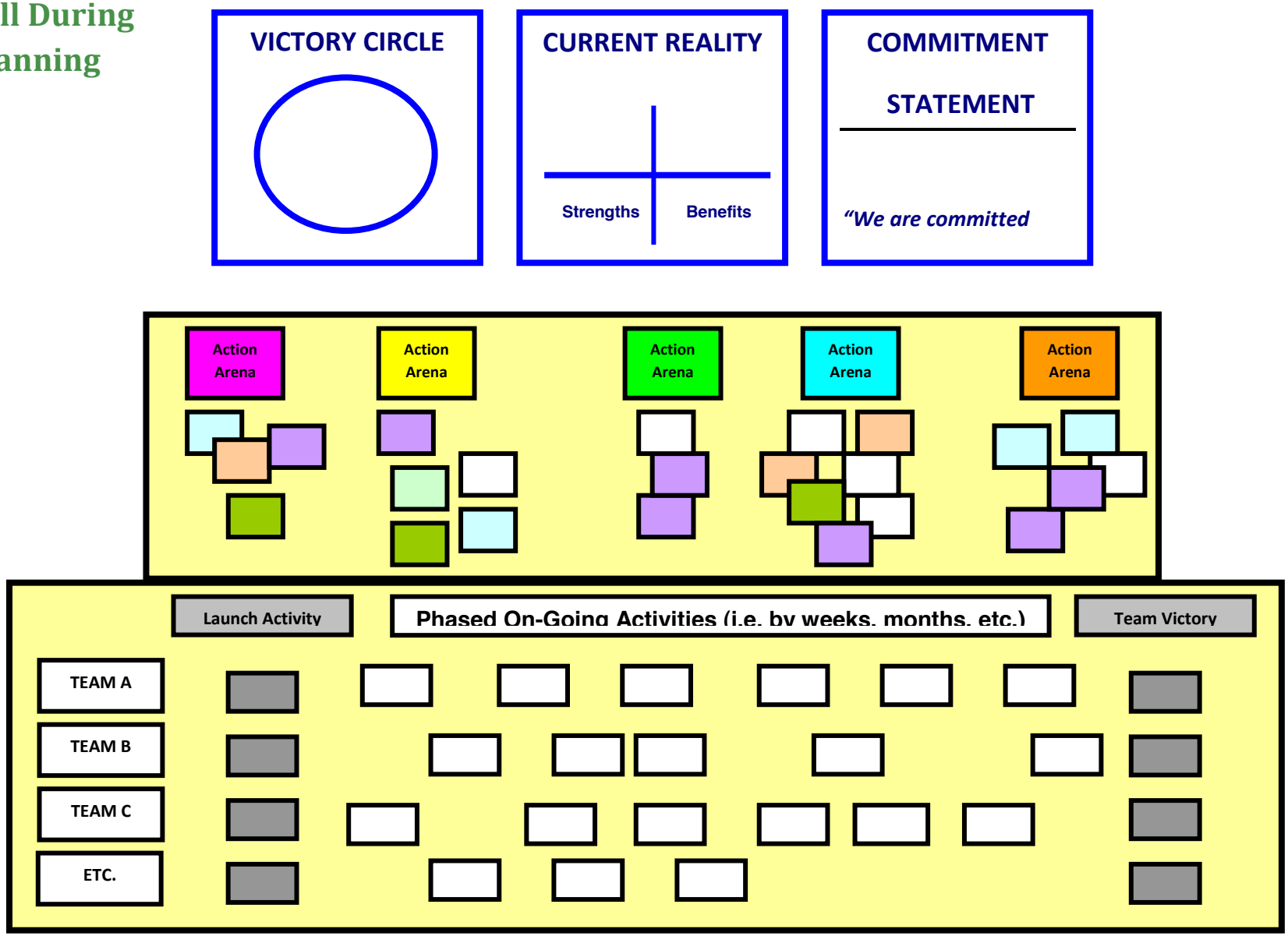
2. **Motivating Image**
   Create a catchy title, campaign name or visual image for the programme ahead

3. **Next Steps**
   Determine immediate follow-up actions necessary for successful launch.

Action Planning Method Overview

CONTEXT 1	VICTORY CIRCLE 2	CURRENT REALITY 3	GROUP COMMITMENT 4	KEY ACTIONS WORKSHOP 5	CALENDAR & COORDINATION 6	REFLECTION 7
"Clarifying Situation & Limits"	***"Visioning Details of Future Success"***	***"Assessing Present Situation"***	***"Articulating the Commitment to the Task"***	***"Identifying the Tasks/To Dos & Forming Task Teams"***	***"Scheduling and Coordinating Tasks and Actions"***	***"Defining Meaning and Determining Next Steps"***
			Our commitmeent is: 			***"A Motivating slogan or graphic image"***
Topic Time and Process Background Information Decisions Already Made What: Who: When: Where: Why: How:	The completed project ♦ Highlights ♦ Outcomes ♦ Results ♦ Breakthrus ♦ Intended Accomplish-ments	Analyzing the situation confronting the group as it begins to consider the project ♦ Strengths ♦ Weaknesses ♦ Benefits ♦ Pitfalls	Statement summarizing group commitment ♦ Clear ♦ Concise ♦ Compelling Group brainstorms key points, then weaves together into final statement Post it as starting point for workshop to follow	Individual and Team brainstorm actions Organize action ideas and name clusters, related to task arenas (keep size of group and level of project complexity in mind) Voluntarily self-select into task forces	Graphic calendar format Each Task force creates "completed victory" statement -- the outcome or deliverable of their work Phasing of actions or tasks – first identify the "launch activity" or first task to do; others are phased along the timelime – these are "ongoing activities" Task Force Reports/ Coordination/Resources	Reflecting on the whole activity ♦ What stands out? ♦ Where sense a breakthrough? ♦ What are you looking forward to? An overall image or slogan to use for both team and external communication
REVIEW	**DESIGN**			**STRATEGIZE**	**COORDINATE**	**CELEBRATE**

Front Wall During Action Planning



Template for an Action Plan

Environmental Issues to be addressed

Rational for Addressing these Environmental Issue

Objective(s) Defined:

ACTION	TIMING	RESPONSIBILITY	RESOURCES

Expected Outcomes of Session 4

At the end of this session participants would be able to:

- Understand the value of coastal areas and know what constitutes coastal areas
- Understand the interconnections between coastal areas and other parts of watersheds
- Assess the health of coastal areas
- Develop an action plan to protect watershed resources
- Work effectively in a team

Annex I – Glossary

Accretion Accumulation of sand or other beach material due to the natural action of waves, currents and wind; a build-up of sand.

Algae Plants without roots that grow in estuaries and "feed" on nutrients (such as nitrogen and phosphorus) in the water.

Algal bloom An over-growth of algae in water that shade out other aquatic plants and use up the water's oxygen supply; blooms are often caused by pollution from excessive nutrient input.

Beach Zone of loose material extending from the low water mark or a point landward where either the topography abruptly changes or permanent vegetation first appears.

Coliform bacteria Widely distributed micro-organisms found in the intestinal tract of humans and other animals, and in soils.

Coral reef Complex tropical marine ecosystem dominated by soft and stony (hard) corals, anemones and sea fans. Stony corals are microscopic animals with an outer skeleton of calcium carbonate that form colonies and are responsible for reef building.

Ecosystem A community of plants, animals and micro-organisms that are linked by energy and nutrient flows and that interact with each other and with the physical environment.

Endangered species A plant or animal that is in immediate danger of becoming extinct and needs protection to survive.

Erosion The process where soil and other matter are worn away by rain, stream currents, and wind.

Estuary A partially closed coastal body of water where freshwater and saltwater mix.

Fertilizers Substances, such as chemicals or animal manure, used to provide nutrients to help plants grow.

Fisheries A place where large numbers of fish are caught.

Fish kills Refers to large numbers of fish being killed, usually because there is not enough oxygen in the water or because of a chemical spill.

Food chain Shows how each living thing gets its food and how energy is transferred from one organism to another.

Freshwater Water from rivers, lakes, reservoirs, underground streams, and other sources. Water is continually lifted from the oceans by evaporation and then returned to the land as ice, snow, or rain. Ice and snow melt from mountains to release freshwater to our rivers, streams, lakes, and to resupply underground streams.

Habitat The place in which a plant or animal normally lives.

Heavy metals A group of highly toxic metals that are generally harmful to plants and animals, e.g. mercury

Hypoxia A condition where there isn't enough oxygen in the water. This forces fish to either swim away or die and can suffocate plants living in the water. Hypoxia occurs when there are too many nutrients in the water.

Mangroves Coastal trees or shrubs that are adapted to estuarine or even saline environment. Mangroves were plants that grow between the highest tidal level and the same level or higher than sea level.

Monitoring Systematic recording over time.

Nonpoint source Pollution that enters estuaries from many places, such as when rainwater washes over parking lots, lawns, or farms and brings pollutants from all these sources into the estuary.

Nutrient Any substance assimilated by living things for bodily maintenance or to promote growth; the term is often applied to nitrogen and phosphorus, but may also be applied to other essential and trace elements such as carbon and silica.

Pathogens Tiny disease-causing microorganisms such as viruses, fungi, and bacteria.

Pesticides Chemicals used to destroy or control plant, fungus, or animal pests.

Point source Pollution that enters estuaries from a single point, such as a factory pipe.

Reefs See Coral reefs.

Runoff Water that flows across the surface of the land and empties into a body of water.

Sand mining Removal of large or small quantities of sand from the beach, by machine or by hand, usually for building purposes.

Seagrasses Marine plants that are found in the soft intertidal sediments near shorelines. The plants are specially adapted to their aquatic environment

Seagrass bed Area of the offshore sea-bottom colonized by seagrasses.

Sediment Mud, sand, silt, clay, shell debris, and other particles that settle on the bottom of rivers, lakes, estuaries, and oceans. Sedimentation refers to the build-up of sediment.

Septic tank Outdoor tank in which sewage is broken down by bacteria.

Sewage Wastewater generated by people in homes and businesses.

Sewage treatment plants Places where wastewater is treated with chemicals and bacteria to produce clean water that can be returned to rivers and other waterways.

Shore Narrow strip of land in immediate contact with the sea.

Stormwater Refers to rainwater as well as water from washing cars, overwatering lawns, and other sources. Stormwater washes down storm drains on the curbs of roads and leads directly into lakes, rivers, and streams untreated. Stormwater can carry pollution directly into our natural water resources.

Threatened species A plant or animal that is likely to become endangered if not protected.

Transect A line cut across (a beach)

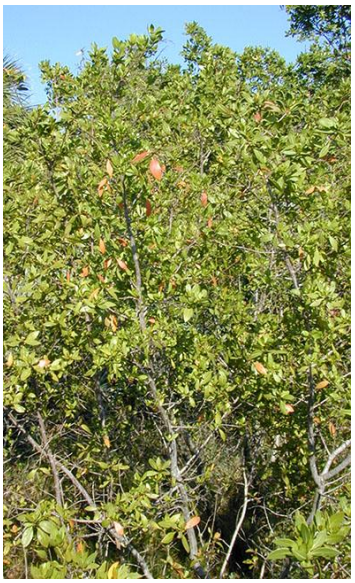
Turbidity Reduced water clarity resulting from the presence of suspended matter.

Watershed Geographically-defined region within which all water drains through a particular system of rivers, streams or other water bodies.

Annex II – Mangrove Species

Red mangrove

Buttonwood mangrove



Black mangrove

White mangrove

Sources: Smithsonian Environmental Research Center, Smithsonian Marine Station, US Geological Survey, Southeast American Shoreline Studies