

WASH & climate change adaptation training module: facilitators guide

A training module prepared by the IRC International Water and Sanitation Centre
for UNICEF and the National Water Resources Institute, Kaduna¹



¹ Prepared by John Butterworth and Sabine Guendel. The training module is based upon many existing resources and especially the work of Charles Batchelor and co-authors (2011) and other resources that are referenced in the text.

Introduction

This training module was developed as part of an initiative to promote the mainstreaming of climate change adaptation in the WASH sector in Nigeria through building the capacity of WASH sector professionals. It draws upon international and local resources and examples, and was compiled by the IRC International Water and Sanitation Centre for UNICEF and the National Water Resources Institute, Kaduna.

Purpose and scope of the training module

The purpose of the training module is to provide a selection of accessible resources that can be adapted and used in the delivery of training courses in climate change adaptation for WASH sector professionals working at state and local government levels. Ultimately this aims to influence the way that the WASH sector addresses the challenges posed by climate change through more and better activities that improve climate resilience. The training module will support the mainstreaming of climate change adaptation in WASH sector programmes through such capacity building efforts.

Through a mixture of learning about climate change concepts and linkages with WASH, practical tools for planning climate change adaptation, and international and Nigerian examples, the course aims to support users in finding entry points to climate change adaptation. It ultimately aims to influence the way that the WASH sector addresses the challenges posed by climate change through both more and more effective activities on this issue.

The training module covers rural and urban issues, sanitation and water supply, water resources management and cross-cutting (e.g. gender and equity) issues. It also takes a wider approach to managing sources of uncertainty and risk in the WASH sector – of which climate change is one – and the approaches and tools introduced have potentially wider applicability, especially scenario-based planning. The need to mainstream and integrate other approaches such as Disaster Risk Reduction is also addressed.

The training module is intended to be used in the delivery of short courses for WASH professionals, particularly staff at state and local government levels in the planning and design of water and sanitation projects and programmes, and the delivery of water and sanitation services. Participants might for example be drawn from Ministries, state water supply agencies, WASH units, RBDAs and other related agencies, and Non-Governmental Organisations. Such courses are intended to help participants to find practical entry points to address climate change risks in their own work. The modules will support a short course of about 30 hours duration although this is flexible depending on which modules and exercises the trainer decides to include.

Learning objectives

Specific learning objectives of the envisaged training courses are that participants will gain:

- a thorough understanding of all aspects of climate change,

- understand how mainstreaming provides a way for the WASH sector to engage and effectively meet the challenges presented by climate change, and
- be inspired to adapt scenario-based planning, water safety planning and other tools in order to address climate change and other sources of risk and uncertainty in WASH.

More specific learning objectives are identified by session:

Session 1 Climate Change - a source of risk and uncertainty in WASH service delivery: To understand potential (direct and indirect) impacts of climate change for water and sanitation service delivery (WASH), how it is challenging (to respond) because of its uncertain nature (uncertainty), and sources of vulnerability. Exercises explore:

1. *Attitudes of ourselves and our organisations to climate change... how do we see it in Nigeria?*
2. *Examining the most important direct and indirect impacts of climate change on WASH in Nigeria*

Session 2 Mainstreaming climate change adaptation: Understand the relevance of the concept of mainstreaming climate change adaptation for WASH and different mainstreaming principles and approaches/steps. An exercise and groupwork will:

- *Locate our existing responses to climate change in WASH in Nigeria on an adaptation/mainstreaming continuum.*
- *Consider key questions about WASH policies and climate change, and engagement in climate change platforms.*

Session 3 Scenario-based planning: Learn about the limitations of existing planning approaches, and how can could use scenario-based planning (in entirety or influenced by key ideas) as a practical framework/tool to improve WASH planning processes at different levels (from high level strategic to operational) and one in which it is easy to understand climate change. Exercises explore:

- *Existing planning approaches for water and sanitation in Nigeria*
- *making visions SMART, and critiquing visions and visioning processes*
- *scenario building: brainstorming and categorising factors in terms of importance and uncertainty*
- *strategy development*

Session 4 Community-based adaptation: Gain an understanding of the value of community-based climate change adaptation, and its constraints.

Session 5 Climate screening and proofing: learn how screening can be used to reduce the risks associated with WASH technologies, projects and programmes. An exercise:

- *examines the risks associated with WASH technologies in Nigeria*

Session 6 Integrated Water Resources Management: learn how WASH can be more effectively linked to efforts in IWRM into light and community-based approaches to water resources management. An exercise:

- *unpacks links between water resources and service delivery.*

Session 7 Emergencies and Disaster Risk Reduction: understand the importance and key components of Disaster Risk Reduction and their contribution to climate change adaptation. An exercise focuses on:

- WASH in emergency relief, recovery and development

Session 8 Costs, benefits and financing: learn about projected costs, benefits and funding mechanisms and opportunities for climate change adaptation. An exercise focuses on:

- actions proposed on climate change funding in Nigeria.

Session 9 Developing your climate resilient action plan: reflect on what you have learned and identify priorities for an action plan that you can take forwards after the training course.

Preparation

To know your participants before the course, you might ask participants to provide you with some information on their existing expertise. Prepare a form such as the following:

| Please Indicate your level of expertise according to each heading below and explain the resource for your score: (0) little or nothing (1) a bit (2) familiar (3) substantial (4) a lot (5) expert level | | | | |
|---|------|----------------|----------|----------------|
| WASH | IWRM | Climate Change | Training | Other: specify |
| | | | | |

To prepare for the course participants should also be asked to think about and bring information along relating to existing WASH planning processes in which they are involved.

| Information required | | | |
|---|--|-----|----|
| WASH & climate change adaptation | ➤ Plans or information about existing planning processes | Yes | No |
| | ➤ Visions and policies e.g. of organisations, programmes | | |
| | ➤ Examples of climate change adaptation in the WASH sector | | |

Whether participants have their own cases/ examples affects how exercises are planned in particular.

Duration

This module is designed for five days comprising 6 hours of session time and 2 hours for lunch and refreshment breaks on each day.

Module outline

| | Session title | Suggested duration |
|-----------|--|--------------------|
| | <ul style="list-style-type: none"> Welcome and introductions | 1 h |
| Session 1 | <ul style="list-style-type: none"> Climate change: a source of risk and uncertainty in WASH service delivery Topics/cases: climate change impacts, vulnerability | 3½ h |
| Session 2 | <ul style="list-style-type: none"> Mainstreaming climate change adaptation | 1 h |
| Session 3 | <ul style="list-style-type: none"> Scenario-based planning Topics/cases: visioning, scenario-building, strategy development | 6 h |
| Session 4 | <ul style="list-style-type: none"> Community-based adaptation | 1 h |
| Session 5 | <ul style="list-style-type: none"> Climate screening and proofing Topics/cases: rural water supply, urban water supply, sanitation, water safety planning, technologies | 2 ½ h |
| Session 6 | <ul style="list-style-type: none"> Integrated Water Resources Management Topics/cases: community-based water resources monitoring and management | 2 ½ h |
| Session 7 | <ul style="list-style-type: none"> Emergencies and Disaster Risk Reduction Topics/cases: floods (prevention and warning), droughts | 2 ½ h |
| Session 8 | <ul style="list-style-type: none"> Costs, benefits and financing | 2 h |
| Session 9 | <ul style="list-style-type: none"> Developing your climate resilient action plan | 7 h |
| Closing | <ul style="list-style-type: none"> Evaluation and closing | 1 h |
| Total | | 30 h |

Resources for trainers

The following resources are made available for trainers and facilitators:

- Introductory presentation: Introduction to the training module and learning objectives
- Factsheets: WASH & climate change adaptation (a series of 8 factsheets, one for each session except session 9)
- Session presentations: 8 presentations on WASH & climate change adaptation illustrating key points in the factsheets and providing further examples
- Exercises are included in this facilitators guide

WASH & climate change adaptation

- A library of relevant documents that can be used to adapt the course and links to further resources
- A collection of relevant films

[ToT] These tips and ideas are intended for trainers

Resources for participants

Participants should be given:

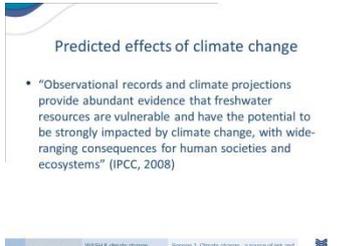
- Copies of the factsheets
- Copies of the presentations
- Relevant documents they may want to read and films to watch to add to their knowledge

Session plan

| Welcome and Introduction | |
|---------------------------|--|
| Facilitator's notes | |
| [15 mins] | <p>Step 1: Words of welcome</p> <p>If appropriate, provide some background to this training course and key organisations and people involved. Some might be invited to give words of welcome</p> |
| Exercise [30 mins] | <p>Step 2: Introductions</p> <p>Ask participants to introduce themselves.</p> <p>[ToT] This might be done quickest by simply going around the tables and asking each participant to say their name and organisation. A more interactive alternative is asking pairs of participants to talk to each other, find out why they are at this training and what they hope to get out of it. Each person then introduces his/her new acquaintance (rather than him or herself).</p> <p>[ToT] Another more interactive approach to introductions is to imagine the floor of the room as a big map of Nigeria. Perhaps point out some key features like the coast or major rivers using any resources at hand. Now ask participants to go and stand in the part of Nigeria where they now work (e.g. north, south etc). Interview at random 10 people and ask for name, organization, and their purpose for being here.</p> <p>[ToT] Yet another way of doing the introductions would be to ask people to go and stand in one of 4 corners according to whether they are most associated with:</p> <ol style="list-style-type: none"> 1. <i>Working mainly in WASH</i> 2. <i>Working mainly in Climate Change</i> 3. <i>Working mainly in training</i> 4. <i>Working mainly in other fields</i> <p>Ask participants to discuss amongst themselves getting to know each other and why they are here for 5 minutes, and then ask one or two members of the group to introduce its members.</p> <p>At this stage you might want to hand around a participants list for completion.</p> |

| Welcome and Introduction | |
|--|--|
| Facilitator's notes | |
| <p>Presentation [15 mins]</p>  | <p>Step 3: Introduce the training Module</p> <p>Introduce the learning objectives of the training module using the short introductory presentation (8 slides).</p> <p>[ToT] It is important to highlight that the module is practical and involves participants actively sharing information about their organisation, projects, programmes etc and using examples and case studies.</p> <p>[ToT] Make any logistical or other announcements. One idea to involve participants further throughout the course is to ask for volunteers (e.g. now for the next day) to make a summary for the start of the next day i.e. what we learned today, highlights, gaps etc.</p> |

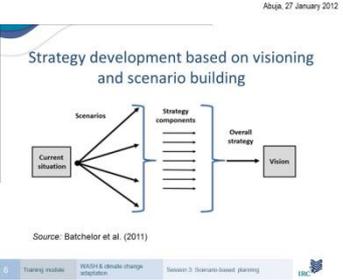
| Session 1 | Climate change: a source of risk and uncertainty in WASH service delivery |
|---|---|
| Facilitator's notes | |
| <p>Presentation [10 mins]</p>  <p>Location/Date</p> | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Show slides 2 to 3 that summarise the objectives of the session, its importance and main topics.</p> |
| <p>Film [20 mins]</p>  | <p>Step 2: Basics of climate science</p> <p>Show short film (6 mins) summarising the basic science of climate change and global warming (UKCIP film – see Factsheet 1 for links).</p> <p>Allow some time for questions and discussion</p> |
| <p>Exercise [30 mins]</p> | <p>Step 3: Brainstorm on impacts of climate change on water and sanitation service delivery</p> <p>This exercise leads to a discussion on differences between direct and indirect impacts and demonstrates the complexity involved.</p> <p>Ideas are written on cards and afterwards grouped into categories and sorted into direct and indirect impacts. Suggested steps are to allow 15 minutes for group discussion:</p> <ul style="list-style-type: none"> ■ Participants are arranged into groups of 4-6 people ■ Participants agree on a facilitator, and someone to present among themselves ■ Each participant writes a maximum of two ideas, each one on a separate card. ■ Group discusses all ideas and clusters them in similar ideas <p>Participants have 15 minutes of group work</p> <p>The facilitator prepares a big sheet on which all cards are then taped in a clustered way with help of all participants. Note: the facilitator might add the distinction between direct and indirect impact or clusters ideas using RIDA (Resources, Infrastructure, Demand, and Access headings. In plenary a 10 minute discussion follows on whether all is there and whether participants all agree with the clustering.</p> |

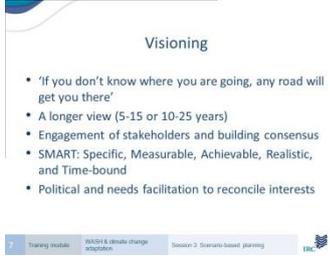
| Session 1 | Climate change: a source of risk and uncertainty in WASH service delivery |
|--|--|
| Facilitator's notes | |
| | <p>[ToT] Using and writing cards:</p> <ul style="list-style-type: none"> ■ Cards are accepted as they are and only checked on understanding the idea ■ Cards once on the table become group cards and are dealt with by the whole group ■ Unless ideas are identical, no card can be deleted ■ Write clearly with a dark marker ■ Write in keywords, not whole sentences ■ Write not more than one idea on one card ■ Write not <i>more than 3 lines of text on one card</i> <p>[ToT] Tips on facilitating brainstorming: focus by starting with a clear statement of problem or issue, encouraging a long list of diverse ideas, nurture the conversation at beginning and step out as ideas begin to flow. Good ways to kill a brainstorm (things you should not do) include letting the boss speak first, asking experts only, writing down everything. For more ideas see www.fastcompany.com/articles/2001/03/kelley.html.</p> |
| <p>Presentation [15 mins]</p>  | <p>Step 4: Summarise key impacts and vulnerabilities</p> <p>Show slides 4-8 summarising key predicted global and Nigerian impacts of climate change on water. Introduce the concepts of uncertainty and vulnerability.</p> |
| <p>Film [45 mins]</p>  | <p>Step 5: Show film on predicted impacts of climate change in Nigeria</p> <p>Show one of the two films produced by BNRCC on northern and southern Nigeria (see links in factsheet 1).</p> <p>Discussion in plenary.</p> |
| <p>Presentation and short film clip [30 mins]</p> | <p>Step 5: Uncertainty and vulnerability as additional challenges</p> <p>Show slides 9 to 11 present concept of uncertainty, reasons for uncertainty at different scales and principles to deal with uncertainty. The concept of vulnerability in the context of</p> |

| Session 1 | Climate change: a source of risk and uncertainty in WASH service delivery |
|---|---|
| Facilitator's notes | |
| <p>Climate change and uncertainty</p> <ul style="list-style-type: none"> • Uncertainty in projections of warming and its effects • Impacts in rainfall and downscaled impacts are especially uncertain • Extreme events and groundwater recharge • Highly unlikely that reliable predictions of changes will be available at suitable scales for WASH planning • Make policy and act without perfect knowledge  | <p>climate change will be introduced.</p> <p>Choose and show one of the short Gathering Storm films (links in factsheet 1) e.g. Shifting Sands to illustrate the issue of vulnerability.</p> <p>Discussion in plenary after the film could focus on (slide 12):</p> <ul style="list-style-type: none"> ■ what population groups, sectors and regions are most vulnerable to climate change or current climate variability. Why are they at greater risk (eg poor infrastructure, poverty, degraded natural resources) ■ Will climate change exacerbate existing vulnerabilities? What are links between climate change and vulnerability and what could this mean for the WASH sector? <p>These two presentations and discussions provide the participants with evidence that WASH sector is vulnerable to climate change impact and that there is a clear need for a response from the sector despite existing uncertainties. This should lead into the next step where participants are asked to think about reasons for inaction or limited action from WASH sector professionals.</p> |
| <p>Exercise [60 mins]</p> | <p>Step 6: Exercise on engagement of WASH sector professionals with climate change</p> <p>Split into small groups to discuss reasons for the lack of engagement of WASH sector professionals with climate change (use text from Box 1 in Factsheet 1). Participants decide on views and arguments they identify themselves most with. Suggested steps are:</p> <ul style="list-style-type: none"> ■ Participants are (re)mixed into groups of 3 or 4 people; ■ Participants agree on facilitator, documenter and presenter among themselves; ■ Participants look at arguments from Box 1 in factsheet 1 ■ Each participant identify a maximum of two important views that they share, and write each one on a separate card (allow 15 minutes to get to this point as participants will need to read the factsheet box) ■ Participants discuss for up to 15 minutes these reasons and put them in order of importance ■ On a prepared overall big sheet place the cards with arguments in order of importance as indicated by the groups |

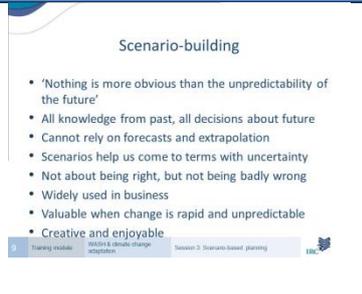
| | |
|-------------------------|--|
| <p>Session 1</p> | <p>Climate change: a source of risk and uncertainty in WASH service delivery</p> |
| | <p>Facilitator’s notes</p> |
| | <ul style="list-style-type: none"> ■ <i>Participants are then invited to put a mark (or sticker) beside the argument that most closely reflects their current position on the argument</i> ■ <i>A final discussion of a few minutes to agree on the list</i> <p>This exercise should make participants aware that reasons for non-action are not strong enough to remain in a passive position and indeed there are already global actions taken to support WASH sector professionals in addressing climate change challenges. The next presentation will introduce set-up of global organisations and relevant principles for adaptation strategies.</p> <p>[ToT] Groupwork helps to encourage deeper analysis of issues, lets more people contribute to discussions and increases ownership of the process. There are lots of ways to form groups. One popular way is to arrange your participants in a banquet style (i.e. people sat at tables of say 5 or 6 people) during both plenary and group work activities.</p> <p>Session summary and key points – outlook to session 2</p> |

| Session 2 | Mainstreaming climate change adaptation |
|--|--|
| | Facilitator's notes |
| <p>Presentation [10 mins]</p>  <p style="text-align: right; font-size: small;">Location/Date</p> | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Show slides 2 to 3 that summarise the objectives of the session, its importance and main topics.</p> <p>Refer participants to factsheet 2.</p> |
| <p>Presentation [20 mins]</p>  | <p>Step 2: Presentation on key concepts in mainstreaming</p> <p>Slides 4 to 6 illustrate the key concepts and ideas of mainstreaming.</p> <p>Slides 7 to 9 present the structure of the UNFCCC and IPCC and points out key principles agreed at global level in terms of climate change adaptation strategies (including the Nairobi principles on land and water management). This provides the foundation for national adaptation strategies (NAPAs and NAs) to address climate change at national level. Briefly mention Nigeria's NASPA-CCA (see factsheet 2 for more information and links).</p> |
| <p>Group work [30 mins]</p> | <p>Step 3. In groups consider the following questions to stimulate discussion.</p> <ul style="list-style-type: none"> ■ <i>How is climate change considered in key WASH policies?</i> ■ <i>Which are the links if any between WASH sector and environment-led initiative?</i> ■ <i>How is WASH represented in climate change platforms in Nigeria?</i> <p>[ToT] In small groups, ask each group to focus on one question and report back on that issue. If more than one group tackle a question, compare the findings and encourage discussion.</p> <p>Session summary and key points – outlook to session 3</p> |

| Session 3 | Scenario-based planning |
|---|--|
| Facilitator's notes | |
| <p>Presentation [30 mins]</p>   <p>Abuja, 27 January 2012</p> <p>Source: Batchelor et al. (2011)</p> | <p>Step 1: Introduce scenario-based planning</p> <p>Present slides 2-5 from the WASH & climate change adaptation presentation covering the limitations of traditional planning approaches in addressing risks and uncertainty (and issues like climate change) and the rationale for using scenario-based planning approaches.</p> <p>Slide 6 illustrates the key elements of a scenario-based planning process. Introduce the key terms (visions, scenarios, strategies) and that these can be understood differently in different planning approaches. Slide y illustrates a full cycle of implementation. <i>Ask if participants have questions about the key terms and concept.</i></p> <p>Give some examples of the use of scenario-based planning in different sectors and its value. <i>Ask the participants, whether they have any experience of scenario-based planning.</i></p> <p>Refer participants to factsheet 3 for more information and links.</p> |
| <p>Exercise [45 mins]</p> | <p>Step 2: Examining existing planning approaches and how they address risks</p> <p>This is suggested as group work around tables (e.g. if the room is organised in a banquet style) ideally with groups of 4-6. To start:</p> <ul style="list-style-type: none"> ■ Group appoints facilitator, documenter and rapporteur ■ Group has 20 minutes to fill the provided matrix writing on a flipchart in landscape orientation ■ Ask participants to please write clearly so that output can be shared with other groups ■ Ask participants to identify 2-3 planning processes in which they are involved; have an influence on or; are aware about / affected by. Identify for each planning process whether it is limited to one organisation or a multi-stakeholder planning; the scale (city, district, state etc); the timeframe (e.g from – to); your involvement (e.g.: directly involved / have some influence / make some input / not involved but have knowledge / affected by decisions / etc). Indicate if and how the planning processes addresses current or future (climate related) risks. ■ Participants prepare a matrix on a flipchart in landscape orientation, writing clearly. |

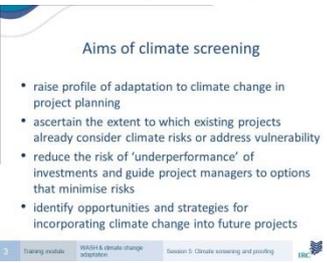
| Session 3 | Scenario-based planning | | | | | | |
|--|--|---------------------|-------|------------|------------------|--------------|--|
| Facilitator's notes | | | | | | | |
| | Planning process | Which stakeholders? | Scale | Time-frame | Your involvement | Future risks | |
| | | | | | | | |
| | <ul style="list-style-type: none"> ■ Group work flipcharts are displayed in plenary and presented one by one ■ Facilitator leads a short discussion to summarize the outcomes of the exercise: any patterns? Types of planning that do include addressing future/climate risks? Discuss if addressed, and how? ■ Facilitator makes link to next visioning session. <p>[ToT] This exercise will probably work best when individuals (or groups of participants that work together) have done some preparation in thinking about their existing planning processes.</p> <p>[ToT] The scale at which participants are working / intervening will be critical for later parts of the course for example in the choices of tools that are likely to be useful.</p> | | | | | | |
| <p>Presentation [15 mins]</p>  | <p>Step 3: Visioning</p> <p>‘If you don’t know where you are going, any road will get you there’ (Lewis Carroll)</p> <p>Introduction to ‘visioning’ using slides 7 to 8 to explain the objectives of visioning and to show some examples (such as the vision2020 process vision)</p> <p>Refer participants to the factsheet for more information on how to design and facilitate a visioning process.</p> | | | | | | |
| <p>Exercise (in small groups) [60 mins]</p> | <p>Step 4: SMART visions</p> <p>This exercise will critique an existing vision (e.g. the Vision2020 overall vision and WASH targets, or the visions from other plans) to reinforce ideas from the presentation and background paper on what makes a good vision. Key steps are:</p> <ul style="list-style-type: none"> ■ Participants again formed into small groups (4-6 people) ■ Before starting refer participants to the summary of the | | | | | | |

| Session 3 | Scenario-based planning |
|--------------------------------------|--|
| | Facilitator's notes |
| | <p><i>Vision2020 vision and its WASH targets in the background paper, and the background information on water and sanitation access summarised from the JMP (this background information may need explanation if participants are not familiar with JMP data and it may be contested and some discussion needed); alternatively, participants own examples of visions from other plans and processes may be used.</i></p> <ul style="list-style-type: none"> ■ <i>Groups appoint facilitator, documenter, and rapporteur</i> ■ <i>Group discusses the questions (allow 20 minutes)</i> <ul style="list-style-type: none"> ➢ <i>Is the vision ambitious?</i> ➢ <i>Is the vision SMART (Specific, Measurable, Achievable, Realistic and Time-bound)? (note that these are contradictory)</i> ➢ <i>How to make the vision more engaging / attractive to achieve good communication and buy-in?</i> ➢ <i>Try to summarise the vision in 5 words? (e.g. for the Vision2020 vision and its WASH targets. Example 5 words: universal access powering economic growth). This is intended to lead to discussion on the importance of good drafting of a vision, making it memorable and engaging.</i> ➢ <i>Was the vision2020 document (or other plan) well communicated? Has it had influence on the sector?</i> ■ <i>Answers to questions are written down on a flipchart in portrait orientation (write clearly)</i> ■ <i>Facilitator invites two groups to present orally their answers to question 1. Other groups are asked if they had other answers.</i> ■ <i>Facilitator continues in the same way changing groups throughout all questions.</i> ■ <i>Facilitator summarizes outcomes of the exercise and key points of the session.</i> <p><i>[ToT] Refresh the groups, change people around to encourage interaction. To save time on reporting back, one or two groups are asked to summarise their answer to the first question. Ask if any other groups have a very different view. Then ask one or two groups the answer to the next question etc.</i></p> <p><i>Summarise the exercise and the key points of the session.</i></p> |
| <p>Presentation [15 mins]</p> | <p>Step 5: Introduce scenario-building Slides 9-14 introduce the value of scenario building as part of a</p> |

| Session 3 | Scenario-based planning |
|---|---|
|  | <p>Facilitator's notes</p> <p>planning process, and gives some examples. Characteristics of good scenarios and lessons learnt are summarised.</p> <p>Refer participants to factsheet 3 for more details on how to facilitate scenario-building.</p> |
| <p>Exercise [90 mins]</p> | <p>Step 6: Scenario-building</p> <p>For the group work:</p> <ul style="list-style-type: none"> ■ Groups are (re)mixed ■ Groups appoint facilitator, documenter and rapporteur ■ Groups given 30 minutes ■ Group focusses on a specific example of a vision (e.g. using the Vision2020 vision from session 3 or an own example) ■ Group carries out the following tasks: <ul style="list-style-type: none"> ➢ Brainstorm the factors that will affect achievement of the vision ➢ Separate the factors into factors that can be influenced and factors (external) that can not be controlled (but only adapted to); ➢ Rank external factors according to importance and uncertainty, based on participants perception; ➢ Identify the states (see example in scenarios in handouts) of the external factors. <p>The facilitator may, at this point, decide to conclude the exercise. The facilitator and / or enthusiastic participants, then develop over lunch / night the outline and narrative scenarios for one or more of the cases for presentation back to the group as an example.</p> <ul style="list-style-type: none"> ■ Facilitator aims at a rough consensus in plenary ■ A possible additional short, fun exercise could then be to name the scenarios) ■ Point participants to background paper on factors one can influence and (external) factors that one cannot influence and hence needs to adapt to. |
| <p>Presentation [15 mins]</p> | <p>Step 7: Introduce strategy development</p> <p>Slides 14-15 introduce strategy development, including showing again the figure that illustrates how strategies contribute to achieving the vision under different scenarios. The objective is robust and adaptable strategies (and to engage</p> |

| Session 3 | Scenario-based planning |
|---|---|
|  | <p>Facilitator’s notes</p> <p>stakeholders... ownership).</p> <p>Make link to adaptive management and strong monitoring and learning.</p> <p>Refer participants to factsheet 3 for more details on strategy development.</p> |
| <p>Exercise [90 mins]</p> | <p>Step 8: Formulating strategies</p> <p>This exercise aims to complete a partially worked out case example of possible strategies to achieve the Vision2020 vision, under different scenarios (developed as part of the previous session, and including climate change).</p> <p>The facilitator should to prepare upfront a list of strategy components relating to rural and urban water supply, and rural and water sanitation relevant to the vision. Then:</p> <ul style="list-style-type: none"> ■ Group appoints facilitator, documenter, rapporteur ■ Groups are provided with a list of possible strategy components; ■ Groups carry out the following take (allow 30 minutes): <ul style="list-style-type: none"> ➢ Add or reject strategy components (provided by facilitator); ➢ Link strategy components to (parts of) the vision; ➢ Evaluate the strategy components under different scenarios ■ Group work is presented in plenary ■ Facilitator summarises the session reinforcing what would be done as part of a full visioning process, and the steps that would follow (planning, implementation, monitoring etc). <p>[ToT] Thinking about mixing (for more interaction) or keeping same groups (for continuity e.g. if groups working on different cases).</p> |

| Session 4 | Community-based adaptation |
|--|---|
| | Facilitator's notes |
| <p>Presentation [15 mins]</p>  | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Show slides 2 to 3 that summarise the objectives of the session, its importance and main topics.</p> <p>Refer participants to factsheet 4.</p> |
| <p>Presentation and plenary discussion [30 mins]</p>  | <p>Step 2: Introduce the main ideas of community-based adaptation and the strengths and weaknesses using examples from different countries</p> <p>Present slides 4-11.</p> <p>Discussion. Key issues:</p> <ul style="list-style-type: none"> ■ <i>How to take scale-up Community-based adaptation efforts?</i> ■ <i>How to better communicate results of Community-based adaptation?</i> |
| <p>Film [15 mins]</p>  | <p>Step 3: Introduce further examples to support discussion</p> <p>Show one or two of the relevant short films from the Gathering Rain series (e.g. Harvesting Rain or Escaping Floods)</p> <p>Discussion.</p> |

| Session 5 | Climate screening and proofing |
|--|---|
| Facilitator's notes | |
| <p>Presentation [15 mins]</p>  <p style="text-align: right; font-size: small;">Location/Date</p> | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Discuss slide 2 that summarises the importance of the topic.</p> <p>Refer participants to factsheet 5.</p> |
| <p>Presentation and plenary discussion [45 mins]</p>  | <p>Step 2: Introduce key ideas of climate screening and proofing with examples from rural water supply, urban water supply and sanitation</p> <p>Present slides 3-15.</p> <p>Discussion. Some suggested discussion questions are also included in slide 16.</p> |
| <p>Exercise [90 mins]</p> | <p>Step 3. Climate screening and proofing of WASH technologies under different circumstances</p> <p>Using the same framework as illustrated in factsheet 5 table 1 or the Vision 2030 report (WHO/DFID) technology factsheets, the exercise is to brainstorm the key elements of an adapted analysis for the area where participants work. This exercise introduces participants to possible screening and proofing procedures that can be used to make WASH infrastructure more resilient to various possible climate change scenarios.</p> <ul style="list-style-type: none"> ■ Participants are asked to form small (3-4 people) groups around either a specific programme / project they are involved in or alternatively around a specific type of WASH infrastructure / facility ■ Participants agree on facilitator, documenter and presenter among themselves ■ Participants should be given the Vision 2030 technology fact sheets ■ Participants agree on the WASH infrastructure / facility they will assess (start with one and if you have time repeat the exercise for a second) |

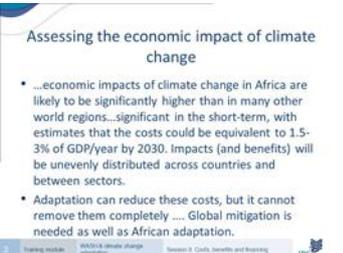
| Session 5 | Climate screening and proofing | | | | | | | | | | | | | | | | | | | | |
|------------|---|---------------|------------------|----------------------|------------------|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | <p data-bbox="560 241 810 277">Facilitator’s notes</p> <ul style="list-style-type: none"> <li data-bbox="560 293 1358 405">■ Participants look up the relevant Vision 2030 fact sheet and assess if the proposed procedure of screening and proofing applies to their own case (allow about 50 minutes) <ul style="list-style-type: none"> <li data-bbox="608 416 1358 573">➢ Participants may decide to carry out screening and proofing for one or more climate change scenarios (more rainfall; more rainfall with extreme weather patterns; less rainfall; less rainfall with extreme weather patterns) <li data-bbox="608 584 1358 696">➢ Participants decide if they need to distinguish proofing of existing infrastructure from proofing new infrastructure and document the arguments for their choice <li data-bbox="560 707 1289 819">■ Participants document where they would make other or additional decisions to ensuring proofing for each of the climate change scenarios chosen <li data-bbox="560 831 1353 898">■ Participants write cards (one per idea) with comments on the usefulness of the factsheets used <li data-bbox="560 909 1310 976">■ Facilitators act as coaches where needed during the group work. <li data-bbox="560 987 1299 1055">■ Facilitator asks each group to report on their findings, on where they have formulated additional proofing action <li data-bbox="560 1066 1374 1133">■ Facilitator collects all feedback on the use of the factsheets and summarizes exercise outcomes. <table border="1" data-bbox="560 1200 1374 1413"> <thead> <tr> <th data-bbox="560 1200 743 1279">Technology</th> <th data-bbox="743 1200 911 1279">Description</th> <th data-bbox="911 1200 1062 1279">Climate risks</th> <th data-bbox="1062 1200 1198 1279">Possible impacts</th> <th data-bbox="1198 1200 1374 1279">Adaptation responses</th> </tr> </thead> <tbody> <tr> <td data-bbox="560 1279 743 1323"></td> <td data-bbox="743 1279 911 1323"></td> <td data-bbox="911 1279 1062 1323"></td> <td data-bbox="1062 1279 1198 1323"></td> <td data-bbox="1198 1279 1374 1323"></td> </tr> <tr> <td data-bbox="560 1323 743 1368"></td> <td data-bbox="743 1323 911 1368"></td> <td data-bbox="911 1323 1062 1368"></td> <td data-bbox="1062 1323 1198 1368"></td> <td data-bbox="1198 1323 1374 1368"></td> </tr> <tr> <td data-bbox="560 1368 743 1413"></td> <td data-bbox="743 1368 911 1413"></td> <td data-bbox="911 1368 1062 1413"></td> <td data-bbox="1062 1368 1198 1413"></td> <td data-bbox="1198 1368 1374 1413"></td> </tr> </tbody> </table> <p data-bbox="560 1458 951 1494">Possible concluding discussion:</p> <ul style="list-style-type: none"> <li data-bbox="560 1505 1337 1572">■ Where are the opportunities to practically introduce climate screening procedures in your programme planning? | Technology | Description | Climate risks | Possible impacts | Adaptation responses | | | | | | | | | | | | | | | |
| Technology | Description | Climate risks | Possible impacts | Adaptation responses | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |

| Session 6 | Integrated Water Resources Management |
|--|--|
| | Facilitator's notes |
| <p>Presentation [15 mins]</p>  <p style="text-align: right; font-size: small;">Location/Date</p> | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Show slide 2 illustrating the relevance of IWRM and introduce the learning objectives of the session.</p> <p>Refer participants to factsheet 6.</p> |
| <p>Presentation and plenary discussion [30 mins]</p>  | <p>Step 2: Introduce key elements of the IWRM package, links to WASH and gaps/criticisms in the approach</p> <p>Present slides 3-7.</p> <p>Discussion. Some possible that issues may be discussed:</p> <ul style="list-style-type: none"> ■ <i>To what extent does IWRM in Nigeria penetrate to the local levels where service delivery happens?</i> ■ <i>Will the Nigerian Integrated Water Resources Commission be a key driver in climate change adaptation?</i> |
| <p>Exercise [60 mins]</p> | <p>Step 3: Exercise on water resources management</p> <p>This exercise introduces participants to possible screening and proofing procedures that can be used increase resilience of WASH services to changes in water resources contexts under various possible climate change scenarios. Suggestions for the exercise are:</p> <ul style="list-style-type: none"> ■ <i>Participants might remain in same groups as for session 5 exercise 1</i> ■ <i>Participants agree on facilitator, documenter and presenter among themselves</i> ■ <i>Participants given 30 minutes of group work</i> ■ <i>Participants use the Vision 2030 technology fact sheets and factsheet 6</i> ■ <i>Participants assess water resource risks for each of the WASH technologies / facilities assessed in their chosen case in previous exercise</i> ■ <i>Participants describe in key-words the possible manifestations of change regarding water resources and the degree of uncertainty to be dealt with</i> ■ <i>Participants document what water resources screening and proofing they would recommend</i> |

| Session 6 | Integrated Water Resources Management |
|---|---|
| | <p data-bbox="560 248 810 282">Facilitator’s notes</p> <ul style="list-style-type: none"> <li data-bbox="560 293 1377 450">■ <i>Participants guesstimate whether required funding would be high or low, easily affordable or less and whether in view of the costs they would still recommend or rather not the proposed proofing</i> <li data-bbox="560 461 1377 528">■ <i>If several climate scenarios are considered (see exercise 1 of session 5), repeat the procedure for each of them</i> <li data-bbox="560 539 1377 651">■ <i>Participants document where they would make other or additional decisions to ensuring proofing for each of the climate change scenarios chosen</i> <li data-bbox="560 663 1377 730">■ <i>Participants write cards (one per idea) with comments on the usefulness of the factsheets used</i> <li data-bbox="560 741 1377 775">■ <i>Facilitators act as coaches during the group work.</i> <li data-bbox="560 786 1377 943">■ <i>Facilitator asks each group to reflect on how their assignment went and whether available screening and proofing tools and procedures are adequate or lacking (if so document what participants miss).</i> <li data-bbox="560 954 1377 987">■ <i>Facilitator summarizes outcome of exercise.</i> <p data-bbox="560 1043 1377 1234">[ToT] The facilitator will need to be prepared to trigger thinking (for example, quality as well as quantity issues, etc) and encourage groups to go deeper (for example demand and access is not just about average lpcd but who does not have access, inequality etc).</p> |
| <p data-bbox="188 1335 512 1402">Presentation and plenary discussion [45 mins]</p> | <p data-bbox="560 1317 1217 1384">Step 4: Community-based integrated water resources management</p> <p data-bbox="560 1440 1358 1507">Invite a resource person (if available) to present a case study on community-based IWRM or refer to example in factsheet 6.</p> <p data-bbox="560 1563 1281 1597">Discussion. Possible questions to stimulate discussion are:</p> <ul style="list-style-type: none"> <li data-bbox="560 1608 1345 1675">■ <i>Should local monitoring of water resources be scaled up, and how can this be done effectively?</i> <li data-bbox="560 1686 1345 1798">■ <i>How can local governments and water and sanitation service delivery agencies be more involved in water resources management?</i> <p data-bbox="560 1854 1106 1888">To end, summarise the session’s key points.</p> |

| Session 7 | Emergencies and Disaster Risk Reduction | | | | | | | | |
|--|---|---|--|---|----------------------------|------------------|--|--|--|
| | Facilitator's notes | | | | | | | | |
| <p>Presentation [15 mins]</p>  <p style="text-align: right; font-size: small;">Location/date</p> | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Show slide 2-4 summarising the importance of the topic. Introduce the learning objectives of the session.</p> <p>Refer participants to factsheet 7.</p> | | | | | | | | |
| <p>Presentation and plenary discussion [30 mins]</p>  | <p>Step 2: Presentation on disaster risks associated with water and climate change impacts, and Disaster Risk Reduction</p> <p>Follow presentation (slides 5-9) with discussion on the key issues and concepts.</p> | | | | | | | | |
| <p>Film [45 mins]</p>  | <p>Step 3: Show film on disaster preparedness</p> <p>Show either one of the 'resilience' films, short films from the Gathering Storm series (e.g. Escaping floods, and Flooding Rivers) or summary IPCC extreme events report. Discuss issues that emerge from the film and their relevance to Nigeria.</p> | | | | | | | | |
| <p>Exercise [60 mins]</p> | <p>Step 4: Exercise on water and sanitation and disaster risk reduction</p> <p>Working in small groups ask participants to map their organisations involvement in disaster risk reduction using the following simple matrix.</p> <p>Organisation: x</p> <table border="1" data-bbox="563 1727 1377 2022"> <thead> <tr> <th>Stage in emergency management cycle</th> <th>Current roles (give examples of recent activities)</th> <th>Potential roles and activities for organisation</th> <th>Constraints/ opportunities</th> </tr> </thead> <tbody> <tr> <td>Emergency relief</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Stage in emergency management cycle | Current roles (give examples of recent activities) | Potential roles and activities for organisation | Constraints/ opportunities | Emergency relief | | | |
| Stage in emergency management cycle | Current roles (give examples of recent activities) | Potential roles and activities for organisation | Constraints/ opportunities | | | | | | |
| Emergency relief | | | | | | | | | |

| Session 7 | Emergencies and Disaster Risk Reduction | | | |
|-----------|--|--|--|--|
| | Facilitator's notes | | | |
| | Recovery | | | |
| | Development | | | |
| | <p>Allow about 30 mins for the groupwork, during which time each group should prepare a poster covering 1 or more organisations represented in the group. Share the findings and highlight the main conclusions (about 15 mins)</p> <ul style="list-style-type: none"> ■ <i>Are the WASH organisations represented active in DRR?</i> ■ <i>What the main constraints and opportunities to doing more?</i> <p>Summary of session.</p> | | | |

| Session 8 | Costs, benefits and financing |
|--|---|
| Facilitator's notes | |
| <p>Presentation [15 mins]</p>  <p style="text-align: right; font-size: small;">Location/date</p> | <p>Step 1: Introduce objectives of the session and topics covered</p> <p>Show slide 2 and summarise the objectives of the session, its importance and main topics.</p> <p>Refer participants to factsheet 8.</p> |
| <p>Presentation [15 mins]</p>  | <p>Step 2: Presentation on costs of climate change adaptation, costs and benefits of WASH and prioritisation.</p> <p>Show slides 3 to 10.</p> |
| <p>Film [15 mins]</p>  | <p>Step 3: Short video from climate funds update</p> <p>Show film (links in factsheet 8) and discuss.</p> |
| <p>Group work [45 mins]</p> | <p>Step 4: Issues to consider in terms of accessing adaptation financing at different levels</p> <p><i>Assumption: Availability of adequate funding for low and middle-income countries for climate change adaptation results in adequate adaptation.</i> This assumption ignores the deficit in “absorptive capacity” of many low- and middle-income countries and vulnerable groups within these countries to actually access and put to good use the money available.</p> <p>Divide participants into 3 groups, each representing different stakeholders: national government representatives, local government representatives, slum dwellers, community representatives)</p> <p>Questions to consider for each stakeholder group):</p> <ul style="list-style-type: none"> ■ How can we make sure that funds available can be accessed/ used by the most poor and vulnerable, who are often not |

| Session 8 | Costs, benefits and financing |
|------------------------------------|--|
| | Facilitator's notes |
| | <p><i>formally recognised by local governments (e.g.informal settlements)</i></p> <ul style="list-style-type: none"> ■ <i>How can local groups and civil society be involved in decision making on spending existing resources?</i> ■ <i>How can the local knowledge and capacity to act be strengthened so that local adaptation funding can be used for effectively?</i> <p>Discuss challenges /limitations with regard to accessing funding opportunities at different levels (eg. knowledge, capacity to articulate and develop proposals, lack of voice and status etc.)</p> <p>[ToT] One way to facilitate this groupwork could be form two rotating wheels of say 6-8 participants. The inner wheel of participants choose one of above questions, or a sub-question that they want to focus on. They ask in turn each of the people in the outer wheel and keep notes. At the end, the inner wheel summarise their responses to the whole group.</p> |
| <p>Discussion [30 mins]</p> | <p>Existing funding mechanisms for climate change adaptation in Nigeria are inadequate. Discuss the actions proposed in Box 5 of factsheet 8.</p> <p>Session summary</p> |

| Session 9 | Developing your climate change adaptation action plan |
|----------------------|--|
| | Facilitator's notes |
| Discussion [15 mins] | <p>Step 1: Summary of what we have learnt</p> <p>The focus of this session is on how participants can take forward practical actions to adapt their work, and the work of their organisation and its partners, to risks and opportunities relating to climate change. It could be useful to initially review some of the key things we have learned:</p> <ul style="list-style-type: none"> ■ A mainstreaming approach suggests that we should concentrate wherever possible on improving existing WASH sector planning approaches, service delivery models, governance arrangements etc. ■ It also means linking to and ensuring effective coordination with overall climate change adaptation responses and trying to ensure that these avoid duplication, go to scale, don't repeat past failures etc. ■ Climate change adaptation means climate change funding (session 8) and that's an opportunity. ■ Thinking about climate change is also potentially a source of innovation. It may be a good way to bring in some new ideas into the sector, ideas that might help solve multiple challenges. |
| Discussion [15 mins] | <p>Step 2: Looking for entry points in your work</p> <p>This step is now about looking forward, and action. Participants may see opportunities to:</p> <ul style="list-style-type: none"> ■ Fully use the scenario-based planning methodology for a planning process that they are about to start or designing... will need participants to be able to convince leaders of that planning process in your organisation and/or partners, flexibility to adopt the scenario-based planning method, you may need some external support to get started and at key steps during the process etc [full scenario-based planning] ■ Use parts of the scenario-based planning methodology or adapt planning processes (like water safety planning) in which are involved to learn or be informed by key ideas that you have learned from the use of scenario-based planning e.g. the need to monitor more and build in more potential to go back and revise strategies etc. [adapted and light planning approaches] An example is IRC trends analysis as part of its 5 year business plan development ■ Other entry points may include research, capacity building, advocacy activities etc. |
| Exercise [60 mins] | <p>Step 3: Brainstorming ideas</p> <p>This session aims to get participants to be creative, think out-of-the-</p> |

| Session 9 | Developing your climate change adaptation action plan |
|----------------------------|--|
| | Facilitator's notes |
| | <p>box and find partners for their ideas in developing climate change adaptation activities.</p> <p>Participants (alone, or in buzz groups as they wish) are asked to quickly brainstorm on possible activities (for about 15 mins). The ideas are then shared (very briefly) with other participants in plenary (30 mins).</p> <p>[ToT] Participants will have been encouraged already in good ways to brainstorm</p> |
| Exercise [330 mins] | <p>Step 4: Developing ideas and action plans</p> <p>Participants are asked to choose their priority activities (could ask to think about what is most important or will have impact, which have best chance of success, what is it most possible to do or feasible) and to develop an action plan using an open space format.</p> <p>At the start of the session participants announce what they will be working on and with whom (if relevant/known).</p> <p>Each participant/group should develop a poster which explains their plan (although about 90 minutes). Possible things that could be covered in the poster are:</p> <ul style="list-style-type: none"> ■ Name ■ Objectives <ul style="list-style-type: none"> ● Specific objectives (the outcome to be achieved i.e. change to bring about through the activity)? ■ Planning and preparation: <ul style="list-style-type: none"> ● What further diagnosis is needed to characterize the problems before starting e.g. case studies, more research etc? ● Which stakeholders need to be engaged (individual organizations, networks etc) and what is the strategy to encourage them to work on this issue? ● What activities and tools are likely to most effective to achieve the objectives? ■ Implementation <ul style="list-style-type: none"> ● What are the activities needed? ● Are resources available for implementation or how will they be secured? This is critical and includes not only financial resources, but also personnel and technical support required. Current staff may be overloaded or not have all the skills |

| Session 9 | Developing your climate change adaptation action plan |
|-----------|---|
| | <p data-bbox="515 241 766 280">Facilitator's notes</p> <p data-bbox="608 286 987 324">needed and will need support.</p> <ul data-bbox="571 331 1356 533" style="list-style-type: none"> • Can a baseline and indicators of progress be identified and monitored? • What should be done to sustain the impacts of the activities (training of partners, solutions institutionalized, etc)? • How can activities be coordinated? <p data-bbox="515 539 1345 656">■ Reporting and feedback (perhaps 90 minutes depending on number of groups). After action planning, participant's work is peer-reviewed by an identified peer in plenary:</p> <ul data-bbox="571 663 1398 1355" style="list-style-type: none"> • Participant gives a rapid overview of the action proposed (not more than 5 min) • Peer reviewer provides constructive feedback (not more than 5 minutes) for further improvement (if any) looking specifically at: <ul data-bbox="608 869 1377 1149" style="list-style-type: none"> ○ How the action contributes to putting climate change higher on the agenda ○ What climate change adaptation is aimed for ○ Mainstreaming potential ○ Whether the action seems realistic and is coherently planned for. ○ Checks with plenary if synergies with other action is seen. • Discussion questions could include: <ul data-bbox="608 1200 1385 1355" style="list-style-type: none"> ○ How will you monitor progress and report results of the activities? ○ What kind of communications strategy (internally focused or external, media involvement) would be appropriate? <p data-bbox="515 1361 954 1400">■ Further work on plan (90 mins)</p> <ul data-bbox="571 1406 1362 1563" style="list-style-type: none"> • After the round of reporting and feedback from peers allow participants some further time to develop the plans • At this stage it may be best to work on laptops if available so the plan is in a form that is easy to take away and develop <p data-bbox="515 1570 826 1608">■ Next steps (60 mins)</p> <ul data-bbox="571 1615 1350 1771" style="list-style-type: none"> • Participants present highlights, state of completion and key changes to plans • Discuss what are the next steps and who is responsible? • What are the key milestones (dates)? <p data-bbox="515 1832 1402 1906">Participants are asked to present their posters. The facilitator could ask participants to reflect on:</p> <ul data-bbox="515 1912 1329 2031" style="list-style-type: none"> ■ <i>Whether actions are likely to move us along the mainstreaming continuum?</i> ■ <i>Whether individuals have shifted their attitudes on response to</i> |

| Session 9 | Developing your climate change adaptation action plan |
|-----------|--|
| | Facilitator's notes |
| | <p><i>climate change (linking back to session 1 and its exercise)</i></p> <p>[ToT] This exercise could be facilitated using open space principles.</p> <p>[ToT] if there is insufficient time for this exercise, participants could be encouraged to work on the action plan after the course, share with the group by email, and the facilitator providing comments and feedback also be email.</p> |

| Evaluation and closing | |
|-----------------------------|--|
| Evaluation [30 mins] | <p>Step 1: Evaluation of the training course</p> <p>There are many ways to evaluate a training or workshop. A brief anonymous or written questionnaire can be useful to get more specific feedback on sessions, and allows people to be more critical. This should be completed before participants leave. A participatory way to evaluate the course might include asking participants to each identify one thing they liked and one thing that could be improved. This might be about the content, materials, facilities, timing, exercises, facilitation etc. These likes and dislikes could be written on cards and then placed on a flipchart for the group to gather around and discuss</p> |
| Closing | <p>Step 2: Closing of the training workshop</p> <ul style="list-style-type: none"> ■ The host organisation or key partners may be invited to close the workshop officially ■ Make sure participants know how they can keep in touch with the organisers and each other |