

# Creating Common Ground for Dialogue



## A how-to guide

The small water infrastructures examined in this research have been subject to redevelopment. In the redevelopment plans the local water governing institutions wanted to include local people in carrying out future maintenance of the infrastructure. They wanted to do this because these locals are most often those who make use of the water or live along the infrastructure; they know the situation best and are able to take action when necessary. This would save the institutions work and ensure that those who benefit from the infrastructure also contribute to maintenance of it. However, the past has taught us that people are not automatically interested in assisting governmental institutions and that institutions do not always know how to ask the public for information. Therefore many organisations and researchers have developed participatory and involvement tools.

The methodology that is described in this booklet is also a tool which requires, but also stimulates, participation. It proposes a number of clear steps towards improved understanding about how the local people and (representatives of) the governing institutions perceive the infrastructure.

Participants and facilitators are asked to visually represent their ideas. These visualisations are then used in group sessions which stimulate everyone to understand the similarities and differences between each others' perceptions. The outcomes of these discussions then contribute to the making of redevelopment and maintenance plans in which the various views are represented.

The methodology as applied in the case-studies fits existing governmental structures and assists co-ordination and harmonisation processes in infrastructure (re)development. More information and a digital version of the image-making approach are available at: [www.yourscape.nl](http://www.yourscape.nl)

### Methodology characteristics

Visual aides have an advantage over carrying out only field trips and having oral discussions. Pictures, drawings or small scale-models help:

- express what may be unclear in spoken or written words
- remind us what had been explained or discussed after the discussions have ended
- bridge the gap between people who do not speak the same language and
- can aide facilitators and translators in their work.

Better understanding and communication, in turn, will help lead to improved infrastructure design and development strategies in the short- and long-term. The described methodology helps support communication in that its use of making images helps in:

- overcoming language barriers,
- clarifying what each group (or person) is talking about,
- saving time (water-users could use the drawings in the future when others come ask them about the issues at the small water infrastructures),
- focusing discussion.





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## Acknowledgements

This guide was written for field workers such as agricultural extension agents and technical officers who advise maintenance activities and who work together with local water-users and land-owners.

The guide was written and developed as part of research work carried out in:

- 2006 - 2009 in the Upper East Region of Ghana
- 2008 - 2010 in Midden-Delfland, the Netherlands

The methodology was developed with assistance from:

- communities at ~20 dam sites in the Upper East Region (UER) of Ghana,
- agricultural extension agents (AEAs) in 7 of the 9 districts in the UER
- the district/municipal directors of agriculture (M/DDA) and supporting staff
- staff from the Regional Ministry of Food and Agriculture (MoFA),
- assemblypersons from a number of communities
- NGOs in Ghana: such as CSRC, TRAX, World Vision, the Red Cross
- Water Resources Commission, White Volta Basin Office
- GIDA (Ghana Irrigation Development Authority) Regional Office
- farmers in the Midden-Delfland area at 7 nature friendly embankment sites
- technical officers of the water board of Delfland involved in maintenance work
- technical specialist of Delfland, with advisory role in maintenance activities
- policy advisors of the water board of Delfland (water quality and ecology)
- technical specialist (*groenvoorzieningen*) of Municipality of Midden-Delfland
- policy-advisor (water and greenery) of the Municipality of Midden-Delfland
- representative of LTO Delflands Groen (organisation for the agrarian section)

## I. General Steps



Please note that the methodology mainly extracts the views of water-users about infrastructural problems. Many social issues that may cause or come as a result of the infrastructural problems will not show up in the visualisations. They could, however, be addressed when the images are used in the discussions with the participants.

The document is made up of further explanations in how to carry out the following steps. At the end, a further reading list is given with references to websites that may be of interest.

The **methodology** is designed to facilitate the exchange of ideas and to stimulate dialogue between stakeholders to reach a common ground for redevelopment of a water infrastructure. It does this by asking those who are experts-by-using or -by-doing to express what they think to the non-user experts through means of visualisations.

The **methodology** exists of three questions which participants in the sessions are asked to answer in images:

- a. **PRESENT:** what does the infrastructure look like now?
- b. **FUTURE:** what should the infrastructure look like in the future?
- c. **HOW TO:** how would we get from the present to the future?  
(what materials, finances, agreements are needed? who should be responsible?)

The **approach** is the manner in which the images are made. The approaches were different in the two case studies because of practical reasons (access to materials, for example) and because of preferences of participants and facilitators.

*The approach may seem familiar to facilitators with experience in **Participatory Rapid Appraisal** tools. For others, application of the approach may be quite different from what they normally do.*

### 1. Preparation (see section II)

Once it has been decided that including ideas of the public could be beneficiary, a few preparatory steps can be taken to determine how best to apply the methodology and to determine which image-making approach is most suitable.

### 2. Carrying out the image-making approach (see section III)

Participants and stakeholders involved in the redevelopment are asked to present their answers to the three questions of the methodology. We describe two approaches, since guiding people to draw requires a different process than asking them to make collages.

### 3. Sharing images

Once the images have been made make sure that everyone receives a copy of the made images and of the accompanying information. Preferably they receive this before the group discussion so that they have time to review the images and information.

### 4. Group Discussions (see section IV)

In these discussions all involved collectively review the made images and the accompanying information to determine which steps to take next. In section IV questions are given which could be of use.

### 5. Follow-up meetings

Based on the outcomes of the group sessions, involved parties may want to discuss the follow-up steps. At these meetings gathered information can be presented or actions that have been done in the meantime can be discussed.

## II. Preparation



Before applying the methodology and in order to determine what type of image-making approach is suitable for the situation, we suggest to think about the following issues first.

### 1. Which groups to approach?

Through a quick scan, or by brainstorming with others, the answers to the following questions could be of use: Which people are most likely to benefit from redevelopment? To what extent is their participation and involvement desirable, possible and feasible? Do they need to be compensated for their time?

### 2. Collective image-making or individual?

Depending on the situation, decide whether images are to be made collectively or individually by participants. In the case study descriptions we explain why we chose certain approaches in the case studies.

### 3. Transect exploration

Go to the location or site to explore the uses, the landscape, present resources, etc. Preferably, go with people who live in the area or know a lot about it, they can already give some indications about the type of problems participants may mention. Use this exploration also to determine what resources are available for the image-making approach (location to discuss, access to materials, etc.) and to adjust questions to ask during the image-making approach. If you eventually decide to go for the collage-making approach, take photographs now to help in making the pre-made pieces.

### 4. Initial interviews

Initial interviews were good for determining what issues play a role at the sites. Use them also to determine which manner of image-making will be most easily accepted by participants.

### 5. Making pre-made pieces

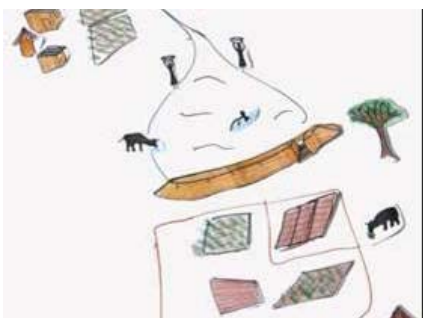
For the drawing and the collage-making approach, a number of basic elements were pre-made to help start the image-making process. In Ghana these pieces were drawn cows, trees, dam-wall, etc. In the Netherlands, the pieces were cut-out photo's of animals, flowers, embankment, etc. Extra field visits were held to take photo's of various elements that could possibly be included in the collages.

### 6. Arrange meetings with participants so that images can be made by them *individually*:

In Ghana, the communities appreciated that the images were made by them with little influence from extension agents or other "experts." In the Netherlands, participants were happy to make their images individually and not yet in a group session. This allowed them to think their ideas through without fear of being interrupted. Also, this made sure that all ideas could be expressed before discussion started and before they were cut-off by others.

## III. Approaches

### i. Drawing Approach Steps (as applied for small reservoirs)



#### Materials:

- Flip-chart papers (size A1);
- Coloured markers and coloured pencils;
- Large clear cellophane tape to ensure that the flip-chart papers are not blown away
- Rope or the cellophane tape to hang the flip chart on trees, or in school buildings, etc.;
- Drawn pre-made pieces of trees, animals, etc. (if desired)
- Notebook and pencil/pen to take notes;

#### 1 Drawing the present situation

- a Draw (or tape the pre-made) dam wall in the centre of a flip-over sheet. By doing this, you give the drawers something to start their drawing from.
- b Ask the participants draw the:
  - i. Water body (with blue marker)
  - ii. Outlet (or pipe or valve, depending on what users call it)
  - iii. Canal(s) (if they are present. If the canals are lined use a black marker, otherwise a brown one)
  - iv. Spillway, etc.

- c Ask participants to draw (or stick the pre-made pieces) other things that are at the site in the correct spots on the drawing. These things can be landmarks such as trees, houses, dry season plots, etc. or animals to indicate spots where livestock often comes.

The landmarks will be useful when looking at where the problems are located later on. Trees under which meetings are held are useful landmarks, as are houses near the water, canals or spillway.

#### 2 Drawing the future (desired) situation

Ask the participants to circle where the problems are right now. Number the problems on the flip chart for use during step 3.

or, in cases where the future situation means the rearrangement of the infrastructure or the irrigable field (for example) it may be necessary to ask participants to make a completely new drawing.

#### 3 Drawing what is needed to get from present to future

- a Use another sheet of paper on which to draw the materials participants think are needed to fix the problems. Number each problem accordingly to the number on the site drawing.
- b Per problem ask participants to name all the materials they would need to solve the problems or to get to the future situation.
  - i. Try to ask questions to let them think of the materials instead of naming the possible materials for them.
  - ii. Try to organise answers in terms of construction, maintenance and control of the infrastructure.
  - iii. Only when they seem done with brainstorming, give suggestions if you think major things may have been left out.

#### 4 Ask the participants to circle the materials which they feel they could help contribute to supplying.

These could be materials they have within the community, or which they could borrow, or which they can search for themselves.

#### 5 Then open the discussion to talk about how to acquire all the materials that have not been circled.

- i. The communities may need to ask technical experts for advice (discuss where these experts may be; at district or MoFA or GIDA)
- ii. The communities may need to go to their assembly person to assistance them in seeking funds, sometimes the AEA could help them as well.
- iii. Some AEAs advised that these discussions take place at a meeting on another day as the drawing may already have taken quite some time to do. However, it depends on the stamina of the group and/or their desire to go on.

### III. Approaches (cont.)

#### ii. Collage Approach Steps (as applied for nature-friendly embankments)



#### 1 Visualising the present situation

- Place the poster-sized background and pre-made pieces somewhere where the interviewee can easily access them.
- Ask participants to use the pieces to make the present situation of the embankments as they think it looks like now.
- Ask participants to include as much detail as they can. If the pre-made pieces do not represent something they feel is necessary, whiteboard markers can be used to draw these objects in.
- Take photographs of the made collage.

#### 2 Visualising the future (desired) situation

- Remove the pre-made pieces from the poster (or, if participants choose, they can make their present situation on one side of the waterway and the future on the other side of the waterway) and wipe off any marker-drawings.
- Ask participants to use the pieces to make their desired future situation of the embankment (note: it could be that they do not necessarily want the embankment to be nature-friendly, make sure the pre-made pieces make it possible to create almost any type of embankment)
- Take photographs of the made collage.

#### 3 What is needed to get from present to future?

Either use sheet of paper on which to draw the materials participants think are needed to fix the problems. (in terms of construction, maintenance and control)

- or Ask participants to indicated what they think is needed to reach the future (from the present) in terms of construction, maintenance and control, and write these down (in words)

#### 4 Ask participants to indicate what their contribution and role could be to solving the problems or achieving the future situation.

#### 5 Then open the discussion to talk about how to achieve all the other issues that they cannot participate with:

- is other expertise necessary?
- do they need more information? (from whom in what manner)
- who could or should be responsible?
- are other issues involved that do not relate directly to infrastructure redevelopment but which do influence possibilities for construction, maintenance and control?

#### Materials:

- Poster-size background,
- Pre-made (photo) elements,
- Remount, repositionable adhesive glue
- Whiteboard markers (and tissue to wipe the drawings off);
- Scotch tape (as back-up for glue)
- Camera
- Sheets of paper for step 3.
- Notebook and pencil/pen to take notes;



## IV. Using the visualisations in discussion

*A picture can say more than 1000 words*

To understand what someone wants to say with an image about small water infrastructure, however, it's useful to know some of those words. Once the images have been made, information can be shared about participants' and facilitators' views of the infrastructure's redevelopment. This can best be done in collective sessions.

The focus of involvement of participants was to include them in redevelopment planning procedures so that they could possibly take up a number of maintenance tasks. After the sessions there should also be a number of clearly outlined ideas about how tasks that arise after construction are managed (by the public or governing institutions). These tasks could include more technical repairs, conflict resolution, accounting, addressing legal issues and asset replacement.

### Suggested steps to follow (facilitators and participants)

#### 1. Present the information to all involved

Enable all participants and other parties to be included in the redevelopment planning process to look at the images and to absorb the information before discussing them in collective sessions. This gives people the chance to develop ideas about others' views in contrast to their own.

#### 2. At group sessions: ask all present to name contrasting, interesting, surprising, odd, similar things that they saw or learnt from others' images and information.

In both cases, involved parties were surprised at certain information that had been included in the images. There were a number of elements in images which they had not expected. They were also surprised that often the ideas from "the other" party were not far from their own idea.

#### 3. Considering the answers to the questions at 2, if necessary, try to have all involved make a shared image of the present and future situation.

This step somewhat depends on the reason for making the images and organising the collective session (see page 4 on group sessions). It is advised to determine whether one image can be made which depicts all ideas. For example, in site-specific situations it may be of use to adjust the initial images to include information that was not available during the initial image-making sessions. In the case of regional development, it could be possible that not 1 image can be created because the details are site specific. However, a list could be made of factors that determine those details (as done in Midden-Delfland).

#### 4. Ask those who are present to list where the "problems" are.

This step is also dependent of the reason for making the images and organising the sessions. If the reason is to re-develop a specific infrastructure at one location, these problems are physical problems at specific places at the infrastructure site, as in the Ghana case. If the reasons is to re-develop a number of infrastructures in an area, as in Midden-Delfland, the problems may be more related to communication between the parties or to restrictions imposed by various laws to carry out certain activities, etc. Some of the answers will have been given in participant's answer to the third methodology question.

#### Some suggested questions for 2:

- What is the strangest or most surprising thing you saw in the (other) images?
- Which elements were surprising (did you not expect) to see?
- What do you see in an image that you do not understand?
- Which elements did others include which you, in hindsight, would have like to have included as well?
- What strong similarities or strong differences do you see in all the "present" images, in all the "future" images and in descriptions on how to get from present to future?

## IV. Using the visualisations in discussion (cont.)

### 5. Once the problems have been named, ask those present how they think they could be solved.

In a number of cases, part of the answers will already have been shown in participants' answer to the methodology's third question (how do we get from the present to the future situation?) Most likely is that some further detailing will be necessary.

Discuss this in terms of construction, maintenance and control. this will make it easier to organise the information.

### 6. If it is not known how to solve the problems, who can be turned to for assistance?

It is possible that not all problems lie within the expertise of the participants nor of the facilitators. However, it could be collectively discussed which other organisations they could turn to. Or, the facilitators can come with suggestions.

### 7. What roles can participants and facilitators play in solving the identified problems?

Which responsibilities can participants and facilitators accept considering their own abilities and legal possibilities? What type of agreements need to be made on the short-term? And in the long-term?

### 8. What other problems also need to be examined, but are not subject to the present group session?

Infrastructural redevelopment raises a lot of issues that are not directly related to the technical development. However, social issues are often extremely relevant to determining if redevelopment is possible or worth the investment.

### 9. What needs to be done to assure that tasks after reconstruction are feasible and carried out?

Helping think about redevelopment is one thing, but the focus of involvement of participants was to include them so that they could possibly take up a number of maintenance tasks. What else is needed?

### 10. When will other meetings be held to re-cap what has been discussed?

If continued cooperation is still deemed plausible and desirable, then follow-up meetings (and their frequency, and who calls them together) will need to be planned.

#### Some suggested questions for 5:

- What can be done now considering the available resources? By whom (of us)?
- Who will organise that the materials (or information) are collected and that the necessary work is planned and carried out?
- Do we need extra advice or information in order to carry out the work?  
Who could help us? Which one of us is going to ask? When will this person who asks let us all know?
- When can we do the work? (what day, week, month, season?)

#### Some suggested questions for 6:

- Which other organisations could the communities and MoFA turn to for assistance?
- What do we think that these organisations could provide assistance with?  
Who knows? How do we find out?
- Who is going to ask these organisations?
- When (give a specific day, week, month) is this person going to ask them?  
When (day, week, month) will this person give answers back to the group?

#### Note

Some ideas that are shown in the images may not be physically or structurally ideal or too extravagant for the situation. It could be that the discussion will need to focus on what other solutions there may be considering limited resources (as often is the case). This will require participants and facilitators to do some brainstorming.

## IV. Using the visualisations in discussion (cont.)

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### **For facilitators to discuss with each other**

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#### **1. How can we group the problems that participants have indicated they face in our region?**

Participants could have suggested solutions that are physically not possible to implement or that are financially not feasible. Facilitators should come up with ways to communicate such information to the participants instead of dismissing their ideas.

#### **2. What are the ways in which we can assist in solving the problems?**

What expertise and/or (financial, material) means does the institution have available to solve certain identified problems?

#### **3. What financial and material resources do we have available?**

Governing institutions do the planning, co-ordination and implementation, but also have access to certain funds allocated to them. They may also know of possible subsidy or funding possibilities which they will need to write proposals for.

#### **4. What solutions did the participants mention that are difficult to achieve?**

Participants could have suggested solutions that are physically not possible to implement or that are financially not feasible. Facilitators should come up with ways to communicate such information to the participants instead of dismissing their ideas.

#### **5. Which other “experts” can we contact to assist us and this redevelopment process?**

Within governing institutions there are various departments or organisations more specialised in specific topics that the facilitators. Also, advice could be needed from outside the organisation: about leading further participatory processes or conflict resolution, etc. There are also many simulation and decision-support tools that could aid the process.



## V. Background information to research and case studies

### i. Methodology and Approach

The development of this methodology steps away from the idea of “experts” using drawings, pictures or images to teach local people how things should be done. Instead, in the collective discussions the images can be used by users and non-users to teach each other why certain solutions are desirable, physically achievable, financially possible or not. In this manner infrastructure-users are invited to share their ideas and become involved in designing the solutions to the problems they themselves encounter.

The methodology was developed for redevelopment of two types of water infrastructure, but could be used for redevelopment of other infrastructure as well. It was developed in close cooperation with **participants** and **facilitators**. **Participants** are the local people whom local water governing institutions wanted to include in the maintenance activities of the future infrastructure. **Facilitators** are representatives of those governing institutions who do the planning, co-ordination and make implementation decisions. Facilitators were asked to participate in making images, but they were also asked to assist in methodology development because they are the ones who will most likely go into the field to apply the methodology and image-making approaches.

	Upper East Region, Ghana	Midden-Delfland, the Netherlands
<b>Infrastructure</b>	Small reservoirs mainly used for irrigation, livestock watering, etc.	Nature-friendly embankments, mainly constructed to improve ecological diversity along waterways.
Use and maintenance	Collective use of one infrastructure. There are ideas for collective maintenance because the infrastructure is too large for an individual to maintain, and the costs and effort could better be shared over all beneficiaries (many water users per site).	Use of embankments is not direct for any individual or community; ecology mainly stands to benefit. However, embankment redevelopment and maintenance will become an individual and case-specific situation because each embankment borders a farmer’s land. Farmers could maintain the embankment individually.
<b>Image making approach</b>	Drawings: Images were made through use of flip-charts, markers, some pre-made drawings and tape.	Collage: A poster size image of a waterway was used as a background, pre-made pieces of various objects could be “stuck on” with remount adhesive glue.
<b>Participants</b>	Water-users: farmers, livestock owners, fishermen, etc.	Owners (mostly farmers) of the land lying next to the water ways along which the embankments are to be constructed = <i>aangelanden</i> (in Dutch).
<b>Facilitators</b>	Agricultural Extension Agents of the district departments of the Ministry of Food and Agriculture.	Technical specialists and policy-advisors of the Hoogheemraadschap (water board) of Delfland.

The methodology was developed and applied in situations where local water governing institutions wanted to include local people in carrying out future maintenance of small water infrastructure. It could, however, be applied in a number of other situations in which local people are to be included in redesign of a spatial development. For example, for **redesign or redevelopment of a street or a public space**. Inclusion of the public is often desired because those who most often make use of the area (working, living, regular passing through) know the situation well. While they benefit most from redevelopment they can also contribute (depending on the situation) to achieving redevelopment and maintaining it.

## i. Methodology and Approach (continued)

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### **Collective or individual image making?**

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Use and maintenance of the two infrastructure types differed. Therefore the application of the methodology and the image-making approaches were also slightly different. For example, in Ghana, due to the collective use and benefit of the small reservoirs, water-users were asked to **make the images collectively**. Water-users assisted each other in making the images; correcting and adding-on to other's ideas. In Ghana, the communities appreciated that the images were made by them with little influence from extension agents or other "experts."

In the Netherlands, the embankments border on individual farmers' land, therefore, the farmers were asked to **make their images individually**. Participants were happy to make their images individually and not yet in a group session. This allowed them to think their ideas through without fear of being interrupted. Also, this made sure that all ideas could be expressed before discussion started and before they were cut-off by others.

### **Group Sessions: focus on site or region?**

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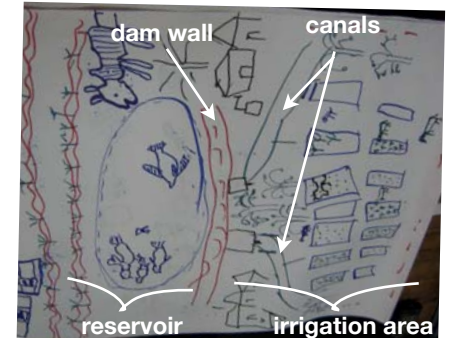
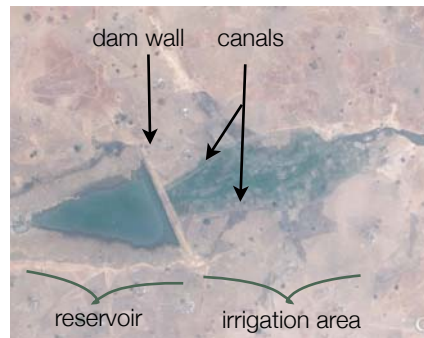
In the group sessions facilitators and participants use the images in discussions. The group sessions can be set up with focus on a specific site or on development of the infrastructure in the region (and in general). For example: in Ghana the group discussion concerned the small reservoir at a specific site. In the Netherlands, on the other hand, the discussions concerned a more general approach to nature-friendly embankment development and maintenance in the Midden-Delfland region.



## ii. Case study information

The methodology and image-making approaches were developed in two case studies. Over the next two pages a brief description of the case study areas and the infrastructures that were to be redeveloped is given.

### a. Small Reservoirs, Upper East Region, Ghana



There are over 220 small reservoirs (volume < 0,01 km<sup>3</sup>) in the Upper East Region, according to a reservoir survey held in 1994 by the Ghana Irrigation Development Authority (GIDA). The reservoirs, formed by constructing small earthen dams in valleys, are used by communities for the provision of water mainly for small-scale irrigation, livestock watering, fishing, and domestic use. The small earthen dams are constructed in river beds or land depressions, generally quite near to compounds and communities.

Many of the small reservoirs were constructed in the 1960s. Since that time the reservoirs have been rehabilitated and a number of new ones have been constructed by various organisations. Officially, the regional office of the Ghana Irrigation Development Authority (GIDA) and the district departments of the Ministry of Food and Agriculture (MoFA) work together with donor organisations to design and construct the small reservoir.

Some reservoirs were not originally constructed for irrigation, and canals were only added relatively recently. While some communities were able to maintain their dams for prolonged periods or were able to find organisations to help them, others have not been able to do so. Thus, the dams and the irrigation infrastructure often fell into disrepair and functioned sub-optimally for irrigation purposes.

Generally, once the dam has been constructed and prepared it is officially handed-over to the community. There has been some discussion and confusion between water-users and MoFA staff about responsibilities for maintenance. The development of the methodology aimed to shed light on possibilities for responsibility sharing and on setting up agreements between the stakeholders which both could agree upon with.

### DRAWING APPROACH

Initial interviews with facilitators showed that in any attempt to focus and stimulate exchange of information between water-users and “visitors” it is important that:

- if training is given to educate the farmers, they should still be able to remember that which has been taught and see the need or importance of applying it themselves,
- learning by doing and seeing seems to work best, but only if other farmers are doing and showing. Demonstration plots of MoFA don't work as well. So MoFA staff can be facilitating, but communities appreciate learning from each other and other farmers.

Exploratory meetings with some of the communities during this visit also showed that these communities, at least, were willing to draw or make pictures in order to share their ideas. During meetings previous to this research, it was observed that members of the WUA were seen to make sketches on the ground to explain things to each other.

Felt-tip markers and flip-charts are readily available in the district capitals of the region. Even though many water-users are illiterate, at the 20 communities they seemed generally quite willing to use these materials to make their images.

## b. Nature-friendly embankments, Midden-Delfland, the Netherlands



For this research, the methodology and a collage-making approach were applied for the discussion about nature friendly embankments in Midden Delfland which are constructed along ditches and small canals that run between the polders. The embankments that were taken up in this research were part of the pilot project in which construction of the embankments took place between 1996 and 2006.

With increasing interest to improve the ecological function of waterways, it is not surprising that embankments, at least in the Netherlands, are also increasingly subject to ecological and environmentally friendly improvements. In practice many terms are used for such embankments: *natural embankments*, *ecological embankments*, *nature friendly embankments* and *environmentally friendly embankments*.

Dutch organisations such as STOWA (Stichting Toegepast Onderzoek Waterbeheer) in 2000 and 2009, CUR (Civieltechnisch Centrum Uitvoering Research en Regelgeving) in 1994 and 2000, as well as the Ministry of Transport, Public Works and Water Management in 1993 have published a number of (guide)books in which they have tried to define what a nature friendly embankment is. Whether the embankment is labelled to be natural, ecological or nature-friendly, is not as important as that it has been designed, constructed and maintained to offer room for fauna and flora to thrive as much as possible in a natural way, while the ditch or canal in which it is constructed can still function as it was constructed to do (drainage, for example).

Within the general definition of the *nature friendly* embankments, maintenance activities are still allowed to take place, so the embankment is not left completely on its own. It also allows for placement of bank protection material which does not pollute the environment. Thus, there is a lot of room left for interpretation, depending on the *function* and *location* of the waterway. These two factors, in turn, will determine the following parameters which influence the embankments' design:

- how much room is available,
- whether the water flows or is stagnant (and to which extent),
- whether embankment protection is necessary or not (against erosion),
- which ecology is already present and needs to be protected or stimulated,
- what the present quality of the water is, and
- what type of maintenance and management is possible and desirable.

### **COLLAGE APPROACH**

From the initial interviews held with the *aangelanden* it was determined that participants preferred not to have to literally draw themselves. A collage making approach was designed so that they could choose from a pallet of elements to design their own nature friendly embankment and stick them onto a background which shows a water way, grass and the sky.

## VI. Further reading



### Books and Field Manuals

Bessette, G., Ed. (2006). People, Land and Water. Participatory Development Communication for Natural Resources Management, Earthscan/IDRC (International Development Research Centre).

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### Websites

Studying and discussing participation in development:  
[www.fao.org/participation](http://www.fao.org/participation)

A periodic table of visualisation methods:  
[www.visual-literacy.org/periodic\\_table/periodic\\_table.html](http://www.visual-literacy.org/periodic_table/periodic_table.html)

Integrated approaches to participatory development (contains a lot of links to other sources of information)  
[www.iapad.org](http://www.iapad.org)

Participation & Civic Engagement department of the World Bank  
<http://go.worldbank.org/HKL3IU1T21>

Links to more information about public participation:  
[www.c-r.org/our-work/accord/public-participation/further-reading.php](http://www.c-r.org/our-work/accord/public-participation/further-reading.php)

[www.yourscape.nl](http://www.yourscape.nl)