



Report on Delta Envisioning Support System (DENVIS) Workshop

28 September, 2015

UNESCO-IHE Institute for Water Education

*Organized by UNESCO-IHE Institute for Water Education in collaboration
with the Netherlands Environmental Assessment Agency (PBL)*

*Funded by NWO UDW project on
Strengthening strategic delta planning processes in Bangladesh, the
Netherlands, Vietnam and beyond*



PBL Netherlands Environmental
Assessment Agency

UNESCO-IHE
Institute for Water Education



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1. Background

An Urbanizing Deltas of the World (UDW) project titled "strengthening strategic delta planning processes in Bangladesh, the Netherlands, Vietnam and beyond" organized the workshop on Delta Envisioning Support System (DENVIS) on September 28, 2015. The project has been funded by the Netherlands Organization for Scientific research (NWO) to obtain better understanding of strategic delta planning processes and role of stakeholders, experts, policy-makers and participatory planning tools therein.

DENVIS, a participatory planning tool developed under the Integrated Planning and Design in the Delta (IPDD) project, has been considered as one of the research target tools under the project. DENVIS has been applied in the planning process for Haringvliet in southwest of the Netherlands. The area is located at the river mouth of the Rhine and Meuse. The Rotterdam harbor, densely populated cities and several industries lie on the north horizon. Agriculture and tourism are the major livelihoods for the area. A set of flood safety and freshwater supply system (i.e. dams and sluices) protects the Haringvliet island villages.

During the last decades, development of national plans in water management and nature development resulted in local resistance in Haringvliet. The bottom-up plans from the municipalities around the area were not related to the national agenda and available resources. Resistance from regional economic sectors, e.g. agriculture and tourism did not allow the realization of environmental plans. Different vested interests around the nine subsystems - harbors and industries, energy, transport, ecosystems, municipal patterns, tourism, agriculture, soil and water, and water construction works caused delays in the planning process. Later, DENVIS was developed and applied for negotiation and planning to 'connect people, connect interests'. DENVIS is usually set up as a design studio and a serious design game with decision support techniques, such as a MapTable and iMaps. A group of participants representing different stakeholder groups (i.e. subsystems) gather together to discuss the planning issues and to develop common visions through the game playing.

2. Objective of the workshop

The objectives of the workshop were to:

- understand function of DENVIS tool,
- comprehend potential role of DENVIS in the strategic delta planning process, and
- learn from the IPDD and DENVIS experiences.

3. Participants

A group of fourteen participants from four different organizations and institutions attended the DENVIS workshop.

3.1 Participants' profile:

The participants were mid to high level professionals with research and professional experience on delta planning (e.g. Bangladesh, Indonesia, Myanmar, the Netherlands, and Vietnam), participatory planning tool development and use.

Out of the 14 participants, 4 were project personnel of strengthening strategic delta planning processes in Bangladesh, the Netherlands, Vietnam and beyond. The list of participants, their affiliated organizations and the role they played during the game is compiled in Annex 1.

3.2 Facilitator and observer:

The workshop has been facilitated by following personnel and experts from IPDD project, Delft University of Technology (TU Delft), UNESCO-IHE institute for Water Education:

- Han Meyer, Professor, TU Delft, Advisor and Team Leader (scientific research), IPDD project,
- Leo Pols, Environmental Designer, the Netherlands Environmental Assessment Agency (PBL) and Designer of, DENVIS, IPDD project,
- Jaap Evers, Lecturer, River Basin Governance, UNESCO-IHE,
- Arjen Koekoek, Advisor, Climate Adaptation Services, Former Senior Consultant, Geodan, Consultant, DENVIS design and development, IPDD project.

The PhD fellow from UNESCO-IHE, Ms. Shahnoor Hasan, who has been working on the role of participatory planning tools in delta planning, was the observer of the workshop.

4. Programme and outcome

The workshop has been designed with presentations on IPDD project, DENVIS and the use of its integrated digital techniques followed by the game playing rounds and questionnaire surveys. In general, DENVIS has six major gaming sessions. The three major sessions were played at the daylong workshop. The sessions were segmented into joint fact finding, envisioning and overall discussion.

4.1 Introduction of participants and DENVIS:

Wim J. Douven, Associate Professor, UNESCO-IHE and Team Leader, strengthening strategic delta planning processes in Bangladesh, the Netherlands, Vietnam and beyond project welcomed the participants to the workshop and gave a brief introduction of the project. Prof. Han Meyer talked about the IPDD project and role of DENVIS in the planning process of Haringvliet. Arjen Koekoek introduced the integrated digital techniques of DENVIS followed by a brief description of the DENVIS game by Leo Pols.

Before the game commenced, a questionnaire survey on participants' expectations and experience of using any participatory planning tool was carried out.

4.2 1st gaming round: Joint fact finding

The participants were assigned roles of different major stakeholders in groups. Six out of nine subsystems were represented. The represented six subsystems included World Wide Fund for Nature (WWF), Ministry of Infrastructure and Environment, Municipality, LTO North (LTO is an entrepreneurial and employers' federation of agriculture and horticulture in the Netherlands), Port of Rotterdam and Haringvliet Nature and Recreation Board.

At the beginning of the session, participants identified respective core values and challenges, ambitions, and long term visions for development of Haringvliet. Participants explored some key facts about the area shared through a handout, intervention maps available on wall maps and in mactable.

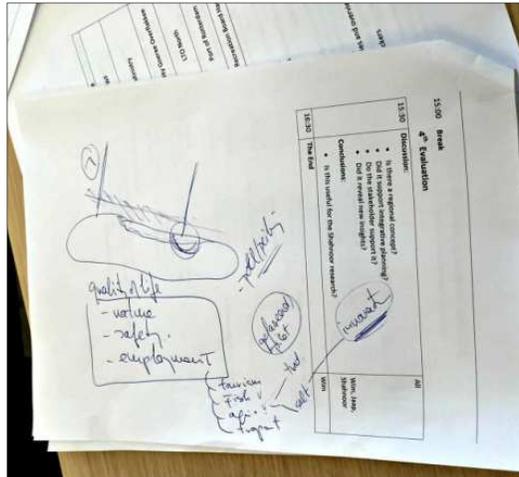


Image 1: Mind map of core values of an actor group

Each group shared its core values, challenges, ambitions, and long term visions for the area with others. This led to discussions where groups enquired reasons behind the identified aspirations and ideas. The round came to an end with an overview of probable and/or inevitable conflicts and opportunities for synergy.

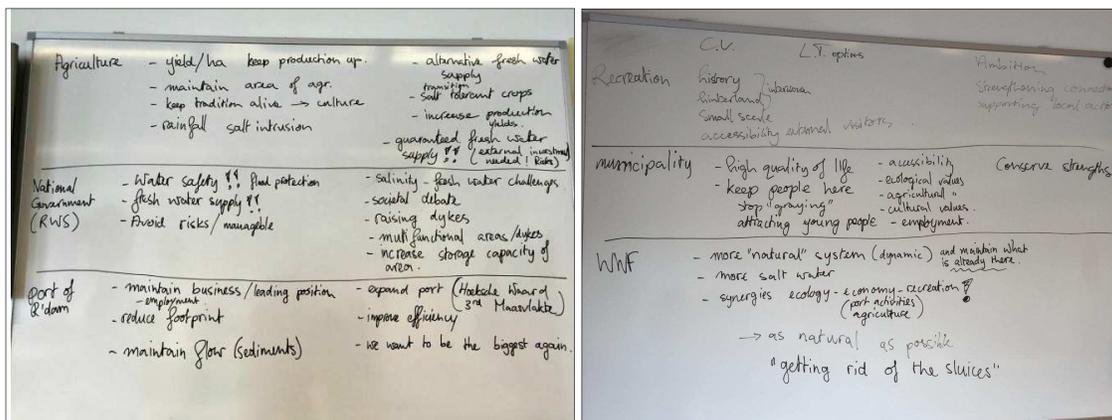


Image 2: Key points of values, ambitions and long term visions

4.3 2nd gaming round: Envisioning

In this round, participants developed shared visions for Haringvliet. They translated their core values with respect to the proposed planning presented on the intervention maps. The groups used two different stickers to express their preferences as 'like' or 'dislike'.

It was observed that groups kept its interests in mind related to each subsystem before sharing preferences. Discussions were initiated around the maps among two or more groups when they were putting the preferences on maps. Each group tried to uphold its interests during the discussions. Several groups approached others to discuss the conflicting interests. In some cases, the discussion was followed by negotiation between groups.

The highlights of the round included discussion around the synergies and conflicting interests, pressing for respective ideas in the discussions and mapping for probable solutions.



Image 3: discussion around intervention maps for developing a shared vision

Each group later presented their comprehensive visions to others where the facilitator asked groups for consent. The disagreeing groups had to explain the reasons to others which initiated further discussions.

During the discussions, groups pointed out that the absence of representation of three other subsystems, lack of information on budget and background of the measures suggested in the game caused hindrance in negotiation process.



Image 4: Presentation of visions

4.4 3rd round: Discussion of results

Participants were asked to share opinions about gaming approach and functionality of DENVIS. Participants concluded that use of DENVIS can initiate discussions among

stakeholders. This might create scope for further discussions and possible coalitions among stakeholder with similar interests. However, participants questioned about the long term benefits and impacts of such discussions. Some participants suggested organizing dialogues in the context of an open society when any conflict persists.

Participants recommended opting for a yes/no option during consent development as they found some groups never share their consent in a clear cut manner. They assumed it would help to expose 'false promises' made by any stakeholder.

The major aspects of participants' gaming experience were:

- Confusion about the objective of DENVIS use.
- The game should play with all the gaming sessions for multiple days.
- Inclusion of a member in the facilitation team who only observes the game in real life planning process.
- Relevant background information including available budget should be provided.
- How suggested measures were identified and developed should be shared in the game. Consequence of the visions should be shown on i-maps.
- Maps are useful in the game to initiate discussion and to conceptualize the problems.

In response, Leo Pols and Arjen Koekoek informed how it is different when real life stakeholders play the game. The real life planning workshop with DENVIS is played at least for two days. Representatives of stakeholders/subsystems usually join the workshop with relevant background knowledge. In such workshops, proposed plans are incorporated into the overlay maps to give idea to stakeholders about the probable consequences. They also told that the suggested measures suggested have been developed through assessment of development interventions in Hanringvliet over the past twenty years.

After the discussion, Wim J. Douven thanked the participants and team of facilitators. The workshop was adjourned after a questionnaire survey.

5. Evaluation

Questionnaire surveys were carried out before and after the workshop to know about the participants' experience. Participants gave multiple responses for some queries, while few did not respond to several queries in the survey.

5.1 DENVIS:

It has been found that the participants had a mixed experience around the use of DENVIS. Few participants found DENVIS could be useful during preliminary stages of planning; in understanding stakeholder dynamics, in sharing knowledge and engaging stakeholders. A participant found DENVIS difficult to use while another found no use of tool in the workshop. Use of the maps was found useful by the participants. However, a participant found insufficient use of the maps during the game.

Participants assessed the role of DENVIS on the basis of Likert scale in different planning stages, as well as, in the planning process. A majority of the participants agreed that DENVIS can provide support to problem assessment, formation of coalitions, exploration of alternative solution, development of implementation strategy, sharing of knowledge and information, facilitation of stakeholder engagement and enhancement of participation. A strong disagreement was expressed by a respondent for both the cases of development of implementation strategy and enhancement of participation.

A mixed sets of response was identified between option of 'agree' and 'neither agree or disagree' on the Likert scale on DENVIS support to setting up of planning agendas, developing scenarios and consent, giving voice to stakeholders, exploring innovative solutions and improving quality of decisions. Eleven participants responded to DENVIS possible support to transparency and accountably. Seven participants think that DENVIS can have impact on transparency and accountably in the planning process, while the rest four were divided between disagreement and indifference in opinions.

All but three participants thought that DENVIS can play a role in delta planning. It can provide support towards sharing of ideas, visioning, making inventory of ideas, developing spatial plans and facilitating stakeholder engagement and cooperation. The three participants who all had a mixed response think DENVIS can only help in visioning and developing possible strategies during the early stages of delta planning.

5.2 Workshop:

It has been found that most of the participants joined the workshop with expectation to learn about a participatory planning tool and its use in delta planning. Few had additional expectations such as to know how participants can play role of real life stakeholders and to develop idea of organizing similar workshops in other deltas. Participants were asked to give gave some suggestions on organizing such workshop in future. Following are some of the major suggestions to:

- Make more use of map table.
- Develop comprehensible objectives for the workshop.
- Share elaborated description of measures.
- Include Ministry of Finance as a stakeholder in the game.
- Have more in-depth discussion after each gaming round.
- Prioritize the proposed measures instead of using stickers to express like/dislike.

A majority of the participants found use of maps as most interesting aspect of the workshop followed by interaction and discussion among the participants. Three participants did not respond to the question. Two participants pointed out that DENVIS can provide quick overview of problem and area and an understanding on how consent between two groups could give rise to conflict with another.

Annex 1: List of Participants

Sl no.	Name	Organization	Role played	Email
1	Laura Basco Carrera	Deltares/UNESCO-IHE	Haringvliet Nature and Recreation Board	Laura.BascoCarrera@deltares.nl
2.	Stephanie Janssen	Deltares	World Wide Fund for Nature	Stephanie.Janssen@deltares.nl
3.	Andrew Warren	Deltares	Port of Rotterdam	Andrew.Warren@deltares.nl
4.	Lotte Bontje	TU Delft	LTO North	L.E.Bontje@tudelft.nl
5.	Leon Hermans	TU Delft	Ministry of Infrastructure and Environment	L.M.Hermans@tudelft.nl
6.	Floortje d'Hont,	TU Delft	Municipality	F.M.dHont@tudelft.nl>
7	Myrthe Vermoolen,	TU Delft	Haringvliet Nature and Recreation Board	M.S.Vermoolen@tudelft.nl
8	Thi Minh Hoang Vo	Wageningen UR	World Wide Fund for Nature	vo.thiminhhoang@wur.nl
9	Ella Angreni,	UNESCO-IHE	Ministry of Infrastructure and Environment	Sihom3@unesco-ihe.org
10	Nora van Cauwenbergh	UNESCO-IHE	Port of Rotterdam	n.vancauwenbergh@unesco-ihe.org
11	Wim J. Douven	UNESCO-IHE	Municipality	w.douven@unesco-ihe.org
12	Emanuele Fantini	UNESCO-IHE	Ministry of Infrastructure and Environment	e.fantini@unesco-ihe.org
13	Zahrah N. Musa	UNESCO-IHE	Port of Rotterdam	z.musa@unesco-ihe.org
14	William Veerbeek	UNESCO-IHE	LTO North	w.veerbeek@unesco-ihe.org

Annex 2: Program schedule

Time	Programme	Moderator/Facilitator
09.45 - 10.00	Welcome Questionnaire fill-up	Wim Douven
10:00 - 10.20	Introduction of the IPDD project	Han Meyer
10:20 - 10.30	Use of digital techniques in planning	Arjen Koekoek
10.30 - 10.40	Structure of the DENVIS game Q & A	Leo Pols Arjen Koekoek
10:40 - 11.00	Break	
11:00 - 12.30	Start of the game 1st round: Joint Fact Finding	Leo Pols
12.30 - 13.30	Lunch break	
13.30 - 15.00	2nd round: Envisioning	Leo Pols Arjen Koekoek
15:00 - 15.10	Coffee break and Questionnaire	
15:10 - 16.00	Discussion of the results Discussion of tool in strategic delta planning	Leo Pols Jaap Evers Shahnoor Hasan
16.00 - 16.05	Closure	Wim Douven