

# Poll Delta Alliance - Summary results

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Delta Alliance Secretariat, April 2015

## **1 Rationale and objective of the poll - identifying needs and networks**

Delta Alliance has been active since 2010 as an international knowledge-driven network organization with the mission of improving the resilience of the world's deltas. The International Secretariat of the Delta Alliance seeks to strengthen the Delta Alliance's function as a knowledge platform and facilitator of collaboration between deltas, particularly between its member deltas, the Wings. An online poll was designed to assist in this.

Strengthening the Delta Alliance's functioning links to two fundamental understandings investigated with this poll:

1) *What are the needs in the deltas?*

We strive to "colour" the deltas, to improve understanding of what the issues are and whether we can prioritize them, so that the functioning of DA could be issue-driven and knowledge exchange can be targeted on topics related to the most challenging issues.

2) *What are the networks and how to improve them?*

We strive to know how the Delta Alliance network functions and can function in exchanging and multiplying knowledge. Ideally the Delta Alliance network would work on two levels. At the level of one delta, it links key actors in one Delta in a Wing and at the global level it links the Wings in the Delta Alliance. It is vital to engage the key actors to facilitate effective knowledge exchange. With the poll we strive to map the current networks and find opportunities to improve it. This will help us to enhance the quality of the Wings in terms of people involved and information/needs and make sure they can be active/have an impact. Specific attention is paid to the connections of the Dutch Wing.

## **2 Method and data gathering**

Questions in the poll are organized in 3 blocks:

- Identifying the respondent and current functioning of delta alliance
- Identifying needs, challenges and limitations in the deltas + future trends
- Identifying the network of deltas with Dutch wing and within the delta itself

A total of 14 questions were asked, most with multiple choice answers and options to add comments. The poll was executed in Survey Monkey and distributed in January 2015 to the Delta Alliance Wings and candidate Wings through the Wing's coordinators as well as to researchers and practitioners working in potential Wings. In a second stage a follow-up and targeted emailing was done to increase the response rate.

The response rate was 31 answers, representing a total of 13 deltas.

### 3 Results

#### 3.1 Identifying the respondent and current functioning of delta alliance

From 31 respondents to the poll, 11 belong to the Rhine delta (dutch wing), 5 to BMG, 3 to the Ouémé in Benin. 2 to Volta in Ghana, 4 to the new Myanmar Ayeyarwady delta and 8 other respondents representing California Bay, Clilwung and Mahakan, Danube, Ebro, Niger, Parana, Taiwan deltas and Tana with one vote all.

Half of respondents (16/30) are currently member of Delta Alliance already, whereas from the other half most respondents would like to become a member (11/30). The current functioning of delta alliance was identified in function of frequency and type of contact (see Table 1): within deltas, contacts are almost weekly and relate to several types of meetings, whereas the international contacts (with other deltas and with Dutch wing) relate mainly to meetings/conferences and occur less frequently (from every 6 months to less than once a year). Overall the contacts seem to be linked very rarely to specific DA meetings.

Table 1; Current functioning of the Delta Alliance

Frequency of contact								
Answer Options	I am not a member of	More than once a week	1-4 times/month	1-4 times/6 months	1-4 times/year	Less than once a year	I don't know	Response Count
Within your own delta	8	6	9	5	2	1	0	31
With Dutch delta wing	11	2	2	4	6	4	2	31
With members from other deltas	9	1	2	7	4	5	3	31
Nature of contact (average)								
Answer Options	Meetings - part of DA	Meetings - other	Meetings - conferences	Telephone/E mail	Response Count			
Within your own delta	2	16	3	1	22			
With Dutch delta wing	4	2	8	4	18			
With members from other deltas	0	4	8	6	18			

When asked for the important functions of the delta alliance and what DA is doing currently, respondents replied that most important functions would be: **access to best practices, identifying funding opportunities and providing information on deltas with similar issues. Information on scientific advances, networking and debate were also considered to be important.** Most respondents agreed that currently DA is providing networking opportunities and information on deltas with similar issues, whereas they disagreed that DA identifies funding opportunities and (to less extent) information on scientific advances (see figure 1 a and b below).

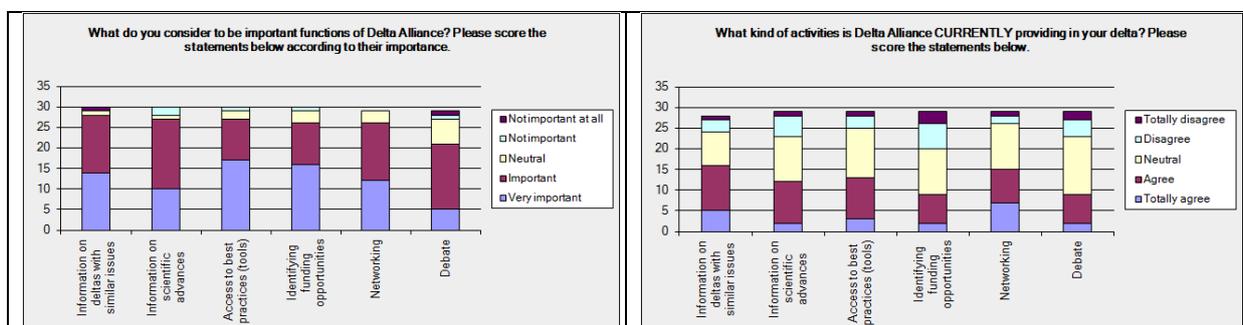


Figure 1; Important functions of the Delta Alliance: desired state (left) and current situation (right)

### 3.2 Identifying needs, challenges and limitations + future trends

The issues identified as most important are: **saltwater intrusion (4/26), river floods (5/26), sea level rise (4/26) and governance (5/26)**. Less votes were given to coastal erosion (2/26) and surface water pollution (2/26). As second most important issue **changing rainfall patterns (5/26), urbanisation (4/26), river erosion (3/26) and coastal erosion (2/26)** received most votes.

In terms of least important issues desertification (6/25), urbanisation (3/25) and food security (3/25) were highlighted and second least important: informal land development (5/25) and population pressure (3/25) with most other issues receiving only 1 vote.

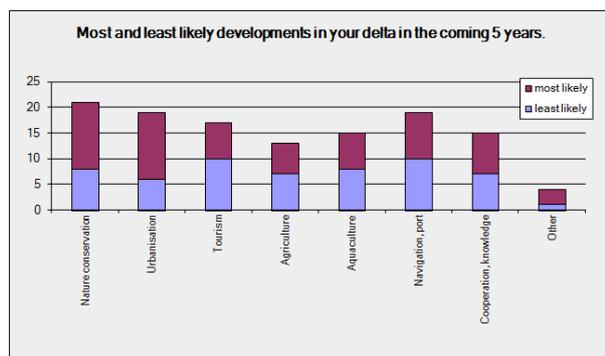


Figure 2: Most likely future developments

The most likely future developments identified are nature conservation/ecosystem services and urbanisation (first two bars in Figure 2), with less agreement on the other developments (tourism, agriculture, aquaculture, navigation/port development and knowledge sharing).

Then when asked which issues would become more or less important by 2020 and 2050 considering these developments, respondents indicated clearly that **sea level rise (8/27) would become important by 2050, aggravating the current problem. Deforestation, spatial planning and governance are also indicated as more problematic issues in the future**, whereas desertification and informal land developments are again indicated as least important, also in the future.

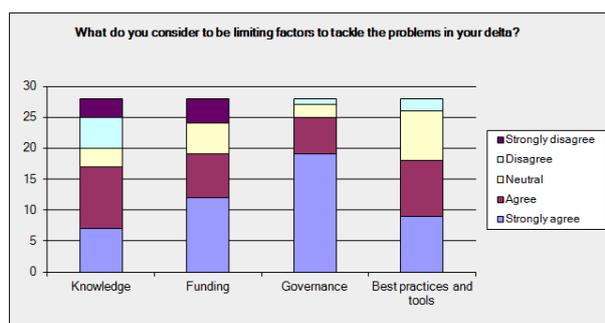


Figure 3: Limiting factors to tackle delta problems

Governance is identified as the most limiting factor to tackle problems in the deltas (third bar in figure on left), with funding coming as second limiting factor, whereas most respondents disagreed that lack of knowledge is a limiting factor.

### 3.3 Identifying the networks within deltas and with the Dutch wing

The analysis of responses on networks is currently focusing on the interaction of the deltas with the Dutch wing and indicated in table below (see Table 2). It shows that there is currently almost no or sporadic exchange with most of the Dutch wing members (with exception of WUR, Deltares and BUZA and to less extent IHE, Both ends and TUD). **When asked for the desired contact, the majority of respondents indicated to want a regular exchange with most of Dutch wing members.**

## 4 Conclusion

The poll reveals that there is an interest in the deltas to become part of Delta Alliance as a **knowledge platform** and that it is estimated that providing information on deltas with similar issues and best practices and tools would be the most important function of the Delta Alliance, except from providing information on funding opportunities (something currently not seen as Delta Alliance activity). Nevertheless respondents indicate that lack of knowledge is not the most limiting factor to tackle current and future issues in deltas, **those would rather be related to governance and available funds.**

Due to the limited responses (31 responses and most coming from the Rhine delta) it is however not possible to draw clear conclusions from the poll at this stage. It is therefore suggested to improve the understanding of the deltas by targeted interviews in the deltas and/or a new questionnaire.

## 5 Next steps

We would like to involve the wing coordinators in a second analysis phase. Potentially we could relaunch a simplified version of the poll to increase responses to minimum 10 per delta and then perform a more detailed analysis of responses. Alternatively the wing coordinators and the international secretariat could organize targeted interviews in upcoming events in the deltas and international fora (such as during the special session on deltas in the IAHR World conference from 28 June to 3 July in Delft 7 The Hague and Stockholm Water Week).

Table 2: Links with Dutch organizations

<b>How do you characterize the interaction with the Dutch wing members of the Delta Alliance? Per type of organization, please indicate whether the interaction is strong or weak in terms of exchange on funding and information.</b>					
<b>Strength of contact for funding</b>					
<b>Answer Options</b>	<b>Almost no exchange</b>	<b>Sporadic exchange</b>	<b>Regular exchange</b>	<b>I don't know</b>	<b>Response Count</b>
Delta Alliance secretary	8	10	1	3	22
Wageningen University	11	3	6	2	22
Delft Technological University (TU)	12	4	2	2	20
ITC - University of Twente	14	2	1	3	20
IVM - Free University of Amsterdam (VU)	13	3	0	4	20
Radboud University	13	2	0	4	19
UNESCO-IHE	6	7	4	2	19
WWF	12	1	1	5	19
Both Ends	8	3	3	7	21
Arcadis	10	3	1	5	19
Grontmij	9	4	0	6	19
RoyalHaskoningDHV	10	6	1	3	20
Deltares	5	8	5	2	20
Ministry of Infrastructure & Environment (I&M)	8	7	0	5	20
Ministry of Foreign Affairs (BUZA)	10	2	4	4	20
<b>Strength of contact for information</b>					
<b>Answer Options</b>	<b>Almost no exchange</b>	<b>Sporadic exchange</b>	<b>Regular exchange</b>	<b>I don't know</b>	<b>Response Count</b>
Delta Alliance secretary	4	11	4	2	21
Wageningen University	7	6	6	2	21
Delft Technological University (TU)	12	5	2	1	20
ITC - University of Twente	15	2	0	2	19
IVM - Free University of Amsterdam (VU)	13	4	0	3	20
Radboud University	14	2	0	3	19
UNESCO-IHE	7	6	5	1	19
WWF	10	5	0	3	18
Both Ends	8	2	4	5	19
Arcadis	11	4	1	3	19
Grontmij	9	4	1	5	19
RoyalHaskoningDHV	10	6	2	1	19
Deltares	5	6	8	1	20
Ministry of Infrastructure & Environment (I&M)	10	3	4	2	19
Ministry of Foreign Affairs (BUZA)	9	4	5	2	20
<b>Desired contact</b>					
<b>Answer Options</b>	<b>Almost no exchange</b>	<b>Sporadic exchange</b>	<b>Regular exchange</b>	<b>I don't know</b>	<b>Response Count</b>
Delta Alliance secretary	0	2	16	3	21
Wageningen University	0	2	13	4	19
Delft Technological University (TU)	1	1	13	4	19
ITC - University of Twente	3	2	8	7	20
IVM - Free University of Amsterdam (VU)	3	4	7	6	20
Radboud University	3	2	8	6	19
UNESCO-IHE	0	2	15	2	19
WWF	2	3	11	2	18
Both Ends	1	3	7	8	19
Arcadis	1	3	10	5	19
Grontmij	0	2	11	7	20
RoyalHaskoningDHV	2	2	10	4	18
Deltares	1	0	15	3	19
Ministry of Infrastructure & Environment (I&M)	2	2	10	4	18
Ministry of Foreign Affairs (BUZA)	3	0	11	4	18