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> **Launching Delta Alliance: First Phase Final Report**

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List of Abbreviations

BAPPEDA Indonesian regional body for planning and development BAPPENAS Indonesian national body for planning and development

CKNet INA Collaborative Knowledge Network Indonesia

DKI Jakarta Indonesian province of Jakarta

ESS-CC Earth System Science - Climate Change Group of Wageningen UR

FORDA Forest Research and Development Agency of the Ministry of Forestry, Indonesian

IAHRI Indonesian Agro-Climate and Hydrology Research Institute
IMHEN Institute of Meterology, Hydrology and Environment, Vietnam

IPB Centre for Climate Risk and Opportunity Management Bogor Agricultural University

KLH Ministry of Environment, Indonesia LIPI Indonesian Institute of Science

MARD Ministry of Agriculture and Rural Development, Vietnam MONRE Ministry of Natural Resources and Environment, Vietnam

PusAir Centre of Research on Water, the Ministry of Public Works, Indonesia

RNE Royal Netherlands Embassy

UNDP United Nations Development Program

UNESCO United Nations Educational, Scientific and Cultural Organization

VAWR Vietnam Academy of Water Resources

VenW Ministry of Transport, Public Works and Water Management, The Netherlands VROM Ministry of Housing, Spatial Planning and the Environment, The Netherlands

WWF World Wildlife Fund

Table of Contents

List of Abbreviations	ii
Report Summary	1
1 Project Background	2
1.1 Problem Definition	
1.2 Project Objective	3
1.3 Milestones	
2 Project Activities and Outcomes	
2.1 Phase One Activity Outline	5
2.2 Phase One Achievements and Conclusions	
3 Project Costs	13
Annex 1 - Results of the exploratory project on International hotspots	
Annex 2 - Meetings within the Netherlands	
Annex 3 - Meetings during the reconnaissance mission in Jakarta and Hanoi	17
Annex 4 - Meetings during the mission in Jakarta	
Annex 5 - Presenters at San Francisco Symposium 21 September 2009	
Annex 6 – Attendees at the meeting in San Francisco, 22 September 2009	

Report Summary

River delta regions worldwide experience mounting challenges in the face of global changes. River delta regions may be considered some of the wealthiest places in the world, drawing huge populations with their rich environmental resources and strong economic potentials. Yet, natural vulnerability and dense populations present great problems for many river deltas, which are aggravated by the impacts of a changing climate.

Research and investment in addressing the unique challenges of river delta locations is happening around the world. Experiences and research results must be shared across river deltas, and collaborative research must be undertaken to support delta regions in responding quickly and effectively to their mounting challenges. The Delta Alliance network is being launched to create a framework for increased cooperation and knowledge exchange between river deltas around the world.

At the end of the first phase of developing Delta Alliance, work has begun in the four focus locations – California, Indonesia, The Netherlands, and Vietnam. Events have been held in Indonesia and California to announce and discuss the emerging Alliance, and meetings have been held in all four locations regarding a vision for the network and inviting partners to assist in its development.

The general response to the launching of a Delta Alliance platform was positive. Most parties agreed that a Delta Alliance would be a valuable asset for many delta regions and several participants expressed their full collaboration in the development of the initiative. The four locations focused on during Phase One all showed interest in contributing to the creation of a Delta Alliance network – continuing to focus on these locations for developing the network would likely provide a solid foundation for the network.

Activities for building the network and supporting knowledge exchange between these regions are in the planning stage, to be carried out in the following phases of the Delta Alliance launch.

This report outlines the work carried out in the first phase to launch the international Delta Alliance network during the period of 1st April 2009 to 1st November 2009. This report also represents the completion of Phase 1 in the development of Delta Alliance. This report contains three parts: part one presents project objectives and the milestones for the project development; part two outlines the activities carried out during phase one, and conclusions for the following phases of the project; and part three presents an overview of the project costs in phase one.

1 Project Background

Alterra/WUR has been asked by Kennis voor Klimaat to launch an international network to support knowledge exchange between river delta regions worldwide – Delta Alliance. The Delta Alliance network is to be officially launched during the Rotterdam "Deltas in Times of Climate Change" conference 29 September – 1 October 2010. The first phase of the launch was originally scheduled for 1 April – 1 September 2009. Initial meetings in California could not be scheduled until September, so the first phase was extended until 1 November 2009.

In fact the initiative to explore the possibilities for the creation of a Delta Alliance was preceded by an exploratory project on so-called 'International Hotspots' as part of the Kennis voor Klimaat program. The results of this project are published in report KT-07 II: "Verkenning internationale hotspots en voorstudie Nijl, Juni 2009"

In total seven international hotspots have been studied, compared and ranked on the basis of the following criteria:

- potential knowledge exchange in two directions
- export potential
- willingness for cooperation and existing relationship patterns
- societal challenges: poverty, conservation of biodiversity and environment
- feasibility to achieve results in view of project duration and available budget
- distinction and synergy with the other hotspots
- pragmatic criteria: external funding possibilities, existing relations with Netherlands government, etc.

The results of this comparison and ranking are shown in Annex 1.

At the end of the project it was concluded that instead of building more or less bilateral relations with a number of international hotspots it would be preferable to create a platform between international hotspots with a focus on deltas, and the idea of the International Delta Alliance was born.

On the basis of the above mentioned ranking it was proposed in the proposal for the first phase of Delta Alliance to start with the deltas of the Ciliwung (Indonesia), Mekong (Vietnam) and San Francisco Bay (California, US) in combination with the Rhine Delta for optimal connection with the research programs of Kennis voor Klimaat.

1.1 Problem Definition

Deltas are rich in environmental resources and have strong economic potentials. Fertile soils and fresh water supplies have made deltas successful and important centres for agriculture. The strategic location between sea and inland transport links countries to the rest of the world, making deltas hubs of innovation, industrial development, and human settlement – deltas are home to the fastest growing cities in the world. Deltas are also great hubs of biodiversity, acting as critical locations in the development and life-cycles of many species.

While deltas share many benefits, they also share many problems - impacts of climate change and the problems associated with water management, ecosystems, urbanization, food production and agriculture, infrastructure and governance all culminate in delta areas. Many deltas already suffer greatly from congestion, depleted fresh water supply, land subsidence, erosion, saline intrusion, water pollution, increasing temperatures and flooding. In addition, their natural wealth and dense populations make deltas particularly vulnerable to natural catastrophes, which inflict extensive human, ecological and economic harm.

These problems will be further aggravated by the triple threat of climate change, population growth, and economic growth. Climate change threatens deltas with impacts including sea level rise, saline intrusion into groundwater, storm surges, and an altered influx of freshwater from upstream that may result in flooding and/or freshwater scarcity. Population and economic growth further increase the stress on natural resources and the capacity of cities.

The problems facing river deltas are already having major impacts, and their threat is quickly increasing. Climate change and impact scenarios are steadily being adjusted towards the high end of the spectrum, meanwhile the natural resiliency of river deltas continues to be depleted, rapidly escalating their vulnerability. The risk of catastrophic events is steadily growing. There is an urgent need for river delta adaptation.

For the myriad of problems facing deltas to be adequately addressed they need more attention from citizens, scientists, and politicians, and for efforts both within and across deltas to be coordinated to maximize their effectiveness. Furthermore, solutions must be sustainable to ensure that responses to today's threats do not jeopardize the man-made or natural environment in the future.

While every delta is unique and each community will address local situations and challenges in its own way, the sharing of knowledge and experience and the joint development of solutions can accelerate and improve the identification and implementation of suitable solutions. This will help deltas adapt to growing pressures before catastrophic events occur.

The Aquaterra Forum on Delta & Coastal Development held in Amsterdam in February 2009 concluded that, while there are viable solutions to the problems facing deltas now and in the future, to realize them requires:

- major advances in relevant science and technology;
- knowledge and experience developed and shared across deltas;
- delta-wide governance; and
- greater recognition at the international level of the vulnerability of deltas.

This project will attempt to address all of these needs by creating a network that coordinates research projects and supports information exchange in deltas internationally – Delta Alliance.

1.2 Project Objective

The **overarching objective** of the Delta Alliance launch is:

to establish an international network that will coordinate and stimulate efforts to develop, share, and implement knowledge and ideas for improving the resilience of river deltas, as well as to increase international recognition of deltas as specifically vulnerable locations.

In the lead up to the Rotterdam "Deltas in Times of Climate Change" conference:

- the Delta Alliance organization will be set up with partners in a number of deltas worldwide;
- networking activities will be initiated; and
- initial projects within the network framework will be formulated.

The objectives of the Delta Alliance network will be achieved through international research collaboration, multistakeholder dialogue, and information dissemination. A secretariat for the Delta Alliance network will coordinate activities that will include:

- Maintaining an online information base and interactive forum for network members;
- Multi-stakeholder meetings to identify priority issues in need of further research in their delta region;
- Linking and spurring research activities in multiple delta regions through PhD and researcher exchange programs;
- Events for information exchange and dissemination;
- Sending representatives to international forums such as the UN climate change negotiations;

Additional activities will be identified and decided upon in collaboration with Delta Alliance member organizations. Preliminary ideas include:

- Joint research projects linking PhD and MSc students with private, civil society and governmental organizations;
- International Working Groups for topics identified as priority issues in multiple delta regions;
- Producing a book series on priority issues that span multiple deltas with editors located in several delta regions;
- · Online presentations and collaborative sessions;
- Study tours;
- Meetings between governmental organizations at different levels and across deltas;
- Executive courses for policy makers;
- · Business development seminars;
- Mobilizing funding from international funding agencies for projects in delta areas.

The objective of the first phase of the Delta Alliance launch was:

to lay the foundation for Delta Alliance in four deltas – the Rhine, Ciliwung, Mekong, and San Francisco Bay deltas.

Specifically,

- · to establish a Netherlands Wing of the network, and
- to invite the participation of organizations in the Ciliwung, Mekong, and Sacramento San Joaquin / San Francisco Bay delta regions.

1.3 Milestones

Milestones in the first phase of the Delta Alliance launch were:

• 9 - 21 May Initial meetings with parties in Jakarta and Hanoi

• 29 June – 1 July Meetings and multi-stakeholder roundtable in Jakarta

• 21 September Meetings and symposium in San Francisco

2 Project Activities and Outcomes

2.1 Phase One Activity Outline

Phase one of the Delta Alliance launch focused on making contacts, gaining interest in Delta Alliance, and developing the vision for an international delta network. The scoping activities in this phase took place in four regions: the Netherlands, California, Vietnam and Indonesia. These locations were identified during the Kennis voor Klimaat "International Hotspots" exploratory project as promising locations for international knowledge cooperation on the topic of climate change adaptation (see Annex 1).

The activities undertaken are listed in the table below, and described in greater depth in the following sections.

Activity	Timing
Preparing meetings and missions	April - September
Preparing communication materials	April - June
Meetings with parties in the Netherlands	4 – 8 May
Meetings with parties in Jakarta and Hanoi	11 – 20 May
Roundtable and meetings in Jakarta	29 June – 1 July
Symposium and meetings in California	20 – 22 September
Participation in delegation of Vice Minister Huizinga to Vietnam	4 – 9 October
Preparation of a business plan	September - October

2.1.1 Preparing Communication Materials

Communication materials were prepared to communicate with contacts during meetings and events, for distribution through contacts, at events, and via email, and for the Delta Alliance website. Materials prepared include:

- Power point presentations for group meetings in Indonesia and Vietnam, the roundtable in Jakarta, the symposium in California, and the mission of Vice Minister Huizinga to Vietnam;
- E-newsletter for contacts in California, Indonesia, The Netherlands and Vietnam;
- Brochures for the meetings in Indonesia and Vietnam;
- Flyers and brochures for the symposium and meetings in California;
- Flyers for the mission of Vice Minister Huizinga to Vietnam; and
- Periodic updates for the Delta Alliance website.

2.1.2 Meetings with Parties in the Netherlands

The objective of these meetings was to inform of the intention to launch an international Delta Alliance, receive initial feedback on the concept and explore possibilities for the involvement of organizations in the Netherlands in Delta Alliance. See Annex 2 for a list of parties and people met with.

The response to the initial vision of Delta Alliance was generally positive. Each meeting yielded feedback, suggestions and possible partnership opportunities for building the network. These will be followed up in partnership with Deltares, which is responsible for the further development of the Netherlands Wing of the Delta Alliance network.

Feedback included the following:

- There are many Netherlands projects/ organizations that are relevant for Delta Alliance those specifically mentioned include:
 - A new FES proposal called Deltas in Transition, Note: meanwhile the title of this proposal has changed into 3D Duurzame Dynamiek in de Delta (3D Sustainable Dynamics in the Delta)
 - NL Commission for Environmental Impact Assessment
 - Switch EU project
 - o Aquaterra
 - Living with Water
 - Connecting Delta Cities
 - Chapter 6 of the National Water Plan: Water Mondiaal
 - o International component of the Delta Committee
 - CERES
- International locations and initiatives that were suggested as being relevant for Delta Alliance include:
 - South America good partner on biodiversity and energy solutions
 - DRAGON initiative, including amongst others the Mekong and the Rhine deltas
 - World Estuary Alliance, an initiative of WWF
 - o Rio del Plata Argentina
 - o World Water Forum
- Recommendations for Delta Alliance focus and/or initiatives to undertake include:
 - o start with water issues and expand into other fields such as spatial planning and health control;
 - o main topic should be improving interdisciplinary work build interface between hard and social scientists could be a good niche for Delta Alliance, since it is hard to get financing for this;
 - spatial planning is the framework where everything comes together;
 - focus on highly developed deltas there is already a level of protection there that cannot be abandoned; undeveloped deltas can be left unprotected;
 - support long-lasting cooperation and relationships between locations too often at the end of bilateral projects the relationship dies;
 - there is lots of cooperation between deltas, but it is fragmented it can be brought together in Delta Alliance;
 - o interpret knowledge to make it understandable and usable by decision-makers knowledge must not remain in the academic environment;
 - provide scientific support for climate adaptation strategies, or for initiatives such as Connecting Delta Cities or the World Water Forum;
 - o perform concrete research projects e.g. developing a Delta Resilience Index (DRI);
 - o have innovative knowledge exchange that minimizes travel;
 - o create a student network and support student exchanges;
 - o conflicting opinions on whether or not it would be valuable to attempt to raise awareness at the international level on the urgency and importance of improving resilience of delta regions.
- Recommendations on the structural set up and operations of Delta Alliance:
 - small international secretariat 1 or 2 full time employees;
 - embed this network in international processes e.g. a chair from UNESCO/UNEP, and/or World Bank;
 - a large overarching initiative could be very bureaucratic avoid this by not trying to coordinate existing initiatives in the delta regions;
 - o an international network is very complex with jurisdiction spread out a lively network still needs someone to coordinate it, and in each location you must have an idea of who will support it.

2.1.3 Meetings with Parties in Jakarta and Hanoi

The purpose of the mission of Katherine Trajan and Wim van Driel was to carry out a set of preparatory meetings and exploration for the involvement of Indonesia and Vietnam in the Delta Alliance. The mission took place during the period 9 – 21 May 2009 and was held in Jakarta and Hanoi. See Annex 3 for a list of parties and people met with.

The general response to the initial vision of Delta Alliance was positive in all meetings, with organizations claiming they are willing to take part.

General observations

- Response to the initial vision for Delta Alliance was positive in all meetings, with organizations claiming that they are willing to take part. However, there was an undertone of scepticism, with comments on the large number of initiatives already focused in these areas, the concern that this may result in just another "talking platform", and questions about whether the deltas chosen have enough in common to be able to learn from one another several contacts suggested the Ganges-Brahmaputra and the Chao Phraya as relevant deltas to partner with.
- It was recommended that an initial activity of Delta Alliance would be to survey the priority problems faced in each delta to determine the most relevant areas for collaboration.
- The need for capacity building within local and central governments was stressed by multiple contacts in both locations, as was the need for higher quality research.
- Several contacts requested a clear definition of a delta, particularly in Indonesia where jurisdictions are split between "coastal" areas and "low-land" areas, some were concerned about what precisely would be included in a Delta Alliance.
- The Ciliwung is considered too small a river delta to be the primary focus of Delta Alliance in Indonesia. Recommendations included: a) broadening the scope to the 13 rivers that run through Jakarta, b) including the Citarum which is heavily polluted, provides much of Jakarta's drinking water, and will be receiving considerable financial aid from ADB in the coming decade, and c) including other rural and urban deltas throughout the country.
- The Red River Delta is also a high priority delta for Vietnam, with much more development located within
 it than the Mekong, and experiencing considerable vulnerability to climate change impacts as well; several contacts suggested including it either with or instead of the Mekong.
- A launch event in Vietnam or Indonesia rather than Rotterdam is needed to avoid Delta Alliance being labeled as a Dutch initiative.
- Bappenas was considered a good focal point for Delta Alliance within Indonesia; a comparable potential focal point was not found as yet in Vietnam, but the Ministry for Planning and Investment (MPI) was suggested by one contact. However, the Ministry of Natural Resources Environment charged with climate change agenda or the Ministry of Agriculture and Rural Development charged with most of the adaptation activities seem more appropriate as focal points. The Vietnam secretariat of the evolving Vietnam-Netherlands Water Advisory Platform could also be an option.

Conclusions

- Momentum for Delta Alliance must be maintained over the coming months to retain interest in the initiative. Recommend monthly updates, emails/newsletters in follow-up to this mission, and a roundtable and further meetings during a mission by the Acting Chairman, Kees Slingerland, this summer to each location.
- It must be demonstrated over the coming year that Delta Alliance can have an impact on the ground. Recommend generating ideas for initial projects during roundtables of Slingerland's missions, and choosing a project that can build upon initiatives already in place in these locations.
- Capacity building could/should be an important activity of Delta Alliance.
- With regard to the activities to be developed distinction could be made between intra-delta and interdelta activities. Also the organization of those activities will be different.
- Although Delta Alliance is supposed to become an open community network some organizational structure will be needed in each of the participating deltas.
- It must be emphasized in follow-up communications that Delta Alliance will require organizations to come with their own projects and financing options

- The scope of Delta Alliance must be refined with a satisfactory definition of a river delta and an initial focus location(s) in each country. The roundtables during Slingerland's missions provide a good opportunity for determining local scope
- If the Mekong will be a focus in Vietnam, Slingerland's summer mission should include a trip to HCMC and Can Tho University
- · Options for a launch in locations other than Rotterdam should be considered

2.1.4 Roundtable and Meetings in Jakarta

Due to a positive response to the proposal of including Indonesia in Delta Alliance (11 – 15 May 2209), a second round of meetings was organized in Jakarta for 29 June – 1 July 2009. Kees Slingerland, Acting Chairman of Delta Alliance, visited Jakarta for this second round of meetings.

The objectives of this second mission were the following:

- Inform high-level officials of the intentions for Delta Alliance and receive their feedback and support;
- Confirm shared definition/scope of international Delta Alliance;
- Define vision for the Indonesia Wing of Delta Alliance;
- Create a plan for developing the Indonesia Wing;
- Generate ideas for an initial set of activities for Delta Alliance in Indonesia:
- Make initial plans for a Delta Alliance event in Indonesia in the Fall 2009.

Meetings were held and a roundtable event was hosted to describe and discuss Delta Alliance. During the roundtable Kees Slingerland gave a presentation on Delta Alliance, and Prof. Jan Sopaheluwakan gave a presentation on delta issues in Indonesia with a special focus on the Mahakam Delta in Kalimantan,. See Annex 4 for a list of parties and people met with, and activities in Jakarta.

Conclusions

- There is much activity in Indonesia on the topic of climate change in delta regions, with work being done
 by many sectors. While some people are already communicating, more communication and exchange of
 knowledge is needed. Delta Alliance can help share the existing and developing knowledge in Indonesia:
- A simple and action-oriented Indonesia Wing is desired;
- Multiple locations in Indonesia are relevant for Delta Alliance. It was decided that Delta Alliance should
 not only focus on the Ciliwung delta (Jakarta) but also on the lowlands (e.g. on Kalimantan, Sumatra
 and/or Papua). A "hotspot" approach, identifying several locations to focus on, may be useful;
- Indonesian partners must sit down together to determine a roadmap and initial activities for an Indonesia
 Wing of Delta Alliance;
- Other organizations in Indonesia that have not yet been contacted should be involved in Delta Alliance.

We have asked Prof. Jan Sopaheluwakan of LIPI to help coordinate the next steps for Delta Alliance with the help of Leonarda B. Ibnu of the Ministry of Public Works. The next steps include determining a structure for the Indonesian Wing and setting a roadmap for an initial set of activities for Indonesian partners of Delta Alliance.

2.1.5 Symposium and Meetings in California

Peter Wijsman of Arcadis has acted as a representative of Delta Alliance in California. In this role he has made initial contacts with relevant organizations and organized a symposium in collaboration with the Netherlands Consulate General for 21 September 2009 to announce Delta Alliance in conjunction with presenting the results of a report – San Francisco Bay: Preparing for the next level. This report on adaptation strategies for San Francisco Bay was prepared by Arcadis, Deltares and Alterra in cooperation with the San Francisco Bay Conservation and Development Commission – it outlines the anticipated impacts of sea-level rise on San Francisco Bay, potential adaptation measures as inspired by examples in The Netherlands, and potential for continued coopera-

tion between The Netherlands and California on climate change adaptation. The report was presented to an audience of over 100 decision-makers, researchers, and practitioners.

Kees Slingerland and Katherine Trajan travelled to San Francisco for the event and a follow-up meeting with California parties. At the event Kees Slingerland announced that Delta Alliance would put forward €100,000 towards joint PhD projects between California and The Netherlands if co-financing for this amount was mobilized by California parties. See Annex 5 for a partial list of parties and people who attended the symposium.

Following the event, a meeting was held to discuss how to strengthen cooperation between California and The Netherlands on climate change adaptation, particularly under the framework of Delta Alliance. Specifically, it was discussed how to arrange projects to secure the Delta Alliance financing and co-financing from California parties. See Annex 6 for a list of participants to this meeting.

Conclusions

- A letter will be drafted to Governor Schwarzenegger to invite him to attend Rotterdam 2010 "Deltas in Times of Climate Change" conference, as Delta Alliance is launched with California as one of the initial member locations.
- Local organizations will put together a proposal for the research that should be undertaken with the €100,000, and how to identify the co-financing of €100,000 from California parties.
- Local organizations will explore the possibility of a pilot project for the adaptation framework put forward in the Arcadis/Alterra/Deltares report that was presented at the event.

2.1.6 Participation in delegation vice minister Huizinga to Vietnam

Wim van Driel represented Delta Alliance in the delegation of the vice minister Huizinga of the Ministry of Transport, Public Works and Water Management, which was organised in the framework of Water Mondiaal. Apart from advocating and discussing the Delta Alliance initiative with various organisations and individuals (Vietnamese and Dutch) he also gave a presentation on "Green Adaptation" during a special seminar which was coorganised by Delta Alliance. During the same seminar, attended by approximately 200 people, the Director General of Deltares gave a presentation on Delta Alliance. In the preparation for and during this mission it was also revealed that the Vietnam National University of Ho Chi Minh City (VNU-HCMC) would like to establish in cooperation with other universities an Institute for Climate Change and Water Management. For this purpose a letter of intent was signed between CPWC, NVU-HCMC and the Hanoi Water Resources University. Exploratory discussions took place about the possible involvement of Delta Alliance in the creation of this new institute after the completion of a feasibility study to be carried out by CPWC at the request of the Ministry of Transport, Public Works and Water Management. Prof.dr.ir. Le Quang Minh, Vice president of VNU-HCMC and initiator of the above mentioned Institute for Climate Change and Water Management, was identified as a potential coordinator of the Vietnam Wing of Delta Alliance. He is willing to accept this task.

2.1.7 Preparation of a draft Business Plan as a first step towards a Strategic Framework

As a working document a draft business plan for the launch and development of an international Delta Alliance network was prepared and discussed with our key partners in California, Indonesia, The Netherlands, and Vietnam. This document was drafted from the suggestions and ideas that came forward during the meetings with partners in all four locations, and provides a first overview of objectives and vision for the function and development of the network. The business plan has now (May 2010) been superseded by the Delta Alliance Strategic Framework, but the content of the business plan reflects the process of developing ideas for the international network. Some extracts from the business plan are included here just to show a certain step/phase in the evolution of the Delta Alliance development process, which means that not all of these issues are still relevant for the strategic framework:

Mission

To increase the efficiency and pace of responses to critical problems commonly experienced in river delta regions worldwide, through a network that supports integration of knowledge across disciplines, sectors, and regions, by providing information, supporting integrating activities, and creating a network of dedicated individuals and organizations.

Vision

- River delta regions worldwide that are resilient:
 - o Environmentally and economically productive;
 - Safe living environments;
- Governments and Authorities with comprehensive strategies for addressing critical problems in conjunction with adaptation to expected climate change;
- Trans-disciplinary and multi-sector research and projects resulting in innovative and valuable problem response options;
- Ideas and examples shared and developed between river delta regions worldwide;
- Rapidly expanding knowledge on how to address critical problems in river delta regions in the face of climate change.

Scope

Delta Alliance is dedicated to supporting the development and implementation of responses to the most critical problems facing river delta regions worldwide. No definition of a river delta can determine which regions are relevant to the Delta Alliance network. Rather, critical problems that are faced by many river deltas will serve as the link that ties members and locations to the network. The Critical Problems that will be the focus of Delta Alliance activities will be identified with initial members, and refined/expanded on an on-going basis to ensure the continued relevance of the network's activities.

Organizations that will be included in the Delta Alliance network include:

- · Government (all levels) and Authorities
- Private companies
- Research institutions
- · Non-Governmental Organizations

Approach

To support the integration of knowledge across disciplines, sectors, and regions, Delta Alliance will:

- 1. Provide information;
- 2. Support integrating activities; and
- 3. Create a network of dedicated individuals and organizations.

Information Services

Delta Alliance will primarily compile and present existing information from network member sources. Delta Alliance activities will also create new information, but this will not be the primary information that the network presents.

The international Delta Alliance network will provide to members the following Information Services:

- 1. Profiles of Focus Delta Regions;
- 2. Overview of ongoing and past projects addressing Critical Problems in river delta regions;
- 3. Overview of research relevant to Critical Problems and response options; and,
- 4. Profile and contact information of network members.

Activities

In addition to the Four Information Services, Delta Alliance will also initiate and support activities that link member delta regions. Delta Alliance will not coordinate projects and will not be a major funding body for projects. However, Delta Alliance will provide networking and information support for member activities, initiate activities when opportunities arise, and provide financing support when possible. Member organizations of Delta Alliance must take the initiative to start and coordinate collaborative activities between disciplines, sectors, and delta regions – Delta Alliance provides a platform to facilitate this collaboration.

Management and Operations

Four bodies will manage and operate the Delta Alliance network. In addition, informal local networks within each Focus Delta Region are encouraged – these Delta Chambers must be organized and coordinated locally and can receive support from the International Secretariat. It must still be decided what legal form Delta Alliance will take (e.g. Not-for-profit organization, foundation, unofficial entity operating from within existing organizations...).

Launch Activities

Critical activities for launching the international Delta Alliance network include:

- Build a network of organizations in initial locations
- Identify Critical Problems
- Develop online forum
- Create management and operation bodies

2.2 Phase One Achievements and Conclusions

Phase One Objective

The objective of the first phase of the Delta Alliance launch was:

to lay the foundation for Delta Alliance in four deltas – the Rhine, Ciliwung, Mekong, and San Francisco Bay deltas.

Specifically,

- to establish a Netherlands Wing of the network, and
- to invite the participation of organizations in the Ciliwung, Mekong, and Sacramento San Joaquin / San Francisco Bay delta regions.

Phase One Achievements

- Scoping for partners in the launching of the Delta Alliance network was carried out successfully in California, Indonesia, The Netherlands and Vietnam.
- Network contacts were made with government organizations, NGO's, universities, research institutions and companies.
- Over 350 people in the four focus locations were directly informed about the intention to create Delta Alliance in meetings or events.

Location	Type of Outreach	Approx. # of People
California	Meetings	10
	Symposium	115
Indonesia	Meetings	20
	Roundtable	20
The Netherlands	Meetings	10
Vietnam	Meetings	30
	Seminars	200

- An active website attracted increasing numbers of visitors throughout Phase One, with over 200 unique visitors each month in September and October.
- Cees van de Guchte of Deltares has agreed to coordinate the creation of a Netherlands Wing of Delta Alliance.
- Professor Jan Sopaheluwakan of LIPI in Indonesia has agreed to lead the creation of an Indonesia Wing
 of Delta Alliance.
- Professor Le Quang Minh, Vice president of VNU-HCMC and initiator of the new Institute for Climate Change and Water Management, was identified as a potential coordinator of the Vietnam Wing of Delta Alliance. He is willing to accept this task.
- Peter Wijsman of Arcadis is representing Delta Alliance in San Francisco.
- Initial ideas for concrete activities that Delta Alliance can initiate or support in Vietnam and California have been formulated to be explored further in following phases.
- A draft Business Plan was created to guide the continued development of Delta Alliance, based on input from contacts in California, Indonesia, The Netherlands and Vietnam on an initial vision for the network.

Phase One Conclusions

- During all missions the general response to the launching of a Delta Alliance platform was positive. Most
 parties agreed that a Delta Alliance would be a valuable asset for many delta regions and several participants expressed their full collaboration in the development of the initiative.
- The four locations focused on during Phase One all showed interest in contributing to the creation of a Delta Alliance network – continuing to focus on these locations for developing the network would likely provide a solid foundation for the network.
- Several participants indicated other potentially interested organizations related to delta areas other than
 the four explored during Phase One. The level of initiative shown by participants from each mission
 gives credit to potentially expand the Delta Alliance platform to several other delta areas in the following
 phases.
- There are countless activities ongoing in the four locations visited during Phase One that could be relevant for an international delta network an online information platform where network members can profile their activities, see what is taking place in the Delta Alliance deltas, and contact one another is essential for supporting the emerging network.
- E-newsletters and maintaining an up to date website are effective means for communicating with the expanding list of network contacts and should be continued in the following phases.
- Close partnership should be pursued with other international delta-related initiatives such as Connecting Delta Cities, World Estuary Alliance, and DRAGON, to maximize the impact that the initiatives can have with regards to their common goals – other related initiatives should also be actively sought and partnered with. Embedding Delta Alliance in other international processes should also be explored. Both will help to keep the Delta Alliance secretariat minimal.
- Concrete activities for Delta Alliance to initiate and support must be explored in greater detail to determine the benefit that they may derive for the international network and for knowledge exchange between river deltas in general.
- Local coordinators for each of the Delta Alliance locations are necessary for their knowledge of the local
 context, organizations and initiatives, and also to provide a focal point for network members and activities in their location. Emphasis must be placed on identifying and securing network coordinators that are
 well positioned in their respective location and will actively support the development of the Delta Alliance
 network.
- A clear niche for Delta Alliance must be determined so that potential network members can immediately
 grasp the objectives and positioning of the network the concept of the international network is still
 vague. Focusing on a limited number of specific problems shared by many river deltas would help to
 give the network focus. A number of contacts emphasized that there would be value in a forum that focuses on the science policy interface.
- Some scepticism was expressed by some contacts regarding the vision for an international delta network development of the network must be visible and steady to gain the support of all contacts.
- The governance structure and activities of Delta Alliance must reflect that it is an international network
 and not a Dutch initiative if the network is to succeed in attracting non-Dutch funding beyond the period
 of KvK support.
- More scoping is needed to succeed in building a long-term network that is sustained by partners internationally. In particular, it must be determined what problems / issues are most relevant in each location to achieve local buy-in to the network, and to facilitate concrete cooperation between the deltas. Just as important is to determine the mechanisms of cooperation that will be supported financially and conceptually in each location. The local network members must also be able to define the physical scope of the network in their region e.g. Red River and/or Mekong Deltas in Vietnam.
- A primary objective for the following phases should be to define a more specific vision for the Delta Alliance initiative in partnership with people and organizations in The Netherlands, California, Vietnam, and Indonesia.

3 Project Costs

The costs that were faced during phase one are represented in the following table:

Type of Expense	Expenses
Personnel	€ 119,536
Material	€ 26,355
Total	€ 145,890

Annex 1 - Results of the exploratory project on International hotspots

Tabel 1: Matching van de kandidaat hotspots aan een set van criteria

Criterium	Kennis halen en	Potentie export	Samenwerkings-	Maatschappelijke	Haalbaarheid/	Onderscheidendheid/	Pragmatisme
Hotenot	uitwisselen		bereidheid / relatiepatronen	uitdagingen: armoede, milieu,	looptijd	synergie	
Hotspot Issues			reiatiepationen	biodiversiteit			
Taiwan . Overstroming metropolitan Taipei . Chia Yi kustregio . Droogtestudie in zuiden . Bewustwording cc . Risico management . Training/ cap. building	. snelle fysische reactie op extreme weersom- standigheden . bodemdalingprobleem . geïntegreerde ruimte- lijke landgebruiksplan- ning . rampenbestrijding	. Geen externe do- noren . afhankelijk of Tai- wan zelf in Master- plan wil investeren	. Goede samenwerking mogelijk met WRA, TII- WE en NTU . Taiwan (t/m president) wil graag kennis uit NL . Commitment brieven van NTU en WRA	. Taiwan is welvarend land, geen armoede wel milieu- en biodiversiteitsproblemen, maar niet in voorgestelde projecten opgenomen overstromingen is ernstigste bedreiging en sociale probleem	. Er zit veel tijdsdruk op projecten, zeker als er een sociaal probleem is: wil men onderzoek afwach- ten? . actiebereidheid is groot	. snelle reactie op extreme weersomstandigheden . aansluiting mogelijk bij hotspots Rotterdam, ZW Delta, Grote Rivieren en Droge Rurale Gebieden	. af laten hangen van opstelling Taiwan t.a.v. in te dienen offerte voor ontwikkelen Masterplan . dit geeft indicatie van export potentie
Vietnam Mekong delta: . zoet-brak-zout . landbouw-visserij- natuur . ruimtelijke planning . kustbescherming?	. ruimtelijke dynamiek in een veranderende delta: transitie zoet- zout-brak . interactie tussen land- bouw, visserij en natuur . rampenbestrijding/ veerkracht	. Veel externe dono- ren mbt cc . DGIS financiering stopt na 4 jaar . actieve ambassade . Mekong delta in Water Mondiaal . MoU met VenW	. veel contacten gelegd. .veel geïnteresseerde partijen: IMHE (MoNRE), VAWR (MARD), Hanoi Water Resoorces Univ., Can Tho Univ. , IUCN	. maatschappelijke uit- dagingen groot. . zeer kwetsbaar voor impact cc . zeer kleinschalige, kwetsbare bedrijven . overstroming, zout intrusie	. vanuit WFE al goede netwerken, overhe- den, ngo's en kennis- instellingen . contra-financiering lijkt LNV beschikbaar	. zeer onderscheidend van andere int. hotspots . extreem kwetsbaar voor cc . echte delta problematiek . goede aansluiting bij ZW delta . accent op natuurlijke (pro- ductie) systemen	. snel aan de slag . contrafinanciering en netwerken aanwezig . interessante problem- atiek
New Orleans . bescherming tegen overstroming	. veel 'oude kennis' die daar toegepast wordt. . geen actieve rol KvK nodig om kennis te halen.	. NL bedrijfsleven reeds zeer actief. . KvK weinig toegevoegde waarde	. zeker aanwezig, maar kan ook vanuit een pas- sieve samenwerking . NL bedrijfsleven heeft daarvoor reeds veel contacten o.a. US Army Corps	. sociale impact van Katrina groot . al zoveel partijen actief dat KvK weinig bij kan dragen aan oplossing problemen.	. weinig toegevoegde waarde: daardoor positionering KvK moeilijk	. onderscheidend omdat zich een ramp heeft voltrok- ken . koppeling met hotspot Rotterdam mogelijk	. KvK zal weinig toege- voegde waarde hebben. . als 'passieve hotspot' meenemen in Delta Alliantie
California . bescherming tegen overstroming . water front development . zoetwatervoorziening . institutioneel	hoogwaardige kennis aanwezig Californie front runner .adaptatievraagstukken sterk vergelijkbaar met die van NL	. grote exportmarkt . grote bereidheid tot investeringen	. er bestaan reeds goe- de contacten met US overheden en kennisin- stellingen . goede samenwerking ook tussen NL adviesbu- reaus en kennisinstelling	. vergelijkbaar met die in NL . bescherming van in- vesterin- gen/infrastructuur	. goede mogelijkhe- den voor gelijkwaardi- ge kennisontwikkeling	. koppeling met hotspots Rotterdam, ZW Delta, rivie- rengebied en veengronden mogelijk	. hoogwaardige kennis- ontwikkeling en – transfer . reeds goede samen- werking . vestiging van Arcadis en NWP
Nile, Kagera . down scalen klimaat- modellen . water management . landbouwsystemen	. aanpassing land- bouwsystemen aan klimaatverandering . seizoensvoorspellin- gen . biobrandstoffen?	. kan veel kennis opleveren over kli- maatadaptatie in Afrika/tropen: toe- gang tot klimaat- fondsen (?) . mainstreamen klimaatadaptatie in ontwikkelingsproc- essen	. veel contacten vanuit Newater project . samenwerking met NBI/ Nelsap en Catalyst project en universiteiten . evenals met NL en lokale ngo's . ambassade enthousi- ast	. uitdagingen zijn groot . grote bevolkingsdruk . 80% onder armoede- grens . veel landdegradatie . grote klimaatvariabili- teit . impact cc op landbouw waarschijnlijk groot . fragiele staten	gunstig contacten en netwerken bestaan al aansluiting bij een lopend project Catalyst	enige hotspot in Afrika en buiten een delta cc kan leiden tot sociale onrust koppeling met hotspot droge rurale gebieden	. faciliteert mogelijk toe- gang tot ODA fondsen . goodwill bij DGIS(?) . goed voor track record Sub Sahara Africa

Tabel 1 (vervolg): Matching van de kandidaat hotspots aan een set van criteria

Criterium Hotspot Issues	Kennis halen en uitwisselen	Potentie ex- port	Samenwerkings- bereidheid / relatiepatronen	Maatschappelijke uitdagingen: ar- moede, milieu, biodiversiteit	Haalbaarheid/ looptijd	Onderscheidendheid/ synergie	Pragmatisme
Indonesië . Flood Management Jakarta . Lowland development . Delta Alliance	. omgaan met urbane overstromingen . integratie mitigatie en adaptatie in de lowlands . biofuel problematiek in de lowlands . veerkracht omgaan met rampen . ontwikkelen internationale toolbox	. veel investeringen van ADB, WB en JICA in waterma- nagement . mogelijkheden voor DGIS financie- ring . Partners for Water	. 4p MoU tussen NL en Indonesie . Jakarta/Indonesië onderdeel van Water Mondiaal . veel adviesbureaus actief	. overstromingen groot sociaal probleem . grote uitstoot CO2 uit en degradatie van peat- lands - armoede kleine boeren in de lowlands	. overstromingen niet alleen a.g.v. klimaat- verandering . bijdrage KvK in voor- komen overstromin- gen gering.	. regelmatige urbane over- stromingen . directe relatie tussen adap- tatie en mitigatie . koppeling met hotspot Rotterdam bestaat al	. Indonesie niet hoogste prioriteit voor KvK: ook andere financieringsbronnen . goede potentie voor FES2009: nu 100 k€ seed money . voorstel low lands voor DGIS maken
China . watermanagement in Huaihe basin of bene- denloop Yangtze	. Huaihe basin verge- lijkbaar met NL delta: VenW geïnteresseerd .Yangtze: relatie met smeltende ijskappen	. mogelijkheid alleen via externe donoren . weinig opdrachten vanuit China zelf te verwachten . aansluiting op China cc agenda	. geprobeerd met NHRI en MWR: tot nu toe niet succesvol . beschikbaarheid data is probleem . weinig cofinanciering te verwachten	. uitdagingen zijn er voldoende mbt armoede, milieu en biodiversiteit; . de vraag is in hoe bij te dragen aan de oplossin- gen.	. afhankelijk van op- stelling China mbt data beschikbaarheid	. stroomgebiedsbenadering? . Huaihe vergelijkbaar met NL delta . aansluiting bij hotspot Gro- te Rivieren.	. impact van KvK zal gering zijn in zo'n groot land. . interesse van China twijfelachtig.

cc = climate change

Tabel 2: Beoordeling van de mate waarin de hotpots beantwoorden aan de criteria

Criterium Hotspot	Kennis halen en uitwisselen	Potentie export	Samenwerking	Maatschappelijke uitdagingen	Haalbaarheid/ looptijd	l l	erscheidend- synergie	Pragmatisme
Taiwan	xx	х	xx	х	xx	XX	х	1
Vietnam	XX	xx	xx	XXX	xx	xxx	xxx	
New Orleans	Х	xxx (bestaat al)	XX	Х	Х	xx	-	
California	XXX	XXX	XXX	Х	XX	xx	XXX	
Nile, Kagera	XX	XX	XXX	XXX	XX	xxx	XXX	
Indonesië	Х	XX	XX	XXX	XX	xx	XX	
China	Х	X	Х	XX	х	х	х	



Annex 2 - Meetings within the Netherlands attended by Kees Slingerland and Katherine Trajan

Date	Meeting	Partner(s)
4 May 2009	Living with Water	Bert Satijn
7 May 2009	IHE - UNESCO	Joop de Schutter
7 May 2009	Deltares	Cees ven de Guchte, Ron Thiemann
8 May 2009	Erasmus University	Geert Tiesman
8 May 2009	Partners for Water	Simon Warmerdam, Raimond Hafkenscheid
8 May 2009	VenW	Carel de Villeneuve, Joost Brutsma, Raimond Hafkenscheid
8 May 2009	TU DELFT	Marcel Stive, H.H.G. Savenije



Annex 3 - Meetings during the reconnaissance mission in Jakarta and Hanoi undertaken by Wim van Driel and Katherine Trajan

Date	Meetings	Partners
Indonesia		
11 May 2009	Royal Netherlands Embassy (RNE), Indonesia	Jaap van der Velden, First Secretary Water Resources
11 May 2009	BAPPENAS	Donny Azdan, Director Water Resources and Irrigation
11 May 2009	Centre for Climate Risk and Opportunity Management, Bogor Agricultural University (IPB)	Dr. Rizaldi Boer, Head of centre, agroclimatologist; and Dr. Ardianprah
12 May 2009	Royal Haskoning	Roy Timmer, Project Leader Jakarta Flood Management Project
12 May 2009	DHV, Liaison officer Partners for Water	Aart van Nes, Liaison officer Partners for Water
12 May 2009	Deltares	JanJaap Brinkman
12 May 2009	Research Centre for Water Resources (PusAir), Bandung	Dr. Arie Setiadi Moerwanto, Director PusAir Janjaap Brinkman
13 May 2009	CKNet INA	Jan T.L. Yap, Co-teamleader
13 May 2009	DKI Jakarta	Ms Sarwo Handhayani (Ibuh Yani), assistant to the governor
14 May 2009	Ministry of Public Works	Dr. Jayamurni Warga Dalam, Director Swamp and Coastal; Dr. A. Hasanudin, Chief of International Cooperation Division, secretariat general, Planning & International Cooperation Bureau;
14 May 2009	Ministry of Public Works	Mr. Iwan Nursyirwan, Director General Water Resource
15 May 2009	Ministry of Environment (KLH)	Mr. Antung Dedy R., Assistant Deputy for Lake and River Degradation Control
15 May 2009	Asian Development Bank	Ir.Pieter Smidt, Head of Water Team
15 May 2009	BAPPEDA, Jakarta Province	Ms Tona Hutauruk, Assistant to Nurfakih Wirawan
Vietnam		
18 May 2009	Royal Netherlands Embassy (RNE), Vietnam	Annelies Donners, 1st Secretary Environment, Martien Beek, 1st Secretary Water
18 May 2009	Institute of Meteorology, Hydrology and Environment (IMHEN) (within MONRE)	Prof. dr. Tran Thuc, Director General, Mr. Le Nguyen Tuong, Director Science Education and International Cooperation Development, Dr. Tran Hong Thai, Director Centre for Hydrometeorology and Environment Consultancy, Dr. Dinh Thai Hung, Vice Director Centre for Environmental Research, Dr. Hoang Minh Tuyen, Deputy Director Research Centre for Hydrology and Water Resources, Dr. Hoang Duc Cuong, Hoang Manh Hoa, Director of Climate Change Division.



18 May 2009	Vietnam Academy for Water Resources (within MARD)	Prof. Dr. Le Manh Hung, Director, Le Quang Anh Vice Director Centre for Training and In- ternational Cooperation (CTIC), Duong Dinh Quang
18 May 2009	IUCN Vietnam	Luong Quang Huy, Ph.D, Manager Climate Change Programme, Jake Brunner, Vietnam Country Program Coordinator, Vu Van Trieu, Country Representative
19 May 2009	MARD, International Cooperation Department	Mr. Le Van Minh, Director General International Cooperation Department, Ms. Ha Thi Thanh Van, Senior Program Officer Department of International Cooperation, Mr. Nguyen Vu Hoan, Deputy Director General Affairs Division
19 May 2009	Vietnam Water Resources University	Dr. Le Dinh Thanh, Vice Rector Assoc. Prof. Vu Minh Cat, Dean of the Faculty of Ocean and Coastal Engineering Assoc. Prof Dr. Le Xuan Roanh, Vice Dean of the Faculty of Ocean and Coastal Engineering
19 May 2009	TU Delft	Gerrit J. Schiereck
19 May 2009	Royal Haskoning	Erik Klaassen
20 May 2009	UNDP	Koos Neefjes, Policy Advisor on Climate Change
20 May 2009	Royal Netherlands Embassy (RNE)	Annelies Donners, 1st Secretary Environment, Martien Beek, 1st Secretary Water
20 May 2009	Hanoi Agricultural University	Prof. Tran Duc Vien, Rector, Dr. Nguyen Duy Binh, Dean Faculty of Information Technology, Dr. Nguyen Thanh Lam, Executive Director Centre for Agricultural Research and Ecologi- cal Studies (CARES).
19 May 2009	Emails with Can Tho University	,
27 May 2009	Emails with Wetlands International	Indonesia and WWF/Vietnam



Annex 4 - Meetings during the mission in Jakarta with Kees Slingerland, Wim van Driel and Katherine Trajan

Date	Activity	Partners
29 June 2009	Roundtable with representatives of stake-holder organizations, including NGO, government, research and education, and consultancy organizations.	
30 June 2009	Ministry of Public Works	Iwan Nursyirwan Director General of Water Resources
30 June 2009	Royal Netherlands Embassy	Jaap van der Velden, First Secretary Water Resources
30 June 2009	DKI Jakarta and Bapeda Jakarta	Sarwo Handhayani, Assistant Secretary for Development and Environment Nurfakih Wirawan, Chairman of Regional Planning Board (Bapeda) Aisa Tobing, Assistant to the Governor for International Cooperation Benni Aguschandra, The Head of Spatial Planning and Environment Sub Division, Regional Planning Board (Bapeda)
1 July 2009	Bappenas	Dr. Ir. Donny Azdan, Director Water Resources and Irrigation
1 July 2009	Ministry of Environment	Hermien Roosita, Deputy Minister Spatial Environmental Management
1 July 2009	LIPI	Umar Anggara Jenie, Chairman Jan Sopaheluwakan, Deputy Chairman for Scien- tific Services Deddy Setiapermana, Head of Bureau, Coopera- tion



Annex 5 - Presenters at San Francisco Symposium 21 September 2009

"A New Alliance for Climate Change: California and The Netherlands" attended by Kees Slingerland and Katherine Trajan

Brian Baird Assistant Secretary for Ocean and Coastal Policy California Natural Resources Agency Consul General Consulate General of the Netherlands Anthony J. Brunello Deputy Secretary for Climate Change and Energy California Natural Resources Agency Meg Caldwell Executive Director. Center for Ocean Solutions David Chiu President, Board of Supervisors City and County of San Francisco Jim Chiu Engineering Manager Joshikman Jos Dijkman Jos Dijkman MSc Flood Management Engineer Deltares / DELFT HYDRAULICS Director, Water Program ARCADIS Nederland BV Coastal Scientist Deltares / U.S. Geological Survey Lite Farrell Lieutenant Colonel, U.S. Army Commander and District Engineer, U.S. Army Corps of Engineers Richard M. Frank Executive Director Center for Law, Energy & the Environment Director of Research and Senior Fellow Thomas C. Sutton Chair in Policy Research Public Policy Institute of California Jonathan W. Loiacono Director Center for Watershed Sciences Christi McKenney Day Lund Director Center for Watershed Sciences Christi McKenney Day North McKenney Day Nort	Name	Position & Organization
Bart van Bolhuis Consulate General of the Netherlands Anthony J. Brunello Deputy Secretary for Climate Change and Energy California Natural Resources Agency Meg Caldwell Executive Director. Center for Ocean Solutions David Chiu President, Board of Supervisors City and County of San Francisco Jim Chiu Engineering Manager San Francisco International Airport Greg Dalton Founder, Climate One Vice President, The Commonwealth Club of California MSc Flood Management Engineer Deltares / DELFT HYDRAULICS Piet Dircke Director, Water Program ARCADIS Nederland BV Edwin Elias Coastal Scientist Deltares / U.S. Geological Survey Lieutenant Colonel, U.S. Army Commander and District Engineer, U.S. Army Corps of Engineers Richard M. Frank Executive Director Center for Law, Energy & the Environment Ellen Hanak Director of Research and Senior Fellow Thomas C. Sutton Chair in Policy Institute of California Jonathan W. Loiacono Project Director, Sewer System Master Plan City and County of San Francisco Director Center for Watershed Sciences Christi McKenney Manager, Aviation Planning and Development Port of Oakland Eddy Moors Team Leader, Earth System Science – Climate Change Group (ESS -CC) Alterra, Wageningen University Senior Economic Advisor Royal Netherlands Embassy David W. van Raalten Head of River & Coast Department ARCADIS, Nederland B.V. R. Sean Randolph Chairman Bay Area Council Acting Chairman Delta Alliance	Brian Baird	Assistant Secretary for Ocean and Coastal Policy
Anthony J. Brunello Deputy Secretary for Climate Change and Energy California Natural Resources Agency Meg Caldwell Executive Director. Center for Ocean Solutions David Chiu President, Board of Supervisors City and County of San Francisco Jim Chiu Engineering Manager San Francisco International Airport Greg Dalton Founder, Climate One Vice President, The Commonwealth Club of California Jos Dijkman MSc Flood Management Engineer Deltares / DELFT HYDRAULICS Piet Dircke Director, Water Program ARCADIS Nederland BV Edwin Elias Coastal Scientist Deltares / U.S. Geological Survey Lice Farrell Lice Indent Colonel, U.S. Army Commander and District Engineer, U.S. Army Corps of Engineers Richard M. Frank Executive Director Center for Law, Energy & the Environment Ellen Hanak Director of Research and Senior Fellow Thomas C. Sutton Chair in Policy Research Public Policy Institute of California Jonathan W. Loiacono Project Director, Sewer System Master Plan City and County of San Francisco Director Center for Watershed Sciences Christi McKenney Manager, Aviation Planning and Development Port of Oakland Eddy Moors Team Leader, Earth System Science – Climate Change Group (ESS -CC) Alterra, Wageningen University Dale T. Morris Senior Economic Advisor Royal Netherlands Embassy David W. van Raalten Head of River & Coast Department ARCADIS, Nederland B.V. Chairman Bay Area Council Kees Slingerland Delta Alliance		California Natural Resources Agency
Anthony J. Brunello California Natural Resources Agency Executive Director. Center for Ocean Solutions David Chiu President, Board of Supervisors City and County of San Francisco Begineering Manager San Francisco International Airport Greg Dalton Founder, Climate One Vice President, The Commonwealth Club of California Jos Dijkman MSc Flood Management Engineer Deltares / DELFT HYDRAULICS Piet Dircke Director, Water Program ARCADIS Nederland BV Coastal Scientist Deltares / U.S. Geological Survey Lite Farrell Lieutenant Colonel, U.S. Army Commander and District Engineer, U.S. Army Corps of Engineers Pietanak Ellen Hanak Director Center for Law, Energy & the Environment Director of Research and Senior Fellow Thomas C. Sutton Chair in Policy Research Public Policy Institute of California Jonathan W. Loiacono Director Center for Watershed Sciences Christi McKenney Manager, Aviation Planning and Development Port of Oakland Eddy Moors Team Leader, Earth System Science — Climate Change Group (ESS -CC) Alterra, Wageningen University Dale T. Morris Senior Economic Advisor Royal Netherlands Embassy David W. van Raalten Bay Area Council Kees Slingerland Delta Alliance	Bart van Bolhuis	Consul General
California Natural Resources Agency		Consulate General of the Netherlands
Executive Director.	Anthony J. Brunello	Deputy Secretary for Climate Change and Energy
Center for Ocean Solutions		California Natural Resources Agency
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Founder, Climate One Vice President, The Commonwealth Club of California	Jim Chiu	3 3
Vice President, The Commonwealth Club of California		•
Jos Dijkman MSc Flood Management Engineer Deltares / DELFT HYDRAULICS	Greg Dalton	
Deltares / DELFT HYDRAULICS		·
Piet Dircke Director, Water Program	Jos Dijkman	<u> </u>
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Jonathan W. Loiacono Project Director, Sewer System Master Plan		-
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Port of Oakland Team Leader, Earth System Science – Climate Change Group (ESS -CC) Alterra, Wageningen University Dale T. Morris Senior Economic Advisor Royal Netherlands Embassy David W. van Raalten Head of River & Coast Department ARCADIS , Nederland B.V. R. Sean Randolph Chairman Bay Area Council Kees Slingerland Acting Chairman Delta Alliance	,	Center for Watershed Sciences
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David W. van Raalten Head of River & Coast Department ARCADIS , Nederland B.V. Chairman Bay Area Council Kees Slingerland Acting Chairman Delta Alliance	Dale T. Morris	
ARCADIS , Nederland B.V. R. Sean Randolph Chairman Bay Area Council Kees Slingerland Acting Chairman Delta Alliance		Royal Netherlands Embassy
R. Sean Randolph Chairman Bay Area Council Kees Slingerland Acting Chairman Delta Alliance	David W. van Raalten	Head of River & Coast Department
Bay Area Council Kees Slingerland Acting Chairman Delta Alliance		ARCADIS , Nederland B.V.
Kees Slingerland Acting Chairman Delta Alliance	R. Sean Randolph	Chairman
Delta Alliance		Bay Area Council
	Kees Slingerland	Acting Chairman
Will Travis Executive Director		Delta Alliance
	Will Travis	Executive Director



	San Francisco Bay Conservation and Development Commission
Pier Vellinga	Chairman of the Board and Scientific Director National Research Program, Knowledge for Climate
	Alterra, Wageningen University
Peter Wijsman	Program Manager
	ARCADIS U.S., Inc.
Bob Woldringh	Principal Engineer
	Fugro West, Inc.
Greg Zlotnick	Office of Delta Policy and Imported Water
	Santa Clara Valley Water District



Annex 6 – Attendees at the meeting in San Francisco, 22 September 2009

Jos Dijkman	Deltares
Piet Dircke	Arcadis
Brad McCrea	San Francisco Bay Conservation and Development Com-
	mission
Christi McKenny	Port of Oakland
Eddy Moors	Alterra
Dale Morris	Embassy of The Netherlands
Marc Nellen	San Francisco Bay Conservation and Development Com-
	mission
David van Raalten	Arcadis
Kees Slingerland	Delta Alliance
Katherine Trajan	Delta Alliance
Will Travis	Executive Director, San Francisco Bay Conservation and
	Development Commission (BCDC)
Pier Vellinga	Kennis voor Klimaat