***The Delta Coalition***

**“Building an international coalition for integrated urban delta management and resilience”**

**Co-developed by the Netherlands, Colombia and Japan**

**Introduction**

The problems and challenges of urban deltas are under-represented in global fora on sustainable development; therefore the Netherlands, Japan and Colombia initiated a multi-stakeholder initiative called the Delta Coalition to promote the issues of deltas in different United Nations frameworks as they relate to deltas and their waters. The Delta Coalition will utilize existing initiatives and platforms to help bridge the gap between present knowledge on deltas and global policy discussions such as the Sendai Disaster Risk Reduction Framework, the Post-2015 Development Agenda and climate adaptation, to foster action on and awareness of integrated delta management.

# Context

River deltas worldwide face a unique set of challenges in the framework of sustainable development. Within deltas are fertile soil, instrumental ecosystem services and cities bustling with invaluable human and economic activity, which are all enabled by water. Water makes deltas prosperous and is a main driver for development. But that same water poses many risks: flooded riverbanks and coastlines can have devastating effects. The lack of such water is also threatening, causing saltwater intrusion, impacting quantity and quality of available freshwater. Deltas are particular as they confront the unprecedented obstacles of climate change, industrialization and population growth within areas that are geographically vulnerable and fragile yet are enormously important for all three pillars of sustainable development: environment, economic and social.

Climate change is exacerbating the extremes in hydro-meteorological events. Between 100 and 200 million people per year are victims of floods, droughts and other water-related disasters. By 2050, this number could double. Indeed, deltas are the frontline of where the adaptation battle with climate change will take place. Deltas host the most densely human populated areas on the planet, home of a large number of the world’s megacities, and are important centers of economic activity, such as agricultural and industrial production, shipping and mining. Although comprising only some 5% of the land area, deltas have up to 10 times higher than world average population densities. And this number is expected to increase rapidly. In a fight for limited space, the complexity of trade-offs between development and environmental protection becomes degrees more difficult.

Considering climate change, population growth, rapid urbanisation, land-use changes and increased asset values, water-related disasters in deltas will occur more frequently, have higher impacts and are one of the major global risks (impact and probability) for businesses, governments and citizens.[[1]](#footnote-1) These issues demand a specific approach for protection against floods and pollution in deltas and call for inclusive, integrated, preventive approaches towards delta development, management and governance.

|  |
| --- |
| **Box 1: Ten reasons why deltas require special attention from integrated water management[[2]](#footnote-2)** 1. *Flood hazards*come from three different sources: fluvial, coastal and pluvial. A combination of high river discharges with heavy rainfall and extreme tide or storm surge may easily result in disastrous consequences.
2. Droughts in deltas do not only lead to a shortage of water, but also to an increase in *seawater intrusion*. Fresh groundwater reserves are being threatened with seepage of saline water.
3. Deltas are the *most densely populated*places on earth. Most of the world’s megacities are situated in delta areas, and urbanization rapidly increases. This fact leads to constraints of space and resources, resulting in a multitude of complex and interrelated development and management issues, ranging from spatial urban and land use planning and traffic control to flood protection, land reclamation, water supply and sanitation problems and preservation of nature reserves and ecosystem services.
4. Most deltas are moderately to extremely vulnerable to *sediment deficit*. Upstream river developments (such as storage dams) often lead to a reduction of sediment inflow, whereas dikes and embankments often impede lateral sediment dispersion. Together with an on-going sea level rise 24 out of the 33 largest deltas are at serious risk[[3]](#footnote-3).
5. The geological characteristics of delta soils make them prone to *subsidence*, exaggerated by anthropogenic extraction of ground water, which can lead to extreme subsidence on the short term.
6. Deltas are relatively young landscapes, featuring *highly dynamic geomorphological processes*, such as coastal erosion and accretion and river meandering and avulsion.
7. Delta *soft soils*pose specific challenges to civil infrastructure (roads, railways, bridges and tunnels).
8. Their position at the most downstream part of rivers make deltas particularly receptive to *water pollution*.
9. Most deltas contain *deposits of fossil fuels*(oil, gas), of which their exploitation leads to soil subsidence and environmental challenges, such as risk of leakages and pollution.
10. Delta rivers and estuaries have the *highest economic value*of all ecosystems. Nutrient recycling and food production are the major functions that contribute to this high value. Typical delta wetlands (mangroves, salt marshes, estuaries) are among the most valuable as well as among the most threatened ecosystems.
 |

# International preventive approaches for deltas

In recent years, integrated, adaptive approaches have been developed based on the recognition that risks, if not properly addressed in advance, may lead to the occurrence of disasters. Its widespread and effective implementation requires a reframing of the paradigm of disaster risk management from its traditional focus on mitigating the (direct) impacts of disasters using stand-alone and ad hoc interventions to: i) broaden the focus on prevention, mitigation, preparedness and vulnerability reduction, ii) recognize that disaster risk management is surrounded by many uncertainties and should therefore be an iterative or continuous, on-going effort requiring experimentation and learning and iii) integrate and mainstream into sustainable development policies, planning and programming at all levels: global, regional, national as well as at the local level.

Research, innovations and investments in addressing the unique challenges of river delta regions are happening all around the world. In order to support delta regions in responding preventively to their mounting challenges, knowledge, experiences and best practices in delta management should be mutually shared between nations and those working on issues within deltas. The integration across disciplines, sectors, and regions will yield new and critical insights into how best to improve the overall resiliency of river delta regions worldwide.

Delta countries have much to offer when it comes to flood prevention, water quality improvement and water governance. This knowledge and experience provides a great opportunity for intensive cooperation between delta nations, exchange of knowledge, building on an international network and creating market opportunities. The scale, complexity and urgency of global water issues require cooperation and integration of sectors working within the water sphere.

**The Delta Coalition**

For these reasons, the Delta Coalition is being proposed to help confront the issues faced by river deltas around the world. Launched by a group of national governments with the goal of becoming a multi-stakeholder platform, it will act to bring deltas to the forefront of global policy discussions on sustainable development. This will be done by connecting the wealth of knowledge that already exists in initiatives, organisations and programmes to countries and policymakers dealing with these issues in international fora such as the United Nations.

To do this, this initiative could:

* Have the overall aim to improve the day-to-day lives of the inhabitants of deltas worldwide through the exchange of experiences, best practices and lessons learned, giving a voice to deltas in global sustainable development fora and the prevention of conflicts and promoting cooperation within delta regions;
* Act as a government-driven, multi-stakeholder platform focused on promoting deltas in global discussions on sustainable development;
* Promote a science-policy interface on deltas:
	+ By establishing itself as a connector between global policy discussions on sustainable development and delta initiatives and knowledge hubs to help better inform policymakers about the critical value of deltas;
	+ By stimulating the research community to provide the information required by policymakers to make informed decisions;
* Support various sustainable development frameworks:
	+ The Post-2015 Framework for Disaster Risk Reduction, either in an overall manner or with specific targets, or both;
	+ The actions to be taken for the achievement of the water goal and targets, as they relate to deltas, in the Post-2015 Development Agenda after its adoption;
	+ The activities of the UN Special Envoy for Disaster Risk Reduction and Water through the implementation of relevant and concrete actions by each country as they relate to deltas, in close coordination with other existing bodies including the High-level Experts and Leaders Panel on Water and Disasters (HELP);
	+ Already existing multilateral environmental agreements and their targets so as not to repeat or overlap with on-going activities.
* Drive innovation in deltas to further develop solutions for the sustainable development of deltas via technology, infrastructure, both traditional and natural, and governance; and
* Bring together the various communities related to river deltas (i.e., disaster risk reduction, climate change adaptation, etc.) to optimise, broker and catalyse efforts in the sustainable development of deltas with a strong focus on prevention and reduction of water-related disasters.

The Netherlands, Colombia and Japan will lead and organise this coalition through its initial stages, providing a foundation from which the partnership can work from as it develops. These countries will play a key role in establishing this initiative through facilitating preliminary discussions to i) develop commitment criteria for member nations and partners, ii) develop initial proposals on governance, structure and plan of action and iii) support activities for the Delta Coalition’s inception period.

While the Delta Coalition may be new, there are many tools, initiatives, programmes and organisations that already exist that can help support this future endeavour. This partnership can act as a conduit to bring together such activities to have a greater impact at the global policy level through their engagement in the coalition.

**Next steps**

An initial meeting of the Delta Coalition took place during a side event on the occasion of the Third United Nations World Conference on Disaster Risk Reduction (WCDRR) in Sendai, Japan on 16 March 2015, co-organised by the governments of the Netherlands, Colombia and Japan. This was one of several future planned meetings that will take place throughout 2015 in association with other global sustainable development meetings (i.e., 21st Climate Change Conference of the Parties, Paris; United Nations General Assembly during discussions on the future Sustainable Development Goals; Addis Ababa Conference on Financing for Development; etc.). A further presentation of the Delta Coalition took place in South Korea during the World Water Forum in April. The government of the Netherlands has offered to provide secretarial support to the first phases of the Delta Coalition and to coordinate follow-up activities. The Netherlands will also organize a first meeting of the delta Coalition partners during the Amsterdam International Water Week (2-6 Nov 2015)

This will all lead towards the organisation of a high level Delta Coalition Conference at the beginning of 2016, which will aim to raise the profile of deltas, bring together the many stakeholders associated with their integrated management and define further concrete action that the future Delta Coalition can carry out for the sustainable development of deltas.

1. World Economic Forum (2013). Global Risks Report: Eight Edition. World Economic Forum. [↑](#footnote-ref-1)
2. Ibid. [↑](#footnote-ref-2)
3. Syvitski, J. P.M., A. J. Kettner, I. Overeem, E W.H. Hutton, M. T.H. Hannon, G. R. Brakenridge, J. Day, C. Vörösmarty, Y. Saito, L. Giosan & R. J. Nicholls (2009). “Sinking deltas due to human activities*.*” *Nature Geoscience* 2*,* pp. 681-686*.* [↑](#footnote-ref-3)