## EGU General 2024

Session HS1.1.10: Advancements in Adaptation and Mitigation Strategies for World's Deltas against the uprising climate hazards in the

Anthropocene

River deltas historically housed many of the Earth's important ecosystems. The Anthropocene saw these grand terminals of the fluvial systems taking on a new role as now; they also support human lives while facing many intensifying pressures from natural systems, including floods, droughts, or salinity intrusion, that can heavily affect deltas' Indigenous freshwater ecosystems while rendering the land inarable or even inhabitable. These negative impacts are exacerbated by human development and climate change induced sea level rise, increasing salinity and ground subsidence. Surface and groundwater resources for both domestic and agricultural purposes over overused, saline intrusion is increasing and land use for agriculture competes with nature and urbanization. How can we effectively meditate these impacts via Mitigation and adaptation? Or can we expect innovative strategies, such as using a water and food systems approach and Nature-based Solutions (NbS), to harvest the benefits of both effectively?

This session provides the opportunity for delta researchers to get updated on recent advancements of research related to adaptation and mitigation strategies in global mega deltas while providing ecosystem services (a.o. food supply) as they are taking on the rising climate hazards in the Anthropocene. We will discuss theoretical assessment studies, actual on-site interventions, innovative solutions and viewpoints of factors that may fuel/hamper the advancement of the delta research discourse. Contributions to addressing the following topics are welcome:

- Case studies reporting on-site observations.
- Theoretical assessments, including modelling of innovative mitigation and/or adaptation.
- Critical reviews of significant studies with clear focuses
- Reports of advancements in science-policy dialogues
- Innovative solution for adaptation and / or mitigation strategies



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