

DA Delta Alliance Cooperation: Showcasing Inter-Delta Cooperation

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DRAGON Partnership – Dr. Scott Wilson, US Geological Survey

- USGS Providing science to policy makers and decision-makers in the US
- Envisioning the future of the Gulf Coast Restructuring the Delta
 - More engineered or more natural?
 - 38 states involved in decision-making for the Mississippi river (and rivers that flow in/out of it) –
 river rights/navigation rights are controlled by the states, not the national gov't
 - Louisiana is a working coast not just conservation, but also the economic dependencies on the delta
 - New Orleans is 100km from a huge cliff (under water) sediments actually run off the edge and aren't staying in the Delta
 - Trying to harmonize limited resources to move forward balancing natural & human landscapes
 - Levees and flood control projects have dramatically squeezed the flood plains, causing problems in the delta downstream
 - New Orleans has become a peninsula and without intervention it is very likely to become an island
- Restoration vs. rehabilitation
 - o Not enough resources to return it to it's original state, too much has changed
 - Rehabilitation is more trying to work with the current situation and to make for more sustainable future
- USGS is responsible for monitoring and provide data for other users to make better models not implementation
 - Dutch are good at hydrological models
 - USGS is trying to complement that with better ecological models (not compete with the hydrological models)
 - Building tools and indexes to give policy makers the ability to understand the current state and in which direction is it moving
- DRAGON

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- Guiding principles
 - Facilitates analysis create a *community of practice,* focusing more on the science side then policy
 - Guide decision makers develop better models and visualization tools for decisionmaking and management
 - Drive decision making create a platform/new data integration tools to support ecological forecasting
- o Vietnam engagement Mekong delta
 - Goal is to supplement other international support for managing the Mekong delta relatively new engagement, just finishing 1st year
 - USGS provides satellite data and thematic map data and developing automated monitoring capabilities



- Handing over tools to the experts in the area, building their capacity to take on this sort of research activity
- Restoration success
 - Strong partnerships and strong communication are the key to moving towards restoration
 - o Delta conference coming up in New Orleans in mid-October
- Q&A
 - Arjan (WWF Netherlands and world estuary alliance) how active is the DRAGON group at this time?
 - More focus on Mekong and of course the work in the Lousiana region, than on expanding DRAGON (but hasn't been the top priority), they are planning further expansion in the future
 - Wim are you active in all deltas listed on the website, are you involved in all of them?
 - No, they've gathered resources on many deltas, but they are not always actively in each area – primarily they are only in Louisiana and Mekong.
 - Lies are you demand driven?
 - Their role internationally was a request of the US state department. They are more focused on the academic side of things rather than the policy side in regions outside their areas. Too early to tell if it trickles into the policy realm.

Dutch collaboration with New Orleans- David Waggonner

- Graphics matter emphasis will be on pictures
 - New Orleans is on the 30th parallel, understanding your opposites to better understand yourself.
 - New Orleans situation is acute, "hanging on"
 - Urgency in the New Orleans is with us and heightened compacted with recent oil spills
 - Stakeholders are not just human need to consider all stakeholders, human and non-human
 - o Sediment flow is a real problem in the Mississippi Delta
 - Straight-lined engineering approach is not nature's approach, no consideration in the New Orleans was on aesthetics, focus was on pure flood prevention, or drainage function
- Comparing Deltas
 - How can we engage the Dutch "Dutch dialogues"
 - Many different rules and regulations
 - Louisiana is good at evacuation, but we don't have polders
 - Where do you want to invest your money? We learned this from the Dutch..."retain before drain", Louisiana has learned a lot regarding sustainable urban water management from the Dutch
 - Safety first! incorporating Dutch priority, in a much more severe climate in the Netherlands
 - Considering adding islands (used by the Dutch as both function and aesthetic/quality of life)
 - Key learning underlying strategy (literal bottom-up), concepts like groundwater balance was not a priority in the US
 - Creative ways to storing water
 - Nothing is happening from a funding or implementation in regards to the Dutch diaologues, but the concepts are still here and being picked up by the universities to reach out and connect to other deltas
 - Outfall canal system, what could be done? The vision coming from the Dutch dialogues is ideal, holistic system, allowing water to move. This isn't the top priority from the officials and the governments.
 - Water can be an asset public investment could feedback into private returns, increased property values, etc.



- o "We're not going back to the city that was...we drained that city and it sunk"
 - Still need to understand what was there and why it works the way it does
 - Amsterdam learned how to use it's water as a value-add, New Orleans is just a series of "collective mistakes"
 - "We need to create more space for water in New Orleans"
 - "We underestimate the irrational side of man and overestimate the rational side"
- o Q&A
 - Lies have people in New Orleans actually seen these cities that are beautiful?
 - Water is now feared in New Orleans, it'll take generations. "You have to teach children to swim" television/pictures bring these visions. Need to build a couple pilot projects in the
 - Mirjam (from the New Orleans) seeing houses in Delta within inches of your front door...is terrifying. Spending the last year on elevating houses away from water, it's a total different perspective.
 - Dutch system has provided a model that works it's good to know what's out there and learn from these.
 - Was the information the valuable from the Dutch dialogues or was it the excuse to talk to each other?
 - It served as inspiration and motivation. There were principles that provided new information that could be used.
 - Dutch dialogues was add hoc not as organized. Needs to end as a dialog and become a design. We've been the beneficiary for the most part.
 - The Dutch has a brand name, trust was low in the core of engineers. Provided credibility that he didn't have by himself.
 - What can be learned from the Dutch dialogues for the Delta Alliance?
 - Design activity get in and do some tangible project or study. A lot of preparation has to be done first to make visits valuable.
 - What about areas that are growing, Ho Chi Minh city, etc.
 - Need a functional government/leadership you have to have a conductor.
 - Would there have been a opportunity to have the Dutch dialogues without the Katrina?
 - No, there would not have been the opportunity to re-envision the landscape.
 - Dutch polder model is a great lesson to the US. "Water does not care, it will just take you."
 - These international dialogues should not add silos, but facilitate discussion and exchange.

WISDOM – Mekong Delta

- German Vietnamese partnership Starting the second period of 3 years, already working there for 3 years
- Mekong Delta South Vietnam
 - Flooding comes in from the north, caries sediments into the basin to enhance soils/fields.
 - High population pressure from the cities
 - In high need of adaptation strategies due to Climate Change
- IWRM and technology sharing due to the project
- Lots of partners on both sides, including 50-60 scientists and 20 PhDs
- Looking beyond hydrology and looking at the integration of many fields water quality, quantity, vulnerability analysis, landuse changes, legal system analysis, social change, etc.
- Results included:
 - Population distribution



- Delivery of information, flood situations
- Hydrological measurements and modeling
- o Time-series analyses
- o Remote sensing
- o Land cover mapping
- o Methodologies and fieldwork for social-economic sciences
- o Water quality analyses
- Household level adaptation (capacities)
- Legal framework mapping who's really responsible
- Everything is integrated into the Mekong Information System website portal, information sharing
 - GIS-based/google earth-like
 - Stakeholders ministries (to support planning processes)
 - Trained on how to use it
- Looking to scale up for broader applicability
- Q&A
 - Why proprietary data? Why not build diretly on google rather than remake google?
 - Data management should not be public in Viet Nam, questions about uncertainty, where the data comes from, so they are responding to their culture a bit, intellectual property rights, etc.
 - Goal is more to teach them how to use the tools as opposed to bring them data
 - Dutch haven't come across the WISDOM project in Vietnam, they've also been working there. Can they use data? Why are we only hearing about this now?
 - Cooperation is just starting; discussion between programs is only now developing, despite separate initiatives going on in the Mekong region.
 - Perhaps separate initiatives are by design so they can compare the results of different projects.
 - Vietnam response data can start with their researchers, but it doesn't necessary get used directly. It takes a different sort of interaction in Vietnam to get your ideas heard. They invested a lot of time/energy on Mekong system. Transfer of information is more verbal than written in Vietnam. Transferring knowledge through culture is the biggest challenge.

Concluding remarks:

- Exchanging information, understanding culture.
- Cees Communication is already happening, we're hearing here. We are getting better at working together.