

# DELTACARE AND REVERSED INCLUSIVITY IN THE MEKONG DELTA

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■ Social inclusion in international water projects and delta planning highlights the need and practices to involve people, not just decision makers, this is our ‘Dutch approach’ we hope to apply in international projects. People with interests in the proposed project or delta plan need to have a voice. Special emphasis might be put on people who 1) may normally be excluded, 2) are vulnerable or 3) have the capacity to resist the proposed change. Inclusiveness is not only considered a moral or legal obligation but is necessary for the effectiveness of project and plan implementation.

Already in the 1980s experts developed approaches that turned around the meaning of inclusion or participation (Chambers, 1993). They proposed shifting from ‘involving people in a project’ to ‘projects meaningfully engaging in the lives of people’. Put in different terms: people are not the passive object of development brought in by an outsider’s project but they are the active subject of their own lives and developments. Inclusiveness doesn’t mean inviting people to multi-stakeholder workshops and involving people in consultations. At least it means co-creating the projects and plans whereby the stakeholders also identify the preferred ways of interaction they are comfortable with. They also determine their preferred forms of representation. A more progressive approach would mean that the outsiders (project staff, consultants, planners, policy makers) immerse in the logics, understandings, practices and networks of the local people (in all their diversity). This we call reversed inclusion or inclusion 2.0.

The difference between inclusion as involving ‘them’ (local people or stakeholders) and reversed inclusion as involving ‘ourselves’ (staff of government, companies or NGOs from outside) can be explained by looking at the use of the participatory tool of the timeline. In conventional participatory planning the facilitator would ask villagers to sequence the main historical events or changes. But for Indigenous Peoples in Bolivia time is not linear but circular

(Umans, 1997). Therefore, the timeline tool was adjusted to a timecircle. Thus, involving communities in elaborating the timeline might seem inclusive in social terms but it is not inclusive cognitively, culturally and epistemologically (referring to the way people know their past), simply because these Indigenous Peoples have a different time conception. We don’t take Indigenous Peoples along or get their buy-in when outsiders maintain and impose a linear logic. To co-create means to open up for circular time and to explore reversed inclusion.

In this paper the Mekong Delta is taken as the case to illustrate how such a reversed inclusion can be shaped. The Mekong Delta (MD) is the third largest delta in the world and Vietnam is globally among the 5 countries most vulnerable to climate change. Moreover, the Vietnamese MD is rapidly losing elevation due to accelerating subsidence rates (Minderhoud *et. al.*, 2020). Yet, the delta is home to 18 million people, its economy is rapidly growing, urbanization and out-migration are increasing and its agricultural production plays a major role in the wider regions’ food security. These challenges, opportunities and stakes have been the basis for long-term and intense cooperation among Dutch and Vietnamese governments. For these reasons the MD is a paradigmatic case for analyzing inclusive delta cooperation.

In the next section some conceptual and methodological

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issues underlying the research will be presented. Thereafter, the results will be presented in the form of a narrative on the Mekong River and Delta as living bodies. Finally, this will point out the opportunities of Dutch and Vietnamese delta experts for reversed inclusion.

### Conceptual and methodological framework

Theoretically, this research builds on the practice theories of Schatzki (2002) and Law (2011). This framework clarifies how, through their practices, different people understand a delta, conceive its nature and treat it differently. Humans do not only act within a pre-given world but through their practices engage in world-making (*ibid*). The concept ‘practice’ is understood here as the constellations of doings, sayings and things (Schatzki, 2002). These practices are ways of handling the world up to bringing it into being (Law, 2011). Studying the practices of various schools of delta professionals and various kinds of inhabitants reveals that they each shape the delta in certain ways and not in other ways. The challenge of inclusiveness is then to accommodate multiple practices of delta-making.

This research is also based on contemporary sociology that underscores the untenable divisions of human and non-human, nature and culture as well as beings and things. Latour (2005) convincingly argues that machines and other non-humans are not soulless matter but have agency. Puig de la Bellacasa (2011) extends that reasoning up to the point of showing the liveliness of things. As she points out, socio-political forces are embodied in the ongoing material and technological remaking of the world. This is a kind of animating the materiality which will have in its turn the potential to exercise forces of world-making. This liveliness has consequences for the relation between humans and things in terms of moral, ethical, political and practical dimensions. An affective relation with lively things draws these things into a practice of care. As will be presented below, this is opening the potential for linking the liveliness of the MD with a practice of care-taking.

Based on this framework, the methodologies for data collection consisted of studying literature, conducting 19 interviews, numerous informal talks as well as participatory

observation as water experts. Interviews were conducted with 14 delta experts and 5 local informants. The aim of the interviews was to get an understanding of the diversity of delta practices. The selection of delta experts is based on their involvement in delta planning and policy. They are from Vietnamese and Dutch government, development partners, research institutes and companies. Three of the local informants were participants in Dutch-funded projects and two were Khmer abbots.

The author’s distinction of three practices is a product of deductive reasoning based on literature, professional experiences, observations and interviews. The labelling of each practice is neither common nor derived from earlier studies on the discipline of delta management. Since each label is indicative of a larger bundle of practices, these labels are somewhat arbitrary.<sup>2</sup> The interviews with the experts Nguyen Thien and Duong Ni as well as with the abbot of a Khmer monastery reveal a practice which seems very potential to deepen the strive for sustainable development. The author labels this practice ‘deltacare’. The description of this practice is prospective and indicative rather than empirically grounded. Interviews were conducted from 2017 to 2021. The first-hand participatory observation enabled triangulation of data and verification of the process of deduction.

In the following sections the three delta practices of mining, management and caretaking will be further described. The opportunities for reversed inclusion will be explored within the management and caretaking practices. Finally, the conclusions will be presented.

### The mining practice

From the interviews, literature and policy documents it became clear that there is a group of delta actors which conceive of the MD as a space with *abundant* resources to be exploited. For them the MD signifies land, water, population and recently wind and sun as resources for renewable energy. The word ‘resources’ already implies a practice of mining, exploiting, possessing and developing natural and human resources. It is a utilitarian approach aiming at benefiting the country or making a profit. This ‘mining practice’ is the first delta practice that can be

deducted from the literature, interviews and observations of expert workshops.

The mining practice centers around extracting what is perceived useful. Whatever they want, governments, companies or people take out. They have the short-sighted logic of gain. This happened in the colonial era when the French occupied, exploited and opened-up the MD and resettled North-Vietnamese in the MD to further develop the area (Biggs, 2010). But there are many contemporary examples of the mining practice that the author observed. One is the intensive triple rice cropping behind high dykes. These dykes protect the land against the annual flood so an additional crop is possible. This initially boosts farmers' income and profit. But after 10-15 years the soils get exhausted, yields drop and input costs surge since the foregone floods neither provide fertile sediments nor eradicate pests (Thien *et al.*, 2015). Thus, what happens is that farmers are mining their soils and polluting their waters. Other examples of mining are the excessive groundwater extraction (which in fact is in fact the mining of the millennia-old aquifers), sand mining which occurs in all the main rivers (Eslami, 2019) and deforestation of mangroves and wetlands (Quan, *et al.*, 2017). All these examples are illustrations of an intrusive, exploitative, profit-oriented and exclusive mining practice.

Engineering is an integral part of efficiently maximizing mining and resource exploitation. Since colonial times the governments have sent in water, agricultural and forestry engineers to exploit the resources and alter the landscape of the MD (Biggs, 2010). To exploit the land and water the engineers constructed over 13,000 km of dykes, nearly 3,000 km of major canals and over 90,000 km of irrigation canals in the MD (Thien, unpublished). This resulted in an engineered delta which constantly requires repair, compensation or mitigation measures and perpetually needs more engineers and infrastructure. There are four important lock-ins (Marchand and Ludwig, 2014). Firstly, more dredging leads to more sedimentation which again requires more dredging. Secondly, more drainage of peat soils leads to soil subsidence which requires again more drainage. Thirdly, higher dykes lead to more settlements, which increases flood risks and requires again higher dykes. Fourthly, more financial investment leads to bigger

clientele networks which require more cash to flow through them (Benedikter, 2014).

## The management practice

Alongside the accounts of the delta's abundant resources are the accounts of the delta as a vulnerable space. The main challenges are climate change, land subsidence, erosion, salinity intrusion, droughts, floods, biodiversity losses, wetlands degradation, pollution and out-migration (Käkönen, 2008; Minderhoud *et al.*, 2020). The MD experts and managers that were interviewed all see that the delta is a victim of the above mentioned mining, exploitation and pollution. This *mining* practice in the MD *undermines* its potential. Farmers in the Delta have legitimate reasons to focus on short-term wealth creation, yet, this now goes at the cost of their families and stock of natural capital.

For these reasons, many delta actors conceive of the delta as a space with *scarce* resources that need to be managed sustainably. These actors shape the second practice: the delta management practice. Those actors were 'retire reformists' (Hassan *et al.*, 2019), local political decision makers, academics and independent experts. Many of them had connections with the elaboration of the Mekong Delta Plan (RHDHV *et al.*, 2013). That plan is a long-term integrated spatial development plan. Based on the predicted climate change impact on the water conditions, it proposes an agricultural transformation. It plans a delta management practice that interlinks sectors, administrative layers and provinces into a governance system.

From the interviews and literature it is clear that the above-mentioned actors are guided by the long-term logic of sustainable development. They abide to the sustained yield principle by taking out only the amount that can be regenerated by nature. What also appears as a common discourse is their conception of the MD as a complex socio-eco-technological system (Wesselink *et al.*, 2020). System thinking was already advanced within the disciplines of hydrology, ecology, agriculture and social sciences. But understanding the interdependence between delta societies, their natural environment and the technological interventions that enable delta living required a broader system perspective.

In 2017 the central government embraced those ideas too. The Vietnamese government started a unique process to shape their own systemic response to the MD challenges. In follow-up to the Dutch-funded Mekong Delta Plan the Prime Minister issued Resolution 120 (SR Vietnam, 2017) which urges people to actively live with nature. It sketches a comprehensive delta transformation which involves a series of complex transitions: from fighting to embracing nature; from flood control to controlled flooding; from salinity control to controlled salinity; from passively reacting to pro-actively adapting; from growth and quantity to resilience and quality; from sectoral and haphazard planning to integrated and coordinated planning; from 'rice first' to 'aquaculture first'. This philosophical switch is embracing a socio-eco-technological management of the MD.

Since society and the social dimension are integral of this approach, Resolution 120 opens the opportunity to explore how delta experts and managers go about the topic of social inclusion. While during the Mekong Delta Plan formulation the Dutch did a lot of effort to seek active participation of the Vietnamese, now the Vietnamese government enables the development partners to include their funding and expertise in the transformational efforts of the government. The common ground of a delta management practice can form the basis for a reversed inclusion. The foreign experts that were interviewed acknowledge that they immersed themselves in the implementation of the Resolution and in the mentioned transformations. They were involved in policy development, the redesign of water infrastructure and of the landscape, the creation of more space for flood plains and the protection of coastal areas against erosion. They have participated in efforts to adapt dyke designs and livelihood strategies. They no longer lecture and advise but they coach and inspire.

These dynamics show the delta management practice as being non-intrusive and inclusive of experts. The inclusion of the delta population is still very limited and highly formalized. The relation of government and citizens is still top-down, prescriptive and mediated through the Vietnam Communist Party.

## A caretaking practice

Both the mining and management practices are characterized by a distant, objectifying, logically-calculated way to relate to the delta. Both create the delta as a passive background space. In contrast, the ancestors of the delta inhabitants named the MD the Nine Dragons Delta. Each Dragon refers to a river arm of the Mekong. Based on these notions a group of academics elaborated a narrative on the MD as a living organism (GCA, 2021). The annual flood pulse is the heartbeat of its body (Umans and Thien, 2021). It brings water, energy, sediment and fish to the delta. Due to the strong flow the water has oxygen, cleans itself, is full of life and bears life to the wetlands and rice fields. Since only life produces life, the rivers and delta should be considered alive. To sustain the integrity of that life, the delta should be treated as a living body (*ibid*). The delta is a body in the sense that every part is interconnected. People are a part of this delta body. People are intimately connected with the delta body and therefore, people can take care and take charge of the delta. In this practice, people value all forms of life and all functions that sustain life.

The delta body breathes as it swells a little bit every wet season and goes a bit down each dry season (Philip Minderhoud, *pers. com.*). The MD has several bodily structures and functions. It has (river)arms and (salt) tongues. Tonle Sap lake and the upstream flood plains are its bladder. The mangrove forests and wetlands act as its kidneys. The daily, monthly and seasonal tidal fluctuations are another pulse that makes the water stream just like blood circulates in a body. All these fluctuations of the water levels allow the soils and mud to breath which nurtures the soils' ecosystems, without which soil fertility cannot be used by plants. Thus, water, soils, agriculture and forests are intimately linked in the living delta.

People are also part of it. The boatmen in the delta have an intimate knowledge of those flows to navigate the canals and rivers. They shaped their boats in such a way that with little energy of their bodies they can navigate the streams (Ni, *pers. com.*). Their movement and rhythms are tuned-in with the flows. They don't feel

PRACTICE	MINING	MANAGING	CARETAKING
The nature of a delta	A resource	A space or socio-eco system	A living body
Key assumption	Abundance	Scarcity and vulnerability	Intimacy and reciprocity
Core interest	Taking out: extraction	Sustainable exploitation	Taking care: health
Principles	Maximization and capital accumulation	Sustained yield	Do-no-harm and precautionary principle
Relation people-delta	People are opposite of natural resources and excluded	People are part of the system and included	People have an intimate and mutually beneficial relation with the delta

Table 1. Different practices and treatments of deltas.

separate from the tidal fluctuations when they go-with-the-flow. Delta people feel part of the living delta. First and foremost the delta is a living place for 17 million people, not just a large production farm or source of cheap resources.

Those who conceive of the delta as a living body, first think about its health and only secondly about extraction of abundant or scarce resources. The author links these outcomes of the interviews with the literature on the practice of caretaking (see Table 1 above). Caretaking is understood as a practice of affective entanglement with the natural and social world (Puig de la Bellacasa, 2011). Caretakers like Duong Ni and Nguyen Thien reason from a logic of affect. They are guided by the do-no-harm principle and the precautionary principle. They realize that if life is stopped it will not restart again. Once a living delta is lost, it will not return. In that sense deltacare is not only about ‘do-no-harm’ but also about ‘doing good’. Deltacare can trigger green jobs, higher asset values, new business models as well as harmony and happiness. The care economy is both about values and about value.

In parallel to healthcare, Umans and Thien (2021) propose the term deltacare to point out a novel and potential way of relating people and living deltas. Deltacare is a moral, ethical and relational engagement between people, society and delta (see Puig de la Bellacasa, 2011). Moral in the sense that deltacare describes what is good and bad for the health of this integrated people-society-delta. Ethical in the sense of distinguishing good and bad behaviors. Relational since people are not masters or managers of the delta but mutual caretakers. Just like the human and dog species have mutually affective relations, the local people and the Dragons have a relation of mutual benefit. Deltacare is empathic, affective and interactive rather than rational, calculative or model-based. Deltacare is not only practiced by local people but also by delta experts who are emotionally deeply connected with deltas. In that sense, deltacare as a practice is a reversal of the delta management practice.

A good example of the deltacare practice is to preserve the benign floods and flows rather than fighting or

blocking them. Currently water operators block canals at the start of the dry season to store freshwater and fight salinity intrusion. This action spoils the life in that eutrophic freshwater. The stagnant water deteriorates just like blood in pinched veins. It causes damages or system injuries. Unpolluted saline water is often healthier than ‘dead’ freshwater.

### Furthering the potential of deltacare

Seeing the MD as *living* Dragons enables a narrative to reframe phenomena or problems that are already known. These can be characterized as delta health issues or delta diseases. For instance, one main issue is the trapping of sediment behind the hydropower dams upstream. Exacerbated by sand mining, the Dragons are going hungry for sand which results in erosion of river banks, beaches and river beds. Experts call it sediment *starvation*, which is a bodily experience of the delta. All the groundwater pumping indicates that the living delta is going thirsty. Shrimp farmers need to balance evaporation in their ponds by adding fresh water, often from the aquifers. Water companies prefer to use groundwater for its stability and quality. The mining of the aquifers results in a lower groundwater table and decreased pressure in the deeper layers. The soil is compacting and the land is sinking. In the MD this happens at a speed exceeding 25 mm in certain areas (Minderhoud *et. al.*, 2020). These figures of land subsidence add up with sea level rise of 3 to 4 mm/yr (*ibid*). Scientific projections indicate that if current trends are extrapolated, already in 2050 a third of the MD is expected to be beneath sea level (*ibid*). In 2080 that will be half. While the delta grew over 8000 years, it might almost completely sink below sea level in 100 years.

Climate change not only induces new rainfall patterns and sea level rise but also higher temperatures. The delta body is warming up. It will affect aquaculture, agriculture and urban heat stress. It might cause temporary ‘fever attacks’, which are the extreme weather events that we already witness. Just as a feverish patient, these temporary bodily breakdowns make the MD more receptive for other external threats such as mining and pollution. The rampant pollution

could be seen as the poisoning of the body. Or it could be seen as a cancer since it grows and accumulates without being part of the delta metabolism which would break down these substances.

All these trends are interlinked and add up. The poisoned waters, hungry and thirsty delta as well as its sinking and shrinking will result in a dying delta that may require huge investments on the longer run. Drawing in the parallel with healthcare might help decision makers understand that once the delta gets really sick, the cure is very expensive. Doing nothing is a bad strategy while early prevention, and decisive, targeted, proportional yet firm action shows often good results. Healthcare has further shown the importance of scientific knowledge. In the parallel way, delta experts play a critical role in deltacare to cope with unforeseen delta health threats. Finally, in healthcare doctors can do their best but patients ultimately recover themselves. In deltacare the response from the government should be matched with a response from the citizens and businesses. Deep social inclusion is part and parcel of the deltacare practice.

### The three practices are not mutually exclusive

The three mentioned practices are different but not completely isolated from each other. Delta management is often a reaction to the environmental deterioration of the delta mining practice. And deltacare is not an alternative for delta management but it could be compatible. Delta experts with their system approach can also act as caretakers by immersing themselves in the context of local delta caretakers. Expert caretakers can nurture the care practices with their insights. This reversed inclusion builds on commonalities such as looking at the delta as a whole, breaking down divisions between sectors and surpassing separations between nature and society. This reversed inclusion in deltacare is a step beyond moving from intrusion to inclusion.

An example of compatibility and translation (Latour, 2005) is reframing the Dutch flood solution called 'room for the river'. From a local caretaking perspective the

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Becoming included is not only a message and option for Dutch delta experts. The Vietnamization of foreign expertise reveals an added layer of complexity and additional understanding when focusing on the indigenous practices. For the original inhabitants of the MD, the Khmer, Vietnamization has another connotation. It refers to their assimilation which had a transformational impact on their local culture, temple institutions and livelihoods (Taylor, 2014). The Khmer had a maritime perspective on the Delta in which they see it as part of an archipelago of islands (*ibid*). According to them, when they came to the area, there were a number of elevated islands rising above the sea. They settled on these islands and over time the sea retreated but the people kept avoiding the low lands because of floods, acid soils, salt water and spirits. The Khmer link spatial management intimately to the spiritual world. They conceive the natural world as belonging to the spiritual predecessors; it was not for the taking (*ibid*). My Khmer interviewees confirmed that land and waters are full of spirits that influence their use. The sanctity of Khmer lands is also (re)presented in, for instance, the footprint of the Buddha in a pagoda in Tra Vinh. This sanctity correlates with the sanctity of life and the delta as a living body. Khmer life is geared towards religious merit and not to economic maximization. It is about taking care rather than taking.

The Khmer maritime delta practice could well be a fourth delta practice that is as of yet little understood. It is different from the three riparian practices described in this paper.<sup>3</sup> Their maritime delta practice differs from a riparian deltaic practices of Kinh people who resettled in the area over the last centuries (Biggs, 2010). And much later the Kinh hydrologists came and brought their Red River delta experiences to the MD (Benedikter, 2014). Gradually, the Vietnamization of the Khmer marginalized their local understandings and practices. There is, however an opportunity to explore and understand the Khmer practice better and pursue a reversed inclusivity by the Kinh. Reversed inclusivity thus is not only a challenge for Dutch to become included in Vietnamese practices but might also inspire the Kinh's inclusion in Khmer culture, institutions and practices.

experts could express this as the ‘dottering of rivers’ (Peter Glas, *pers. com.*) that got clogged with sediment or dykes for land reclamation. The poly-aquaculture system mentioned above can enrich the fish farmers’ practice of caretaking by pointing out that in essence the system resembles the circulatory physiology. The inlet canals are the arteries, the ponds are the different metabolic cells, the mangrove is the kidney and the outlet canals are the veins. Narrating it this way is reversed inclusion. This is where deltacare and delta management complement each other and enable experts to include themselves as knowledge partners in care-taking. Besides offering technical solutions, the delta managers could develop practices that are more collaborative, inspiring, open, knowledge intensive and action-oriented. Actively living with nature means that natural resources and the environment can no longer be treated as something external and separate from socio-economic development. The fundamental divide between nature and society, which divides the state institutions, must be replaced by the notion of immanence. Deltacare and reversed inclusion can thus inspire state transformation.

## Conclusions

As part of their different practices of mining, management or caretaking people conceive and treat the MD differently. Understanding that local people conceive the nature of the MD as a living body and position human actors as caretakers of that living body, opens new ways to reverse mining and to practice reversed inclusivity. It is not about involving citizens in expert-driven planning, management and projects. It goes beyond co-creating a commonly desired future. It is about foreign and Kinh experts contributing to cure delta diseases and preserve a healthy delta.

With their knowledge, research, system analytics, modelling, decision support tools, smart solutions and innovative technologies, the PhD Doctors can greatly contribute to diagnose, treat and cure the living delta body. With experts becoming engaged caretakers, the managerial practice can respectfully include itself in the local caretaking practices, to contribute with design-based solutions and transformative measures to

nurture a climate resilient, living delta. And *vice versa*, the caretaking practice can contribute to the managerial practice in deltas such as the Netherlands.

The notion of the delta as a living body goes beyond approaches such as ‘building with nature’ or ‘actively living with nature’. It redefines the Western notion of ‘nature’ that is still persistent in those approaches. It redefines the nature of deltas and the society-delta relationships. The lesson learned in the Mekong Delta is to embrace the multiple ways people conceive their deltas, treat them and shape them.

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## ABSTRACT

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Over the last three decades one notices congruent shifting mindsets on inclusivity and delta management in the Netherlands. The involvement of citizens has developed into co-creation while water engineering has evolved into the management of complex delta systems including the people. These advances inspire some Vietnamese experts and decision makers. They advocate to shift from the dominant delta mining practice, based on extraction of the delta’s resources, to a delta management practice based on ‘actively living with nature’.

Besides the mining and management practices a third delta practice is emerging in the Mekong Delta, namely caretaking. Based on ancestral notions, the Mekong Delta is not a passive mud plain but a living body. The Delta has bodily structures, functions and physiological processes. The health of this body is increasingly undermined by human actions and progressively requires deltacare. Delta experts can include their knowledge, tools, technologies and solutions into local and national efforts to take care of the health of the Delta. It is not about the inclusion of local people in projects but the inclusion and immersion of experts into the locally evolved delta practices. This we call reversed inclusion. Interlinking a reversal of mining, which is deltacare, and reversed inclusion will generate lessons that go beyond Dutch experiences of delta management and co-creation. They might be inspirational for the Dutch delta itself.

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- 1 This paper is written on personal title and does neither represent the view of the Netherlands Embassy in Hanoi nor the Dutch Ministry of Foreign Affairs.
  - 2 The mining practice could also have been labeled as the extraction practice.
  - 3 René ten Bos (2015) describes analogous philosophical differences between the ancient Greek nautic perspective on water and the 'potamic' perspective. ■