



# Rivers of Scarcity

## Utopian Water Regimes and Flows Against the Current

Prof. Rutgerd Anne Boelens

Inaugural lecture upon taking up the position of  
Personal Professor of Water Governance and Social Justice  
at Wageningen University & Research on 8 June 2017



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## *Utopian water regimes and flows against the current*

*“Utopias can inspire passions strong enough to drive or drag multitudes beyond their immediate circumstances, they even may try to take heaven by storm or steal fire from the gods. But this idealism readily turns into fanaticism and dogmatic rejection of anyone who does not share in them” (Alberto Flores Galindo 1988:418).*

## Esteban, Munodi, and the Flying Island

*Esteemed Rector Magnificus, dear colleagues, friends, and family,*

Recently, I got an emotional letter from Esteban Barrera, community leader from Senyera town, in Valencia, Spain. He wrote: *“The story I will tell you is about our longtime dream... to improve our irrigation system...”*.<sup>1</sup> Don Esteban and his fellows had designed a low-cost reservoir for guiding water by gravity, to secure community surface irrigation, *‘riego a manta’*.

Senyera families have been renovating their ancient irrigation system since Moorish times. Collective governance and canal cleaning secures water rights for 240 families. Shared dependence and collaboration sustains all members’ livelihoods, especially the poorest. The water system affirms territorial bonds of belonging, among water users *and* among families and their water sources: it forms Senyera’s ‘rooted water culture’ and dynamic ‘hydraulic identity’.

But, Esteban writes, *“Here our dream was stopped... ”* Regional elites, a water-expert company and a State agency had set up a classic ‘Public-Private Partnership’: to combat water scarcity, the World Water Crisis. With only ‘public and private partners’, it entirely by-passed the community’s history, knowledge and proposals. The company designed a high-tech drip technology system, extremely expensive to construct and operate but fashionable and State-subsidized.

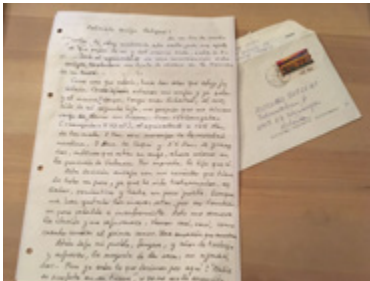


Fig.1: Esteban’s letter



Fig.2: Esteban and Pepe discussing “the water”



Fig.3: Senyera’s irrigation system

Investigating with Senyera we found how the high-tech system acted as a Trojan horse. Senyera was seduced into a 10-year contract, modernizing and privatizing water management. Supported by university experts, applying universal efficiency and profit criteria, results were dramatic. Farmers' operation and pumping expenses rose six-fold; fee payment was non-transparent; the company neglected maintenance to boost their profits; harvests diminished; a nameless computer system replaced families' daily water planning with the local *regador* in the town's bar.

The community lost its authority and autonomy. Farmers complained: "Nobody comes to speak to us. The company is like a satellite controlling us". Or as a leader said: "We continuously have to remind the company that *we* are the owners, that they are only service providers, but they do not listen."

Despite costly but deficient services, experts celebrate the project, predicting efficiency and production increase, proud of its newly designed GIS system. Official objective was to improve self-governance, but the company wants to extend the profitable contract indefinitely, saying: "The farmers can hardly be expected to manage the drip system by themselves".

A few absentee landlords saved on labour costs, but for the peasant majority living under privatized and commodified management it is extremely harsh. They lost their income margins, trust, and most of all, collaboration and autonomy. Esteban asks: "Why so much hurry to glorify this model as '*modernization example*' in the newspapers? An example of *what?!*"

Dear friends, Esteban's experience and similar ones abound in far too many places worldwide. They echo Jonathan Swift's fascinating satire, '*Gulliver's Travels*', three centuries ago (Swift, 1726).

Part of his travels into known and unknown nations --from Japan to the Land of the Houyhnhnms where racist horses dominate humans--, Gulliver strands on the rocky Island of Balnibarbi, near India (pp.151-189). Desperate, fearing starvation, he finds his salvation in the sky: "The reader can hardly conceive my astonishment, to behold an island in the air, inhabited by men, who were able to raise, or sink, or put it into a progressive motion, as they pleased".

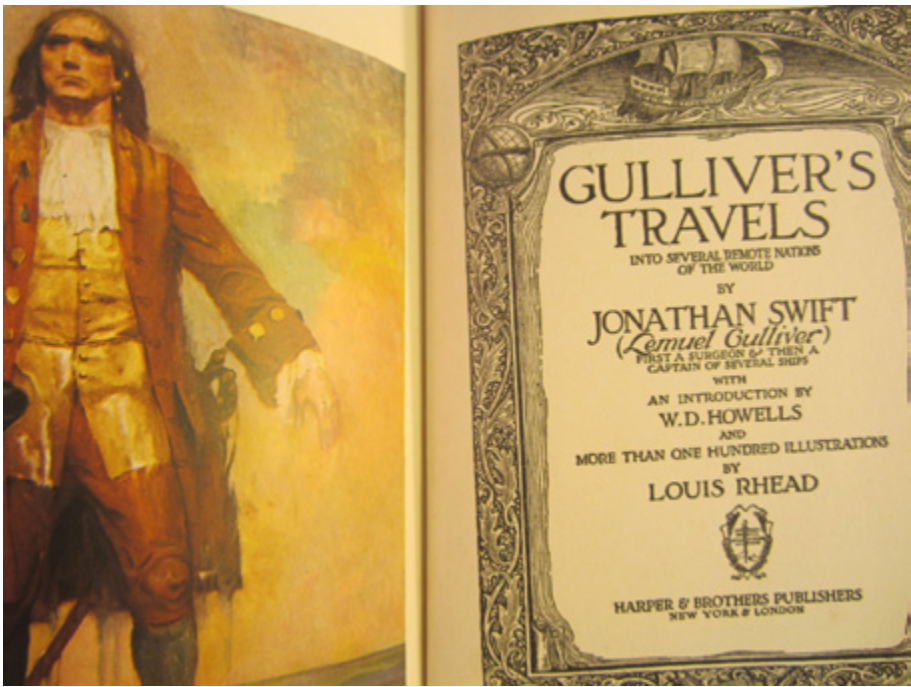


Fig. 4: *Gulliver's Travels*, by Jonathan Swift (1726)

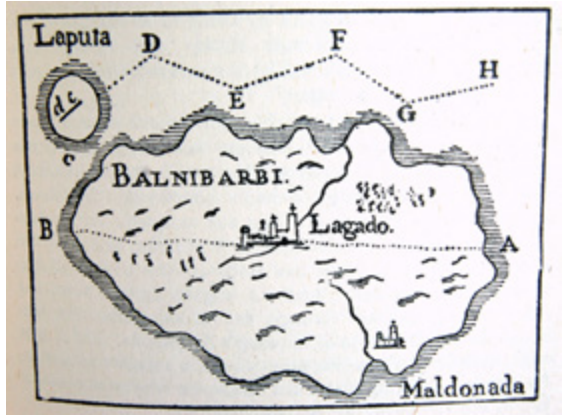


Fig. 5 and Fig. 6: Gulliver detects the Flying Island of Laputa, hovering above the Island Balnibarbi (Swift, 1726)



After being rescued, Gulliver admires the wonders of Laputa: a flying, entirely technoexpert-controlled island. Male inhabitants are wholly occupied with mathematics – in their language, behaviour and thought. “The knowledge I had in mathematics gave me great assistance in acquiring their phraseology... Their ideas are perpetually conversant in lines and figures. If they would, for example, praise the beauty of a woman, or any other animal, they describe it by rhombs, circles, parallelograms, ellipses, and other geometrical terms ...”.

Language, society and even Nature are entirely technified, transformed and mastered by the expert governors. Brilliantly, this includes water: “The slope of the upper surface ... directs all dews and rains to be conveyed in small rivulets toward the middle, where they are emptied into four large basins... From these basins the water is continually exhaled by the sun in the daytime, which prevents overflowing. Besides, as it is in the power of the monarch to raise the island above the region of clouds and vapors, he can prevent the falling of dews and rains whenever he pleases”.

Water is power. Laputa governors know how to govern humans *through* water, and climate change. In a hydraulic, linguistic and political sense, expert-based water control is the crucial force to discipline the underlying, uncivilized Island of Balnibarbi: “If any town should engage in rebellion, fall into violent factions, or refuse to pay the usual tribute, the King has methods of reducing them to obedience [...] by keeping the island hovering over such a town, and the lands about it, whereby it can deprive them of the benefit of the sun and the rain, and consequently afflict the inhabitants with dearth and diseases ...”.

Unlike common people and women, Laputians deeply despise on-the-ground reality, uninterested in practical use for expert knowledge. Upside down, reality is to be transformed into the imaginaries of expert society. Laputians had scientificized their own society and nature, but also go down to impose modernity upon Balnibarrians. Gulliver explains: “[Laputa experts] ... disliked the management of everything below, and fell into schemes of putting all arts, sciences, languages, and mechanics, upon a new foot”. They had erected the Academy of Projectors. Here, “... the professors contrive new rules and methods of agriculture and building, ... whereby one man shall do the work of ten. ... The only inconvenience is, that none of these projects are yet brought to perfection; in the meantime, the whole country lies miserably waste, the houses in ruins, and the people without food or clothes. Instead of being discouraged, they are fifty times more violently bent upon prosecuting their schemes ...”.

Gulliver's host, farmer Munodi, continues to work with his own techniques and norms, with optimal results. He is therefore labelled "ignorant", an "enemy to progress" – "setting so ill an example to the kingdom". Soon he will be forced to destroy and rebuild his land- and waterscape after "the form modern usage required". Not for the first time. Munodi had always used his water mill, nurturing family and neighbours' livelihoods. But like Don Esteban in *Senyera*, he tells how Academy Water Experts arrived: "About seven years ago, a club of those projectors came [...] with proposals to destroy [my] mill, and build another on the side of that mountain, on the long ridge whereof a long canal must be cut, for a repository of water, to be conveyed up by pipes and engines to supply the mill [...]".

Legal and social pressure made Munodi comply. Gulliver tells: "After employing a hundred men for two years, the work miscarried, the projectors went off, laying the blame entirely upon Munodi, railing at him ever since, and putting others upon the same experiment, with equal assurance of success, as well as equal disappointment". Actual failures, rather than slowing them down, fanatically encouraged the modernizers.

This *utopian* desire to engineer the ideal water society, transforming and controlling humans and nature at once, resembles how Big Brother dominates all socio-natural life in Orwell's *1984*. "We control life, Winston, at all its levels. You are imagining that there is something called human nature, which will be outraged by what we do and will turn against us. But we *create* human nature" (p.216).

In this lecture, I will explore how water governance utopias and socio-environmental domination dystopias are two sides of one coin: deeply impacting social-justice issues in everyday water control. I will also examine responses from below. They challenge the illusion of technically and socially engineering water cultures, and domesticating unruly behaviour of humans and nature.

## The Utopian River Anydrus

Let us start with Thomas More's foundational book *Utopia*. It deeply influenced humanity's thinking about how to order society – from Communism to Capitalism and beyond. Written in 1516, More recounts the fascinating visits by Portuguese sailor Raphael to this ideal New-World island-nation. Utopians neatly organized space, nature and society, including land and water governance, furthering Plato's ideal in *The Republic*.

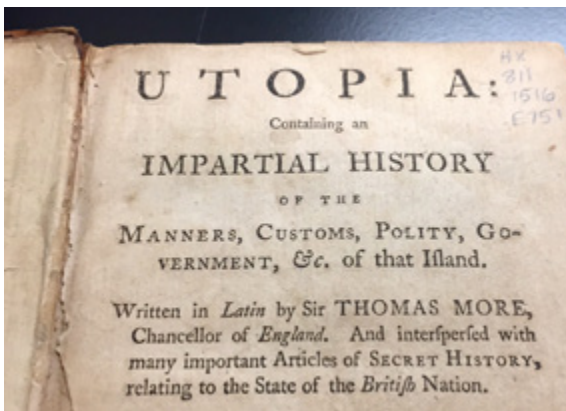


Fig. 7: *Utopia*, by Thomas More (1516)



Fig. 8: *The island Utopia*

Founder King Utopos dug an impressive 15-mile-wide channel to separate Utopia, once a peninsula, from the barbarian mainland. Anydrus is the island's main river, feeding the country; the springs of its secondary rivers are urbanized behind city walls to isolate them from intruders' attempts to block or poison the water. From there, a pipelined system brings water to the districts. Rain water is also controlled and harvested in huge cisterns (p.72).

Utopians created society and nature to perfection, to maximize happiness by "wise social planning" (p.40). For More, it was the opposite of Europe, where "injustice is legally described as justice ... a conspiracy of the rich to advance their own interests under the pretext of organizing society" (p.130), a protest against misery, hunger, power abuse. Long before Karl Marx (1867) and David Harvey (1996, 2003), he criticized early capitalist exploitation, particularly the enclosure of the commons. Capitalist sheep farming denied rural people access to their common lands, leading to monopolies and massive poverty and starvation (p.46-47).<sup>2</sup>

In contrast, Utopia is a cooperative society with representative democracy and shared resources: no private property; equality and uniformity make materialism and status unimportant (p.66, 128). Food is stored in public warehouses, people get what they need; no hunger and poverty. Houses are un-locked, completely transparent with no stealing (p.73). With six hours working days, there is no unemployment. Laws are simple, so everyone knows what is right and wrong. In an entirely human-designed world, people are "living according to Nature" (p.91). Therefore, More writes: Utopia's governance system should be "universally adopted ... the happiest basis for a civilized community" (p.131).

Following Thomas More, with starting Enlightenment now going 'beyond God', humans themselves would be capable of creating society and nature.<sup>3</sup> Hundreds of social, technical and ecological utopias have been published since then, seeking to design society and materialize 'the art of utopian governance'.<sup>4</sup> Utopias characteristically attempt to rescue society from structural Chaos and deep-rooted Crisis. A landmark was Francis Bacon's *New Atlantis* (1627), whose residents achieve happiness thanks to natural science, utter domestication of nature, and abundant technology guaranteeing societal perfection – a radical split from a traditional subsistence economy.



Fig. 9: Imaginary of a utopian society

In his brilliant book *Utopia's Heritage*, Hans Achterhuis (1998) defines 'utopia' as a *makeable* society that can be neatly designed and rationally produced by its founders. Next, it is not about individual dreams and lives but a *collectively constructed and implemented 'new society'*. Also, beyond partial improvements or social movements, it is an *entire* society. Therefore (as manifested in world history and literature), utopia requires a *radical break with the old society* to construct a new one, pure and unspoiled.<sup>5</sup> In practice, this inescapable rupture justifies violent interventions and repression of dissenting action or deviant thinking, destroying the 'old, backward cultural norms' and 'chaotic structures'. Building a utopian society necessarily results in its opposite: violent dystopia – nightmare society.

More's book calls Utopia "*the best country in the world*" (p.128). Kim Jong-un and Donald Trump use the same words. Utopias contain the germs and building-blocks for dystopias. Already in 1600, Joseph Hall wrote the first dystopian satire, *Another World and yet the Same*, showing that utopia and dystopia are mirror societies. Utopia is dystopia, but seen from the perspective of deviant inhabitants, who are oppressed.<sup>6</sup> As George Orwell asks in 1984, or Aldous Huxley in *A Brave New World*: how is it to live inside utopia?

When we read Utopia with critical eyes, we see oppression, colonizing and displacing the other. More observes: "If the natives won't do what they are told, they are expelled from the annexation area" (p.80). Inside Utopia, we find large inequality and discrimination. Each Utopian household has two slaves; Utopians don't do the

dirty work themselves because “it destroys one’s natural feeling of humanity” (p.81). Both Nature and women are domesticated; every month they have to kneel before their husbands, “confess all their sins ... and ask to be forgiven” (p.126).<sup>7</sup> The discourse is tolerance, but without freedom of movement, customs or belief systems, just forced uniformity: everyone wears the same clothes and follows the same rules.



Fig. 10: Each household has two slaves ... Women have to kneel before their husbands (More, 1516)

In Utopia, “everyone’s conduct in public is watched by those responsible for discipline” to ensure “good behaviour” (p.126). Deviant thinking is punished, private gatherings are absent, everyone is in full view – or as Michel Foucault would say “*Subjection by illumination*”. Sailor Raphael explains how “everyone has his eye on you” (p.84). Young Utopians “are given the right ideas about things ... calculated to preserve the structure of their society” and to avoid “moral defects arising from wrong ideas” (p.124). Like Orwell’s ‘reality-control’: active self-disciplining and ‘right-thinking’ to preserve order and *shape* reality. As Big Brother’s ‘Doublethink’ officer O’Brien explained, you will *want* to see reality only through the eyes of the experts’ doctrine: “Only the disciplined mind can see reality” (p.199).



Fig. 11: Slave labor for digging the Utopian canals, separating modernity from backwardness (More, 1516)

King Utopos designed the huge water channel to separate Utopia from historical roots and mainland backwardness, and create perfect nature and ideal society at once. But it was dug by their *slaves*, the same natives who were colonized and governed to accept agricultural civilization and rational organization. In that same vein, in my Amsterdam inaugural lecture on the Political Ecology of Water, I addressed ‘Water Governance’ not as the mere governance of water, but as governing humans and society *through* water.<sup>8</sup>

In this lecture, I will visit some influential, utopian-inspired water-governance regimes. Is it a matter of good intentions but bad implementation? Easy examples are the ‘Great Stalin Plan for Nature Transformation’ or the Three Gorges Dam in China: clear dystopias. But how can utopian policies result in ‘multi-million-hectare-water-grabbing’ as currently happens in Africa?<sup>9</sup> My particular interest is the many well-intended water policies that lead to often invisible nightmares. They produce ‘slow violence’ – slow, but with just as many casualties.<sup>10</sup> Utopian water development as with Esteban in Spain and Munodi in Balnibarbi, makes us challenge our *own*, invisible water expert knowledge worlds.

## Hydraulic Utopians -- recreating 'natural order'

Late 19th-century Spain faced profound economic and existential crisis, known as the 'Colonial Disaster'. It lost its last colonies, its global Empire. A strong socio-political and intellectual movement arose to *revive* the country – 'Regenerationism'. Inspired by the country's Arab water management heritage, it aimed to empower small farmers, decentralize governance, end elite power, resolve scarcity, and build a new national identity through techno-political modernization.<sup>11</sup>

Rather than colonizing overseas territories, the idea was to *colonize the country inwardly*. Water development would recreate the soil, morality, culture, and the whole political-economic system: creating the 'new man'. Regenerationist leader Joaquín Costa proposed *Hydraulic Policy*: extending dams and irrigation to all spaces. This would "combat the *misfortunes of geography and our breed* ... our inferiority in both respects".<sup>12</sup>

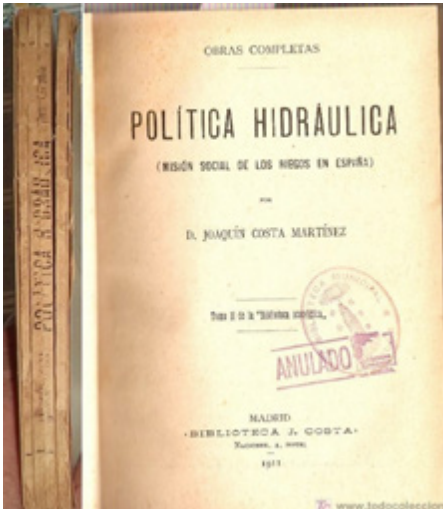


Fig. 12: *Hydraulic Policy*: "...combat the misfortunes of geography and our breed ..."

Fig. 13: *Empower peasants, end poverty*

Water was central to escape the apocalypse: "*have water or perish...*, the conversion of all the nation's forces toward that titanic enterprise".<sup>13</sup> Costa exhorted: "... if, in other countries, it is enough for humans to help nature, here we have to do more, we have to create her" (1911, p.3). Utopian ideology meant *civilizing nature and people* at once, linking water, progress and liberty.<sup>14</sup>



Similar to Francis Bacon's *New Atlantis*, progressive ideas of plannable society were based on techno-managerial rationality, positivist natural sciences, with 'hardware' governance solutions. Decentralized River-Basin Confederations would unite all stakeholders; mega-dams and canals would unite all regions in solidarity.<sup>15</sup> Ironically, hydraulic utopians saw the centralist State as fundamental to enforce decentralization; if necessary, guided by an enlightened, compassionate dictator: "an iron-fisted surgeon" (Costa 1967, p.86).<sup>16</sup> They praised local farmer knowledge and self-governance but, first, wise engineers had to discipline chaotic folk wisdom of these noble savages: through hard science and universalist expert rules.<sup>17</sup>

When social reality proved too stubborn to shape 'natural order', two military governments offered to make Costa's dreams come true. Franco's dictatorship (1939-1975) turned the hydraulic utopia into radical violence.<sup>18</sup> Like King Utopos, Franco sent thousands of civil-war prisoners as slaves to build mega-hydraulics, declaiming: "We will make sure that not a single drop of water is lost so that not a single injustice remains".<sup>19</sup> Changing 'nature and race' was cast as fighting against *injustice*.<sup>20</sup> The dictator explained: "Spain hurt us with its dryness, its poverty, with our needy towns and villages, and all of Spain's pain is taken away by these great national hydraulic projects...".<sup>21</sup> All Spain's climates, watersheds and rivers were to be bundled into one hyper-managed interbasin system, taming and purifying nature. Franco built over 600 mega-reservoirs and turned regenerationist dreams of autonomy and decentralization into centralist despotism.



Fig. 14: Franco "... all of Spain's pain is taken away by these great national hydraulic projects..."

Fig. 15: Franco's mega-dams



*Fig. 16: Franco's political prisoners: building mega-hydraulic dams as nation's slaves*

With Nynke Post Uiterweer and Bibiana Duarte, we investigated how Hydraulic Policy established 'natural order' in Malaga's Guadalhorce Valley. Large dams repressed all water flows and river life; a large, dysfunctional government system, managed by a technocratic River Basin Confederation, overlaid and destroyed independent peasant irrigation systems. Water was provided to the powerful few,<sup>22</sup> and watered numerous golf courses.<sup>23</sup> Upper-basin towns such as Peñarrubia were flooded.



Fig. 17: Peñarrubia town, drowned under water, as thousands of Spanish villages

Water distributor Manolo Rengel, whose community was drowned, explains: *“I still remember how they came in with machinery to tear up the groves we had tended so lovingly ... The expropriation, dam-building, uprooting people from their land and customs, was all traumatic”*.<sup>24</sup> Utopian-inspired designers and fascist planners supplanted water governance diversity and autonomy.

This also destroyed the valley’s livelihoods and social relations. Displaced families had to live in *‘pueblos de colonización’* -- uniform ‘colonization towns’ --, as in Utopia. Manolo and Cristina explain their suffering: *“Territorial planning under Franco was to colonize ... whenever someone stood up against Franco ideology, they were neutralized and taken somewhere else”*. Franco aimed to de-localize people, uproot identities and exterminate their water culture, molding a new society according to fascist hydro-planning.<sup>25</sup>



Fig. 18: Manolo Rengel

Even now, after decades, it is hard to describe the everyday nightmares thousands of Spanish families still live in. Old man Juan Pozo tells us, with tears in his eyes: “I still have the keys to my home there ... Half of my nights, I dream about Peñarrubia”. Or as Juan Mora recalls, “... accustomed to wandering freely in our town, many elderly were buried alive in a flat. After five or six months they died of grief”. Ever since they flooded his town, Juan keeps going back.

Juan tells us he goes back to the lake shores, every week. When interviewing Juan, suddenly he starts singing: “... I was born in Peñarrubia, where I grew up. You might not know, but Peñarrubia no longer exists. In the name of progress, they made a swamp there. And flooded my cherished little town underwater. I will always remember what they did with you, tearing you all up and then demolishing everything. And as if that were not enough, they sunk you underwater ...”.

Manolo also feels that their land and life were flooded because of outside interests, faceless modernization. “We were displaced in time and in space ... We have never been able to get back to what we had before.... It all dramatically changed forever”. Hydraulic utopia expected peasant families to sacrifice their past, present and future for the ‘happiness of the majority’.

## Neoliberal Utopians, calculated happiness and ‘Survival of the Fittest’

In 1780 Jeremy Bentham, utopian founder of utilitarianism, defined “justice” exactly in that way: “the greatest happiness for the greatest number of citizens”.<sup>26</sup> Bentham, a founding father of liberalism (and according to Milton Friedman,<sup>27</sup> of neoliberalism) designed the famous Panopticon to bring happiness, morality and efficiency to prisons, schools, factories and, as he explained, all spaces of society.<sup>28</sup> Inspired by Francis Bacon’s *New Atlantis* he also aimed to purify chaotic language and create a new, universal one, similar to mathematics. Thereto he coined words as ‘maximize’, ‘international’, ‘codification’, now crucial in the water governance world.<sup>29</sup>

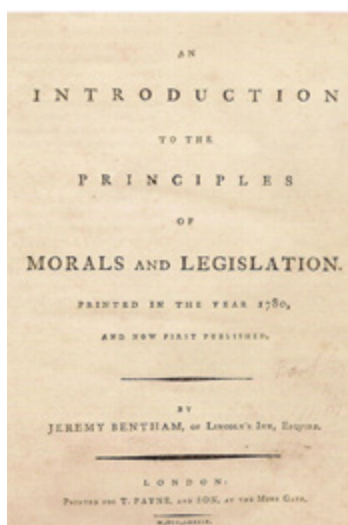


Fig. 19 and Fig. 20: Bentham: “the greatest happiness of the greatest number is the measure of right and wrong...” and “the principle of self-preference” (1870)

He wanted to organize society as a scientific laboratory, neatly calculating and constructing utopian happiness, through efficient laws, universal morals and social control.<sup>30</sup> Here, humans would naturally follow the ‘self-preference principle’, now very popular in new-institutionalist water-governance studies: water users are seen as individual, self-interested water-utility maximizers.<sup>31</sup> Later, Milton Friedman, Friedrich Hayek and Ayn Rand framed this concept as ‘rational greed’ or ‘selfishness’: the universal driving force that, with private-property rights and free markets, will ultimately lead to neoliberal utopia.<sup>32</sup> In his days, Bentham paved the way, by advising world policymakers to privatize the commons.<sup>33</sup>

In the 1970s, looking for a suitable laboratory to experiment with, Nobel laureates Friedman and Hayek partnered with General Pinochet, who had bulldozed Allende's Socialist society. They suggested further shock treatment.<sup>34</sup> Hayek's *Road to Serfdom* had already pictured the dystopian nightmares of state regulation and public property, counter proposing a 'liberal utopia'.<sup>35</sup> He explained that "the system of private property is the most important guarantee of freedom", especially for the poorest (1944:78).<sup>36</sup> Friedman's *Capitalism and Freedom* (1962) made economic freedom the precondition for political freedom.<sup>37</sup> With the Chicago School economists, they designed Chilean free-market policy.

In 1981, exactly two centuries after Bentham's book, the water world witnessed a ground-breaking event to realize his 'greatest happiness for the majority': Chile's revolutionary Water Code, a radical break with existing ideas on public and common-property water management. Water resources, rights and services became private, transferable commodities on a water market. Economic experts, scientific calculations and universal laws would determine rational behaviour of water flows and profit-maximizing water users. This brings overall efficiency, productivity, and even equity.

The announced World Water Crisis, as a dystopian horizon, ensured international policy support. Policymakers were happy to close their eyes for neoliberalism's disastrous impacts on smallholder communities, nature, and overall water security.<sup>38</sup> Without *any* field studies, the World Bank quickly glorified the new Water Code and its utopian model, forcing developing countries to 'copy Chile'. Echoing Hayek and Friedman, the Bank claimed that "secure [private] water rights are particularly beneficial for smaller farmers. [...] Tradable water rights, by empowering existing users, help to reduce the abuses of administrative allocation and give assurance to poor farmers that their water availability will not be reduced" (World Bank 1996, pp.11–12).<sup>39</sup>

However, indigenous leader Rodrigo Villablanca tells a different story; Chile's mining-based water grabbing "... is drying up our basins, it is devastating the water cycles that have sustained our valleys for centuries, it is sowing death in our territories...".<sup>40</sup> Historical community water rights were labelled 'unused', massively expropriated and auctioned off to the highest bidder in the capitalist market.

The Bank labeled this water stealing "voluntary". But Mapuche leaders experienced it differently: "The big landowners here have registered the water rights in their names. We Mapuches, not knowing about the Chilean State's laws, were never given a chance to claim our rights".<sup>41</sup>

These social and environmental costs were deemed insignificant, considering the utopian free-market future. Friedman sustained: “No external force, no coercion, no violation of freedom is necessary to produce cooperation among individuals all of whom can benefit” (M. and R. Friedman, 1990, p2). But as Karl Polanyi (1944) had already made clear in *‘The Great Transformation’*, producing neoliberal utopia requires strong state support.<sup>42</sup> As in Utopia, Pinochet conveniently offered ‘laboratory conditions’, coercively controlling water user communities’ dissent to make the model a success; silencing deviant voices through state-organized torture and executions.<sup>43</sup> Indeed, as founding father Bentham once had argued: there is no social right that should not be abolished if this benefits society’s majority.



Fig. 21 and Fig. 22: “Neoliberalism started with Pinochet” ([www.rosshamiltonfrew.co.uk](http://www.rosshamiltonfrew.co.uk))

These days, neoliberal water doctors have changed medicines; now they call for “participation”. Rather than exclusion, they aim for “inclusion”.<sup>44</sup> Water-user communities must adapt and adopt, changing their common water-rights cultures in order to become ‘equal’ and *fit* free-market utopia. If not, they have to suffer, dry up, and evaporate.

Indeed, it was *not* Charles Darwin but Social-Darwinist Herbert Spencer who coined the phrase *“Survival of the Fittest”* (1864: 444), introducing liberal economics into evolution theory. He “scientifically justified” that common, ordinary societies need to surrender to more efficient market economies:<sup>45</sup> the inescapable evolution towards free-market utopia, civilization’s ultimate objective.

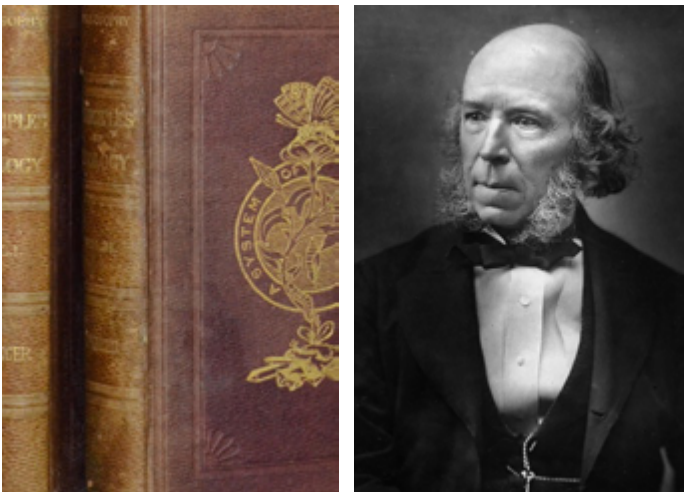


Fig. 23: Herbert Spencer: "... Survival of the Fittest ..." (1864: 444)

Neoliberal utopia, beyond assuming universal laws, actively *imposes* them, disciplining diverse, non-commodified water worlds. The latter are called inefficient and backward, obstructions to water trade who do not fit and must be purified, or forced to join neoliberal dystopia on unequal terms.<sup>46</sup> More than Pinochet's *brutal* violence, this *slow violence*, joining neoliberal dystopia as underdogs, produces both overall Indifference and world-wide Suffering.

How on Earth is it possible that these neoliberal water doctors, champions in preaching *accountability*, cannot themselves be held accountable for the misery they are creating day by day for millions of water users?!



## Post-neoliberal Utopians. ‘Good Living’ under the Citizen’s Revolution

In Steven Lukes’ famous novel, Professor Caritat (1995) visits a number of enlightened utopian societies, only to find out that, once inside, they all turn out to be violent dystopias. Will it be different this time?

On the waves of the intellectual school and intercultural movement of *Buen Vivir*<sup>47</sup> or ‘Good Living’ – leftwing Latin American governments have set out to construct an entirely new, post-neoliberal society. Ecuadorian (ex)president Rafael Correa, for instance, promised to end the “long, neoliberal nightmare”, and build the “Citizen’s Revolution”: 21st-Century Socialism.



Fig. 24: Ecuador’s “Citizen’s Revolution” and National “Good Living” Plan

Ecuador cherished Good Living in its new 2008 Constitution, responding to grassroots demands for equal distribution, cultural diversity, indigenous autonomies, and water as a human right, a ban on privatizing water. Even Nature was given constitutional rights, for the first time ever. Making national, harmonious Good Living possible is funded by state-supported mining, oil and hydropower projects. Affected families in all ‘national strategic areas’ are compensated with model communities (‘Millennium Communities’), hyper-modern schools (‘Millennium Schools’), and public works.

Juan Pablo Hidalgo's PhD- research on Ecuador's coast shows how mega-dam building goes far beyond infrastructure development.<sup>48</sup> As in Chone, where the Government explained: "Here we build dreams, change is happening and nobody will stop us" and "the soul of this infrastructure is sown in our minds, in our children's purity ...".<sup>49</sup> 81 families from the flooded area were relocated in a utopian, neatly planned, government-controlled model community. Uniform houses, clean streets, modern traffic signs, purified gardens. Farmers are not allowed to have homesteads, chickens or livestock. It rings familiar old bells...

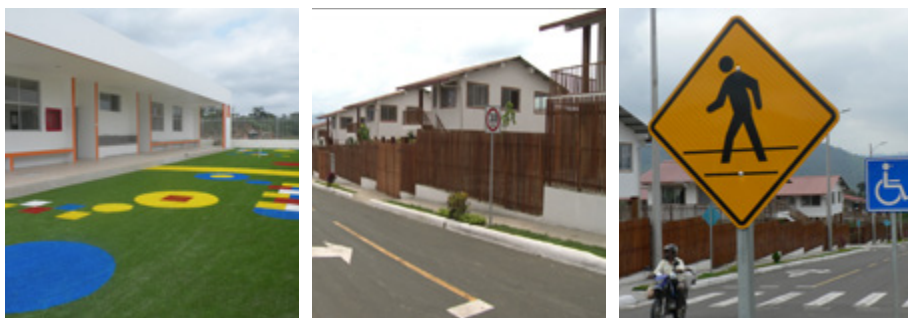


Fig. 25: The "Millennium Community"

Hosted by villager Jairo in the model village, we enjoyed playing the game that the Government gave all inhabitants: *"Resources that Construct Happiness. Dreams Come True, Thanks to Natural Resources"*. It has three editions: Hydropower, Oil, and Mining. We played 'Oil'. Moving the arrow on the playing board and giving correct answers leads the winner to the ultimate goal: "HAPPINESS".

Besides technical questions, "What are the phases in oil production?" and "What is the etymological meaning of 'petroleum'?", there were the socio-economic ones: "Who owns the oil?". Right answer: "All Ecuadorians, represented by the State". Or: "How are revenues from strategic resources utilized?" Right answer: "To generate national development". For us, some questions were quite difficult: "What does oil mean for Ecuador?", but Jairo quickly helped us out: "Development, Prosperity, and Well-being". I admit that, despite my chair on water governance, I had no response to the most difficult question: "Does oil extraction help protect water resources in Ecuador?" Correct response: "Yes". Unfortunately, the cards gave no further explanation.



Fig. 26 and Fig 27: The game “Resources that Construct Happiness”

Indeed, extractive industries and Nature’s conquest are deeply compatible with governmentalist *Buen Vivir*.<sup>50</sup> <sup>51</sup> Territorial redesign and ‘community participation’ neatly fits official Good Living, stripping communities of self-representation. It molds ‘convenient communities’ aiming to produce self-correcting subjects: required for intensifying petroleum, mining and hydropower development. PhD research by Carolina Valladares in Amazon oil-extraction areas, by Lucía Galarza on coastal banana and shrimp exploitation, and our water-governance studies in the Andes, show exactly the same: inclusion and plurality, *as long as they behave*.<sup>52</sup>

Marx observed that capitalism “creates a world after its own image”;<sup>53</sup> obviously, the same is true for 21st-Century Socialism: it equalizes, commensurates, it tolerates no rivals.<sup>54</sup> Local rights diversity and plural land and water-governance forms are viewed as irrational and, especially, uncontrollable, disobedient, unruly. The Good Living project of ‘state-directed capitalism’ needs a uniform, expert-controlled playground, transforming complex realities and disciplining local rights and resource users. Very similar to King Utopos’ recognition and toleration policies in Utopia, it differentiates between ‘acceptable’ local water governance cultures -- compatible with Good Living --, and ‘unacceptable’ ones,<sup>55</sup> that is, those who claim redistributing power and resources.<sup>56</sup>

In the Amazon, Andes and coastal strategic areas, people who defend their territories against extractive industries and water pollution suffer violent state repression. The President calls them “ignorant”, “nation-backwardizers”, “interfering with good life”.<sup>57</sup> In Chone, families who protested were not living in the utopian village, but violently displaced from their homesteads, without any compensation. Thomas More’s Utopia in the 21st century.



Fig. 28: Bauman: “... the gardeners, who tend to be the most expert utopia-makers” (2007: 99).

Sociologist Zygmunt Bauman used the ‘utopian *gardener* metaphor’.<sup>58</sup> Modernist experts neatly design and cultivate harmonious, purified garden society. Any plant that grows autonomously, not according to utopian design, is called a ‘weed’ and must be removed.

Our model community was named: ‘*Garden City*’ – a cruel joke not even Thomas More could have invented.

## My working fields: Water Governance and Social Justice

Jointly with my colleagues, students and water society actors, I propose to study the interactions cross-cutting water governance and justice: distributive justice (the question of socio-economic allocation), political justice (the issue of representation and participation), cultural justice (dealing with recognition of diverse normative, identity and governance frames), and inter-generational justice (the question of sustainability and socio-ecological integrity).<sup>59</sup> My chair investigates how water access and decision-making rights are distributed along lines of class, gender, cast and ethnicity, in South and North.

Climate change, contamination and growing competition among water users and uses breeds rapidly growing conflicts, affecting especially the most vulnerable. Thereby, the announced global Water Crisis loudens the call for utopian policies, justifying radical interventions. Calls as from The World Bank (World Development Report, 2010, p.137) suggest that local communities will not be able to respond to climate change and should accommodate to state authority, economic experts and market rules (e.g., Lynch, 2012). The remedy is often worse than the disease.<sup>60</sup> Einstein argued that we can't solve problems by using the same kind of thinking that has created them.

To understand on-the-ground water realities and their interaction with utopian and mainstream water governance frameworks, I will work on four research lines:

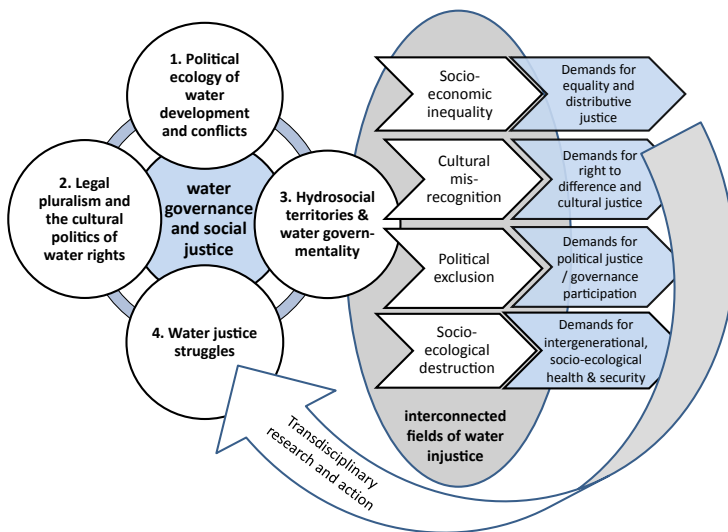


Fig. 29: Water Governance and Social Justice: four research lines

The first focuses on the **political ecology of water development and conflicts**, examining unequal distribution of water benefits and burdens, and disputed water authority, knowledge and culture: how 'water' imaginaries, designs and actions are always political, never neutral. Beyond top-down, large-scale water grabbing, I want to focus especially on widespread invisible forms of water injustice, often not committed on purpose but well-intended, rational and highly moral – in policy-language: 'pro-poor'.

These water conflicts are not just about water. Yes, at a basic level there is the struggle over water, material and financial resources. But at a second, related level is the dispute about the contents of rules and rights: rules that *allocate* resources. Next, at a third echelon, we see the struggle over authority and legitimacy to *make* those rules. And fourth, there is the clash among discourses and worldviews that defend particular water policies and hierarchies.<sup>61</sup> These echelons are intimately related. The fourth, the struggle over discourses and 'water truth', intends to spread a coherent worldview *linking* the 3 foregoing echelons, making particular policies and governance frames appear natural, as the morally or scientifically 'best order'. Water discourses define concepts, actors, objects, their relationship and hierarchy, forcefully defining the problems and solutions to secure a particular political order.

Second comes **legal pluralism and the cultural politics of water rights**. In local territories, water norms, principles and authorities, of different origin, co-exist and interact. Everyday water control is a dynamic mixture of local, national and global rules or indigenous, colonial and recent norms. Seeming disorder, but actually organized complexity; water rights order with multiple values and meanings expressing how power works among humans - mediated by nature and technology - and relating to two key justice issues: the socio-economic distribution of material property, and the cultural-political distribution of decision-making power. Cultures with '*living water rights*', producing and applying territory-based local law. They often defend non-commodity water institutions as their backbone, while strategically approaching the market. Despite internal injustices and struggles, they also seek collective control.

But diverse authorities, autonomies, and community rules tend to complicate state domination and free-market operation. As in Utopia, the latter need uniformity, purity, a single political order. Bureaucratic, expert and market-based governance directly depend on universalistic governance frames, de-personalized and disembedded water rights, and the commensuration of multiple water epistemologies and ontologies as objectified H<sub>2</sub>O without cultural values and meanings.<sup>62</sup> Therefore, modernist policies impose 'equalization' and 'inclusion',

'rational management' and 'efficient water use'.<sup>63</sup> But universalizing 'good governance' and 'best practices' may deny people's own ability to create and regenerate.

Rationalizing water governance as a missionary process to substitute community relationships, local property, knowledge and ethics? <sup>64</sup> "Commensuration changes the terms of what can be talked about, how we value, and how we treat what we value. It is symbolic, inherently interpretive, deeply political" (Espeland and Stevens, 1998, p.315). Only experts on Flying Islands have sufficient distance and indifference to the hugely diverse water cultures on-the-ground, to the problems, solutions and sufferings of real-life water users. My cultural-politics research investigates the relationships among culture, subjectivity and power,<sup>65</sup> examining the dominant water culture's assimilation projects as well as simplifications in counter-ideologies. Why are certain worldviews and knowledge systems seen as legitimate but others denied existence? How does this influence distribution of water, benefits, and burdens?

The third line investigates **hydrosocial territories and water governmentality**. River basins, water flows, and hydrological cycles are mediated by governance structures, power relations and human intervention: hydro-social networks entwining nature, technology and society at micro, meso and macro scales. Territories are actively produced socionatures; water and society are co-produced in hydrosocial territories<sup>66</sup> that embody the representation of particular worldviews, knowledge frames, cultural patterns and power relationships.<sup>67</sup>

In practice, therefore, different parties imagine and build these hydro-social territories differently, with different functions, values and meanings. Hydro-territorial spaces are sites of contested control over socio-natural configuration. To define their 'convenient order of things' and make people behave 'properly', dominant groups deploy particular Foucauldian 'government-mentalities', rationalities of those in control.<sup>68</sup> Presenting these territorial constructs as bio-physical 'nature' portrays them as merely technical and 'natural'; and water problems and solutions come to be seen as objective and politically neutral. But as the PhD studies of Lena Hommes, Rigel Rocha, Patricio Mena, Iván del Callejo and Paul Hoogendam show, they organize benefits and burdens, in different ways for different groups. Therefore, from Utopia to Spain, from Laputa to Chile, a fundamental question is, how is socio-natural order produced (and contested) via the control over water resources, infrastructure, investments, knowledge, truth, and ultimately, water users and authorities?<sup>69</sup>

I investigate how governmentality projects try to re-pattern diverse water worlds and align humans, nature and thought within dominant techno-political systems. I also examine how water technology is 'moralized', bearing its designers' class-, gender- and cultural norms. Infrastructure performs as 'hardened morality' and 'materialized power', organizing inclusion and exclusion, enforcing particular organization and ethical behaviour. The above discussed Spanish and Ecuadorian cases display how implementing externally-developed socio-technological systems not only induces new water artefacts, "but also a new world of social relations and myths in which definitions of what 'works' and is 'successful' are constructed by the same political relations the technology engenders" (Pfaffenberger 1988, p.249).<sup>70</sup> Next, how do people 're-moralize' territories and hydraulics, to make their *own* water societies? How do opposing and overlapping configurations shape 'territorial pluralism'?

The fourth research line is about **movements and struggles for water justice**. In both North and South, many water-user and citizen coalitions do not passively stand by as their waters are diverted and polluted. Well-known are the movements in Standing Rock versus 'Trump', in Nigeria's Delta versus Shell, or against Dutch Development Bank-supported hydropower tragedies in Honduras and Panama. Next, lower-profile water justice struggles are everywhere.

PhD studies in our Water Justice alliance by Andres Verzijl, Rinchu Dukpa, Didi Stoltenborg, Teresa Oré and Milagros Sosa show the importance of upscaling and diversifying water-defense struggles, building alliances among scholars, journalists and human-rights tribunals. Jerry van de Berge's action research organized the European campaign against water privatization, uniting millions of Europeans to force Brussels to take a position.

Combining grassroots, academic and policy worlds is central in water-justice research and action: engagement across differences. Here, academic and policy institutes are not monolithic. Many state employees, professionals and scientists struggle 'from within'.<sup>71</sup> How can transdisciplinary co-creation of knowledge, policies and infrastructure, among scientific and societal partners, challenge the Flying Islands? How to interactively design more equitable water societies?



## Rivers of Scarcity

Let me now come back to Utopia's main river, *Anydrus*, literally: 'River NoWater', 'Waterless River': River of Scarcity. Rather than solving water scarcities, utopian regimes actively *create* them.



Fig. 30: The Utopian hydrological regime and main river *Anydrus*

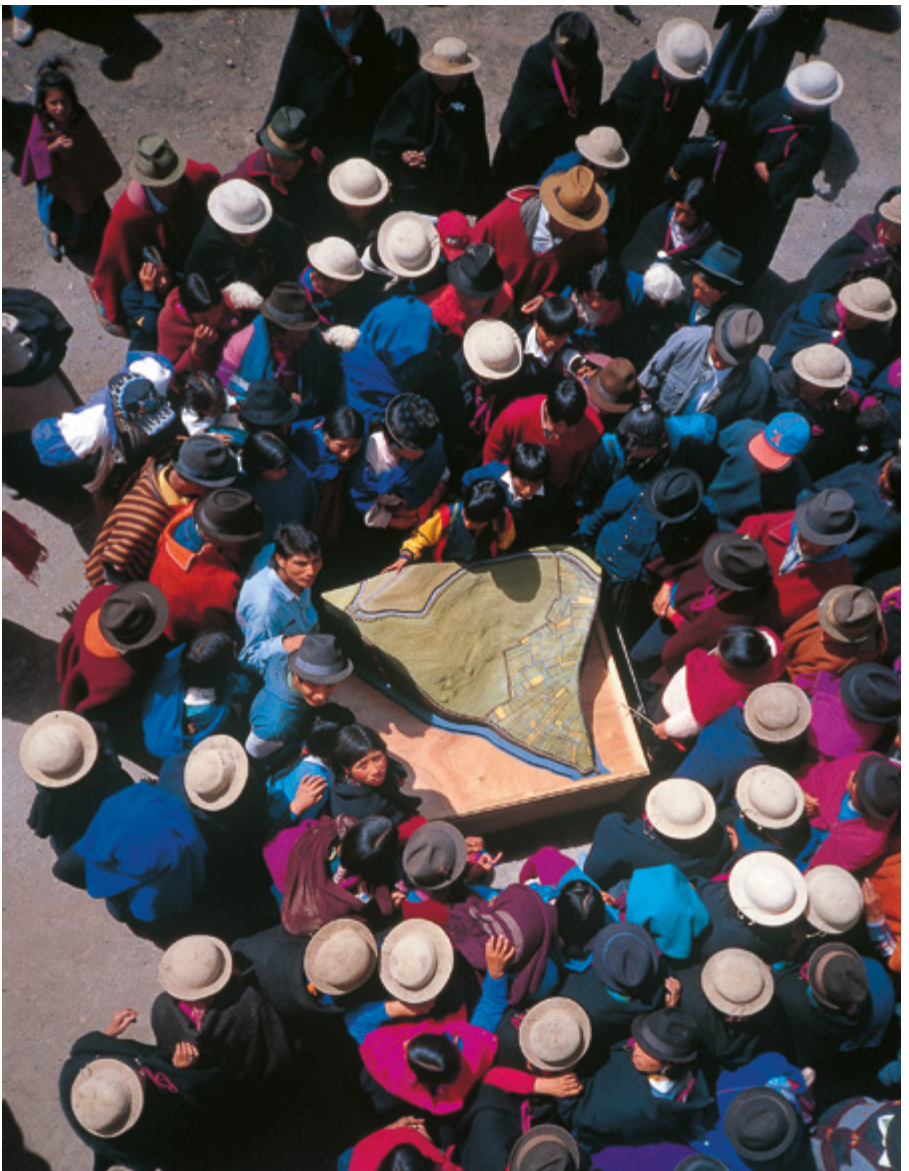
In multiple colours, neoliberal policies like Chile's have spread worldwide. Supposedly *fighting water scarcity*, they relocate water rights from smallholders to high-water-consumptive agribusiness and extractive industries. Presumably water use efficient --the model to be followed--, these squeeze aquifers and rivers dry, concentrating water for the few. Often, the victims are blamed, as with Gulliver's host, Munodi. Food-producing communities are dispossessed, claiming they are 'water-wasteful'. They must disappear, or correct their misbehaviour, following market-utopian rules, or state- and expert-controlled Good-Living socialism. Utopias neglect and destroy real-life water cultures.

Therefore, to understand *marginalized water cultures*, we need to understand the Water Culture that *marginalizes* them. Invert the spotlights. Utopia has shown us that 'making the poor, the women, or the indigenous *visible*' is often to better control and correct them. Foucault argued: "Visibility is a trap".<sup>72</sup>

This inverted spotlight on the world's Water Lords shows that, in most cases, water scarcity is not a natural hazard. Confirming More's NoWater River or Swift's Laputa-controlled droughts, the United Nations recently reported: "Water scarcity is manufactured through political processes and institutions that disadvantage the poor" (2006, p.2). Water scarcity for the many and water abundance for the few usually go together.

Spanish hydraulic utopia recklessly dried many rivers while drowning and colonizing communities. But recently, millions of citizens and a new generation of water professionals stood up, taking to the streets successfully. Among them our friend Manolo. After the dams drowned his community, he fought for decades to 'bring his river back to life'. Recently, his river flows again, ecological flows nurture the landscape. Manolo became a water distributor to fulfil his dreams: day after day, he brings water justice to the valley's small farmers.

Their tragic history is today a mirror for the neighboring valley. A large, creative coalition of peasants, ecologists, teachers, local business and water professionals have successfully networked to stop damming *their* river. They have also joined the multi-scale New Water Culture movement, networking throughout Spain. Contesting Jeremy Bentham's state-calculated happiness that was outlined earlier, *their* concept is: '*fluviofelicidad*', step-by-step co-creating a dignified, joyful river-community life. 'Water community', far from an egalitarian micro-society, is not a fixed condition but a process and a capacity, to merge collectivity with diversity and to exercise mutual dependence on nature and each other.



*Fig. 31: Grassroots water governance debates*

## Choosing Not to Survive as the Fittest

Bentham saw no problem in sacrificing minorities for the majorities' happiness – a lesson readily applied in many large-scale water projects. 'You can't make an omelette without breaking eggs'. Philosopher Hannah Arendt (1994 (1951)) criticized this revolutionary slogan, that justifies purification and violence in utopian designs. Her famous article was entitled: "*The Eggs Speak Up*".

Commonly, however, large-scale egg-breaking in the modernist water world is not contested through loud-speaking water warriors. Most eggs speak up in silence, often invisibly. I suggest Political Ecology studies 'the politics of silence': silent water dispossessions and silent water society responses.

My Andean-countries work shows that open water struggles are less significant than the thousands of invisible daily battlefields. In underground rootzones, communities build their own rights systems, questioning the self-evidence of formal state, science, or market-based water governance. When these undertows show up in public, it is often in disguised forms: imitating the dominant protocols, organizations and rules, but just to make use of these formal powers. A 'mimicry' or camouflage strategy that uses the appearance of conforming to external rules. Below these formal shields, in layered autonomous spaces, they harbour a tremendous organizational and hybrid rights network. Rather than classic resistance *against* the current, these intangible undercurrents flow in *any* direction.<sup>73</sup>

Understanding *living* water cultures demands modesty. Far from utopian proposals focused on what justice 'should be', let us start by understanding how, in the mud, they themselves express water security, shape water rights, and experience water justice. Not taking them for granted, but as collective starting-points. This includes seeing how they suffer from utopian justice regimes that impose liberal, collectivist or post-neoliberal models for becoming 'equal' and 'modern'.

Water justice and governance cannot be constructed from detached, value-free ivory towers, flying islands, eyes in the sky, god-like positions representing the universal good. It asks for engagement and making positions explicit, to start political dialogue and polycentric governance.<sup>74</sup>

Rather than uniform utopias or revolutionary abstractions, local water societies are very down-to-earth, rooted in history and schemes of belonging among people, place, and water. Context-based trial and error, learning by doing. They continually invent new rules, identities and traditions.

I started my lecture with Esteban and the Senyera farmers. They stood up against the Public-Private-Partnership transforming their community, to regain control over their water and livelihoods. Government and experts were shocked that their authority, knowledge and profits were challenged. “But we refused. We were fed up with them!”, said the farmers. As a result, costs have been drastically lowered, production increased, and profits are not taken away anymore but invested in the collective system.

Farmers re-installed the *regador* water distributor and hired a local technician, creatively mixing new drip and ancient techniques.<sup>75</sup> Trust, transparency and well-attended water meetings in the bar have returned. “We are proud to have the system back in our own hands”. Autonomous decision-making, shared management and flexible, self-mastered technologies. Government and experts had never understood that water efficiency is both technical, economic, political and cultural. The intimate connection among people, water, space and identity fuses struggles over material control of water, with the battle to culturally define and politically organize these water territories. Unlike ‘Golden Triangle’ expert-industry-government thinking – so powerful in water governance – these thousands of water struggles around the world do not reach the newspapers but *are* deeply innovative. They are about water, but also about meaning, identity, and legitimacy.<sup>76</sup> About the right to self-define the nature of water problems and solutions. About claiming the freedom to deviate. About the right to exist.

Dear Mr. Herbert Spencer, Mr. Bentham, Mr. Lenin, Mr. Trump, Mr. Good Living, Mr. Utopos, ...

Let us try to understand those millions of water users who do not *want* to Survive as the Fittest. They don’t want to *survive* but to live in dignity. Their ‘*not fitting*’ is often a *conscious* choice.



*Fig. 32: Choosing not to survive as the fittest: not fitting as a conscious choice*

Senyera farmers, like millions around the globe, refuse to accept the water identities assigned to them: as backward locals, obedient State servants, or individualistic water-market clients. While rooted in local water cultures, their dynamic networks link the local, national and global worlds. Their struggles show that very much is at stake.

Unmasking utopian water regimes means critically engaging with those who experience water injustice, questioning established water truths, power structures and their claims to rationality, democracy and equity. Water-user families, men and women, ask scholars and students to help question experts' *Flying Islands and Rivers of Scarcity*: to combine water knowledges, co-design water governance, and actively interweave struggles for water justice.

## Word of Thanks

Dear friends,

At the end of my lecture, I would like to express some words of gratitude.

To Wageningen University and the Rector Magnificus for the confidence you have shown in me. Wageningen is a great community. I admire the beautiful gardens. I appreciate even more its room for weeds, and wild flowers.



*Fig. 33: The need for more weeds*

My dear students, thank you for all the years of sharing your ideals, creativity, and commitment; for your refreshing flow of critical, impossible questions; for questioning my unquestionable water truths, keeping me sharp and learning together.

Please see the thorns, but also the perplexing beauty of the weeds and wild herbs, refusing to behave, and be orderly and normal.

I thank my friends, colleagues and ‘the boys’ – Geert, Albert, Gaston, Albert, Gert-Jan, Erik - for your warm friendship. My gratitude to the Water Resources Management group, headed by Petra Hellegers. This very special group has built a unique position in ‘engaged and critical water-governance studies’ – a treasure to be defended in our disciplinary and commoditizing universities. My deep gratitude also to my beloved friends at fascinating CEDLA; and the Governance and Inclusive Development Group at the University of Amsterdam.

As Thomas More wrote in *Utopia*: there is no need “to show the Sun with a lamp” (p.135). Even though, for your friendship and inspiration, brightening my universe, I want to specially thank Michiel Baud, Hans Achterhuis, Jan Douwe van der Ploeg, Margreet Zwarteveen, Jeroen Vos, Bert Bruins, Dik Roth, Bram Buscher, Tom Perreault, and Barbara Hogenboom.

Next, my gratitude to the Water Justice Alliance where, in a permanent flow of creativity and engagement, Bibiana Duarte, Leontien Cremers, Juan Pablo Hidalgo, Jaime Hoogesteger, Maria Pierce, Mourik Bueno de Mesquita, Jan Hendriks, Gert Jan Veldwisch, Nynke Post Uiterweer, Cristina Yacoub, Denisse Roca, Aline Arroyo, Miriam Seemann, Tatiana Roa, Edgar Isch, Antonio Gaybor, Esteban Castro, Jean Carlo Rodríguez, and hundreds of scholars, water leaders, activists and young professionals in South and North, share their actions.



*Fig. 34: Springtime*



I thank my father Aeilt, who, as Frank Westerman's book '*Een Woord Een Woord*' finely describes, sought to respond utopian-based violence and societal discrimination by building bridges across different worlds.

I also thank my mother Aly, for letting me and my brothers, Ludolf and Germen, feel that bridges are eternal when made of affection, tenderness and solidarity.

I thank Esther for showing that we do not need Utopia to make this world a better place. As Chris Boers once wrote, next door in hotel De Wereld: "Wees de Wereld waardig, houdt de Aarde aardig". To Ruben, Jikke and Daan: keep on dreaming, keep on struggling ... Do those things for which Utopia would not allow you any freedom or space – go your own, disobedient way.

Utopian water regimes are never realized. Mediated by stubborn practice, they are an illusion. But in the water-policy world, illusions are powerful and have very tangible, often dramatic impacts. My profound acknowledgement to those who have suffered so much from utopian water dystopias; to Esteban, Manolo, Cristina, Inés, Rosa, Juan, Edith, and all the others confronted with the *need* to become silent, everyday water warriors: for showing me that we have so much to learn.

For you again, I'd like to end with the words of Pablo Neruda:

"They may cut all the flowers, but they will never be able to stop the Springtime".

*Ik heb gezegd.*

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## Endnotes

<sup>1</sup> For quotes and references, see: Sánchis-Ibor, Boelens & García-Mollá (2017).

<sup>2</sup> More writes how dispossessed peasants were forced to sell their labor cheaply “or become beggars and thieves” ... “you create thieves and hang them for stealing” (1975(1516):48-49).

<sup>3</sup> Interpretations diverge strongly, however, about More’s views and intentions for writing Utopia. Quentin Skinner (1978) sustained that, more than envisioning a plannable, future society, More discussed with historical thinkers as Plato and Cicero: the humanist debate in the Renaissance about the perfect relation between state politics, morality, and property relations (among others). Stephen Greenblatt (2011) explains how More’s intention was to discuss Epicurean happiness, in discussion with Lucretius’ historic writing *On the Nature of Things*.

<sup>4</sup> While these utopias were first located in distant, hitherto unknown regions (e.g., undiscovered islands), in later works they were situated in the future or in space (e.g., Achterhuis (1998); Kumar (1987); Levitas (1990); Turner (1965).

<sup>5</sup> See, e.g., Achterhuis (1998, 2010); Achterhuis et al. (2010); Bauman (1989); Gray (2007); Flores Galindo (1988); Mannheim (1936).

<sup>6</sup> As Turner (1965), Achterhuis (1998), Bauman (1989, 2007) and Lukes (1995) among others show, utopias and dystopias are the same sort of societies. But in dystopias, commonly, the travellers’ view ‘from outside’ is replaced by utopian life and policies as experienced by the (dissident) inhabitants *themselves* – a view one from the inside.

<sup>7</sup> In Thomas Campanella’s utopia, *City of the Sun* (1602), oppression of women and nature would get even worse, and other utopian planning is equally worrisome. Society is founded exclusively on common (i.e., public) property - “all things are common with them” (p.5) because from private property “self-love springs”[...] “But when we have taken away self-love, there remains only love for the State” (p.5). Dystopian authors as Zamyatin (1993(1921)), Orwell (1977(1949)) or Foucault (1995(1975)) could have copied it. On dystopian women’s oppression, see also: Atwood (1986).

<sup>8</sup> *Political Ecology of Water*: “The politics and power relationships that shape human knowledge of and intervention in the water world, leading to forms of governing nature and people, at once and at different scales, to produce particular hydro-social order” (Boelens, 2015a:9). See also Bridge & Perreault (2009), Boelens (2015b).

<sup>9</sup> See, e.g., GRAIN (2012); Mehta et al. (2012).

<sup>10</sup> See, e.g., Nixon (2009, 2011).

<sup>11</sup> Fundamental pillars of regenerationist ideology were: hydraulic mastery; boosting food security for all; solve social inequality; value local knowledge and customary laws; decentralized management and ‘people-based authority’ (e.g. Duarte-Abadía & Boelens, 2018; Maurice & Serrano, 1977; Ortiz, 1984; Swyngedouw, 2015). Paradoxically, positivist fundamentals and technocratic social engineering underlie this ideology. Obviously, technocratic positivism is quite common in most civil engineering schools and water management sciences that seek to transform nature, but “... Spain’s experience of seeking to regenerate whole society, precisely through water management, has been uniquely broad and deep and has decisively influenced water policies in many other countries” (Boelens & Post Uiterweer, 2013:45).

<sup>12</sup> Costa, quoted in Ortí (1984:93).

<sup>13</sup> Macías Picavea, (1977:318, 320). See also: Ortí (1984:71), Swyngedouw (2015).

<sup>14</sup> “Half of the reconstruction work involves (...) hydraulic policy, to civilize our land; the other half falls to pedagogical policy, to civilize the populace: the two are complementary” (Macías-Picavea, 1899, quoted in Gómez Mendoza (1992:233-234).

<sup>15</sup> Engineer Rafael Benjumea, regenerationist, designer of Malaga’s Guadalhorce dam, later Minister of Public Works under dictator Primo de Rivera, installed the River Basin Confederations nationally: “... the splendor of my loves, integrating river management by organizing industry, agriculture and society as a whole” (Martín Gaité 2003:79) . The Royal Decree praised its political neutrality, technical-ecological superiority and its inherent ‘justice’: “This undertaking entails justice, great moral value, as a significant example of social solidarity and patriotic exaltation [...] free of all parties and factions, creating a meeting-ground for Spaniards’ regenerating drive” (p.79).



<sup>16</sup> Joaquín Costa's 'surgical policy' already foresaw the need for "an iron-hearted surgeon, familiar with the Spanish people's anatomy and feeling infinite compassion for them ..." (Costa, 1967:86; see also: Costa, *Política Quirúrgica*, 1914).

As we posit in Boelens & Post Uiterweer (2013:57): "The fundamental contradiction of a decentralizing, self-governing mission, based on authoritarianism and violent planning, was not just a mis-implementation of basically benevolent regenerationist ideas but was intrinsic to the ideology itself; visible in the seeds of hydraulic utopia".

<sup>17</sup> Glorification of 'folk wisdom' and 'customary rules' is shared by all utopias presented in this lecture. Common to most utopian policies and societal projects is, however, that ordinary people themselves are seen as 'not rational enough' so their knowledges need to be 'systemized' and 'purified' by the knowledge experts of these particular utopian belief systems. For instance, a very influential neoliberal advocate of 'purifying' common wisdom and rules is Hernando De Soto (2000). See also Hayek (1944); Bentham (1788(1781)); Maurice and Serrano (1977). Cf. Mannheim (1936), on how ideologies and knowledge construction entwine in utopianism.

<sup>18</sup> See Ortí (1984), Swyngedouw (2015), Boelens & Post Uiterweer (2013); Duarte-Abadía & Boelens (2018); Fernández Clemente (2000); Swyngedouw & Boelens (2018).

<sup>19</sup> Francisco Franco (1959:1) quoted in Swyngedouw & Boelens (2018); Swyngedouw (2007:12).

<sup>20</sup> See, e.g., Acosta Bono et al. (2004); Camprubí (2013); Lafuente (2002); Swyngedouw (2007, 2015).

<sup>21</sup> Franco, F. ( 6 August 1952), inaugurating large hydraulic works.

<sup>22</sup> Again dystopian seeds were already sown in regenerationist utopian rationality: hydraulic policy aimed to 'benefit all classes' when bringing new land under irrigation, increasing property values "for all". Obviously, allocating water to *land areas* rather than *families* benefits large owners disproportionately (in terms of water, subsidies and property values). And nowadays, the irrigated lands are occupied by wealthy West-Europeans who displace the Spanish smallholders.

<sup>23</sup> The broader Guadalhorce region shows 76 golf courses with 56 clubs, the valley has 8 golf courses with 5 clubs (Duarte-Abadía & Boelens, 2018).

<sup>24</sup> For quotes and references, see Duarte-Abadía & Boelens (2018).

<sup>25</sup> Cf. Acosta Bono et al. (2004); Camprubí (2013); Gómez Mendoza (1992); Fernández Clemente (2000); Lafuente (2002); Ortí (1984), Swyngedouw (2015); Swyngedouw & Boelens (2018).

<sup>26</sup> Bentham (1988 (1780/1781)).

<sup>27</sup> Friedman (1962:10); Achterhuis (2010:188).

<sup>28</sup> Bentham (1995(1787-1791)).

<sup>29</sup> Achterhuis (1998:262).

<sup>30</sup> This calculated design of happiness and overall wellbeing would be the task of moral and justice experts; common people would lack reason (Bentham 1988(1781)). See also note 17.

<sup>31</sup> For critique on the conceptual simplification, social commensuration and political pitfalls of universalist-positivistic new-institutionalism in water governance practice, see e.g., Büscher & Fletcher (2015); Duarte-Abadía & Boelens (2016); Espeland (1998); Forsyth & Johnson (2014); Mollinga (2001); Moore (1990); Rodríguez-de-Francisco & Boelens (2016); Roth et al. (2005, 2016); Vos & Boelens (2014, 2018); Zwartveen & Boelens (2014).

<sup>32</sup> Rand (1988; 1992), see also Achterhuis (2010). In Ayn Rand's philosophy of Objectivism, "selfishness" is the positively valued key concept; altruism is seen as a societal evil.

<sup>33</sup> Long before Garrett Hardin's Tragedy of the Commons (1968), Bentham advocated actively destroying and subdividing the commons into private properties, to be defended by a strong liberal State apparatus. "The condition most favorable to agricultural prosperity exists when there are no entails, no unalienable endowments, no common lands, no right of redemptions" (Bentham, quoted in Polanyi 1944:18).

<sup>34</sup> Friedman said that Pinochet, responsible for thousands of people tortured and executed, was "sympathetically attracted to the idea of a shock treatment" (cited in Grandin, 2006:164; see also Gray, 2007; Klein, 2007).

<sup>35</sup> Hayek's (1944) chapter 'The Great Utopia' pictures a liberal utopia. It also discloses democratic socialism as a dangerous utopia which necessarily breeds its own dystopia (Cf. Robert Nozick's "*Anarchy, State and Utopia*", which suggests a Lockean 'night-watchman state', whereby the (neoliberal) state protects (just) individual rights and guarantees the well-functioning of market contracts and transactions).

<sup>36</sup> As Hayek writes: "...not only for those who own property but scarcely less for those who do not". Chile's new constitution got the name of Hayek's *The Constitution of Liberty* (1960). It enshrined economic liberty and political authoritarianism as complementary qualities: to profoundly transform society and generate a "change in Chilean mentality" (Grandin, 2006:6).

<sup>37</sup> The Friedman doctrine also argues that enterprises do not, and should not, have any social responsibility to the public, but need only to focus on profits in order to shape a free society. In *Free to Choose* he writes: "Whenever the free market has been permitted to operate, wherever anything approaching equality of opportunity has existed, the ordinary man has been able to achieve levels of living never dreamed of before [...] Freedom means ... preserves the opportunity for today's disadvantaged to become tomorrow's privileged and, in the process, enables almost everyone, from top to bottom, to enjoy a fuller and richer life" (M. & R. Friedman 1990:146, 149).

<sup>38</sup> See Bauer (1997, 2004), Boelens & Zwarteveen (2005), Budds (2010), Hendriks (1998), and Prieto (2016) on the profound socio-environmental impacts of the Chilean model, also in terms of water rights concentration; declining productivity and operation of community systems, water and food security, disintegration of water user organizations, and inter-sectoral water conflicts.

<sup>39</sup> The same Bank studies defend the "superiority of markets" and that "tradable water rights can benefit the poor and increase user participation in water allocation and investment decisions" (World Bank 1996:1). "Water users are particularly pleased by the flexibility and control over their water rights... Allowing rights to be traded increases the value of the right and its transfer to more productive purposes increases employment possibilities. As a result, the humanitarian and equity aspects of water allocation are likely to be better under a market regime" (World Bank 1996:8,15).

<sup>40</sup> Quoted in Yacoub, Duarte & Boelens (2015:15).

<sup>41</sup> Documentary 'La Sangre de la Pachamama' (Solón 2003)

<sup>42</sup> Hayek very well knew that ‘neoliberalism’ does not result from a voluntary, spontaneous process; the forceful State is crucially instrumental in installing the legal order and institutions that make market competition among individuals possible: “Most people still believe that it must be possible to find some Middle Way between atomistic competition and central direction. ... [This] proves a treacherous guide ... Planning and competition can be combined only by planning for competition, but not by planning against competition’ (1944:31).

Certainly, water market policies do not replace bureaucratic policies, as is commonly suggested in decentralization discourses, but act as allies. Both set out to discipline water rights pluralism. State bureaucracies, therefore, are ‘reformed’ to provide and enact legislation that allows markets to emerge (see Bakker, (2011); Bauer (2004); Boelens et al. (2010); Yacoub et al. 2015)).

<sup>43</sup> Hayek defended Pinochet’s massacres stating that he had “not been able to find a single person even in much maligned Chile who did not agree that personal freedom was much greater under Pinochet than it had been under Allende”. As Grandin comments: “Of course, the thousands executed and tens of thousands tortured by Pinochet’s regime weren’t talking” (2006:173). Friedman’s speech in Chile --‘*The Fragility of Freedom*’ fiercely attacks welfare states destroying freedom and praises Pinochet for putting Chile back on the “right track” (p.166); in Eduardo Galeano’s words: “torturing people so prices could be free” (Grandin, 2006:175)

<sup>44</sup> As influential World Bank advisor Hernando De Soto states: “Everyone will benefit from globalizing capitalism, but the most obvious and largest beneficiary will be the poor... they will support the agenda of reform enthusiastically” (De Soto, 2000:190–191)

<sup>45</sup> Walt Rostow (1960) would make this idea world popular. Following Enlightenment thinking, ‘natural states of underdevelopment’ needed a big modernization push and then follow linear stages of evolutionary modernist development.

<sup>46</sup> Neoliberal discourse, moreover, blames the victim: ‘stubborn’ water user collectivities are reproached for not responding to the universal market logic and fail to act ‘rationally’. When powerful free market actors (e.g., mining, hydropower, agribusiness) aggressively encroach their territories provoking breakdown of community water systems, the model presents itself as the inevitable way to solve this. As a self-fulfilling force, the remedy prescribed is to introduce free market rules and externalize communal authority (Boelens & Zwarteveen, 2006).

<sup>47</sup> Latin America's scholars and grassroots movements elaborate a broad range of visions and discourses around "*Buen Vivir*", to construct alternatives to classic modernist Western development approaches and practices (under diverse and diverging concepts as "*Sumak Kawsay*", "*Living Well*", "*Ecosofía Andina*", etc.). They span from indigenist-romanticized to radical political ecology, post-structuralist or post-colonial conceptualizations; e.g. Acosta (2011), Gudynas (2011, 2014), Thomson (2011), Walsh (2010); see also: de Castro, Hogenboom & Baud (2016); Escobar (2010); Radcliff (2012); Teijlingen & Hogenboom (2016); Wilson & Bayon (2017).

<sup>48</sup> Government billboards in the area explain: "The Chone project promotes *Buen Vivir* in your community" (in: Hidalgo and Boelens (2018)).

<sup>49</sup> Manabí governor, inauguration Chone dam, 24 Nov 2015; in Hidalgo and Boelens (2018).

<sup>50</sup> In Ecuador and Peru, government billboards partnering *Living Well* and *Extractivism* are very common. In Bolivia, the government of Evo Morales uses *Buen Vivir* to justify capitalist exploitation of indigenous territories, the abuse of child labour, and most of all, to legitimize its own "*indigenous*" existence and its forms of governmental control.

<sup>51</sup> Similar to how *Franquismo* appropriated progressive *regenerationism*, it remains to be seen if some of the scholarly and activist movement versions of *Buen Vivir* may also already contain particular germs of dystopia: because of their utopian tendencies to essentialize indigenous wisdom and identities, stress intercultural harmony, and *Living Well* as originating from the "*inside*", and explaining all "*bads*" as coming from the Western, capitalist outside. The "*Noble Savage*" syndrome, essentializing "*indigeneity*" or "*harmonious nature-society*" relationships deny the despotic indigenous empires that Latin America also has known. (e.g., the Inca Empire not only brutally colonized peoples and cultures from Colombia to Chili, but also tried to impose a one-world view, one language, one hierarchy, and a uniform indigenous-colonial discourse). Moreover, romanticizing and essentialization will always deny contradictions, contain people in erroneous political categories, and thereby affect the most marginalized groups.

<sup>52</sup> Valladares & Boelens (2017); Hidalgo & Boelens (2018); see also Bebbington & Bury (2013); Bebbington & Humphreys-Bebbington (2011); Boelens et al. (2015); Teijlingen & Hogenboom (2016).

<sup>53</sup> “It compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilisation into their midst ... In one word, it creates a world after its own image” (Marx & Engels, 1969(1848):16).

<sup>54</sup> Commensuration (of resources, rules, rights, institutions, identities) makes precise comparisons across vast cultural distances and geographical territories possible, which facilitates governmental control and enables transactions that are fundamental to national and global markets (see also Espeland and Stevens, 1998).

Commensuration does not just produce new productive and water governance relations, but also new water subjects and societies (e.g., Baviskar (2007); Espeland (1998); Vos & Boelens (2018); Zwartveen (2015)).

<sup>55</sup> The “unacceptable water cultures”, or “bad Indians” (Assies, 2010), “radical Indians” (Hale, 2002), correspond with the “deserving poor”, and the “acceptable” ones with the “underserving poor” or “good Indians”, “*el indio permitido*” (Hale, 2004). See also Boelens (2009, 2015a,b); and Lemaire (1986) about how Europe created “the Indian” even before Columbus reached the New World; Berkhofer (1979) about “the White man’s Indian”; and Grande (1999) about environmentalism creating the “ecologically Noble Savage”.

<sup>56</sup> King Utopos installed a constitution with total toleration of religious diversity, but only one belief is *true and superior*, and will win by Utopian “reason” (p.119). As Hale argues, powerful political and economic actors use this kind of multiculturalism “to affirm cultural difference, while retaining the prerogative to discern between cultural rights consistent with the ideal of liberal, democratic pluralism, and cultural rights inimical to that ideal. In doing so they advance a universalistic ethic which constitutes a defense of the neoliberal capitalist order itself” (Hale 2002:491).

<sup>57</sup> See: Valladares and Boelens (2017), Hidalgo, Boelens and Isch (2018).

<sup>58</sup> Z. Bauman (1989:113 and 2007:99). In *Liquid Times. Living in an Age of Uncertainty*, chapter ‘Utopia in the Age of Uncertainty’ he explains: “It is the gardeners who tend to be the most keen and expert (one is tempted to say, professional) utopia-makers” (2007:99)

<sup>59</sup> As Fraser (2000) has argued, injustice combines issues of distribution with those of participation and cultural recognition, in often complex and sometimes paradoxical ways (also see Schlosberg (2004). For water governance: see e.g., Boelens (2015a), Perreault (2014); Perreault et al. (2011); Zwartveen & Boelens (2014)).

<sup>60</sup> The World Development Report (2010) proposes transferrable water rights, full-value-pricing, and markets sustained by universalist expert information. This strips local communities of water governance authority (Lynch 2012) and such simplified rules reduce their capacity to creatively respond through collective water control arrangements. One of the enduring assumptions of modernist water law making is that Western property institutions and standardized agreements, would be for the benefit of all and produce efficient rights and rational organization (Boelens, 2009, 2015b).

<sup>61</sup> With Margreet Zwartveen I have developed this as the ERA- Echelons of Rights Analysis (see, e.g., Boelens, 2015b; Zwartveen & Boelens, 2014).

<sup>62</sup> Thereto, impersonality and commensuration (that is, standardizing of entirely different water governance rationalities according to one common metric) is crucial. It denies politics and power relationships and reduces the relevance of water governance contexts and embeddedness in particular cultures and histories. It demands water's uniform, scientificized values and technicalized meanings, it requires de-personalized and often commodified water rights, erasure of 'place-based' water identity, and universalistic, proceduralized frames and forms of governance (cf. Berger (1979); Escobar (2001); Espeland (1998); Gupta & Ferguson (1992); Illich (1986); van der Ploeg (2017)).

<sup>63</sup> At the same time, this 'equality imperative' makes it easy to measure how water user collectives deviate from the model. Smallholder participation in modernist water governance frameworks often results in 'permanent backwardness' due to self-measurement according to inaccessible norms, making it impossible to become equal. As Frantz Fanon argued, this modern equalizing discourse preaches equality and invites the sub-men to become human, according to the Western prototype. "Though profoundly racist, it manages to mask this racism to preach mankind's outstanding dignity" (Fanon 1963:163).

<sup>64</sup> It is often assumed that non-adaptation of water policies to local reality is a proof of their incapacity. But commonly, their aim is not to adapt to local contexts but to transform and control them: it is the water users' world that needs to be adapted. Local rights are commonly seen as irrational systems that escape justice and control. And whenever local rights and governance forms are formally recognized, the dominant system tends to outright essentialize their expressions. Moreover, in many countries, formalization and the legal recognition of some groups' water rights, means that the rest, often small-holders, automatically become illegal, open to occupation by powerful water interest groups (Boelens et al., 2010, 2018).

<sup>65</sup> Thereto, my research examines the politics of disciplining. How do dominant groups assign meaning and identity to local water users and practices? Which powers and strategies are at work to generate values, beliefs and behaviours that provide legitimacy to particular water policy and political systems? Next, I investigate the subject-formation by which local water users 'turn themselves into subjects' by internalizing outside frames and models, or by resisting them. Thus, beyond just traditional coercive forms of power, subtle modes of Foucauldian "capillary/inclusive power" induce norms and create self-measuring and self-correcting subjects by invoking guilt, morality, conformity and compliance (Foucault, 1995(1975)).

<sup>66</sup> Hydrosocial territory: "the contested imaginary and socio-environmental materialization of a spatially bound multi-scalar network in which humans, water flows, ecological relations, hydraulic infrastructure, financial means, legal-administrative arrangements and cultural institutions and practices are interactively defined, aligned and mobilized through epistemological belief systems, political hierarchies and naturalizing discourses" (Boelens et al., 2016:2)

<sup>67</sup> Boelens et al. (2016, 2017). See also Baviskar (2007), Duarte-Abadía & Boelens (2016), Hommes et al. (2016); Hoogesteger et al. (2016); Linton & Budds (2014), Swyngedouw (2007, 2015), Swyngedouw & Boelens (2018), Vos & Hinojosa (2016), Zwarteveen (2015).



<sup>68</sup> The strategic building of simultaneously material and discursive human-nature constructs through politics of truth and ‘subjectification’ is fundamental to Foucault’s governmentality notion: ‘the art of conducting subject populations’ conduct’. Dominant groups’ efforts to take control over local water resources go hand-in-hand with subtle tactics to naturalize and commensurate schemes of water-based belonging. Besides State-based sovereign power and (divine) Truth-based power, Foucault (2008) distinguishes neoliberal and disciplinary (normalizing) governmentalities. I scrutinize how ‘rationalizing water control’ by standardizing and externalizing local perceptions, rights, and rituals, in line with dominant interests, is a fundamental strategy (see also Foucault (1991), Boelens (2014), Fletcher (2017)).

<sup>69</sup> Modernist governance commonly seeks to produce hydro-political order, among others, as “imagined communities” (Anderson, 1983), through both “un-imagining” existing communities (Nixon, 2009, 2011) and actively “re-imagining water communities”: re-shaping and re-signifying hydrosocial territories to produce and rule through “communities of convenience” (Valladares & Boelens, 2017; cf. Li, 2011; Rodríguez-de-Francisco & Boelens, 2016). Beyond eradicating vernacular or opposing territorialities, subtler territorialization strategies seek to “recognize” and discipline, encapsulating local norms, resources, practices and water actors in the spatial/ political organization of dominant governmentality schemes. “Through ‘inclusive’ strategies it recognizes the ‘convenient’ and sidelines ‘problematic’ water cultures and identities” (Boelens et al., 2016:7).

<sup>70</sup> Water design’s and artifacts’ simultaneous omnipresence, clear visibility, and apparent ‘politically neutrality’ strengthens the way they operate invisibly and have a silent key role as social and political forces in hydrosocial networks, relationships and territories (Cf. the oeuvre of Hans Achterhuis, Bruno Latour, Ivan Illich, Carl Mitcham, and, e.g., Bijker et al. (1987); Boelens & Vos (2014); Nixon (2009); Winner (1993); Verbeek (2011)).

<sup>71</sup> These multi-actor water alliances capture cross-scale opportunities, interlace their bodies of knowledge and aim to co-design water societies. Accordingly, I have defined water justice as “the interactive societal and academic endeavor to critically explore water knowledge production, allocation and governance and to combine struggles against water-based forms of material dispossession, cultural discrimination, political exclusion and ecological destruction, as rooted in particular contexts” (Boelens, 2015a:34).

<sup>72</sup> “Full lighting and the eye of a supervisor capture better than darkness, which ultimately protects. Visibility is a trap” [...] “the formula of power through transparency, subjection by illumination” (Foucault, 1977:200, 154).

<sup>73</sup> These resistance strategies both *bring together* and *disorient*: they “con-fuse” (Boelens, 2015b).

<sup>74</sup> This asks for a relational (non-universalist, non-relativist) comparative and historical approach, and *inverting* the notion of “objective water science and policies”. “Objective” water knowledge is situated (Haraway, 1991), asks for engagement and making this positionality explicit. In line with Bruno Latour: beyond objects, water users are subjects who should be fully enabled *to object*: against what we scientists and policymakers say about them, as actors who are “interested, active, disobedient”. These objections make it possible to start political dialogue. [Latour extends this to both human and non-humans, who both need to be recognized for their “ability to propel novel entities on the scene, to raise new questions in their own terms and to force the social and natural scientists to retool the whole of their intellectual equipment” (Latour 2000:111)].

<sup>75</sup> Senyera water users show that irrigation technology is not an autonomous agent dictating the patterns of social and cultural life. Sociotechnical designs can be challenged and “re-moralized”. The reservoir, community well and watering schedule are accommodated to combine surface and drip technologies, and autonomous management. Innovatively, they made drip technology their own by adapting the hardware to their needs and combining localized irrigation with periodic floods through the old gravity network (see Sánchez-Ibor et al., 2017).

<sup>76</sup> Claims for equal distribution rights and the right to be different combine. In environmental and water justice movements material and cultural-political struggles often entwine: struggles against highly unequal resource distribution combines with their demands for greater autonomy, sharing in water authority, and a pluralistic water rights order.





Prof. Rutgerd Anne Boelens

*'Utopians organized space, nature and society to perfection, including land and water governance -- rescuing society from deep-rooted crisis: "The happiest basis for a civilized community, to be universally adopted". These days, similarly, well-intended utopian water governance regimes suggest radical transformations to combat the global Water Crisis, controlling deviant natures and humans. This lecture examines water utopia and dystopia as mirror societies. Modern utopias ignore real-life water cultures, squeeze rivers dry, concentrate water for the few, and blame the victims.*

*But water-user collectives, men and women, increasingly speak up. They ask scholars and students to help question Flying Islands experts' claims to rationality, democracy and equity; to co-create water knowledges and co-design water governance.'*