



The Global Water Grab

A primer

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1 What is 'water grabbing'?

Water grabbing refers to situations where powerful actors are able to take control of or reallocate to their own benefit water resources at the expense of previous (un)registered local users or the ecosystems on which those users' livelihoods are based. It involves the capturing of the decision-making power around water, including the power to decide how and for what purposes water resources are used now and in the future.

Thinking of water grabbing as a form of control grabbing means going beyond the narrow, proceduralist definition of 'grabbing' as 'illegal appropriation' since the means by which new powerful actors gain and maintain access to and benefit from water resources often involve legal but illegitimate dynamics.

The resulting trajectories of change frequently entail dispossession and ecological destruction. Often, the new economic and environmental arrangements overlook the hydrological complexity of local landscapes due to the fluidity of water. The socio-ecological impacts that follow on from the transformation of waterscapes are unevenly distributed, often with already poor and marginalised populations losing out most. The mismanagement of water further disrupts water-retentive landscapes and their hydrologic cycles, acting as an additional stress factor on fragile ecosystems and accelerating processes of desertification, depletion of fisheries, etc.

Water grabbing is not a new phenomenon. Water has to some extent always been a contested resource and water conflicts and water wars have featured throughout human history. While the contemporary wave of water grabbing shares much in common with earlier resource grabs and enclosures of the commons, it is distinct in that the mechanisms for appropriating and converting water resources into private goods are much more advanced and increasingly globalised. Water now features prominently within a global resource grab that is driven by processes of commodification, privatisation and large-scale capital accumulation.

Further reading:

Franco J., L. Mehta and G.J. Veldwisch (2013) 'The Global Politics of Water Grabbing', *Third World Quarterly* 34(9): 1651-75.

Mehta L., G.J. Veldwisch and J. Franco (eds.) (2012) Special Issue: 'Water grabbing? Focus on the (re)appropriation of finite water resources', *Water Alternatives* 5(2): 193-542.

2 What is the scale and scope of water grabbing?

Water grabbing is implicated in a whole host of activities that span the food, energy, mineral and climate domains. From large-scale agricultural and biofuel projects, to the extractive industries, to hydropower schemes, to the privatization of water services for drinking and sanitation, the dimensions of water grabbing are truly global in reach and increasingly extending into new ecological frontiers (see Box 1). One can thus speak of a 'global water grab' that – while grounded in local realities – spills beyond national boundaries and connects diverse struggles for people's control over water resources throughout the Global North and Global South.

The global scale of water grabbing is coloured by a set of intertwined complexities that often cloud its visibility. Firstly, hydrological complexity, involving surface water/groundwater interactions and inter-annual water variability as well as the distinction between 'blue' and 'green' water. Secondly, ecological complexity as water systems span a vast array of ecological contexts including floodplains, inland rivers, freshwater lakes, semi-arid or desert areas, coastal lands, wetlands, and peri-urban areas. Third, legal and administrative complexity, in particular the 'fuzziness' between legal and illegal, formal and informal rights, and the unclear administrative boundaries and jurisdictions that encompass diverse property regimes including commons, customary, informal and private tenure systems.

This complexity across waterscapes and tenure regimes relates not only to the fluid properties of water but also to the 'slippery' nature of the 'grabbing', the unequal power relations, fraught negotiation processes and messy politics that often transform water into a contested resource. This complexity makes it harder to pinpoint the impacts of water allocation, re-allocation, distribution and quality, both now and in the future, and to identify what and what does not count as a 'water grab'. Appreciating and understanding these complexities is however the first step to coming to terms with the political economy of water grabbing. Despite difficulties in quantifying and measuring its scale and scope, it is clear that water grabbing is happening everywhere in the world, across different political, socio-economic, and ecological contexts, and under many different forms and guises.

Box 1. **Glacial water:** the new frontier of water grabbing

Glaciers all over the world are shrinking, including in the Tibetan plateau, the world's third largest store of ice and a major source of Asia's fresh water supply. An estimated 150 to 200 000 of the Earth's mountain glaciers, many of them located in this vast plateau, are shrinking at an average speed of 10 metres per year. Both the glaciers and the plateau now face a new threat in the form of "glacial water" products – that is, bottled mineral water produced from glaciers. Glacier mineral water companies are increasingly emerging in China and building plants at ever-higher altitudes, some even extracting water from the glacier tongue itself. As more and more glacial water companies are ascending into untouched plateaus, setting up bottling plants at high altitude – some above 4 and 5,000m – they disturb extremely fragile environments. Glacial water companies are claiming to have adopted some measures to protect the water source. However, the protection measures focus on the protection of water sources, without taking into account ecological issues that have emerged following the establishment of their plants: transportation, energy consumption, discharge and treatment of rubbish and wastewater etc. For example, the incomplete combustion of fossil fuels for electricity in plant areas is causing black carbon pollution that is accelerating the melting of glaciers. Further, gas, liquid and solid waste is piling up. As such, the marketed image on the label of bottled glacial water of pure and uninhabited and snow-capped mountain peaks is inconsistent with the current reality of glaciers: melting snow peaks and glaciers, occupied by spreading factories. For thousands of years, those glacial regions have been sparsely populated, not to mention free of industrial activity. The extraction of water by glacial water companies jeopardizes previous arrangements and downstream uses of glacial water by industries, agriculture and urban life. Withdrawing water from glacial sources throughout the year, also during the melting seasons of the glaciers, on an industrial scale is resource depleting, influences the microclimate of the glacier ecosystem, and negatively impacts the quality of land and water use patterns in downstream areas.

Source: Xingmin Z. (2014) 'Bottled mineral water: the industry that consumes glaciers', Snow Alliance and TNI, *forthcoming*.

3 How does water grabbing take place?

Water grabbing has many different faces and forms of enclosure. Grabbing can happen through either simply dispossessing (un)registered users by violent appropriation; through delegitimising claims embedded in legislation; or through market mechanisms. In some cases, the capture of water is clearly illegal, violating state law; in other cases, it is 'perfectly legal' although not legitimate. Indeed, grabbers often make use of the legal complexity surrounding water rights to achieve their aims. In Ghana for example, the fact that land and water governance systems were separate and policy coordination poor enabled investors to take over water sources for biofuel plantations, disregarding previous local users.¹ This legal pluralism can be both enabling and disabling but in most instances it is difficult for local users to defend their claims.

The framework developed by Boelens, Gaybor et al. is useful here to unpack the various ways in which water grabbing takes place.² They identify four different 'levels of confrontation'. The first level involves direct struggles over access, appropriation and concentration: who has the power to grab water resources. In Peru's Ica Valley, the top 0.1% of users – powerful agro exporters – control a third of the total water, while small-scale farmers, 71% of the valley's users, have access to only 9%.³ The second level involves the power to determine the contents of rules, rights and laws governing water distribution and allocation. For example, hydropower development in Turkey is made possible through neoliberal reforms that have transferred exclusive access rights to hundreds of rivers and streams to private companies.⁴ This is related to the third level, which involves the exercise of legitimate authority: who is entitled to take part in the making of laws and rules around water management. Decision making power within the various international policy-making forums and bodies dealing with water governance is for instance increasingly dominated by the corporate sector at the expense of civil society voices. A final level of confrontation is at the level of discourse: what languages and practices prevail in the framing of water rights and laws and what are the preferred ways of conceptualising water issues? In fisheries governance, the "facts" of over-fishing by small-scale fishers and of a lack of clear private property rights are taken uncritically to be the main issues, even though far from being a neutral assessment and clearly acting as an agenda-setter for particular solutions.

The above framework gives an indication of the way in which different facets of a hydropolitical regime converge to further the legal, extralegal or illegal accumulation of water resources in the hands of the few.

4 Who are the water grabbers?

In nearly all cases, water grabbing is in one way or another made possible by the state in which the grabbing is taking place. For a variety of reasons, many governments and bureaucrats within government agencies have special interests in large investments leading to state organisations creatively reforming, bending or re-interpreting existing rules and regulations that should actually prevent water grabbing from taking place.

Beyond the state, a whole array of different actors, both old and new, are involved in the global water grab. These include specialised water-targeted investment funds that seek to profit from the monetisation of water and its transformation into an economic asset gaining in scarcity value. It also encompasses a whole host of transnational corporations, including large private water companies, agribusinesses and the extractive industries.

Water grabbing also involves all those actors whose activities and profits depend on the trade in 'virtual water'. The 'virtual water' concept is used to measure the amount of water that is 'embedded' within the production, processing and trade of commodities. It is estimated for example that 1000 litres of virtual water are required to produce one kilogram of wheat while as much as 15.000 litres of virtual water are used to produce one kilogram of beef in Europe or America with soy imported from developing countries.⁵ This trade in virtual water is rapidly transforming and transnationalising the waterscapes upon which local lives and livelihoods depend. It also significantly opens up the debate as to who the water grabbers are, based on an understanding of the complex linkages between meeting water demand in one region and the creation of water pressure and scarcity in another.

Renewable water resources in the Gulf States for example are set to run out in the next three decades. As a result, Saudi Arabia, once a net exporter of wheat, intends to phase out domestic production of wheat by 2016 due to the depletion of fresh water reserves in the country.⁶ It seeks to compensate for this loss in domestic food production by acquiring farmland abroad, thereby transferring much of the pressure on water resources caused by agricultural production to other countries. This is a strategy likely to be pursued by other water deficit countries as they seek to 'lock in' access to water reserves and resolve their own water and food constraints by trading in virtual water.

Further reading:

Polaris Institute (2003). Global Water Grab: How Corporations are Planning to Take Control of Local Water Services. Ottawa, Polaris Institute.

Keulertz, M. (2012) 'Drivers and actors in large-scale farmland acquisitions in Sudan', LDPI Working Paper 10.

5 What are the key drivers of water grabbing?

At a very fundamental level, water grabbing is an expression of an economic model of development in which capital accumulation is linked to increasing control over abundant and cheap supplies of natural resources, including food, water and energy. The capture of water resources is thus embedded within new production models and their associated trade and investments regimes. Based on this, five key drivers fuelling the new wave of water grabbing can be identified.

First, changing patterns in global food markets have triggered a renewed interest in acquiring land and water resources for agricultural production. This has led to an explosion in large-scale land deals that involve the cultivation of thousands of hectares of food crop monocultures that use up to ten times more water than biodiverse agricultural systems.

Second, rising oil prices and concerns that a 'peak oil' period has been reached have led to the rise of agrofuels that use large amounts of water throughout the production cycle. Other renewable energy strategies can also have perverse effects. Large-scale hydro-power projects involving the construction of (mega)dams and affecting entire river basins can incur high social and environmental costs.

Third, growing global demand for raw materials underpins the continued expansion of the extractive industries and large-scale mining projects. In particular, new technologies such as hydraulic fracturing or 'fracking' represent a major threat when it comes to water depletion and pollution.

Fourth, the market-based management of water resources, especially the privatization of water systems and services, jeopardizes the water access for poor and marginalized groups in many developing countries.

Fifth, the financialization of water – including water utilities, infrastructures as well as the resource itself – forms another key driver. Carbon trading or offsetting schemes linked to the creation of protected areas can curtail community rights and access to water resources as they become transformed into financial products (see Box 2).

Lastly, it is important to note that drivers of water grabbing are often interlinked. The nexus between food, feed, fuel, timber, minerals is manifest in the emergence of new agro-industrial complexes and global commodity value chains. The rise of 'flex crops' and 'flex trees' is one such example– with direct consequences for land and water use (see Box 3).

Box 2. **Green grabbing of water resources:** coastal conservation in Tanzania

Tanzania's long coastline along the Indian Ocean contains important and biodiverse natural resources, providing livelihoods for small-scale fishers and a means of subsistence for coastal communities. When, at the turn of the nineties, community leaders from Mafia Islands alerted the authorities to the illegal practice of dynamite fishing, it spurred government agencies to develop what is now known as Africa's largest marine park. Mafia Islands Marine Park was subsequently created, encompassing more than 18,000 local inhabitants, more than half of which depend on marine resources for their livelihood. The establishment and running of the park - originally to be under a form of co-managed, community-based conservation - steadily drifted towards authoritarian and repressive administration. Lucrative foreign-owned tourism enterprises emerged, enclosing access to land and littoral sites from local residents – including the most productive coral reefs, mangrove forests and the best beaches. Yet, these areas were under traditional ownership regimes that entitled local communities to the resources. This dispossession has been facilitated by the adoption of state regulations and so-called conservation measures that further restrict the daily activities of fisher communities, who are depicted as contributing to overfishing. Villagers have complained about the loss of their resource rights, as well as lack of proper compensation. The army has reportedly been used to intervene on occasion, using repression to help implement the new legislation.

Source: Benjaminsen T.A and I Bryceson (2012) 'Conservation, green/blue grabbing and accumulation by dispossession in Tanzania', *The Journal of Peasant Studies* 39(2): 335-55.

Box 3. **Flex crops and trees**

Flex crops are crops that have multiple uses that can be easily and flexibly inter-changed such as soya (feed, food, fuel), corn (food, feed, fuel), sugarcane (food, fuel) or oil palm (food, fuel, and industrial uses). Flex trees such as eucalyptus and pine have multiples uses, whether for pulp, wood-energy, wood-fuels, reforestation or other 'ecosystems services' schemes. Those crops and trees include many of today's most prominent high intensity water users and/or native forest and watershed destroyers. Over the last five decades, the area covered by flex crops has skyrocketed: in Latin America for example soya went from 250,000 to 42 million ha, sugarcane from 2,000 to 10 million ha, while oil palm has multiplied by a factor of eleven. Although the impact of tree plantations on ecosystems and on local users in terms of water (re)allocation is complex and shaped by many factors, there is growing evidence that the impacts on ecosystems and local communities can be extremely negative.

Source: Borras S., J. Franco, S. Gomez, C. Kay and M. Spoor (2012), 'Land grabbing in Latin America and the Caribbean', *Journal of Peasant Studies* 39(3-4): 845-72.; and Kroger M. (2012) 'Global tree plantation expansion: a review', ICAS Review Paper Series 3.

6 How is water grabbing related to land grabbing?

Land and water grabbing are deeply intertwined. While water did not always feature prominently in the early literature on land grabbing, the water dimension is now increasingly highlighted, based on the understanding that it is difficult, if not impossible, to grab land without grabbing water, and vice versa.

An investor's control of land usually comes with a corresponding control of water resources. In Mali and Sudan for example, investors have been granted unrestricted access to as much water as they need.⁷ Some international investors trade a promise to build water infrastructure for the acquisition or lease of land. The Libyan government for instance built an irrigation canal in exchange for 100,000 hectares of land in Mali.⁸ Hydropower development in India, Brazil or along the Mekong River meanwhile has typically involved massive expulsion of people to flood their land. Water is then a critical factor in land grabbing – both as a driver and as a target. It is determinant in shaping which lands are attractive for investment and which are not.

This pattern suggests that investors do not seek agricultural lands that do not have water for production in the first place. This contradicts diffuse discourses on land grabbing which claim that the land subject to acquisition is either 'marginal' and 'degraded', or 'unused' and 'underutilised'. The marginal land narrative has been deployed to justify large-scale commercial agrofuel crop production in particular; by targeting and using 'marginal' or 'degraded' land, agrofuels (it is assumed) will not compete with food crop production for prime land. Yet such land is rarely marginal, and rather either already used by small- and large-scale producers, or of prime quality and associated with irrigation facilities, or with the potential for acquiring freshwater from river systems or aquifers. This raises the crucial question of whether this water is truly 'available' – often this assumption leads to unsustainable withdrawals, undermining the quality of the land, exacerbating already competing uses, and leading to unequal water reallocations away from existing users.

Such was the case for example in the 30 000 ha sugarcane-ethanol 'ProCana' project in Mozambique that would have required vast volumes of water to be withdrawn from the Massinger dam for irrigation. Although the project initiators claimed that water reserves were sufficient to meet demand, an independent

study showed that water reserves were sufficient to meet only 60% of the required volume, above this the water security of subsistence farmers and livestock herder further downstream would be severely compromised.⁹

The accumulation of land and the accumulation of water are not necessarily proportional. Powerful investors can accumulate water by capturing control over water sources and infrastructure outside of their land concessions. In the Ica Valley in Peru for example, agribusinesses have deployed various strategies for accumulating water: one company pipes water to its plantations from 22 wells it purchased from small farmers; another owns 20 wells outside its property.¹⁰ Similarly, in the lower valley of the river Piura, a large agro-export enterprise has installed a huge pumping station at a strategic point on the river, along with canals and artificial lakes that are cordoned off by barbed wire and patrolled by armed guards.¹¹ The scale of water grabbing can thus potentially extend far beyond the corresponding land grab.

Further reading:

TNI (2013) *The Global Land Grab: A Primer*. Amsterdam: TNI.

Woodhouse, P. (2012). New investment, old challenges. Land deals and the water constraint in African agriculture. *Journal of Peasant Studies* 39(3-4): 777-794.

Cotula, L. (2012) "The international political economy of the global land rush: A critical appraisal of trends, scale, geography and drivers" *Journal of Peasant Studies* 39(3-4).

7 How are the extractive industries tied to water grabbing?

Despite the well-established negative social and environmental costs of their extraction, the demand for non-renewable, raw material products is higher than ever. This is sustained by economic factors such as the rise of new hubs of capital and major players – both on the production and consumption end - in the Global South. It is also driven by the penchant for high-tech electronics products in the Global North that increasingly rely on rare and high-valued minerals. Meanwhile, new policy regimes, especially in Latin America, promote mining activities as key for national development and export revenues. The combined effect is that the exploitation of fossil fuels and industrial minerals and metals, most commonly referred to as the extractive industries, is exploding in terms of geographical coverage (new frontiers such as the Arctic or deep-sea locations), scale (ever expanding given that the more easily accessible deposits are drying up) and resources targeted (unconventional gas, new rare metals).

The high volumes of water required for mining and extractive industry activities are well known: it takes 24 bathtubs full of water for example to extract and wash one tonne of coal.¹² Quite often the demands for resource extraction run up against ecological limits. Around 95% of China's coal for example is mined underground with heavy reliance on groundwater use.¹³ Worse still is that 53% of China's ensured coal reserves lie in water scarce regions and 30% lie in water stressed regions.

Many extractive industry projects result in changing water use and tenure patterns that can be understood as a form of water grabbing. Mining and gas extraction often involves powerful actors gaining control over local water arrangements, often inducing (in)direct restrictions on the access to water for previous users or marginalized groups, along with negative waterscape transformations brought about by water depletion or pollution.

Struggles to maintain community control over water in the face of industry pressure within the context of mining operations have been extensively documented. An emerging threat lies with fracking, short for hydraulic fracturing, a fast spreading technology for extracting unconventional, hard-to-access natural gas. Fracking signals a worrisome shift in water use whereby new arrangements governing access and control over water are implemented in favour of major companies in the oil and gas industry.

Fracking puts local water systems and communities that depend on them at risk of water diversion, depletion and contamination. The diversion and depletion of water on a massive scale is especially striking in relation to industry projects to frack in Nuevo León and Coahuila, Mexico's driest states, along Egypt's river Nile, South Africa's Karoo Desert and in China's Shaanxi province which is already plagued by water shortages. Not to mention that half of all fracking in the U.S. happens in states with high water stress.¹⁴ Fracking is a very water-intensive process, requiring up to billions of gallons of water mixed with highly toxic chemicals. Case studies of waterways contamination are mushrooming, either in the form of accidental underground spills during the course of extraction or through mismanagement of wastewater.

Further reading:

TNI (2013) *Fracking and the Global Land Grab: Old Story, New Threat*.
Amsterdam: TNI.

8 How are hydropower projects linked to water grabbing?

Hydropower represents another dimension of the global water grab. Although the rate of large-scale dam construction for hydropower projects has varied over the years, the overall trend points steadily upward. While there were only 10 mega dams in 1950, this had risen to 305 in 1995.¹⁵ Over the same period, the total number of large dams skyrocketed from 5,000 to 40,000. Globally, between 40 – 80 million people have been displaced by dams built on their land.

The fashion for the large-scale damming of rivers is part of a ‘development’ complex traditionally spearheaded by the World Bank Group. Over the past 65 years, the Bank has funded close to 600 dams around the globe to a total cost of around US\$100 billion in loans and guarantees.¹⁶ These projects have left a trail of destruction in their path, for example for the Tonga people forced from their lands by the Kariba Dam in the 1950s who still await assistance, for the Guatemalan farmers seeking justice for the murder of family members who opposed the Chixoy Dam, and the coastal communities in Pakistan who were harmed by a seriously deficient World Bank drainage project and the floods and devastation it caused.¹⁷

The surge in mega dams is increasingly being financed by new actors such as the national banks of China, Brazil, Thailand and India as well as range of private banks, equity firms, export credit agencies and regional development banks. In 2011, the Brazilian government for example gave the go ahead to the Belo Monte Dam Complex. Set to be the world’s third-largest hydroelectric dam, it will divert 80% of the flow of the Xingu River, one of the main tributaries of the Amazon, displacing over 20,000 people and threatening the survival of indigenous peoples and other traditional communities.¹⁸

Governments often view large-scale hydroelectric projects as vital to further economic development. The key question however is economic development for whom? The Brazilian government justifies the high costs of projects such as Belo Monte on the grounds that hydropower is a renewable, highly efficient, and, once the infrastructure is complete, cheap source of energy. Yet the roll out of these projects has been accompanied by the privatisation of energy provision which has placed hydro-electricity in the service of large transnational companies such

as mining, metallurgy and supermarket conglomerates which receive energy at rates as much as ten times lower than those paid by the general population. As a result, ordinary Brazilians have experienced rate hikes of over 400% in the last ten years, even though 80% of Brazil's energy is generated through hydropower.¹⁹ Similarly, despite billions having been spent on the Inga 1 and 2 dams on the Congo River, 85% of the electricity in the Democratic Republic of Congo is used by high voltage consumers, such as the mining industry, while more than 90% of the population has no access to electricity.²⁰

Hydropower has also featured prominently in the energy strategy of China – already the world's leading dam builder: half of the world's 45,000 large dams are in China and Chinese companies are involved in over 300 dam projects in 70 different countries.²¹ The extension of China's hydropower energy grid is seen as critical to sustaining economic growth. A substantial part of China's electricity needs is being met through its investments in large hydropower plants in other countries further downstream, in particular Laos and Cambodia. This however threatens the livelihoods of a large number of downstream water users – in particular those of artisanal fishing communities whose daily catches of fresh fish are vital to the regions' food security (see Box 4). To replace the loss of the Mekong fisheries, it is argued that Laos and Cambodia will be forced to invest in industrial, carbon intense livestock raising.²² China's carbon footprint, rather than being reduced by its investments in hydropower, is thereby likely simply to be shifted further downstream.

Even on their own technical and economic terms, the logic of mega dams is being questioned. A comprehensive study of 245 dams built in 65 countries since 1934 found that dam construction costs were on average more than 90% higher than initial budgets, while 8 out of 10 suffered a schedule over-run.²³ Even before taking account social and environmental costs therefore, it appears that mega dams are simply economically unviable. As both an energy and development strategy, they need to be radically rethought.

Box 4. Damming livelihoods along the Mekong river

The 5000 km long Mekong river, which flows through China, Myanmar, Lao PDR, Thailand, Cambodia and Vietnam constitutes a vast river basin that is estimated to support up to 100 million people. Artisanal fishing communities in particular depend heavily on the Mekong river: it is considered by many to be world's largest inland fishery, home to as many as 1,250 species of fish, and accounting for nearly 10% of the world's entire freshwater fish catch. Sixty percent of the population of Laos and Cambodia relies on caught fish for 100% of their daily protein intake.

Yet the damming of the Mekong for hydro-electric power generation, which began in the early 1990s but which has received a huge push in recent years, threatens to undermine the vital contribution this river system makes to the livelihoods and food security needs of the region. Laos for instance plans to develop eleven dams on the mainstream of the Mekong and more than seventy on its tributaries for energy export to China and Thailand. Among the most controversial ones, 'Xayaburi' is a US\$ 3.6 billion project financed by Thai capital and constructed by Thai companies. It is estimated that this could lead to a drop of the river's fish supply by 16% as migrating fish are blocked from reaching their spawning grounds, while nutrient rich sediment that sustains aquatic ecosystems as well as the lands of small-scale agriculturalists, is held back. If all of the 88 dams planned for the Mekong river basin are to push ahead, fish stocks could drop by 40% by 2030, potentially sparking a food security crisis across the region. The battle over the Mekong river as a source of fish versus a source of electricity thus looks set to intensify.

Sources: Schertow, J. *Sacrificing the Mekong River Basin in the Name of Electricity*. Available from: <http://www.towardfreedom.com/28-archives/asia/1417-sacrificing-the-mekong-river-basin-in-the-name-of-electricity>; China Dialogue (2012), *Laos forges ahead with controversial Mekong dam*. Available from: <https://www.chinadialogue.net/blog/5222--Laos-forges-ahead-with-controversial-Mekong-dam-/en>; Eyler, B. (2013). *China needs to change its energy strategy in the Mekong region*. Available from: <https://www.chinadialogue.net/article/show/single/en/6208-China-needs-to-change-its-energy-strategy-in-the-Mekong-region>.

9 What socio-ecological impacts does water grabbing have?

In general terms, water grabbing is leading to a significant double transformation of waterscapes and their associated water tenure relations towards new arrangements favouring powerful actors and the requirements of capital accumulation. Poor and marginalized communities, from remote rural areas to urban metropolitan spaces, see a re-distribution of water flows in which they either lose direct access or their ability to use water resources is severely compromised.

These changes are rationalised in the name of 'development'. However, development here is often understood according to a narrow episteme in which biodiversity, water, land, etc. are segregated from each other and priced solely in economic terms. Yet water and other natural resources are not mere inputs for conversion into commodities. To many local communities, water is not simply a factor of production, it also forms the basis of their livelihoods and is deeply entangled in their social and cultural identity. As a result, different actors – communities, the state, and investors – often have competing visions of what constitutes development and what 'benefits' of water access and use are (see Box 5).

Water grabbing carries with it significant implications for basic human rights including the right to water, to food, to health, to work, to self-determination, and in the case of indigenous peoples, special rights to territory and ancestral lands and resources. In the Cauca Basin in Colombia for example, forms of ethnicised and racialised land and water grabbing have led to the dispossession, impoverishment and forced migration of Afro-descendent communities.²⁴ This has occurred due to the failure of the state to guarantee the rights of Afro-descendents, favouring instead private interests, even when these have directly violated the rights of historically marginalised ethnic populations. Resistance by these communities has thus centred on demanding that the state and private investors respect their living space, showing how 'territory' is constituted through the interaction between traditional cultures and landscapes. This living space must be understood in all its socio-ecological complexity and must be protected as the economic and cultural foundation of the local Afro-descendant society.

Box 5. Questioning 'development' in the Tana River Delta

A 20,000ha sugarcane joint venture between government authorities and the Mumias Sugar Company is just amongst many large-scale land deals under negotiation in Kenya's Tana River Delta – a vast delta system that is home to a wide range of flora and fauna and supports the livelihoods of many indigenous communities, including the Orma and Wardei pastoralists, the Pokomo small-scale agriculturalists and the Luo fisherfolk. Deals such as these are justified on the basis that they further national development, bringing in foreign investment to transform what are considered by government officials to be backward modes of production incompatible with modern ways of life. Such a narrative must be critically interrogated. The economic returns projected for the above mentioned sugarcane plantation for example are only possible due to the fact that the developers will be allowed to abstract the required 2,420,000 m³ of water per day free of charge, saving €6 million a year in water fees. Negative externalities which are likely to be generated by the vast water requirements of the project, such as the risk of downstream ecosystem damage, reduced water availability for livestock and wildlife, the pollution of groundwater, lakes and rivers, and increased potential for inter-tribal conflict, are also not considered. Meanwhile a cost-benefit analysis conducted by Nature Kenya on alternative development scenarios in the Tana Delta which shows that the income generated by traditional farming, fishing and cattle grazing is almost three times higher than potential sugar cane revenues. Yet rather than helping to secure pastoralists' rights to land and resources and to further adapt to new challenges such as climate change, the Kenyan government is instead forging ahead with processes of land fragmentation, resource privatisation, and irrational commercial development, which are steadily eroding the foundations of the pastoral system.

Sources: FIAN (2010). Land Grabbing in Kenya and Mozambique. Heidelberg, FIAN International; Temper, L. Let Them Eat Sugar: Life and Livelihood in Kenya's Tana Delta. Barcelona, Autonomous University of Barcelona;

The impacts of water grabbing are not always easy to measure. The complex nature of water systems often makes it difficult to pinpoint precisely cause and effect. Sometimes the consequences are obvious: the leakage of toxic effluent produced on oil palm plantations in Indonesia that is killing river fish and other aquatic wildlife and making the river unsafe for drinking is one example.²⁵ Similarly habitat and species loss and the pollution of rivers and underground water tables in Brazil has been decisively linked to sugarcane plantations located right by rivers and lake sides as well as the use of toxic sludge, a by-product of ethanol processing, as a fertilizer.²⁶ Other times however, the effects are more diffuse and less readily observed. The diversion, depletion and pollution of local water sources, that often feed into larger water systems, affect natural drainage patterns and interact with seasonal and annual variations at different moments of the hydrological cycle in ways that are still yet to be properly understood. This is one of the main reasons why water grabbing represents such a threat. Rarely are the effects of water grabbing confined within the perimeter of a specific project. Instead, they often spill-over, disrupting ecological flows and balances and affecting the lives of people located in a much larger catchment area.

All these impacts are also triggering the intensification of water conflicts and resistance from local communities.

10 Why is the current global water governance framework inadequate to tackle water grabbing?

Growing concern around land and water grabbing has triggered numerous – and sometimes competing – governance responses. For three key reasons, these disparate responses that make up the global water governance framework are unlikely to be sufficient to stop and rollback water grabbing:

Firstly, an integrated and holistic approach towards the governance of natural resources is still lacking. Even though they are closely interconnected, land and water management systems have often been developed in isolation from each other by global agencies. As such, virtually all initiatives that have multiplied in recent years to deal with the issue of land grabbing have tended to neglect water. Even the progressive FAO Tenure Guidelines excluded water from the negotiations, considering it to be 'too complicated'.

The main processes attempting to explicitly regulate water access, use and distribution – what could be termed the emerging water governance regime – are limited, fragmented and most importantly, offer little concrete insight on how to address water grabbing. Despite the 'global' nature of water, water remains, at best, governed on a regional scale. Pluri-legal and marked by various institutional logics, the overall regulatory framework of the regime contains ambiguities which are highly permissive to water grabbing. Integrated Water Resources Management (IWRM) is generally considered to be the most established global paradigm. However, IWRM's flexible politics mean that it can be used to further a number of different goals – not all of them progressive (see Box 6).

Secondly, debates, processes and policies of the water governance regime beyond IWRM have largely been shaped by global bodies such as the World Commission on Dams (WCD), the International Commission on Irrigation and Drainage (ICID), the International Water Resources Associations (IWRA), the World Water Council (WWC), the Global Water Partnership (GWP) or even the Global Water Operators' Partnership Alliance (GWOPA). Many of these fora are under increasing corporate capture and have largely promoted a pro-water privatisation agenda, promulgating the concept of water as an economic good. They are also supported by multilateral institutions such as the World Bank, the International

Monetary Fund, and various regional development banks and other large donor organizations where development aid is sometimes linked to the privatisation of water resources.²⁷ Mainstream policies and principles underpinning water management are marked by neoliberal prescriptions. The World Bank's motto – "tapping the market" – is very telling in this regard.²⁸

Thirdly, the framework intended to defend water as a public good and advance a human rights based approach to water governance has, up to date, had very limited impact in rolling back water grabbing. One of the current debates among water justice networks is about whether or not to engage with the discourse on the Human Right to Water to frame their struggles (elaborated further in section 12 of this primer). Although it certainly should be seen as a positive step that a Right to Water and Sanitation has been recognised by the United Nations, the current approach also falls short in certain key aspects.

Its scope remains narrowly focused on the domestic use of water, largely for drinking and sanitation while productive uses – including mining, agriculture, energy, hydropower and other capital-intensive activities that are amongst the key drivers in water grabbing – are overlooked. Additionally, its ostensible neutrality when it comes to models of water service provision has enabled its cooptation by corporate water service providers. Aquafed -- the International Federation of Private Water Operators and the multinational water company Suez have for example declared to "strongly believe" in the right to water.²⁹ A similar trend can be observed in the closely related concept of 'water security', which has also shifted from its social-progressive origins towards a more neoliberal interpretation.

Further reading:

Newig, J. & Challies, E. (2014) 'Waters, rivers and wetlands' in P.G. Harris (ed.) *Routledge Handbook of Global Environmental Politics*. Oxon & New York: Routledge

Box 6. **IWRM:** what should be integrated and by whom?

Integrated Water Resources Management (IWRM) is defined by the Global Water Partnership as “a process which promotes the coordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems”. It contains a number of laudable aims, not least the fact that it adopts a holistic approach to water governance, recognising the failures of past fragmented and disjointed approaches that split responsibility for water management in ‘sectors’. Despite this, IWRM has been criticised for a number of inherent ambiguities. In attempting to maximise economic, equity and ecosystem benefits, it is argued that it glosses over the tensions, trade-offs and difficult political choices that are involved in natural resource management. Failure to address these issues leaves the concept open to interpretation and can be a way for more powerful actors to gain and entrench their control over water resources. It has been commented for instance that both the decentralisation of water management as well as licensing of water abstraction – two IWRM –influenced reforms – have been used in particular contexts to enable and legitimise water grabbing. As a final note, IWRM has also been found to have limited impact on water management in practice. In a 2005 survey by the Global Water Partnership, only 20 out of 95 countries reported formal implementation of IWRM principles.

Sources: Newig, J. & Challies, E. (2014) ‘Waters, rivers and wetlands’ in P.G. Harris (ed.) *Routledge Handbook of Global Environmental Politics*. Oxon & New York: Routledge; Franco J., L. Mehta and G.J. Veldwisch (2013) ‘The Global Politics of Water Grabbing’, *Third World Quarterly* 34(9): 1651-75.

11 Why are private water rights and property regimes not a solution to water grabbing?

A key issue which is raised by water grabbing is how competing claims to water access and usage should be mediated. One of the main goals of neoliberal water policies is to install private, individualised forms of market-based water ownership, management and delivery. Private ownership and the registration and securing of private water rights are advanced from this perspective as part of the solution to water grabbing.

The problem with this argument is that it ignores the major power disparities between actors in the water market. The assumptions of neoliberal water policy only hold when all water actors are free and equal in the market place. This is of course a fallacy given that the bargaining power of local communities is nearly always less than that of the foreign investor, who also often enjoys governmental support. In the process of 'updating' or 'reforming' water rights – codewords for the decollectivisation and individualization of water rights – it is small water users who therefore often lose out.

Instead of protecting local communities from dispossession, privatisation and the trade in water rights it facilitates can in fact achieve the opposite. This danger particular exists when a narrow interpretation of water rights as private property rights is advanced at the expense of alternative, diverse, and community based forms of water use, allocation, and management. States often play a key role, simplifying complex social realities in order to make public administration and governance possible. For example, the Mozambican Water Law theoretically gives priority to water use by rural households for their domestic needs, livestock, and small-scale crop irrigation.³⁰ Yet at the same time, it doesn't require this "common use" to be registered which makes it vulnerable to competition from other users as it is essentially rendered 'invisible' to government planners. The allocation of private water rights to investors is by contrast highly visible.

Water privatisation is thus often a first step towards the erosion of customary, social constructed and collective forms of water management and the transfer of water resources to powerful actors. The case study of local farming communities in the Oromia region in Ethiopia provides an example of how locally negotiated and managed systems of water use are subverted and simply overridden by foreign investors (see Box 7).

Box 7. **Flower power:** case study of Oromia, Ethiopia

Local farming communities in the Oromia region of Ethiopia for generations had managed water collectively relying on customary rules and principles that emphasised sharing, conservation and accountability through regular meetings. The groups raised water fees which were used for repairing the canal, paying water guards and for administrative costs. This changed radically with the establishment of nine floriculture and horticultural farms in the area, seven of which are wholly or jointly owned by foreign investors. With the arrival of the new investment farms this informal water management structure changed dramatically. Farmers' groups were re-organised and new rules were implemented. These included the doubling of water use charges, a substantial increase in sanctions for non-compliance, and a turn-taking system between investment enterprises and local farmers. While four binding rules were introduced for local farmers, only two rules were established for the investment farms which were not subject to any form of sanction. Furthermore, the investors were found not to follow the second rule governing the agreed system of turns, bribing water guards to open water gates to allow them access to water reserves. Not surprisingly, this shift in water allocation is widely perceived by the local farming communities in Oromia to be inequitable and farmers have appealed to the Regional Investment Bureau about the impact of the investment farms on their water rights. The Ethiopian government, which broadly welcomes foreign direct investment in its agricultural sector, however sided with the investors leaving local communities with few alternative courses of action. A sense of powerlessness thus pervades the local farming communities in Oromia.

Source: Bues, A. (2011). Agricultural Foreign Direct Investment and Water Rights: An Institutional Analysis from Ethiopia. [International Conference on Global Land Grabbing](#). University of Sussex, Brighton, LDPI.

Further reading:

Achterhuis H., R. Boelens et al. (2010) 'Water Property Relations and Modern Policy Regimes: Neoliberal Utopia and the Disempowerment of Collective Action', in R. Boelens, D. Getches and A. Guevara-Gil (eds.) *Out of the Mainstream: Water Rights, Politics and Identity*, London: Earthscan, pp. 27-56.

12 What alternative framework can be advocated to protect communities from water grabbing?

Of utmost urgency is the need to acknowledge the dangers of large-scale land-based investments for inclusive development, and to protect all water users and informal systems of water management. While neoliberal development and water policies seek to destroy the 'plurality of water rights, water identities and management modes' in order to replace them with a uniform market logic, an alternative approach must make these rights, identities and modes visible as the first step towards countering water grabbing.³¹ It does not necessarily involve 'formalising' those rights, but rather ensuring their protection through a framework premised upon the democratic access to and control over natural resources. The charter of the Marseille Alternative Water Forum in 2012 rightly states that "water should be recognized as a common good for all Humanity. Water is vital for all life and is not a commodity".³²

Beyond the shortfalls of the UN Right to Water – whose official recognition is an important victory despite its limited impact so far in addressing water grabbing – a human rights perspective on water remains vitally important. It is the best approach to ensure that with regards to access, use and control of water resources, a pro-poor and global justice perspective predominates. The human right to water and sanitation is a significant historical achievement and its main potential lies as a political tool to empower grassroots organisations to hold multinationals and States accountable. In cases of conflict over resources – community subsistence versus commercial use – the human right to water can be used to advocate for prioritizing people's needs over commercial interests.³³

It is therefore important to step up efforts to push for legal interpretations and developments on the Right to Water that strengthen dimensions such as the productive uses of water for people's livelihoods in agriculture, fishing, live stock keeping, artisanal mining, and forest-based livelihoods as well as aligning it with the principle/right of people's self-determination and the rights of Mother Earth. Indigenous peoples, particularly in Latin America, for example have begun to use international legal norms to assert their rights and protect their lands and resources on the basis of environmental law, indigenous peoples' rights, subsistence rights, anti-discrimination legislation amongst others.³⁴ This combination of legal and social mobilisation can be a powerful force for establishing an alternative framework for water governance.

An alternative approach for water governance would concurrently develop specific focal points on water *and* on broader resource governance questions. The emerging, state-of-the-art civil society proposal for a 'right to land' provides a foundation. It has been defined as "the right of every human being to access – individually or as a collectivity – local natural resources in order to feed themselves sustainably, to house themselves, and to live their culture."³⁵ It is echoed by the 'land sovereignty' concept, "the right of working peoples to have effective access to, use of, and control over land and the benefits of its use and occupation."³⁶

There are several reasons why these emerging concepts offer a useful normative framework. They can provide an inclusive and overreaching global master frame that link existing social justice movements such those of water justice and food sovereignty; they accept the plurality of property rights systems around water governance; they go beyond land and water as a resource to conceive of them as territory, land- and waterscapes with social functions; and they call to bring the state back in and hold it accountable to the people.

This frame allows for a further critical distinction to be made between water as a vital resource and public good associated with the satisfaction of basic needs which is non-negotiable and should be absolutely guaranteed, and water as an input for production upon which legitimate controls and restrictions may be placed. One cannot rationalise for example the allocation of water rights to agribusinesses where they affect the water requirements of small-scale food producers engaging in subsistence agriculture or the (precarious) production of food for sale on local markets. States can strengthen the hand of these small-scale food producers by recognising customary forms of water management; allowing traditional water users to form collective water user associations and apply for water permits, etc.

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13 How can transboundary water resources be equitably and sustainably managed?

River systems do not respect international boundaries. Water grabbing and the extraction, diversion or pollution of water resources in one region or country can therefore impact upon the availability and quality of water in another region or country. Transboundary water management of a river basin system is therefore essential.

Unfortunately, transboundary water resources are frequently flashpoints for conflict. Chinese backed dams along the Salween river in Myanmar for example are escalating ethnic tensions, leading to increased militarisation and further endangering already delicate peace settlements and processes.³⁷ Tensions also rose between China and India over the hydroelectric projects in the Yarlung Tsangpo river basin with China at one point laying claim to north eastern Indian state of Arunachal Pradesh, referring to it as 'South Tibet'.³⁸ Meanwhile, the already complicated hydropolitics of the Nile river basin have been rendered significantly more difficult by the increase of foreign investment in the region, with governments seeking to attract investors and gain a competitive advantage by granting free access to water resources.

The unilateralism with which many countries proceed to exploit shared water resources – and the zero-sum, real politik model for resource extraction and use that underpins it – threatens the sustainable management of transboundary river systems (see Box 8).

It is clear that a paradigm shift is needed when it comes to the management of transboundary water resources. This means that the way policymakers look at a river and a river basin must change. Official policy discussions are too often dominated by a “hydrocracy” or water bureaucracy that treat rivers simply as water pipes rather than living ecosystems.³⁹ A classic example is that of silt. While for hydrologists, power engineers and policymakers silt is a major nuisance that breaks turbine blades and should be filtered out, it provides the lifeblood for farmers who rely on it to replenish their soil fertility or for fisher-folk whose fish stocks are fed by it.⁴⁰ Yet unless the farming and fishing communities – as well as all those whose lives depend on and are affected by the river system – are included in conversations about their management, these views are unlikely to be heard. A new era of cooperation based on these experiences, voices, and lived knowledge is needed.

Box 8. **Realpolitik threatens the Yarlung Tsangpo**

The Yarlung Tsangpo Brahmaputra-Jamuna river is one of the world's great transboundary rivers. Starting high up in the glaciers of the Himalayas, it passes through the Tibetan plateau, descending into the north-eastern corner of India, before flowing into the deltaic lowlands of Bangladesh where it joins with the Ganga and comes out in the Bay of Bengal. During this journey, it flows through the world's deepest gorge – a feat that has led hydropower experts to see the river as a potential “energy Eldorado”. This has triggered a scramble by both India and China for the exploitation of the river's vast energy potential. Both countries seek to outcompete the other in the establishment of first user rights which, in international law, take effect upon the completion of the project. This is especially the case for India who – as the downstream riparian – has a keen interest in the uninterrupted flow of the river. Following on from China's plans to build 40 dams on the river and its tributaries, including what would be the largest hydropower project in human history on the ‘Great Bend’ of the Yarlung Tsangpo Gorge, India has stepped up its plans for hydroelectric development, from the 146 projects it listed in 2007, to about 200 today. These plans, should they go ahead, have been called a ‘calamity waiting to happen’, not least because of the potential impact of the large-scale hydroelectric development on various geological stresses in an area already prone to seismic activity, landslides and flash floods. Yet without a cooperative framework for managing the whole river system in place, the race to stake pre-emptive claims for the short-term exploitation of the river is likely to continue. It is a race however in which ultimately everyone risks becoming a loser.

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14 What should countries which face water scarcity do?

Water scarcity is a real issue for many arid and water-stressed countries. Already 700 million people in 43 countries live below the water-stress threshold of 1,700 cubic metres per person, prompting talk of a 'global water crisis'.⁴¹ With climate change, water scarcity in certain ecological zones is set to increase as global warming is predicted to bring higher rain-fall variability and reduced precipitation, increasing the risk of drought.⁴² All water users must therefore seek to manage their water resources in a sustainable manner and adjust to the projected impact of climate change on future water reserves.

The question remains then what countries facing a water deficit should do to guarantee their water security. There exist both supply and demand side options. On the supply side, states can invest in expanding the supply of water resources by improving water storage facilities and turning to non-conventional sources of water such as sea water which can be transformed into fresh water through desalinisation techniques. Both of these options are expensive, requiring substantial capital investments and high energy costs and are therefore not available to less wealthy nations or may come with environmental impacts.

Demand side options are usually more effective economically, socially and ecologically. Efforts focused on water recycling, conservation and the reduction of water waste and loss can yield substantial gains. The Chinese government is beginning to implement such a strategy with its Environmental Protection & Energy Savings policy. Given that 97% of electricity generated in China requires water to produce, saving energy also means saving water.⁴³ Meanwhile, a study by WWF-Brazil published in 2007 showed that by 2020 Brazil could cut the expected demand for electricity by 40% through investments in energy efficiency. The power saved would be equivalent to 14 Belo Monte hydroelectric plants (a mega dam project planned on one of the main tributaries of the Amazon River, see p. 9).⁴⁴

Addressing the global water crisis also means tackling the true causes of scarcity. To a large-extent, scarcity has been induced by policy failures. The desiccation of the Aral Sea in Central Asia is one iconic example. Here, the decision by the former Soviet Union to extract vast amounts of water from two feeding rivers for the production of cotton has led to the virtual disappearance of what was once the world's fourth largest freshwater inland lake. In 2007, the sea's area had shrunk to only 10% of its original size.⁴⁵

Given that agriculture is one of the major users of water around the world, only forms of agriculture that are based on sustainable water and natural resource use should be promoted. Techniques such as water harvesting, micro-irrigation technologies, mulching, and the construction of hill-side terraces lined with grass shrubs and trees which enhance the ability of the soil to catch and store water need to be highlighted. Most of all, inspiration should be taken from the daily water use practices of many peasant communities whose water management systems are based on an intuitive understanding of the ecological balance that must be struck between humans and nature (see Box 9).

Box 9. **How pastoralists manage water in a semi-arid environment**

Pastoralism is an exceptionally effective economic system, particularly for dryland areas. Here, pastoralists' ability to move across landscapes in order to utilise a variety of vegetation states and to track scarce or unpredictably distributed resources offers them unique advantages. This allows pastoralists to build up resilience and reduce their vulnerability to drought. In Kenya for example, where drylands cover more than 80% of the land area, pastoralism plays a critically important role in the economy, accounting for 50% of its annual GDP. The livestock raised by its 4 million pastoralists on predominantly arid and semi-arid lands meanwhile is estimated to be worth \$800 million per year. These valuations support the findings of the majority of studies which show that pastoralism is the most profitable way to exploit a semi-desert environment. Pastoralism is likely to even prove a more effective production system in light of climate change, with Kenya identified as one of the countries most vulnerable to increased flooding and droughts as a result of climate change.

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15 What resistance to water grabbing is being undertaken by civil society?

There is an active resistance by people against the current wave of water grabs. This resistance is scattered through several forums at various levels, and mostly context specific. Parts of civil society engage in FAO arenas such as in the consultations on responsible agricultural investment (rai) or the guidelines on fisheries (COFI). Many global and local anti-fracking campaigns are engaging with water issues while efforts to rollback land grabbing increasingly identify water as a key driver of international land deals. Throughout the world, national platforms have been formed by dam affected peoples to protest against large dam projects while the organisation International Rivers spearheads a global struggle to protect rivers and the rights of communities that depend on them. Both the World Forum of Fish Harvesters and Fish Workers (WFF) and the World Forum of Fisher Peoples (WFFP) fight for the rights of artisanal/small-scale fishing communities and against the privatisation of the oceans and aquatic resources. In December 2013, a broad unions-NGOs alliance successfully put forward the first European Citizen Initiative (ECI) on a human right to water, gathering close to 2 million signatures from all over Europe with the request to stop water privatization.

A main disconnect in struggles against water grabbing remains between the domestic uses of water – related to drinking water and supply systems – and productive uses, for production. Further, the divide between upstream, downstream and rural, urban water issues requires cross cutting alliance-building work to build a deeper understanding of convergent principles and values.

Resistance by the water justice movement has centred on privatization of urban water management and deliveries infrastructures. Importantly, alternative models have often emerged from those struggles. Grassroots processes of re-municipalisation and public-public partnerships are acclaimed achievements in securing water access for all (see Box 10). Beyond a mere shift of ownership in water services provision, these processes are an opportunity for building socially just and environmentally sustainable public water models. They promote water management practices forged around common values that redefine the meaning of 'public' beyond solely 'state-run' and eschew profit-seeking approaches. In other words, fairly distributed, sustainably-managed and democratically controlled water for all.

Box 10. **From De-Privatization to Re-Municipalisation and other alternatives**

In most countries, the expansion of modern water and sanitation systems happened as a result of public ownership and investment in response to increasing demand and public health concerns in urban areas. In the 1990s, many countries privatised their water and sanitation services, particularly in the South, as a result of strong pressure from neoliberal minded governments and international financial institutions. However, many cities, regions and even countries have chosen to close the book on water privatisation and instead embark upon remunicipalisation or renationalisation of water delivery, in which the aim is not to return to the pre-privatisation past but to develop public water systems that satisfy citizens' needs. More than 86 cities in the world remunicipalised water services during the last 15 years. This includes the high-profile remunicipalisation in Paris in 2010, the headquarters of private water giants such as Suez and Veolia. Recently in 2013, after several years of persistent citizens' campaigns, the city council of Berlin in Germany bought back the shares from the private operator for its water system.

Public-public, public-community and community-community partnerships (PUPs) involve the collaboration between two or more public authorities and/or communities and civic organisations, based on solidarity and a shared sense of 'publicness', to improve the capacity and effectiveness of public water and sanitation services and the management of water resources. Ranging from inclusive and accountable twinning arrangements to public-community partnerships, PUPs are relationships that reject profit-seeking. While PUPs tend to focus on performance indicators for water services, new partnerships are emerging between public utilities and upstream stakeholders and communities to protect water resources. Such partnerships demonstrate the strength of public bodies to integrate long term planning in the management of water resources and the importance of linking diverse stakeholders in the water basin. Such partnerships contribute to the reduction of water treatment costs, provide quality water to downstream citizens and support rural economies.

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AGRARIAN JUSTICE PROGRAMME

In recent years, various actors, from big foreign and domestic corporate business and finance to governments, have initiated a large-scale worldwide enclosure of agricultural lands, mostly in the Global South but also elsewhere. This is done for large-scale industrial and industrial agriculture ventures and often packaged as large-scale investment for rural development. But rather than being investment that is going to benefit the majority of rural people, especially the poorest and most vulnerable, this process constitutes a new wave of land and water 'grabbing'. It is a global phenomenon whereby the access, use and right to land and other closely associated natural resources is being taken over - on a large-scale and/or by large-scale capital - resulting in a cascade of negative impacts on rural livelihoods and ecologies, human rights, and local food security.

In this context TNI aims to contribute to strengthening the campaigns by agrarian social movements in order to make them more effective in resisting land and water grabbing; and in developing and advancing alternatives such as land/food/water sovereignty and agro-ecological farming systems.

<http://www.tni.org/work-area/agrarian-justice>

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The **Transnational Institute** was founded in 1974. It is an international network of activist-scholars committed to critical analyses of the global problems of today and tomorrow. TNI seeks to provide intellectual support to those movements concerned to steer the world in a democratic, equitable and environmentally sustainable direction.

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The **Hands off the Land** project aims to raise awareness about land grabbing amongst the European public, politicians, policy makers, students and professionals. The project presents case documentation, fact sheets and thematic studies of transnational land grabs in Mali, Mozambique, Zambia, Colombia and Cambodia.

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