RE:COMMON

New challenges for struggles against water privatisation and large dams

Financialisation of Water and its possible implications for water justice

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Re:Common, which originated from a transformation of CRBM in 2012, has been very active in the last years in supporting struggles against water privatisation in Italy and Europe, as well as large dams built or sponsored by Italian corporations or financed by Italian and European institutions. Re:Common, and previously CRBM, have been opposing large dams as icon of a wrong development model benefiting few elites and bringing severe environmental, social and human rights impacts to local communities in the global South.

Re:Common has engaged in social movements emerged around these two issues both in Italy, Europe and in the South, while keeping a broader view and understanding about water issues and thus bridging between the struggle to reclaim public water as a common good with that against large dams to reclaim an autonomous and self-determined development model by local communities in the global South. Such a link has become more visible while targeting the responsibilities of some large Italian corporations, such as Enel, even if only to some groups and social movements, in particular in Europe. Re:Common still does believe that it is important to understand and identify what is the frame linking all these struggles which should grow together as a more concerted effort to tackle corporate and elites interests in Europe as well as in the global South.

While working under this assumption and political perspective, however CRBM and then Re:Common began to detect some significant changes affecting the targets of its campaign, movement building and solidarity work. In particular, about the way in which major water utilities finance themselves, make investments and produce profits, and how large dams are getting financed at national and international level. These changes have had significant implications for civil society action, given that vulnerability and leverage points to tackle corporate and finance responsibilities have changed by often making civil society successes less relevant.

This might have been the case of the unprecedented success in Italy through the popular national referendum, which agreed to roll back water privatisation in June 2011. Despite this decision by the majority of the Italian population, decision-makers and water utilities have little reviewed their investment and governance pattern up to date and further privatisation is being promoted through new means and financial mechanisms.

Similarly Re:Common successfully campaigned to halt the financing by Italian and European public institutions for planned devastating dams in Africa and Latin America. However new players - both public and private - got in the scene and offered their financial support to these infrastructure projects in the last years.

Furthermore through the successful work carried out in support to the Chilean campaign to save Patagonia and block the plans by Enel-Endesa to build five dams in this pristine region Re:Common got to know and further researched the specific legal framework establishing private water rights and their trading in Chile – an innovative and perverse neoliberal and market-based approach dating back to the Pinochet era.

In Re:Common's view, all these changes and new trend could be referred to as an emerging "financialisation of water", a long term process which is set to profoundly change power dynamics around water and that in our view would require an in-depth understanding by civil society and social movements. In particular, it is a process that may have different implications depending on the context, which should be assessed and discussed in order to refine the struggles and resistance action, as well as organising at national and international level.

Despite trend is in the making and might be one among many changes happening in the water sector worldwide, Re:Common believes it important to collectively understand and discuss "financialisation of water" and its implications for water justice struggles since now. Beyond some conceptual hurdles yet to tackle, it would be particular important to understand what are already existing or new to come implications on the ground arising from financialisation of water, and what this would mean for refurbishing our struggles against water privatisation, large dams and for water as a public good. This is the aim of this discussion paper which has been prepared to inform the debate of three seminars co-promoted by Re:Common at the European Summer University of ATTAC in Paris on 20-22nd August 2014.

Encountering financialisation in the struggles for water justice

Since 2012 Re:Common adopted the lenses of "financialisation" to reorganise its work to exclude finance and markets from the natural commons, in particular as concerns issues related to land, water and energy/climate.
This decision has been taken based on the recognition that the process of financialisation of the economy, where trading money, risks and associated products is more profitable and outpaces trading goods and services for capital accumulation, is nowadays penetrating all commodity markets and their functioning is expanding fast from areas like social reproductive systems (pensions, health, education, housing) into natural resources management.

Just as the privatisation of public services served as a building block for the first financialisation of the economy, so the further commodification of the natural commons is the basis for the financialisation of natural resources. In this framework, the financialisation of the natural commons is something more than the mere expansion of the interest of financial actors for the natural commons but it implies the creation of new "asset classes" based upon the commodity itself, that become tradable on the financial markets and imply the creation or extraction of a plus-value which leads to additional profit for the investors.

Furthermore, as we could see from the recent financial crisis, financialisation regards not just investments into new asset classes but also the so-called financial "exposure" toward these – thus not by directly owning the asset, while exerting some influence or even right on it. This happens through the use of financial derivatives products through which risk is traded to generate extra profits for some at the expenses of losses for many. This has major implications in the political and economic dynamics also internal to capital and corporations, where a reorganization of the corporate structure is being modelled around new interests of share holders, bond holders, options holders, equity participation etc., each of them pushing for a further extraction of capital from the activities performed as well as from how markets read the overall performance[1].

In the last years Re:Common has been struggling with detecting, analysing and understanding to what extent the lenses of financialisation can be applied to water too. This is an on-going efforts which requires further collective work. As a matter of the fact, water is a quite specific common with specific features to be taken into account, in particular when trying to understand implications on the ground arising from eventual financialisation of water.

Karen Bakker, director of the Programme of Water Governance at the University of British Columbia, describes water as an "uncooperative commodity", which is not easily categorized, given the often-conflicting interest in its use. This means that its multifunctionality makes any attempt to find an exclusive way of using it or managing it almost impossible[2].

As consequence of that "uncooperativism", assessing financialisation of water means that we are confronted with three main trends and processes:

- The financialisation of water utilities, with the increasing exposure of water companies to the financial markets to ensure the distribution of growing dividends to the shareholders

- The financialisation of water infrastructures (i.e. as in the case of dams) and of the production of fresh water (i.e. desalinisation, purification etc.)

The financialisation of the natural common water in itself through the system of water markets, water rights and their trading.

1 For an in depth reading, see The Corner House, "Energy, Work and Finance", March 2014.

2 Karen Bakker, *An uncooperative commodity,* Oxford University Press, 2004.

1. The financialisation of water utilities

Privatization became a key policy in water management in the 1990s. The questionable essence of the thesis for privatization is that private sector would be more efficient than public one, because it removes inefficiencies associated with public ownership and has a direct economic incentive to monitor the management more effectively than the State. Furthermore there is the assumption that a more profitable private sector might have more resources or capacity to attract these to implement long-term infrastructure and network investments. Both assumptions have often not materialised, with severe problems for users and citizens. However financial profitability of water utilities kept arising and it is important to understand how that happened.

In short, the supposed benefits of privatization are above all in terms of financial efficiency. This has the effect of replacing what might be public sector goals such as fair access and social justice, with financial ones, such as efficiency and profitability to ensure the distribution of growing dividends to the shareholders. And even more importantly, from a political economy perspective, privatisation has progressively changed the involvement of the private financial sector in privatised water utilities, by making this more prominent and influential in three different ways.

As part of the wider trend of financialisation of the economy, corporations tend to finance themselves more directly in open capital and financial markets, and not just through the conventional banking system. In fact, water utilities, as most of formerly State-owned public service utilities, manage an enormous liquidity based on steady income streams deriving from water bills paid by users every month. This predictable revenue stream – combined with a secured return on capital investment which is guaranteed even by law in some European countries in the name of the provision of a "public service" - is a fundamental building block for the financialisation of water utilities and allows to build highly liquid financial assets based on water utilities' operations and functioning for which private investors have an increasing appetite. This is the case of Water Thames in the UK, among others, as clearly described in the work by John Allen and Michael Pryke[3].

Secondly, in order to cover growing financial risks associated with this new approach or to generate extra profits that long term investments are not able to generate soon as requested by greedy shareholders, corporations themselves got into proprietary trading on financial markets so that a growing part of their profits is generated today on these and not on water markets. There is a growing and visible trend for all water corporations to make profits through the financial markets. In particular, in order to ensure enough dividends are distributed, companies become more and more indebted on financial markets – in so-called "*dividend lending*". These operations are great deals for the banks in charge of bond issuance and other financial products. Taking as an example the Italian utility Hera, the company distributes 100% of its profit to the shareholders. In order to keep dividends stable Hera had often issued sophisticated bonds (put bond, extendable put bond, put bond resettable step-up, bonds in Japanese yen, ecc.). Unfortunately, the use of "creative" finance has not helped much the company that had paid so far higher interests compared with commercial debt from banks

Finally all financial assets related to water utilities and their operations – shares, corporate bonds, structured debt securities – are boundled together to generare additional financial assets tradable on capital markets. The biggest companies involved in water privatization *Veolia Environment* and *Suez* are linked through global financialisation with shares held by investment financiers in water-focused financial instruments, such as the Exchange Traded Funds. Veolia has operations in 67 countries, including in some of the world's poorest such as Gabon and Niger, while the company's shares are traded in complex instruments to increase wealth for the already wealthy. A similar complex chain can be found in other water privatizations. For example, in West Africa, water production and distribution in urban areas of Senegal and Cote d'Ivoire were privatized and are now owned by *Finagestion*, a Paris-based holding company which is majority owned (60 per cent) by Emerging Capital Partners, a private equity group specializing in investments in Africa.[4]
This subtle and often untransparent "financial" strategy is *de facto* **locking in privatisation in the long-term** and making it harder and harder for social movements to re-municipalise these companies first

3 *Financialising household water: Thames Water, MEIF and 'ring-fenced' politics*, John Allen and Michael Pryke, Department of Geography, The Open University, Milton Keynes, UK

4 *The Financialisation of Water*, Kate Bayliss, SOAS, University of London

and then reclaim them for the public good through more democratic governance and business models. In fact, if a company is highly indebted on capital markets through structured debt products, it is potentially more difficult to re-publicise it and settle debt claims with a larger number of creditors, including small households who might not even know that they invested in privatised companies through their pension or mutual investment funds.

Furthermore, re-municipalisation might require terminating complex financial instruments endorsed by the company to generate more profits, thus generating more losses in the short term. The sudden lack of profit in the short term – today partially generated through financial markets – might pose hard questions concerning how to break even and pay all staff salaries. Finally, the owners themselves of water utilities from which to reclaim corporations are not well known yet and constantly change given that a large number of shares might be in exchange traded funds and other structured financial assets traded every day on the market.

At the same time the growing financialisation of water utilities poses other questions concerning who is in the end deciding on company management and behaviour. Even when water utilities have a mixed public-private ownership – which local administration's representatives sitting on their board – no influence on companies' decisions is or can be exerted by public policies or local councils and administrations. As a matter of fact more and more company managers, whether nominated by public or private owners, have to respond primarily to concerns from financial markets and private financial actors – whether they are either owners or just investors in the companies – and less and less to the constituencies represented in the board.

This raises a question about **how a re-publicised water utility can be insulated from the interference of private capital markets**, which implies the need to develop new mechanisms for financing companies' operations, and in particular long-term investments. That means how water utilities should finance their work and from which sources, and eventually through which new forms of involvement – also financial – of end-users and citizens. This issue has been central in the electoral campaign for the popular referendum in Italy in 2011 and still remains at the heart of the discussion of how re-municipalisation can happen in practice in order to make the water utility act for the public good in a sustainable manner in the long run, beyond just the full public control on its ownership. In short how a republicised water utility should be operated for not producing profits as well as for "definancialising" its business model and prevent private financial markets yet to interfere in its operations.

2. The financialisation of water infrastructures

Over the last two decades, as CRBM first and as Re:Common now, we have engaged in solidarity campaigns with communities in the global South (and more recently in Europe) to stop the construction of mega infrastructure in the water sector.
Dams, hydropower stations and the related system of infrastructure have been the target of our work, in particular focusing on stopping the public and private financing of such mega infrastructure, in which European companies and financial institutions were investing.

We have seen important changes in the financing structure of such projects through the years, with major implications for strategies and tactics targeting the political and power relations around the construction of large dams.

We realised that a change in the financial structure brought in new actors, much different from governments and corporations or international financial institutions – which have been the main target of international anti-dam campaigning until the mid 2000. We also noted a transformation in how infrastructure were built, and in the interests that they are serving, which goes in two directions: an evolution of the Private-Pubic Partnerships from what we've come to know, and the transformation of infrastructure into asset classes themselves.

2.1 "Not just governments and corporations"

We registered an evolution in PPPs in 2000s, with new financing schemes going beyond government/companies deals, and loans or grants from public and private financial institutions.

a) <u>We noticed first an evolution in what we can call "financial incentives" to large dams, like the creation of the CDM scheme:</u>
The Clean Development Mechanism is an offset mechanism adopted under the Kyoto Protocol which

allowed industrialized states and private sector to compensate for greenhouse gas emissions by investing in climate change mitigation activities abroad. At first it became quite evident that the mechanism served the interest of dam constructors, that could push their projects as “clean energy sources” to seek carbon credits as additional profits from the CDM. The CDM provided an “extra motivation”, on top of the driving schemes of energy production for the mining industry or for electricity export that have been the drivers of dam construction over the last decades, with severe social and environmental consequences. Today we see on one hand that tthe CDM showed to be a failed mechanism. The CDM was designed to issue credits to projects that are “additional” – projects which are only being built because they receive revenue from selling carbon credits. But, how a study of International Rivers explains, the majority of the projects were expected to be completed within two years following approval. As a large hydro project typically takes 4-8 years to build (on top of several years of project preparation), few if any of the developers of these projects could have realistically needed CDM credits to build their dams. Furthermore, carbon markets have failed themselves, both as a financial mechanism and as a mean to reduce overall CO_2 emissions. The largest carbon market, the EU ETS, is infested by corruption and non-transparency, most of the emission reduction credits are fake and come from projects that do not reduce emissions. Hydropower projects represent a quarter of all projects in the CDM pipeline. However, International Rivers says there has been no substantial jump in hydropower development to match the large number of supposedly new projects applying to generate CDM credits. The constant reduction of interest of private investors led to a deep reduction of the offset’s price, which in 2013 was sold to 0.31 euro per tonne. It is not so strange believing that the CDM market is dying. However its supporters are still out there, and very active to give to the mechanism new life.

If we look at the CDM scheme from a financial perspective, we see that the mechanism serves another need, which is to provide permanent cash flow to the constructor, connected with “reduction of carbon credit emissions” certified by the UN. This has enormous implications far beyond supporting the financing of dams. In most cases, it influences the dynamic of the struggle in particular at international level: the UN certification can be seen as a kind of “endorsement” of the project by the UN, where the human rights and environmental implications of the construction become “secondary”, and the constructing company get further legitimization as “contributing” to local development and global emission reduction objectives. At national level, it enforces the position of the government, proponent/supporter of the dam, now with UN/CDM support. For the public campaigning and organising, questions include if the CDM should be a target, and how to effectively expose it for legitimising human rights violations connected to the construction of dams. And how relevant is the support of CDM as a mechanism, both financially and politically; or if what matters is the financial flows that it guarantees, and the political legitimacy to dam promoters.

b) Since the mid-2000, we noticed also an increased use of financial intermediaries in the financing through international financial institutions, such as the World Bank/IFC, the EIB and others.

Financial intermediaries included not only private banks, but also private equity funds, investment funds and a whole set of “new” financial actors, often registered in tax heavens such as the Mauritius, Cayman Islands, British Virgin Islands etc that public actors were not monitoring at all. Involving pension funds and investment funds is presented by institutions like the World Bank and the EIB as key to gather the needed financing for the construction of major water infrastructure. This have been broadly documented by a report of the UK think thank The Corner House[5].

In terms of organising, some groups started to focus campaigning efforts on influencing investors like pensions funds, asking them not to finance a certain project, or a certain sector. However this approach is seen by many as very narrow, and groups see themselves in most cases forced into a dialogue with pension funds managers asking then guidelines for where to direct their “sustainable” and “responsible” financing.

In our understanding, the financing through financial intermediaries brought in a significant change in the financing structure of the project, but also far beyond that, it changed the power relations around the project. For instance, in the context of a PPP, the power relation between the government, the constructor and a private bank is much different than the relation between the government, constructor and an infrastructure fund or a private equity fund, that could step in and out the project any moment, also influencing the overall rating of the investment, and what other investors will do.

It seemed to us that the issue is much broader and

5 *“More than Bricks and Mortar. Infrastructure as Asset Class: A Critical Look at Private Equity Infrastructure Funds”*, The Corner House, 2012

it has to do with a significant change taking place in the international economic and financial system, a restructuring of the capitalist model in which also the financing of large infrastructure is being restructured.

2.2 Large dams as new asset classes

We also realised that a real transformation in the economy has been taking place, where infrastructure like large dams and annex infrastructure - like hydropower stations, canalization systems – become “classes of assets” for investors like pension funds and investment funds.

Such process of profound transformation of the economy and production (that can be named financialisation) poses questions far beyond the dam or the power station that we are trying to stop. In our understanding, this process is still in an initial phase, however it is driving changes in how large infrastructure are financed; how constructing companies are reorganising and financing themselves; how banks and investors are reorganising their activities and structure, and their intervention in financing large infrastructure.

In terms of organising, the questions that we are confronting are not about how to change the attitude of investors, or defining safeguards to make sure that investors funds and pension funds can “safely and responsibly” contribute to water projects that are “beneficial” to communities. In our reading, this is largely impossible, because of the scale of investment in which these actor look, but also because whatever project that is “suitable” to their investment, may likely contribute to the further extraction of value, expropriation and exploitation driving the current reorganising of capital.

The questions that we are confronting are rather around how to support struggles of communities organised around water as a common, how to open a discussion with other communities and groups about the meaning of organising around a common, and the core principles for that organising.

In the anti-dam campaigning, the questions go around what infrastructure are needed from communities, to serve what needs, and how to build and finance them in a way that is empowering for communities and groups engaged in the struggle, transformative of the power relations and at the same time dismantling of the structure and driving forces behind the financialised approach. We ask ourselves also how far community organising can be pushed into approaches and methodologies that are transformative also of the relationship between the different actors involved in the struggle. This approach opens up further questions:

- So for instance in international campaigns, how relevant it would be to start discussions among international supporters around what each group could do to reorganise their finance and savings, but also the pension system, in a way that prevents resources from going into massive investment funds or pension funds looking for further extraction of value in large dams being built in Latin America, for instance. Would this be a new frontier for solidarity?

- What kind of legislative reforms are pushed by governments in Southern (and Northern) countries in the water and electricity sectors, but also through bilateral and multilateral investment treaties? How such reforms affect communities organised around water as a common, and what kind of organising would be needed to support their struggle?

- How major construction companies are restructuring themselves, in order to access capitals on financial markets? And what is the implication of that restructuring for struggles on the ground? For instance, the incorporation of the Chilean water company in 1989 into Endesa, and then Endesa incorporation into the Italian energy company Enel happened through the last three decades. What has been the effect of such international restructuring of capital for the struggles of the anti-dam groups in Chile, and other parts of Latin America?

3. The financialisation of the common “water”

When it comes to trying to understand the mechanisms and implications of the financialisation of the fundamental natural common “water”, we have to consider that we are referring to a vital resource on which life depends as a whole, it is a major input into agricultural and industrial production and, to a large degree, there is no substitute.

If we follow Bakker’s concept of its multifunctionality, water is, at the same time, classified as: a public good (society as a whole benefits from a safe public water

supply), a private good (i.e. consumption of bottled water), an economic good (useful to the people but scarce in relation to its demand), a merit good (if left to the market, its consumption would depend on households' capacity to pay for it, and therefore it needs State's subsidy), and a welfare good (access to safe water has a positive impact on households health).
To what extent can we claim that the natural common water is financialised?
In order to understand that it is important to look first at which new attempts of further commodification and marketization of the "commodity" water have been advanced so far as possible building blocks for financialisation to unfold, and to what implications will this have for organising.

3.1 Understanding water markets

While the water market is at a preliminary stage compared with other commodity markets and related financial assets, it is considered to have a great potential. There is some speculation as to whether or not water is the next big commodity or even the "new oil"[6]. According to Richard Sandor, an American businessman and chairman of Environmental Financial Products LLC, who made substantial profits from carbon emissions trading, "water is going to be the commodity of the 21st century"[7].

The reason behind financial companies' investments in water is not so much linked to the perception of it is a long-term investment, but rather to the understanding that a predictable scarcity will put a price premium on water providers. This is what makes projects "bankable," and financial innovation is often promoted in response to anticipated increase in the value of water as it becomes scarcer.

In 2011 the financial analyst James E. McWhinney wrote "water may turn out to be the biggest commodity story of the 21st century ["…] Why the interest in water? Like gold and oil, water is a commodity – and it happens to be rather scarce […] there are currently numerous ways to add water exposure to your portfolio - most simply require a bit of research"[8].

6 Suzanne McGee, *Companies proclaim water the next oil in a rush to turn resources into profit*, The Guardian, 27th of July 2014

7 Jacob Bunge, *Carbon-Trading Pioneer Dips Toe Into Water Markets*, The Wall Street Journal, 18th of July 2011.

8 *Water: The Ultimate Commodity*, James E. McWhinney, 17 July 2011 http://www.investopedia.com/articles/06/Water.asp#axzz1heWbZhHI

Anyway, at the moment there are some constraints to the financialisation of water, due to the fact that water cannot be traded in the same way as other commodities. In particular, it is difficult to transport and what is traded speculatively could not be "units" of water.

However, the predatory nature of the private sector indicates that pressure for control over water rights is likely to grow in the near future. In reality water trading has already been introduced in some places where water rights are traded.
Many parts of the world's arid or semi-arid regions face the dilemma of reduced water supplies and of an increasing demand for water resources due to population and income growth. In particular, the question is: faced with a problem of water scarcity, how better allocating water resources to balance demand and supply?

In some rich and dry regions, and also in some low-income countries, the proposed answer is: water markets. In other words, where there is a problem of drought, which affects irrigated agriculture, or whether urban population increases with a consequent higher demand of water, market-based solutions are increasingly being highlighted as effective tools to achieve a better water allocation. This is the case for many countries, such as Australia, South Africa, western United States, Costa Rica, Spain, and above all Chile.

According to Reuters, also China will start a pilot project of water trading. "China has picked seven provinces to host pilot markets for trade in water rights, as the government battles a spreading water crisis that threatens to curtail economic growth and hinder food production. The move is the latest sign that China aims to use market-based mechanisms to handle growing environmental problems. It has already launched seven pilot markets to cut emissions of climate-changing greenhouse gases, and plans to roll out a national scheme later in the decade" (Reuters, 24th of July 2014)[9].

Meanwhile in Europe, with its "Blue Print to safeguard Europe's water resources" (2012) the European Commission suggested that water trading could be included in water managers' toolbox[10].

9 *China to roll out seven pilot markets for trading water rights*, Reuters, 24th of July 2014, http://www.reuters.com/article/2014/07/24/china-water-environment-idUSL4N0PZ2DJ20140724

10 http://eur-lex.europa.eu/legal-content/EN/

The existence of water markets as such doesn't lead immediately to the financialisation of water, although there is no doubt that it facilitates the creation of new asset classes to be traded with the only aim of generating profits, far from any logic of better allocation of the natural resource to mitigate and manage water scarcity.

Even if the water markets as such determine and are grounded upon the commodification of water, with the attribution of a value of exchange to sell and purchase the commodity, the process of financialisation needs a new level where the trading of new asset classes is made possible to generate or extract a surplus value.

Following from this observation, we are not claiming that water is financialized in every country where water markets are operating. If we consider for example South Africa, where water markets are more regulated than in any other country, this regulatory approach surely reduces the possibility to generate a surplus value from the simple water rights' trading, but it doesn't fully avoid the risks of financialisation. The fact that *National Water Act 1998* in South Africa explicitly places equity considerations as a top priority, putting this goal ahead of economic efficiency in terms of how its water markets can be developed, definitely render the process of financialisation of water more complicated, even though a financial market can be created in every moment. The National Water Act is restricted to consideration and regulation of the real trading of water, to better allocate it in case of drought or other emergencies. However, it doesn't prevent the risk of the creation of local financial markets where the commodity water can be traded to generate or extract a surplus value, separated from the real exchanges of quantities of water. For instance, this might happen by introducing financial derivatives related to the risk associated with water rights and their use. Such derivative products would be then new financial assets to be exchanged in their own financial market by affecting the underlying water right and water markets at large.

In other countries, such as Australia or the western United States, the transition from commodification to financialisation is more likely. Even if we cannot register at the moment the existence of a financial market where water rights are sold and bought to create or extract a surplus value, there is not doubt that the risk is real, for example in case financial capitals started to show interest to gain money by trading water rights through speculative transactions in spot markets.

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A possible transition from commodification to financialisation can be observed in Chile, where the most neoliberal system in Latin America has been consolidating a very developed model of financialisation of water, where water trades are regulated by the market and the State plays a mere administrative role, with almost no regulatory functions and no role in checking water markets' functioning in terms of priority allocation, water rights concentration etc.

3.2 Water trading in Chile

As Jessica Budds wrote in 2009, "Chile operates a unique system of private tradable water rights. Under the *1981 Water Code*, existing water rights (the entitlement to use a certain flow of water under specified conditions) were converted into private property and regulated through economic and market mechanisms"[11].

The *1981 Water Code* was approved by Augusto Pinochet's military regime, within a neoliberal framework based on property rights and market principles. The law, still in force, handed to private sector the control of hydric resources, transferred free and for an unlimited perpetuity.

The Water Code's economic and market features were designed to consider water as a commodity like any other, which entailed separating it from land and territory where it flows. As consequence, landowners do not automatically own the rights over the water on their land and, therefore, water rights can be traded separately from the land. The imperative is that water can only be used by who owns the corresponding water rights, which are needed for all surface water and groundwater resources.

The market is intended to manage the allocation of water rights, so that State's role, through the National Water Directorate (DGA), has been curtailed to a purely administrative function. In 1981 water rights were separately allocated from land redistributed under agrarian reform and could be obtained by applying to the DGA. Once all rights had been allocated, transfers of water rights took place through the market.

11 J.Budds, *Contested H2O: Science, policy and politics in water resources management in Chile*, Elsevier, 2009.

The Water Code defines various types of rights, the most important of which are consumptive rights, that allow the use of water without replacing it (i.e. in agriculture), and non-consumptive rights, that allow the use but only with the condition that water is returned to the source (i.e. in the production of hydroelectric energy). The Italian electric utility Enel, through its subsidiary Endesa, controls about 80% of all the non-consumptive rights in Chile.

The DGA presented the allocation of water rights as a bureaucratic process ruled only by administrative procedures. As such, water rights must be allocated according to a simple chronological order of application. The imperative is "first come, first served"[12] with the consequence that the DGA has a pure neutral administrative role to ensure equal access and opportunity for all water users.
By ignoring the social power relations that also configures equality in access to water rights, the "first come, first served" approach ignores the different social and environmental impacts among the demands of water rights.

Before 1981, Chilean law gave to the State a lot of tools to exercise a real control over water and its different uses. The State could invalidate unused water rights and, at the same time, it could prioritize the use of water, so that everyone who applied to obtain new water rights had to explain what kind of use he was planning to do. The *1981 Water Code* demolished the existing institutional structure and stimulated the creation of a parallel water rights' market, permitting a free and permanent allocation without restriction of volumes that could preclude the concentration in a few hands.

In 1992 the former Chilean president Patricio Aylwin proposed to the Congress a bill to limit water rights' concessions and previewed their restitution to the State whether title holders didn't use them. The Congress needed 13 years to reach an agreement. The law 20.017 modified the Water Code but the water rights' restitution to the State was considered a "socialist recipe" and was replaced by a "penalty for not use".

This unusual act implied two paradoxes. On the one side, for the first time those who didn't use water had to pay more than those who consumed it. The "penalty for not use" forced water rights' holders to use water, and it created the conditions for making the wasting of it more convenient than its preservation and avoidance of misuse. On the other side, the reform allowed a further concentration of water rights in few hands.
According to a research published by the Economic Commission for Latin America and Caribbean (CEPAL), in central Chilean regions like Valparaiso and Coquimbo, the selling price of water rights can be up to 22 times higher than the fine to pay for not using it. As consequence, a lot of water rights' holders prefer to pay the penalty to keep water rights until their price rises, and to keep for themselves the possibility of gaining more money later on.

This system has generated a mechanism for the exchange of water rights that has nothing to do with the real market where real quantities of commodified water are traded for agriculture or urban services. Rather, it is a financialised market where water rights are sold and bought with the only purpose of accumulating profit. In times of scarcity of water or when the demand of water rises because of new industrial mining activities, those rights acquire more value so that the opportunities to profit in the financial markets increase. It is not a coincidence that in the desert of Atacama, the driest region in Chile with a very intensive extraction of copper and other precious metals, water rights can reach a price hundred times higher than the penalty for not using it.

The impact of the financialisation of water in Chile is absolutely real: the price of water is one of the highest in Latin America, the access to water is not granted to many rural and urban people, and water rights' holder are obtaining more and more politic and economic power and social control.

An emblematic case is the history of the entrepreneur Isidoro Quiroga Moreno, one of the richest people in Chile. According to an investigation published by the Chilean Journalist Investigation Center (CIPER), among 2008 and 2012 Quiroga has been gaining 25 million dollars selling water rights, which he had obtained for free by the State. Checking the DGA's archives with all the information about penalties paid for not use, CIPER could also verify how the Quiroga's companies are those that have accumulated more water rights with a clear speculative purpose.

Nowadays, most exchanges of water rights in Chile do not happen to ensure a better allocation of the natural resource but to generate or extract a surplus value through a series of speculative transactions. Making a distinction between commodification and

12 J.Budds, *Contested H2O: Science, policy and politics in water resources management in Chile, Elsevier*, 2009.

financialisation of water is not a mere theoretical exercise. On the contrary, the implications over local communities and environment are real, very real. Finding out where financialisation of water hides has a considerable importance in terms of how we organise ourselves in order to support local communities struggling with the consequences, and how we can contribute to revert this process since its conception and beginning.

Water rights and their trading begin to be discussed in Europe as well, and their definition in legislations in the coming years could open the door to a new and different wave of water privatisation, by locking it in for decades to come. However such a process is at the very beginning and requires further understanding.
In particular Re:Common identified three questions to address as a starting point:

- Which is the relation among water scarcity, its higher demand and the financialisation of water? Is an emerging real scarcity in some regions of the world the opportunity to infuse and incapsulate new scarcity into new market structure to be built to allow financialisation to unfold through them in the long run?

- Can water markets and water rights, as a further stage of commodification of water, be regarded as a building block for financialisation of water and in which way? Which new actors then might emerge to dominate these markets, and how extra profits would be generated or extracted through them?

- In the end how such form of financialisation of water will impact territories and local communities and what can be done to prevent this to happen?

Final remarks and follow up

This paper, far from proposing clear-cut answers, is meant to serve as a discussion baseline in assessing a process which is still unfolding and therefore impacts are still in the making. Re:Common is particularly interested in understanding collectively with other interested groups what are already existing challenges and possible new implications on the ground posed by financialisation of water, and what this will imply in terms of strengthening our struggles against water privatisation, large dams and for water as a public good. In this framework, the seminar in Paris is meant to create a space to bring this debate to a step forward, with the background commitment and engagement of taking this collective understanding process beyond the seminar itself.

Comments, feedbacks and additional inputs to these and other questions will be particularly welcome.

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