**Introduction**

Our Sydvatten project approaches conflicts over water from a human rights’ perspective and suggest an interactive class activity, a role play, which allows the student to get a deeper understanding of water as a human right in the context of past and current conflicts over water in the world.

We expect students after having taking part in this Social science water-related teaching class, having acquired the following learning objectives: getting a deeper understanding of water as a human rights and how different communities relate to water, as well as an inside understanding of the complex interplay over water (different interests, power relations, usages and approaches to water). Thanks to the role play, the student will as well train their oral and persuasion skills by building a solid argumentation to defend their fictitious role in front of the class.

2. **Water from a Human Right’s perspective**

2.1. *Human Rights ...*

Oxford English Dictionary defines human rights as ”the set of entitlements held to belong to every person as a condition of being human” (Human rights, 2014). We are all entitled to these rights simply because we are human beings. United Nations Human Rights through its Office for the High Commissioner for Human Rights (OHCHR) states that human rights “are rights inherent to all human beings, whatever our nationality, place of residence, sex, national or ethnic origin, colour, religion, language, or any other status. We are all equally entitled

to our human rights without discrimination. These rights are all interrelated, interdependent and indivisible” (OHCHR, 2014).

To better understand the human rights, here are some examples mentioned by OHCHR: right to life, equality before the law and freedom of expression; the rights to work, social security and education, and many others. They are specifically mentioned in the Universal Declaration of Human Rights, which was adopted on 10 December 1948 by the United Nations.

*… And Water*

Water is strongly related to a significant number of other human rights, for instance threatening the very right to existence if access to water is not secured. However, a considerable number of people live without access to safe and clean water or sanitation, and it was only recently that water was recognized as a human right in itself. On 28 July 2010, United Nations General Assembly explicitly recognized the human right to water and

sanitation. It is now acknowledged that clean drinking water and sanitation are essential to the realisation of other human rights (Dugard, 2010, p. 178). By establishing a formal recognition for water as a human right, and setting up a legal framework, it helps facing the competition for water resources and securing the water necessary for human needs (Björklund &

Sjödin, 2010). The same authors emphasize that “in global average terms, water for household consumption only accounts for less than 10 percent of the overall human water use. Therefore it does not pose any major threat to natural freshwater availability” (p. 4).

Figures for access to water and sanitation:

http://water.org/water-crisis/water-facts/water/ & [www.unicef.org/media/files/JMPreport2012.pdf](http://www.unicef.org/media/files/JMPreport2012.pdf)

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2.2. *Sustainability Dimensions of Water*

Water and its usage have to be approached from a holistic perspective, as it involves a “multifaceted nature of inadequate water access” (Björklund & Sjödin, 2010). It represents a core component for sustainable development, and therefore the approach to water should reflect the three dimensions: environmental, social and economic.

**Environmental Sustainability**: Water is essential for all life on Earth and a key component of its major cycles (i.e. hydrological cycle, nutrient cycle), which ensures a proper functioning of all ecosystems essential to secure human right to water (Björklund & Sjödin, 2010). Moreover, freshwater is considered as one of the planetary boundaries (Rockström et al., 2009) with a strong interdependence with the others.

**Social Sustainability**: Unequal access to water, increase of pressure on water sources due to population growth, poverty and social inequalities, gender and cultural issues - as women play the main role in securing water for the households - all play an important role in the sustainable development of water use and access (WWAP, 2012).

**Economical Sustainability**: Subsidies and tariff policies have to be carefully considered from a human right perspective. Price of water for the poor should be calculated with regards to their income and should not be disproportionate from the price paid by the rich (Björklund & Sjödin, 2010). Moreover, the economical approach to water should be carefully analysed. The major challenge for the authorities, from an economic perspective: availability, affordability and sustainable financing.

2.3. *Water and MDGs*

Established in 2000, the Millennium Development Goals (MDGs) aim at making the world more sustainable, with a deadline of achievement for 2015. A number of eight major goals were set, including water issues, under the environmental sustainability goal (7c on the MDG list). Its target is to reduce by half, until 2015 the number of people without “sustainable access to safe drinking water and basic sanitation“ (MDG report, 2014, p. 43). As

of the 2014 report, progress has been made towards the access to improved drinking water (with an additional 2.3 billion people since 1990). However, as of 2012, there are around 748 million people that still rely on unsafe drinking water taken directly from rivers, ponds and lakes or other poorly protected sources. The report states that some sub-categories of the population are more affected than others: people in the rural areas, the poor and minorities.

2.4. *Water as a Human Right and Commodity: Conflicts over Use*

From an economic perspective, the “commodity approach” to water emerges to be the dominant paradigm (Langford, 2005). The main features, as Langford (2005) identified, are: price for water, water delivery based on market mechanisms, private ownership of water. From a social perspective, water is seen as a human right, and Langford (2005) mentions that “human dignity comes first, and that universal access to sufficient water for basic needs is an absolute and non-negotiable priority” (p. 275). Treatment of water as a human right implies certain legal aspects and obligations for authorities that could contribute to a more equitable allocation of social and economic benefits related to water and its use (WWAP, 2012).

Competing use for scarce water resources, increase the need for good water management (WWAP, 2012).

Water is vital for both natural ecosystems and for human society – agriculture, industry and households. Having in mind the challenges we face, e.g., increased water scarcity, climate change, population growth and general environmental degradation, we need to treat water from a holistic perspective.

Figures on global freshwater water use – agriculture, industry, human needs:

[http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/WWAP\_WWDR4 Facts and Figures.pdf](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SC/pdf/WWAP_WWDR4%20Facts%20and%20Figures.pdf)

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3. **Case study of Cochabamba in Bolivia: Privatization of Water**

In 2000, Cochabamba (Bolivia) grabbed world’s attention due to the massive protests over water prices.

Under the pressure of the World Bank to fulfil loan conditionality, the government signed over a 40-year concession to Bechtel Corporation to provide water and sanitation to Cochabamba. In order to legalize privatization, the Parliament promulgated at the last minute a new water law (law 2029). During that time, around 50% of the population had access to the water system. The rest met their water needs by building their own small systems managed by communities. Since Bechtel Corporation was the only provider, law 2029 made illegal these activities and allowed the corporation to use them with any compensation to the communities.

Furthermore, by installing meters in community wells, the company could charge for water usage. Water harvesting was prohibited. Water use for agriculture was unclear in the contract along with the quality of the service. On average, water bills increased 50% or more. As a result the coalition Coordinadora por la Defensa del Agua y de la Vida (Coordinator for the Defense of Water and Life) emerged. Oscar Olivera, the leader of the organization said: “It’s become a fight between David and Goliath, between poor people and a multinational

corporation. They have a lot of money, and they want to take away our water.”

The Coordinadora organized several peaceful protests and strikes that turned violent due to riot police’ response leaving behind dead injured and detained people. On April 9th, the last demonstration mobilized 100.000 people. Bechtel Corporation’s executives left the country after police could not guarantee their safety anymore.

4. **Interactive class exercise: Role Play**

**To the teacher:** start the role play (explanation below), before presenting how the situation unfold at the end, in order not to influence the students…

… the contract was revoked since it had abandoned its concession. The control of water returned to Municipality and representatives of the Coordinadora were the members of the Board of Directors. Law 2029 was modified according to Coordinadora’s proposal: “giving legal recognition to traditional communal practices—by protecting small independent water systems, guaranteeing public consultation on rates, and giving social needs priority over financial goals” (Olivera). Bechtel Corporation sued Bolivia for $25 million in the

International Centre for Settlement of Investment Disputes (ICSID). They lost the case.

For the role play, distribute the 14 roles (described below) to the students and prepare the stage in front of the class. The role play simulates an extraordinary session at a “Town-hall Meeting” after the violent police riots and broad popular mobilisation against the privatization of water in Cochabamba. The rest of the class will be the journalist’s (described in the table below) assistants. Their role with the journalist is to closely analyse the debate in order to publish an article in the next local newspaper’s edition, (see description below).

**Actors Role Description Interests**

**A Farmer**

You are a small scale farmer in

Cochabamba. You grow enough food

to sustain your family and make a

little extra income at the local

market selling some crops.

You want to secure access to safe drinking water for your

family and for the farming community in order to satisfy

both your basic daily needs and the irrigation of the

fields.

**An**

**Environmentalist**

You are an activist in an

environmental NGO working closely

with the local community to help

them with their concerns for water.

You want to develop an integrated approach to the

management of water, which should be both

environmentally sound and socially fair for the local

community.

**A Community**

**Leader**

You are the community’s

spokesperson at the municipal

council. You work hand in hand with

your colleague, the NGO activist.

You are concerned about the affordability and quality of

the water for your community members. With your

colleague you want to write a proposal suggesting

solutions to the Municipality on how to improve the

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situation regarding the access to drinking water and

sanitation.

**A politician**

You are a liberal politician at the

Municipal council, who wants to

promote the region to become an

attractive technopole for green

energy in Bolivia. You have a strong

utilitarian approach; the impacts on

local livelihoods are not your biggest

concerns, jobs come first!

You want to make Cochabamba the biggest energy

provider of Bolivia, in order to distribute cheap energy

across the country, while reducing Bolivia’s dependence

on imports. You have therefore strong connection with

the business sector and especially with “Bechtel

Corporation”.

**A (natural or**

**social)scientist**

**Depending on the**

**case: more social**

**or ecological**

**impacts**

You are a PhD student at the

Adventist University of Bolivia in

Cochabamba making research about

the conflict over water in

Cochabamba since the privatization.

You report the dramatic increase in the price of water and

what it implies for the community’s livelihoods in terms

of access to safe drinking water and health.

**A Fisherman**

You are a small scale fisherman in

Cochabamba. You sustain your family

by your fishing activities.

As your neighbour, the farmer, you are concern about the

price of water and the increased pressure on water

sources (ponds/river) after the privatization of water,

which threatened the fish population and your livelihood.

**An NGO**

**Representative**

You are a colleague of the

environmentalist and the community

leader, and work tightly with the

community in a participatory

process.

You aim at giving a voice to the local community at the

municipal council in order to empower them against the

“Bechter Corporation”. All stakeholders should be giving

the opportunity to raise their concern at the Town-Hall

meeting.

**A Businessman**

**(Private sector)**

You work for “Bechtel Corporation”

to provide drinking water and

sanitation in Cochabamba under the

law 2029.

You defend a business approach: you tax the water,

prohibit water harvest and don’t bother to run any

quality test. You perceive and control water distribution in

Cochabamba as a business sector. Putting a real price on

water is the better way to protect it! No subsidies!

**A Representative**

**of the Municipal**

**Water sector**

You are employed by the

municipality to take care of the

water distribution in Cochabamba.

You want to ensure safe and affordable water supply to

everyone in Cochabamba. However, “Bechtel

Corporation” offered you a lot of money to join their

business interests and promote the privatization of the

water supply against the public sector.

**A Mediator**

You the Municipality secretary, you

take the minutes of the Town-hall

meeting and moderate the

discussion.

You don’t take sides in the discussion but only give equal

space for everyone to express their interests in the

debate.

**A journalist and its**

**assistant from the**

**local newspaper**

You work for the local newspaper

You want to write an article which

will be published in the next edition.

With your assistants you have to analyse the debate, the

different interests in play, the most influential actors and

the final outcome in order to write a proper article about

the Town-Hall meeting in the newspaper**.**

**A lawyer**

You are a lawyer specialised in

Human Rights.

You work as a legal advisor for the victims deprived from

safe access to water. You work hand in hand with the

community leader, the two NGOs’ activists and the PhD

student.

**An Engineer**

**For the 2 other**

**cases**

XX XX

**An Hydropower**

**plan company**

**For the 2 other**

**cases**

XX XX

7. *Appendix*

From the background information provided, we collected a few questions to start a short class discussion activity with the students regarding the Human Rights´ perspective towards water, both in general and more specifically related to the privatization of water in Cochabamba. We believe this class discussion could be an introduction activity to prepare the student to the role play.

**Water use:**

Do you think water should be provided for free? Why and How.

How do you treat water at home (your perception on your daily use of water)?

Is the target set for water-related issues under the MDG 7c appropriate?

Is a target aiming at only halving the number of people without sustainable access to safe drinking water and

sanitation enough or more should be achieved?

Is it possible to approach water both as a Human Right and as a commodity?

**Cochabamba Case Study:**

In small groups, analyse the possible social conflicts around water that can affect your community, city or

country.

During the protests in Cochabamba, the World Bank president said:

*“The biggest problem with water is the waste of water through lack of charging.”*

Do you agree? How would you define the access to water (scarce resource): as a human right or as a

commodity?

As a teacher you could remind your student about the important international date regarding the Water

Agenda in the world:

World Water Day – 22nd of March: http://www.unwater.org/worldwaterday/

Human Rights Day – 10th of December: http://www.un.org/en/events/humanrightsday/

Water for Life DECADE (2005 – 2015) <http://www.un.org/waterforlifedecade/human_right_to_water.shtml>

**Additional resources to complement the background information about water as a Human Right:**

Human Rights, http://www.ohchr.org/EN/UDHR/Pages/UDHRMaterials.aspx.

Water, http://www.unwater.org/www.zaragoza.es/contenidos/medioambiente/onu/1090-eng\_A\_Post-

2015\_Global\_Goal\_for\_Water.pdf.

Human right to water – facts and figures (to be used as a general introduction),

www.un.org/waterforlifedecade/pdf/facts\_and\_figures\_human\_right\_to\_water\_eng.pdf.

Below are two extra case studies that can be used as background information for the role play with your

students with a stronger focus on hydropower development which can be approached from a human rights

perspective as well. Below find the background description of the Farakka Dam in Bangladesh and the Three

Gorges Dam in China.

*Case study 2: Bangladesh (Farakka Dam) Economy, Ecology and Political aspects of water*

Bangladesh is located at the end of Ganges basin and the water supply from Ganges River enters intoBangladesh through Gorai River. The upstream water supply from Ganges River is vital for the agriculture, forestry, industry and ensuring drinking water for the local people around the basin. Maintaining the proper river depth and quality of water also depends on water supply from Ganges River. Therefore the diversion created at Farakka on Ganges by India led to a significant alteration in the water flow in Gorai River in Bangladesh. The water flow during monsoon (July-October) has increased whilst it has decreased during dry

9 season (November-April). Inadequate flow during dry season made the Gorai River unable to stop entering saline water into the stream from Bay of Bengal which is located on the southern part. The stakeholders who were the victims of this dam are farmer, fisherman, industrialist, boatman and local people who entirely or partly depend on the Gorai River. The rice paddy production had significantly decreased due to the intolerance to salinity which led to economic loss of farmer. Salinity in water also put negative effect on groundwater quality and consequently led to more health hazard to common public. Some timber species

cannot sustain in saline soil which led to both ecosystem loss and financial loss for forest industry. Most importantly the quality of drinking water in both ground and surface area has drastically reduced which led to more health hazard for the local people (Mirza, 1998). In the figure 1, it can be understood how devastating the change was for the fisherman and boatman whose life entirely depends upon the flow of the river. It hampered the communication route as well since many local inhabitants take the rivers as a cheaper option to commute.

The main objective of constructing of the Farakka Dam was to restoring the navigation of two main rivers of

India (Hoogly, Bhagirathi) so that the port of Calcutta does not face any difficulties in communication through water (Mirza, 1998). It made the transportation, communication and business easier for the city of Calcutta in India. It is also plausible for India to look upon their own interest whereas there was a large area of Bangladesh affected due to this dam.

*Source*: Adel, 2002. *Source*: Mirza, 1998.

*Case Study: China and the 3 Gorges Dam and its environmental impacts*

The Three-Gorges Dam (TGD) and the South-to-North Water Transfer Project (SNWTP) will also affect frequency and intensity of severe floods in the Poyang Lake region of the middle Changjiang. For the last some decades the area surrounded by the lower and middle part of Changjiang River has been facing a severe flood which results in severe impact on agricultural economy. Although the increasing number of abnormal rainfall in 1954 and 1998 is said to be the reason behind the flood therefore anthropogenic that is changing around the river basin is the main culprit for flood. It is studied that deforestation in the upper Changjiang River, consequently soil erosion, shrinking the lake area of Changjiang alluvial valley and construction of large levees surround the river banks resulted in reduction of flood water storage capacity of the river. After the flood in 1998, the Chinese government made a policy of constantly closing and opening of the levees depending upon the level of water on the lake and that led to re- habitation of large amount of population around the area. After the completion of TGD and water diversion from the Danjiangkou Dam by the

SNWTP, the hydrological cycle became more complex because dampening the real water level of the river caused severe effect on river ecosystem and also causing extreme draught and sediment loads. The changing of hydrology during summer and spring had negative effect on the water demand of rice plantation. Moreover 10 algal growth and eutrophication in the reservoir has been increased and there are more possibilities of increase concentration of heavy metal on the groundwater which would potentially damage human health and

ecosystem (Nakayama & Shankman, 2013). Not only farming community and ecosystem were negatively affected by the dam, but fishing communities’ livelihoods face as well adverse impacts due to hydrological alteration (Jiang, Ban, Wang, & Cai, 2014). Although the intention of the Chinese government was to prevent flood, disparity within the geographical area made the impacts of Three Gorges dam more devastating.