

# Water as weapon, and casualty, in Russia's war on Ukraine

By Peter Gleick; October 27, 2022

From: The Bulletin of the Atomic Scientists

The war in Ukraine that began in late February with the Russian invasion of the southern and eastern regions of Donetsk, Luhansk, Zaporizhzhia, and Kherson, and the attempted overthrow of the government in Kyiv, has many long and complicated roots. A critical issue, however, little addressed in the media, and little understood by the general public, is the role that fresh water has played in this conflict, and the impacts of the war on Ukraine's water resources and infrastructure.

There is a long history of conflicts over water resources. The Pacific Institute has, for many years, maintained the best, open-source database on this issue: the Water Conflict Chronology.

This database tracks all known and reported water conflicts, where fresh water has been a trigger of conflicts or where water and water systems have been weapons or casualties of conflicts. Among the earliest entries are the century-long war between the ancient cities of Umma and Lagash in Mesopotamia, 4,500 years ago, and attacks on water and irrigation systems during the long history of the Assyrian, Babylonian, and Sumerian empires. But the number and severity of water conflicts has accelerated dramatically in recent years, as population and economic growth has put more pressure on limited water resources, climate change has intensified extreme hydrologic events, and inter- and intra-state conflicts have expanded. The Russia-Ukraine war offers just the latest examples.

In early October, Elon Musk inserted himself into the issue when he proposed four conditions for "peace" between Russia and Ukraine. Three of those conditions related to his opinion about borders, political conditions, and public elections, and they have been roundly discussed. But one of the conditions has been mostly ignored. This proposal was to assure "water supply to Crimea." How did that oddly specific demand sneak in there?

It turns out that Crimea's water supply is heavily dependent on a canal—the North Crimea Canal—that takes water from the Dnieper River near the town of Nova Kakhovka and distributes it though the Kherson region and into Crimea.

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## (From last column) Water as weapon

Most of the water is used for irrigation. The Dnieper is the fourth longest river in Europe, rising in the Valdai Hills of Russia, flowing through Belarus, into Ukraine past the capital of Kyiv, and south, emptying into the Black Sea.

When Russia illegally annexed Crimea in 2014, Ukraine built a dam across the canal to cut off the water supply, disrupting agriculture, straining reservoirs, and causing chronic water shortages in the years that followed. In the very first days of the Russian invasion of Ukraine this year, the Russians blew up that dam, an indication of the strategic value of water to Crimea and a key objective of the Russian invasion.

As a result, the peace plan that Musk proposed, to "assure" the water supply of Crimea, would—if Russia retains its hold on Crimea—require that Russia annex and keep the Kherson region and retain control over the entire canal. It is worth noting as well that the timing of the Musk proposal coincided with a major Ukrainian offensive pushing directly toward Kherson and Nova Kakhovka, and accepting that proposal would require the Ukrainians to halt their new offensive.

Each of the pieces of that proposal is a key Russian demand and, of course, a complete non-starter for Ukraine. In an uncharacteristically blunt response, Ukraine's outgoing ambassador to Germany, Andrij Melnyk, said "F\_\_\_ off is my very diplomatic reply."

But water has played other critically important roles in the conflict as well. In the early days of the war, as Russian armoured forces were moving toward Kyiv, the Ukrainians cut a levee, flooding a large area of land and helping to stop that assault. This action is reminiscent of the strategy the Dutch used in 1573, flooding land to break the siege of Spanish troops on the town of Alkmaar, and a year later to protect Leiden.

Ukraine's water purification, delivery, and wastewater infrastructure has also suffered a series of intense attacks, cutting off access to safe water and sanitation for millions of civilians. Working with colleagues from Germany, Belgium, and the Ukraine on this issue, we documented more than 60 instances between February and April 2022 where civilian water supply and water treatment has been disrupted, pollution of surface waters has been worsened from disrupted mine operations and sunken and destroyed military equipment, and dams for both water supply and hydroelectric power have been attacked.

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## (From Page 1) Water as weapon

As long ago as last April, the United Nations reported that six million Ukrainians were struggling to get access to safe drinking water, and conditions have worsened since then. Intentional attacks on power plants have also cut access to the energy needed to operate basic civilian water and wastewater infrastructure.

Attacks on civilian infrastructure critical for human health and wellbeing are violations of the Geneva Conventions. Specifically, the use of water as a weapon of war, or targeting civilian water infrastructure such as water supply or water treatment plants, or attacking dams and irrigation systems, are war crimes under the 1977 Protocols. Articles 51 and 54 of Protocol I of the 1977 Geneva Convention prohibit indiscriminate attacks on civilians and civilian infrastructure and they protect infrastructure critical to the survival of civilian populations. This international law states "it is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works, for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse Party, whatever the motive, whether in order to starve out civilians, to cause them to move away, or for any other motive [emphasis added]."

The law also states that militaries are to avoid attacking such installations so as not "to leave the civilian population with such inadequate food or water as to cause starvation or force its movement" (Protocol I, Article 54), while Article 56 of Protocol I and Article 15 of Protocol II prohibit attacks on infrastructure "containing dangerous forces" including explicitly "dams" and "dykes" if such attacks "may cause the release of dangerous forces and consequent severe losses among the civilian population." On October 20, Ukrainian president Zelensky called for international observers at the Kakhovka Dam in Kherson, saying that Ukraine had evidence Russia had mined the dam and was prepared to blow it up, which would cause devastating flooding for 80 downstream towns and cities, disrupt the water supply for southern Ukraine, and potentially cut off critical cooling water for the Zaporizhzhia Nuclear Power Plant.

Information and data on the consequences of the war for civilians, the environment, and water resources continues to accrue, but the full cost is still unknown. I urge all parties to refrain from violating international laws protecting civilians and the environment, including especially the water resources and water infrastructure critical for protecting human health and wellbeing. And the international community must do its part to ensure these rights and resources are protected and violations and violators punished.

### GIRLS NO LONGER MISS SCHOOL DURING THEIR PERIODS IN ZIMBABWE'S BUHERA DISTRICT

From: Care Connection Canada: Oct 19, 2022

In Zimbawe's Buhera District, statistics show that boys have higher attendance in school than girls. Why is this?

Often girls miss school during their menstrual cycle.

According to estimates from the United Nations Children's Fund (UNICEF), about one in every ten schoolage African girls doesn't attend school during their periods or has dropped out at puberty due to lack of cleanliness and separate toilet facilities for girls.

In Buhera, girls face difficulty managing their periods at school due to lack of sanitary products and knowledge about hygiene management.

Seventeen-year-old Jennifer, from Mabvuragudo High School, says girls experience different feelings including fear, shame, and guilt.

"Girls from our school used to struggle during menstruation. Most girls did not have sanitary [products], so it was common for some to miss school for even over a week. Most girls ...used cloths, and it was very uncomfortable. At one time a girl from school was embarrassed after the cloth fell in class, and so most girls preferred to stay at home during their period than face the shame," she said.

Use of cloths often left the girls vulnerable to period shaming from boys, as most of them could not afford sanitary products. Others had never used sanitary products before

The lack of awareness by parents and guardians on the importance of sending their daughters to school due to widespread traditional cultural norms and religious beliefs made the situation worse.

Jennifer says that due to poverty and lack of learning materials, she also had to endure school breaks without food. Some girls would go home and never came back to school.

With funding from and in partnership with the World Bank, CARE piloted the Social Protection and Wash Interventions to Keep Adolescent Girls in Schools in Zimbabwe project.

The project compliments the Government of Zimbabwe's Basic Education Assistance Module (BEAM) fee waiver program, which pays school fees for vulnerable students in both primary and secondary schools.

"While I received assistance from the government's BEAM program, my family struggled to [ensure we] have enough food, uniforms and other school requirements. It was hard to concentrate in school," said Jennifer.

"Now things have changed through CARE's support with sanitary [products] and cash assistance. I received 9 pants, 26 packets of pads, 10 bars of soap and I even shared these with my sister. I now have a proper uniform and books to use, and my family can now afford food for us to eat.

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#### **Our Mission**

The Boundary Peace Initiative represents people of diverse backgrounds officially brought together in 2002 because of our mutual concern for the rise in world conflict. Our mandate is to participate in multilateral non-violent conflict resolution in support of global human rights, ecological and environmental sustainability and international law through education, sharing of information, dialogue and activism locally and globally. We encourage and seek your participation in our mutual work for true peace based on social justice, equality, accountability, integrity, honour, respect, etc in order to build a better world today and future generations.

BPI web site: www.boundarypeaceinitiative.org For info contact Laura at (250) 444-0524 or (250) 442-0434 or email: L4peace@telus.net.

## **UN International Days**

March 1: UNAIDS/ Zero Discrimination Day

March 5: International Day for Disarmament and Non-Proliferation Awareness

**★ March 8:** International Women's Day

**March 15:** International Day to Combat Islamophobia

March 20: International Day of Happiness

March 21-27: Week of Solidarity with the Peoples' Struggle against Racism and Racial Discrimination

**March 21:** International Day for Elimination of Racial Discrimination

**March 22:** World Water Day

March 24: International Day for the Right to the Truth concerning Gross Human Rights Violations and for the Dignity of Victims

March 25: International Day of Remembrance of the Victims of Slavery and the Transatlantic Slave Trade

## "We Want to Live in Peace!" Speech of Honduran President Xiomara Castro before United Nations

From: Rights Action: October 2022

Honduran President Xiomara Castro: 77th session of the United Nations General Assembly, September 20, 2022

Not only am I the first woman to have the honor of leading our Central American nation, but I also represent the first democratically elected government after going through 13 years of dictatorship, the 2009 coup d'état, full of cruel assassinations and death squads, two separate electoral frauds, a pandemic and two hurricanes.

It is impossible to understand Hondurans and the great caravans of migrants without recognizing this context of cruel suffering that we have had to go through.

But electoral democracy is not enough to obtain the material and spiritual well-being of our people.

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(From page 2) GIRLS NO LONGER MISS SCHOOL It has boosted my confidence and I am not embarrassed to be among other students. Even other girls now attend school consistently because our parents can now also support us," Jennifer said.

Statistics show that food insecurity is also one of the major drivers of early and forced marriage and absenteeism from school among adolescent girls.

Letwin from Mabvuragudo High School Guiding and Counselling (GNC) teacher, who also received training in counselling says that the change has been very significant.

"There was high absenteeism and poor performance by students, mostly girls. Parents were not aware of the importance of education, and this was worsened by poverty."

"Children had so many squabbles in school and education was taken very lightly due to beliefs in the communities which did not value, particularly girls' education, such as *Kuzvarira* (giving away of girl children at birth for marriage or [other] fulfilment purposes). After the teaching and training on education, children now have a sense of togetherness. The provision of sanitary products and financial assistance to their parents has also boosted their confidence and improved their [relationships]. Children no longer have to miss school or even go home during their period because the project has also enabled us to keep dignity kits including sanitary products, blankets, pills, soap, towels among other essentials to assist the girls," Letwin said.

Through weekly guidance and counselling sessions with students Letwin is also equipping students with knowledge on gender equality, sexual and reproductive health, child protection, and menstrual hygiene management.

CARE distributes monthly cash vouchers and non-food items, such as sanitary wear, bath soaps, undergarments, and towels. Alongside these resources, trainings are held with household heads to help break down gender social norms.

The project also introduced Village Savings and Loan Associations (VSLAs), which are supporting parents to start income-generating activities to keep their children in school.

Community Pad Centers are being established in communities so that even after the project has ended adolescent girls and women in general will continue to have access to readily available, re-usable and affordable pads. So far, 6 groups have been identified for 6 school communities in respect of this sustainability initiative.

It is hard for me to understand a culture that not only hates and fights his brothers but even attacks Nature and abuses her. Man must love all creation or he will love none of it. Love is something you and I must have. We must have it because our spirits feed upon it. Without love our self esteem weakens. Without it our courage fails. Without love we can no longer look out confidently at the world. Instead we turn inwardly and begin to feed upon our personalities and little by little we destroy ourselves.

Chief Dan George

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## WHAT'S UP?

April 29<sup>th</sup>--On the Path to Peace, My Piece of Peace: 8:30 am @ USCC Community Centre, Grand Forks, B.C. Free Admission. Pre-registration required and will be available soon on line and at various outlets in the Boundary. Watch for posters and announcements for more information.

**June 10<sup>th</sup>: BPI conference** on how the military and war affect climate change globally and locally. Details to follow.

A charity is only then a real charity when it involves sacrifice.

Leo Tolstoy

War is one of the worst, more terrible things in this world.

Leo Tolstoy

Voice your opinion to the Prime Minister and all MPs. Free postage: {Name of MP}, Parliament Buildings, Ottawa, Ontario, K1A 0A6 Go to the Government of Canada website for MP email and phone contact at: http://www.canada.gc.ca

The BPI welcomes your input. Articles may not be common consensus of members. To submit articles contact Laura at 250-444-0524 or 250-442-0434 or email L4peace@telus.net.

The BPI is an affiliate of the Fellowship of Reconciliation, Peace Pledge Union, Abolition 2000 & CNANW and works with local and many global peace, social justice and environmental groups.

(From page 3) "We Want to Live in Peace!"

Thirteen years of a dictatorship, protected by the international community, led the country to multiply by six its public debt and reach a poverty rate of 74 percent, the highest rate in the history of Honduras.

Five out of ten of my compatriots live in extreme poverty, but I am clear that none of these figures impresses anyone in the world today that lives under the monetary dictatorship that imposes the most draconian measures of fiscal discipline on the poorest, that increases the suffering of the neglected majorities, and where speculative capital has no limits.

It is evident that for our country to survive today we must reject this presumptive austerity that rewards those who concentrate wealth in a few hands and exponentially increases inequality.

Since we arrived [in office] at the end of January, we have shown a strong desire for consensus, always expressing the firm decision to achieve agreement on our commitments without denying any of them.

But attempts to undermine the will of the people come at us from all directions. Conspiracies are fomented among the same sectors that looted the country and from their coup allies emboldened by a brazen anti-democratic attitude, sometimes disguised as diplomacy.

The public policies endorsed by the rentier economic model\* of the international financial community during the last 13 years have dragged us into a world full of violence and poverty with failed and abandoned projects, corruption, looting and drug trafficking.

None of the international witnesses to the electoral frauds of 2013 and 2017 were ignorant of those who were condemning our people [to suffering], and yet they were complacent about the worst plague that has hit our country. The arrogance of capital and petty interests made many opt for deception while organized crime led the country to the abyss.

The poor nations of the world will no longer endure coups, the use of lawfare\*\*, or Color Revolutions, usually organized to plunder our vast natural resources. The industrialized nations of the world are responsible for the serious deterioration of the environment but they make us pay for their lifestyle and for this, they spare nothing to plunge us into their plans and into an endless crisis, trying to tie us hand and foot.

The Honduras that I direct is being built with a vision of humanistic refoundation, imbued with dignity and sovereignty, which will do what is legally possible to recover our environment, and achieve the common good for all our population.

This arbitrary world order is unacceptable to us: where there are third and fourth category countries, where those who think they are civilized do not tire of carrying out invasions, wars, financial speculations and crucifying us with their inflation over and over again.

I take this platform to demand that we be respected, we want to live in peace! DO NOT continue trying to destabilize Honduras and dictate its measures or choose to whom we should relate.

(To be continued next issue)

Washing one's hands of the conflict between the powerful and the powerless means to side with the powerful, not to be neutral.

Paolo Freire

Try to find out your potential. After you know it, do not be afraid to underestimate it. Be cautious not to exaggerate it.

Leo Tolstoy

Human beings are rational creatures. Why do they seem capable of using violence so much more easily than reason in their interactions with each other?

Leo Tolstoy

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