

# Banning groundwater irrigation in the Barind Tract is not the answer



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In the 1970s, Bangladesh faced recurring food shortages driven by floods, droughts, and monsoonal uncertainty. Today, it feeds nearly 18 crore people. Rice output rose from about one crore tonnes in 1971 to 3.7 crore tonnes in 2020. This transformation was powered largely by groundwater. The country withdraws around 32 cubic kilometres of groundwater annually on average, roughly equivalent to draining nearly five Kaptai Lake reservoirs.

The Green Revolution of the 1980s and 1990s introduced high-yield crop varieties, fertilisers and, crucially, groundwater-fed irrigation. Nearly 80 percent of dry season Boro rice depends on groundwater. Without it, near self-sufficiency in food grains would not have been possible.

Nowhere is this shift more striking than in the Barind Tract of northwest Bangladesh. Once drought-prone and famine-affected, it became one of the country's rice bowls through intensive irrigation. I refer to this as the "Barind Paradox": groundwater transformed a dry landscape into an agricultural powerhouse, yet overuse now threatens the sustainability of that success.

Groundwater abstraction has increased dramatically over the years. In the High Barind Tract and adjoining areas, the geological conditions limit additional recharge. In some areas, dry season groundwater levels now fall below the lifting limit of traditional hand-operated wells (around seven to eight metres), making access to drinking water increasingly difficult. In several unions, seasonal shortages have become persistent, and in a few places, perennial.

These realities demand serious policy attention. However, the gazette notification by the interim government, designating 4,911 villages across 25 upazilas in three districts (Rajshahi, Naogaon and Chapainawabganj) of the Barind Tract region as water-stressed for 10 years, introduced sweeping restrictions that may create new risks while attempting to solve existing ones.

The notification states, "The construction of new tubewells and extraction of groundwater for any purpose other than drinking water



Once drought-prone and famine-affected, the Barind Tract in northwest Bangladesh became one of the country's rice bowls through intensive irrigation.

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will be prohibited, and the abstraction of groundwater through existing tubewells for any purpose other than drinking water supply will be prohibited." The notification also states that compliance with regulations is mandatory and that any violation will be considered a punishable offence under the Bangladesh Water Act, 2013.

This is a profound shift. The notified area covers roughly 5,000 square kilometres of irrigated land, where an estimated 100,000 shallow and deep tubewells operate officially during the Rabi season, according to the 2018-19 Bangladesh Agricultural Development Corporation (BADC) Minor Irrigation Report. Around 14 lakh farmers depend directly on groundwater irrigation in these 25 upazilas. An outright ban across such a vast area could destabilise one of the pillars of the country's food security.

Three concerns arise due to this ban. First is the immediate economic and social impact. Farmers, agricultural labourers, agri-input suppliers and local businesses form an interconnected rural economy built around irrigated agriculture. A sudden ban risks disrupting livelihoods at scale, particularly in a region where alternative water sources and income opportunities are acutely limited.

The second is enforceability. Policing

communities and local institutions.

The policy appears to draw heavily on a 2025 report commissioned by the Water Resources Planning Organisation (WARPO) and conducted by the Institute of Water Modelling (IWM), which assessed groundwater storage, recharge and safe yield in the Barind Tract region. While the comprehensive and technically robust study identifies areas of water stress and calls for improved water

towards a new dynamic equilibrium over time rather than revert to their pre-development state.

Groundwater depletion should not be ignored. In parts of the High Barind Tract, water stress is severe and targeted restrictions are justified. However, a blanket ban risks being disproportionate. If the same criteria were applied, Dhaka would also qualify as a highly water-stressed area. Yet, the strategy there has been a gradual transition and diversification, not prohibition, recognising the economic and political realities of managing a capital city. If Dhaka is managed through transition rather than bans, why should the Barind Tract be treated differently?

A more balanced and staggered approach in the Barind Tract would impose strict pumping bans on the most critically stressed unions, starting with those classified as very high water-stressed (47 unions fall into this category). Installation of new irrigation wells should not be permitted in high water-stressed zones (40 unions), and abstraction should be gradually reduced by 50 percent over the next five years. Irrigation, with close monitoring of groundwater levels, should be allowed in moderate to very low-stress areas (128 unions). Deficits could be addressed by redistributing irrigation demand, promoting the conjunctive use of surface and groundwater where feasible, improving canals, and enhancing rainwater storage in pond-based systems.

Crop diversification must also be accelerated. Farmers are already gradually shifting from water-intensive rice to other, less water-demanding crops. High-value crops such as mango and dragon fruit—as well as alternative livelihoods like livestock, dairy, poultry, and small-scale enterprises—deserve policy support. But transitions take time. Abrupt prohibitions can undermine adaptive change rather than facilitate it.

Surface water use should be expanded where reliable, though its availability remains highly seasonal, and climate variability adds uncertainty. Strengthening local institutions such as BMDA, DAE services and NGOs will be essential to restoring trust and implementing context-specific solutions.

Groundwater has been central to Bangladesh's agricultural transformation, lifting millions out of hunger. Yet, overuse in some areas now demands careful stewardship. The answer is not indiscriminate bans, but smarter zoning, groundwater and abstraction monitoring, and targeted regulation. The country does not need to choose between food security and environmental sustainability; both require science-based, proportionate and integrated water resources management.

groundwater abstraction would be extremely challenging. Blanket bans often lead to unintended consequences, including informal or illegal pumping. Early indications suggest irrigation has not ceased in most areas, highlighting the difficulty of enforcing the ban. Regulation without realistic enforcement mechanisms can erode respect for policy, rather than strengthening it.

The third concern is about governance and trust. For decades, institutions such as the Barind Multipurpose Development Authority (BMDA), the Department of Agricultural Extension (DAE), and NGOs like BRAC have worked closely with farming communities to expand irrigation, improve productivity, and reduce poverty. A top-down prohibition risks weakening that long-standing trust. Effective water management depends not only on regulation but also on cooperation between

management, it did not recommend a blanket ban on irrigation. Some of its assumptions merit careful reconsideration in translating scientific findings into policy.

Groundwater recharge was estimated using a single-year (2017) water balance model, with 75 percent treated as the "safe yield" for each union. Yet, recharge in northwest Bangladesh is dynamic. Over the past three to four decades, intensive irrigation pumping has induced additional recharge—the "Bengal Water Machine" recognised in the WARPO report. Using a one-year estimate to set long-term abstraction limits risks oversimplifying this evolving hydrogeological system. It also assumes groundwater levels must return to pre-irrigation conditions to achieve "safe yield," overlooking structural shifts in both water use and recharge since the 1990s. Under sustained irrigation, aquifers tend to adjust

# No, justice for animals and humans is not mutually exclusive



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In the past few days, courts in Bangladesh have handed down two notable verdicts in cases of animal cruelty. In one case, a Dhaka court sentenced three men to two and a half years' imprisonment each for killing 20 dogs in Jatrabari. Case documents reveal that the trio killed the dogs in the Lichu Bagan area of Dhalpur in Jatrabari using iron rods, pliers, and lethal injections on January 23, 2021. In another case, the court sentenced a man to six months' imprisonment and a fine of Tk 10,000 after CCTV footage showed him kicking his neighbour's pet cat in Mohammadpur in February 2025.

These cases are significant not only because they show that the justice system can act to punish cruelty to animals, but also because they highlight the way society views justice and its limitations—particularly the tendency to treat different forms of justice as competing priorities rather than complementary obligations.

So, you have a scenario where the courts have applied the law, heard evidence, and delivered sentences reflecting the seriousness of the crimes, signalling that animal welfare laws in Bangladesh are being enforced. Yet, in the comment sections under several news posts on social media, particularly on Facebook, many readers have been seen responding not with appreciation for the rulings but with criticism, ridicule, and disbelief.

A common theme in these comments ran along the lines of: "In Bangladesh, people are murdered and raped and often go unpunished, but someone gets jailed for killing an animal." Simply put, many tend to think it is unfair to punish someone for killing a dog or a cat when so many serious human crimes remain unresolved. This reflects a common but flawed way of thinking: the belief that problems in one area of justice mean we can ignore others. This is an example of the

fallacy of relative privation, which argues that one problem is more important than another and therefore, the second should be ignored or overlooked.

While frustration over delayed or absent justice in cases of murder, sexual assault, or corruption is understandable, it cannot be used as a reason to dismiss cruelty to animals. Justice is not a zero-sum game; the failure to punish human-centred crimes does not mean animal abuse should go unpunished. Each crime exists on its own, and each deserves proper response. Allowing animal cruelty to continue simply because other crimes remain unresolved weakens both the rule of law and our moral standards.

There is also a social and psychological dimension to animal cruelty that makes enforcing the law important. Studies in criminology and psychology show that people who harm animals are more likely to commit other violent or antisocial acts later in life. Childhood cruelty to animals is one of the behaviours identified in the Macdonald triad, alongside fire-setting and chronic bedwetting, and has been linked to a higher likelihood of developing violent tendencies in adulthood.

The behaviour of zoosadism—deriving pleasure from harming animals—has also been associated with violence and other criminal acts. Many cases worldwide show that individuals involved in animal abuse

are often connected to other crimes, such as weapons possession, drug offences, or violence against humans. Punishing animal cruelty is therefore not only about justice for the immediate victims; it can also help prevent wider harm, reinforcing the preventive role of law enforcement.

The recent cases further underline the need for a change in societal attitudes. Many people still see animals as expendable or less important than humans, which partly explains the backlash on social media. Promoting awareness about animal welfare through schools, media campaigns, and community programmes can help cultivate empathy from an early age. Media coverage that illustrates the legal consequences of abuse, along with stories that highlight the emotional lives of animals, can also play a powerful role in shaping public attitudes. By fostering a culture of compassion alongside legal enforcement, Bangladesh can strengthen both social and legal protections for animals.

Across the world, many countries treat animal cruelty as a serious crime, with protections embedded in their legal systems. In the United Kingdom, for example, animal abusers can be sentenced to up to five years in prison, and the number of prosecutions has steadily increased. In Brazil, high-profile cases such as the Sansão dog case—in which a dog's legs were severed—led lawmakers to

increase penalties for cruelty and strengthen protections for animals. In the United States, federal and state laws address animal abuse, with serious offences carrying multi-year prison terms. Even in countries where animal welfare laws are newer, courts increasingly treat animal abuse as a serious offence rather than a minor matter. These examples show that societies recognise the value of animal welfare and view its enforcement as part of a broader moral and legal responsibility, rather than as a distraction from human-centred justice.

The ethical argument for punishing cruelty to animals is simple. Enforcing laws against animal abuse does not diminish the need to punish crimes against humans. Justice for one group does not take away justice from another. Rather, as Martin Luther King Jr. said, "Injustice anywhere is a threat to justice everywhere."

So, the recent court rulings in Dhaka, though modest in scope, mark a step towards demonstrating that cruelty is unacceptable and punishable, no matter who the victim is. They send a clear message: the justice system recognises the value of life beyond human beings and will enforce laws to protect the vulnerable. By rejecting the idea that the lack of justice for humans allows animal abuse to go unpunished, society can uphold a consistent and principled approach to law and morality.

CROSSWORD  
BY THOMAS JOSEPH

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5 Burglar's crime  
10 Diva's piece  
11 Sports spots  
12 Calls on  
13 Entertain at bedtime  
14 Sofa for two  
16 Complete tie  
20 Musical transitions  
23 Carnival setting  
24 Complains  
25 Temperamental  
27 Broad st.  
28 Makes fun of  
29 Reporter's specialty  
32 Diet fare  
36 Merry

- 39 Bakery worker  
40 Smart guys  
41 Folk learning  
42 Year divisions  
43 Gold-filled fort  
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2 Words of approximation  
3 Schreiber of "Spotlight"  
4 Abated  
5 Tire feature  
6 Moor plant  
7 Wrap up  
8 Obese  
9 General on Chinese menus  
11 Provinces  
15 Espies

- 17 Amorous archer  
18 Staff member  
19 Gifts for kids  
20 Checkout act  
21 Roof feature  
22 Got larger  
25 Nasty  
26 Creamer alternative  
28 Diving ducks  
30 Glossy  
31 Bills  
33 Bus. sch. course  
34 Prefix with dynamic  
35 "Jurassic Park" beast  
36 Mouth part  
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38 Neckline shape

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**YESTERDAY'S ANSWERS**

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