

The Source of the Flood:
Trans-Boundary Resentments and Populist Far Right Politics

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1. Introduction

In the aftermath of an enormous fish kill in the Oder, a major waterway that forms a large portion of the boundary between Germany and Poland, German efforts to investigate and ameliorate the issue were met with resistance by Polish officials (Moody and Olszanka 2022). While the Germans appeared to treat the case as relatively standard environmental governance, their attempt to address the issue with Poland's government rapidly became contentious. Polish Prime Minister Mateusz Morawiecki pushed back hard against German pressure to address saline runoff from mining, asserting that the government are "caretakers and protectors of Poland's black coal and lignite mines and we will not allow Poland's coal mining to be closed" (Scislowska 2023). That the European Union expressed broad agreement with the German response (Marchowski and Ławicki 2023) raised hackles further. This hyper-nationalist Polish response was driven, in large degree, by the ruling party in Poland at the time: the populist, far-right, Euroskeptic Law and Justice party (Gądek 2022). The interweaving of trans-boundary environmental governance, extreme party politics, and deeply felt, nationalist resentment was striking, particularly in comparison to Germany's more measured response. Why would an issue with relatively straightforward technical solutions create so much conflict? I propose that power differentials across national boundaries create perceptions of unfairness, which in turn lead to resentment politics that advantage populist, far-right parties. The likelihood of future, similar events, such as in the Oder in 2024 (Lazarová 2024) magnify the potential effects.

The literature on extreme parties generally and the populist far right in particular has attributed support to economic disadvantage (Claasen and Magalães 2022), anti-immigration sentiment (Arzheimer and Berning 2019), and marginalization, particularly when associated with

regional or national identity (Ziblatt, Hilbig, and Bischof 2023). What is less clear is why it is that the populist far right seems to take advantage of this confluence of factors so much more effectively than others. I propose that a significant contributing factor is policy feedback from trans-boundary environmental governance, which activates nationalist resentment. Water policy is a particularly useful category to test this theory, as watersheds so frequently span political boundaries. Previous water policy literature suggests support for this theory, highlighting the ability of perceived unfairness and resentments to undermine the efficacy of trans-boundary environmental governance as well as activate interstate conflicts (Bernauer 2002).

I first develop this theory using a case study of the 2022 Oder River Fish Kill. Next, I test the theory empirically using a novel dataset that measures the accumulation of resentment over decades of feedback from trans-boundary water policy interactions and integrate it with a modelling approach to predict the causes of extreme party support in Europe. I find that cumulative feedback from trans-boundary watershed governance is a significant predictor of support for populist, far-right parties. I have chosen the European case for its centrality in the extant literature of both extreme party politics and trans-boundary environmental governance, although I have made efforts to include and analyze a wider array of countries and interactions than simply Western and Central Europe.

In this chapter, I begin by analyzing the literatures on extreme party politics and policy feedback effects from trans-boundary environmental governance and propose an integration of the two seemingly disparate areas of study. Next, I use a case study analysis of the 2022 Oder River Fish Kill to examine the mechanics of the trans-boundary environmental feedback effect on nationalist resentment. Then, I use a series of linear regressions to generalize the link between trans-boundary environmental governance and support for extreme parties, and, in doing so, to

parse the link from nationalist resentment politics to the populist far right. Finally, I discuss my findings and its implications for democracy, water governance policy, and studies of both areas.

2. Theory and Hypotheses

a. Theory

i. Causes of Support for Populist and Extremist Parties

Recent, sizable vote share gains for extreme parties and particularly the populist far right have led to a flurry of analysis and explanations. While extreme and anti-institutional parties of all stripes (far right, far left, Euroskeptic, populist) represent a significant political and academic concern, the populist far right predominates both electoral results and scholarly analysis. Consequently, it appears far more commonly than any other category in the dataset and in the academic literature. In fact, other categories of extreme parties are generally ignored or lumped in together with work explaining support for the populist far right. This robust literature on reasons for gains in support for the populist far right breaks down into three camps: economic causes, immigration, and psychological causes. Economic causes of populist far right support include theories of economic evaluation (Claasen and Magalães 2022) and insecurity (Zhirnov et al. 2024), and broader distrust for national governments (Arzheimer 2024). The general pattern is consistent: when citizens attribute economic decline to governance, support for anti-establishment right-wing parties increases.

Response to increased immigration comprises the second major studied cause of populist far right support. The arrival of migrants from other nations and cultures dramatically reorients party systems (Dancygier 2018), with Euroskeptic and anti-immigration parties becoming

gaining influence across Western Europe and all parties shifting attention to immigration issues (Green-Pedersen and Otjes 2017). In Germany, support for Alternativ for Deutschland (AfD) has been consistently linked to immigration causes (Arzheimer and Berning 2019) and contact with the 2015 refugee crisis is associated with an increase in populist far right support in southeastern Europe (Hangartner et al. 2019). There is nuance to the relationship, as positive contact with immigrants appears to decrease support for the populist far right under the right social contexts (Berinsky et al. 2023).

The psychological effects of regional marginalization, perceived slights, and alienation of national identities generate greater appeal for populist, far-right parties. When disputes, policies, or other governance activities are perceived to benefit one geography over another, this resentment can become entrenched in regional identities (Cramer 2016). Studies have attributed causal effect to dissonance between cultural norms and economic realities (Cengiz 2023). Geographies also play a psychological role, with place-based identification playing a profound role (Arzheimer and Bernemann 2023). The use of differences in spoken dialect as a measure of geographic marginalization supports this dynamic, indicating that regions which are more disparate in language are more likely to support the populist far right (Ziblatt, Hilbig, and Bischof 2023). These effects move upward from the local to the national level: Arzheimer et al. (2024) linked place-based resentment over perceived local decline to regional support for the populist far right, and Georgiadou, Rori, and Roumanias (2018) found that sub-national regional resentment dynamics aggregate to the national scale. When regional identities are associated with real or perceived marginalization, support for the populist far right results. What is less clear is the source of these place-based resentments.

One potential explanation is Euroskepticism, mobilized through local identity and networks through the creation of local resentments arising from perception of discrimination by the European Union (Kiess 2025). Although the far left also links to Euroskepticism (March and Rommerskirchen 2012), the particular dynamics of national identity and alienation seem to be unique to the populist far right. While the anti-immigration bent of the Social Democrats in Denmark lend some credence to the immigration argument (McManus and Falkenbach 2022), anti-immigration leftist parties like Bündnis Sahra Wagenknecht in Germany have not been successful at chipping away at their right-wing counterparts (Thomeczek 2025). This begs a simple question: why are populist, far right parties so uniquely successful? The political psychology literature suggests that populist far right parties offer a perceived remedy in the form of aggressive hypernationalism (Kerr and Kerr 2025). I propose an explanation from the realm of trans-boundary environmental governance: policy feedback. In short, feedback effects from trans-boundary governance events activate nationalist resentments, which lead to a greater likelihood of support for the populist far right.

ii. Trans-Boundary Policy Feedback

I propose that the power dynamics of relationships between European nations involved in trans-boundary environmental disputes have ramifications for countries' internal politics and the group identity of its citizens. The literature on bargaining and group identity finds a consistent link between power disparities and perceptions of unfairness associated with group identities (Savage, Apkarian, and Park 2022). Consequently, the citizens of nations with a perceived disadvantage in status among its peers are more likely to view trans-boundary environmental

issues as the meddling of regional powers, leading to a feedback effect that boosts the vote share of Euroskeptic, anti-establishment parties. Additionally, these events are not discrete, occurring and resolving independently of one another. Rather, the power dynamics compound over time, cumulatively reinforcing the perceived imbalance.

Because of both historic and modern power dynamics between European nations, countries involved in trans-boundary water policy issues may perceive unfairness even when the dispute is relatively straightforward. The anecdotal case of the Oder River aligns with this argument, as the issue was exacerbated by a breakdown in communication between Germany and Poland. Power-dynamic conflicts between the two countries are long established, as German territorial expansion efforts in the 20th Century were justified with colonial characterization of Poland and other eastern, Slavic nations (Kopp 2012). Even now, Eastern Europe's lesser economic achievement relative to Western Europe is often framed in colonial, racial terms (Kalmar 2023). Given this context, the immediately contentious dynamics of the Oder River dispute are not shocking. This pattern of historic advantage and disadvantage along colonial lines continues to define European reality (Bhambra 2022). As a result, recurring feedback patterns of perceived unfairness and subsequent resentment among the levels of Europe's historic, economic, and cultural power dynamics are likely to be activated by not only trans-boundary water conflicts, but also relatively cooperative events. Further, these resentments are likely to compound over time. In short, due to feedback effects from historic patterns of power imbalance, the citizens of status-disadvantaged countries may perceive unfairness whether or not it exists.

When one or both parties perceive a lack of fairness in the resultant policy decisions, trans-boundary environmental disputes between countries lead to resentment. A link between the characteristics of watershed policies and resentment-generating policy feedback effects is well

studied, with Johnson's (2012) findings of feedback effects from basinization of watershed policy and the Transboundary Governance literature's long-standing emphasis on the importance of fairness (Bernauer 2002). This body of literature has long studied the ability of water policy to erode international relationships in the absence of fairness (Blatter and Ingram 2001). Most work on this topic is focused on the environmental outcomes, but at least one recent study has linked fairness in water policy to broader diplomatic success or failure (Nagheeby and Amezaga 2023). When one country or the other perceives a lack of fairness in water policy, whether or not it is actually present, the resultant resentment is likely to spill over into other political arenas.

iii. Resentment, Environmental Policies and Extreme Party Support

While the specific linkage between trans-boundary environmental policy and resentment politics has not been examined, studies of other policy areas and contextual evidence support of this dynamic. Trans-national policy interventions on COVID-19 are positively associated with Euroskepticism (Heinkelmann-Wild and Zangl 2020) and regional inequalities in public goods distributions are associated with populist politics (Bayerlein 2022). More broadly, economic inequalities and even the policy of European integration itself contribute to resentment politics. While I am unaware of any literature examining a linkage with environmental policy, populist parties in the EU position themselves in opposition to environmental policies (Navarrete and Enguer 2024). Further, policies with outcomes that are physically tangible to citizens are likely to have a more substantial effect on politics and governance (Tunstall 2007), and the environment is tangible to residents in a way that few other policy outcomes are. Further, the operative geographic identification in a trans-boundary dispute is, by definition, national, as

these disputes occur between bordering nations. Trans-boundary disputes, interpreted through a lens of grievance and historic power dynamics, activate nationalism-associated resentment and generate electoral support for the populist far right.

a. Oder River Case Study

iv. 2022 Oder River Fish Kill

In 2022, a massive fish kill was observed on the Oder River, which forms a portion of the boundary between Germany and Poland, as shown in Figure 1. The event was enormous in scale, and its causes are likely to recur and create future water issues both in the Oder watershed (Lazarová 2024) and in other European watersheds (Sobieraj and Metelski 2023). In addition, it triggered a markedly differential response in Germany and Poland, which share a historic power dynamic with Germany at a distinct advantage (Derevianko 2023). In Germany, blame for the event was simply assigned (to Poland) and treated the fish kill as an environmental event to be mitigated. In Poland, leaders obfuscated blame for the incident, and both the government and public responses were chaotic and resentful. The case is supportive of a link between historic power differentials and feedback effects from trans-boundary environmental governance.

Figure 1: Map of the Oder River



1. The Oder River Before

The Oder River is an 854-km river in Central Europe. It rises in the Czech Republic and flows northwest into Poland until it meets Germany. It then forms 187 km of the Polish-German border before draining into Szczecin Lagoon and, ultimately, the Baltic Sea (Marchowski and Ławicki 2023). As a body of water, it is extremely disrupted by human activity. The upper section of the river is extensively dammed for flow and navigability, and the middle and lower sections feature a system of spurs that are designed for flood control (Sługocki and Czerniawski 2023). Additionally, the land use in the Oder River basin has caused substantial disruption to its physical and ecological systems.

The Oder system is a textbook example of disruption through non-point pollution. Its water routinely measures high in both nutrient and saline pollution, although the source is a matter of dispute, and it suffers from high and increasing water temperatures and channelization from physical modification (Sługocki and Czerniawski 2023). The physical disruption of the riverbed is ongoing, as breakwaters constructed on the Polish side of the lower section of the river, intended to prevent erosion and navigability (Lepiarz 2022), have increased sediment rising from the floor of the river (Braun 2022). However, the saline pollution is the most significant issue, with water measuring consistently high in chlorides, sulfates, and magnesium, resulting in very low presence of biological components (Sobieraj and Metelski 2023). Thanks to its path through heavily industrialized areas, including large mining areas, it is at times as saline as the Baltic Sea into which it flows Sobieraj and Metelski 2023), although conditions have been relatively stable for years (Sługocki and Czerniawski 2023). Nevertheless, in 2022, a shift in conditions led to one of the most significant water quality events in the river's history.

2. Fish Kill

A massive fish kill was first observed on the Polish side of the river as early as July 26, 2022 (Rzeczpospolita 2022). Preliminary attribution of its causes was varied and speculative, including mercury poisoning or other chemical contamination resulting from the disturbance of the river bottom (Stabach 2022). Eventually, experts identified its cause as a bloom of invasive golden algae, *Prymnesium parvum*, in the upper Oder River. The golden algae bloom created toxic levels of prymnesins in the water, which was exacerbated by hypoxia caused by the decay of dead fish (Sługocki and Czerniawski 2023).

The scale of the fish kill was unprecedented: conservative estimates assessed a 50% reduction in the fish population of the river system, with dozens of species affected (Sobieraj and Metelski 2023), while other estimates reach as high as 60% mortality, including 3.3 million fish (Szlauer-Łukaszewska et al. 2024). It also affected other river inhabitants, including filter feeders like aquatic mussels and snails, undermining the river's ability to clean itself (Szlauer-Łukaszewska et al. 2024). Human health impacts were also a major concern, particularly early in the crisis when the cause had not been definitively identified (Stabach 2022), and the economic effects on the fisheries, tourism, and agriculture across the watershed in both Germany and Poland are enormous and ongoing (Sobieraj and Metelski 2023). Recovery of the Oder River system will take years, and its impacts on organisms higher in the food web such as birds, raccoons, and otters are not yet known (Oltermann 2022). In addition, another, smaller-scale fish kill was reported in the Oder in 2024 (Lazarová 2024), setting recovery back further. The scale of the issue and the boundary-spanning geography of the Oder River basin led to intervention by international actors and a sizable international dispute between Germany and Poland.

3. Aftermath and EU Report

The European Union (EU), under the auspices of the continent-spanning Water Framework Directive (WFD) investigated the biological and social causes of the fish kill, identifying the golden algae bloom as the root cause and, more significantly, identifying the breakdowns in trans-boundary governance that exacerbated matters. The EU's report attributes the breakdowns to failures of monitoring and data transparency; while the Polish government

was aware of the fish kill in July, the German government was not until fish began dying along its border in August (Braun 2022).

The resulting EU report asserted that expanded trans-boundary coordination and cooperation was needed to achieve the necessary levels of communication to implement the WFD water quality requirements (Sobieraj and Metelski 2023). The report further notes that the event is an important test case, as golden algae blooms are likely to recur, both in the Oder and in other European waterways like the Vistula (although no such blooms have yet been observed) (Sobieraj and Metelski 2023). The report emphasizes the scale of the event, calculating 360 tons of dead fish, in asserting the necessity of better future governance (Corbane et al. 2024). Both the event itself and the resulting EU analysis had significant ramifications for Polish-German relations, and while it had little effect on domestic German politics, the effects on Poland's internal politics were substantial.

v. German Response

1. Assessment

The German response to the Oder River fish kill was a relatively standard response to an environmental governance issue. The German government sought to identify and address the cause of the golden algae bloom and remedy the governance issues that exacerbated it. Like the EU report, however, and unlike the Polish response, the Germans identified a specific cause to be ameliorated: salinity arising from mining in the upper Oder basin (Schulte et al 2022). The German analysis emphasizes the anthropogenic origins of the Oder's salinity (Schulte et al. 2022) and asserts that while salinity is historically high in the Oder, it has increased steadily over

the last 5 years (Free et al. 2023). It attributes most of this increase – 72% – to coal mining in Upper Silesia, a region in Poland (Sobieraj and Metelski 2023).

2. Political Response

Politically, the only German response to the Oder fish kill was outward focused, attributing blame to Polish governance for failures of communication, transparency, and coordination. Broadly, the Germans attributed the severity of the issue to failures of coordination and transparency, in close alignment with EU reporting (Sobieraj and Metelski 2023). A few sub-national German voices weighed in as well, with the German Green Party characterizing the Polish failure to communicate as an “infringement of trust,” and several German NGOs characterizing the Polish response as failing to uphold the joint Oder River management agreement between Germany, Poland, and the Czech Republic (Braun 2022). The Polish policy and political responses were much more chaotic and had significant ramifications for domestic as well as international politics.

3. Policy Response

Consistent with the German assessment and political response, the German government proposed a direct and relatively straightforward strategy for prevention of future issues, which is to address saline contamination from Upper Silesian mines by renaturalizing the Oder corridor (Marchowski and Ławicki 2023). Notably, this policy response is closely aligned with both the broad scientific consensus on watershed-level tools for water quality improvement (Mander et al.

2017; Pastor-López et al. 2024) and the German response to fish kills in watersheds within German boundaries, as in the Jagst River in 2015 (Gaye-Siesseger et al. 2023). The German political response to the Oder incident was similar in virtually every respect to its response to the Jagst fish kill, demonstrating at least a consistency in response despite intervening geography. Absent from the German discussion of the issue is any acknowledgment of the cost, which would be disproportionately borne by the Polish government (given the location of the fish kill in the portion of the river that is Polish on both banks).

vi. Polish Response

1. Assessment

The Polish assessment of the incident was markedly different from both the German and EU analysis. While the direction of the river's flow makes geographic responsibility inescapable, Poland arrived at much lower estimates of its severity – 249 tons of dead fish, nearly a third lower than the EU estimates and a much cloudier assessment of cause (Sobieraj and Metelski 2023) – and went to some lengths to obfuscate and redirect blame. The Polish analysis acknowledges the role of salinity in the golden algae bloom but emphasizes its consistently high level over time and instead attributes the 2022 bloom to a confluence of other factors, including increases in conductivity, water temperature, solar radiation, fluctuations in water parameters, and changes in the physical configuration of the river (Sobieraj and Metelski 2023). Poland also attributed the saline discharges differently; rather than almost exclusively mining, Polish analysis also attempted to shift blame downward to local governments by attributing 60% of discharges to municipal wastewater and only 11% to mining (Sobieraj and Metelski 2023).

Consistent with the complex picture of causation and the Polish reporting's general disinclination to engage with increases in salinity and conductivity (Free et al. 2023), the primary policy proposed by Polish analysis is simply further study of saline discharges (Sobieraj and Metelski 2023). The Polish political response to the fish kill was similarly complex and chaotic, with considerable ramifications for domestic politics.

2. Political Response

The Polish government's initial response was to seemingly obfuscate the issue, resisting pressure from both the German government and the EU for exchange of water quality information (Deutsche Welle 2022). Internal assessment suggests that the government attempted to cover up the issue, and the Prime Minister refused to acknowledge it publicly for two weeks after initial sightings (Rzeczpospolita 2022).

Polish public opinion on the Oder fish kill mobilized much more quickly and was substantively in line with the official German and EU response. Widespread fears for human health appeared almost immediately (Stabach 2022), and both characterization of the crisis and pressure for mitigation from Polish NGOs aligned much more closely with the German/EU understanding of events (Kowalkowski et al. 2024). However, the Polish public response remained differentiated from their neighbors: German social media sources referred to the fish kill with markedly different terminology and tone that reflects fundamental differences in perception on the issue from Polish social media sources (Grelowska et al. 2024). Regardless, Polish trust in domestic expert opinion deteriorated rapidly and shifted to political blame (Grelowska et al. 2024), with one pole assessing that 60.5% of respondents disapproved of the

government's handling (Wydarzenia 2022). This backlash forced the government to change approaches.

When obfuscation as a strategy became untenable, the Prime Minister turned instead to scapegoating, firing the head of Polish Waters, the state-owned water management company, as well as the head of the environmental inspector's office (Oltermann 2022). In a public statement on the matter, the Prime Minister asserted that the case should be given "special supervision" (Gądek 2022) and began centralizing management of the issue in his office. The distance between the Prime Minister's office and the watershed management entities led to additional communication issues, however, further delaying response (Kowalkowski et al. 2024). When actual policy solutions to the issue finally emerged, they were in almost diametric opposition to the EU and German proposals.

3. Policy Response

Where the German and EU responses to the fish kill focused on mining and long-term renaturalization to mitigate the causes of the golden algae bloom, the Polish response proposed short term solutions and otherwise redoubled plans for modification of the Oder River basin. The sole environmental action proposed by the Polish government was the immediate removal of dead fish from the Oder River and its impoundments (Oltermann 2022). Otherwise, Polish response called for not renaturalization of the Oder but acceleration of its modification, further cascading, regulating, and deepening the physical structure of the riverbed, with little to no interest in abating the industrial saline discharge that is the primary focus of the German and EU policy responses (Marchowski and Ławicki 2023). Contrary to the German commentary on the issue, the Polish response features considerable focus on the cost of mitigation, particularly its

indirect costs to the economy. Prime Minister Morawiecki even asserted that the Polish government were primarily concerned with being “caretakers and protectors of Poland’s black coal and lignite mines [who] will not allow Poland’s coal mining to be closed” (Scislowska 2023), rather than stewards of the Oder’s waters. In sum, the Polish government rejected the international picture of events and instead asserted its sovereignty by doubling down on planned policy interventions and emphasizing its costs in mitigation.

vii. Discussion

All three stages of response to the 2022 Oder River Fish Kill are differentiated by each country’s lens on trans-boundary governance. Consistent with expectations from the watershed management literature, there is no evidence of perceived unfairness or generalized resentment on the German side of the river. Instead, analysis by the German government specifically identified the root cause of the issue. The political response was relatively small and solely externally focused; the only political mobilization occurred internationally to pressure the Polish government into better communication and mitigation strategies. Finally, the German policy response identified a strategy for mitigation that is consistent with mitigation of similar issues within German borders. Indeed, the German government’s handling of the domestic fish kill in the Jagst River suggests that, if roles were reversed, the results would be quite different. Even the absence of comment by Germany’s populist far right party, the AfD, is consistent with the effect of power dynamics in the interaction. The German response, in sum, was to treat this as a relatively rote (if enormous in scale) environmental issue to be assessed and ameliorated using a standard set of policy solutions.

By contrast, every stage of the Polish assessment and response is consistent with perceived unfairness and nationalist resentment of trans-boundary intervention. Despite extant trans-boundary watershed agreements with Germany and the Czech Republic, the Polish government refused to cooperate or even inform its neighbors and citizens about the emergent fish kill. Its characterization of the event avoids blame attribution and instead paints a complex and chaotic picture of an Aristotelian confluence of watershed-burdening events that it could never have foreseen or prevented. Finally, the Polish government's proposed policy solutions are an explicit rejection of principles both trans-boundary and watershed governance in favor of unilateral domestic action focused on shipping and industry with no interest in mitigation of environmental effects. In effect, the Polish government responded to the fish kill by asserting its own sovereignty and telling its German neighbors to fend for themselves.

Understanding the logic in this course of action is difficult except through a lens of perceived unfairness. Environmental quality is a public good, and basins like the Oder are a textbook example of the necessity of trans-boundary governance. An implicit rejection of these principles, grounded as they are in Western science and policy theory, requires an underlying assumption that they are not reasonable governance strategies grounded in science but rather an assertion of control over rightful Polish territory. The alignment between the German and EU analysis of and response to the fish kill can be attributed not to reasonable conclusions drawn from a shared body of evidence, but rather collaboration between the German government and a trans-national body that favors nations with historic power advantages.

Similarly, the Oder case study is supportive of a link between trans-boundary resentments and support for populist, far-right political parties. The Polish Prime Minister at the time of the fish kill was Mateusz Morawiecki, a member of the populist, far-right Law and Justice (PiS)

party. Morawiecki and the PiS are Euroskeptic and hypernationalist, critically framing EU policies on migrant redistribution as an infringement on national sovereignty (Radio Poland 2018) and routinely opposing EU environmental policies with claims that they will cause Polish citizens to suffer (Von der Burchard 2021). His government's response to German and EU comments on the Oder Fish Kill are in alignment with this positioning.

The Polish public response highlights a particular difficulty of environmental governance by the modern populist far right. While Poland's initial response to the fish kill was in line with the Euroskeptic behavior that elected the PiS government, the Polish public's response forced a change in framing and a policy response. This tension between a trans-boundary environmental event and Poland's eventual nationalist, conditional environmental response is in line with broad patterns of populist right-wing parties on environmental issues (Caiani and Lubarda 2023). That the PiS was pressed to revise their initial response while the AfD appears to have ignored it entirely is consistent with the importance of historic power dynamic effects.

In sum, the Oder case study suggests a differential response to trans-boundary governance by both populist far right parties and their supporters. In Germany, the beneficiary of a historic power advantage in its relationship with Poland, the Oder fish kill was treated as an event only notable in its scale; the substance of both political and policy response was essentially routine, and the populist far right declined to engage with the issue. In Poland, at a disadvantage in the historic power dynamic between the two countries, the response was more severe, more chaotic, and consistent with the populist far right's hypernationalist positioning. Generalizing this pattern to other trans-boundary environmental interactions suggests that countries at a historic power disadvantage who routinely engage with environmental issues are likely to see a resultant rise in support for the populist far right.

b. Hypothesis

Building on the 2022 Oder River case study, I argue that a compounding pattern of power dynamics in trans-boundary environmental governance leads to increased support for the populist far right in lower-status European countries, through the mechanism of regional resentment politics activated by policy feedback effects. Trans-boundary environmental governance generates resentment, regardless of outcome, because long-standing patterns of advantage and disadvantage among European countries lead lower-status countries to perceive unfairness whether or not proceedings are equitable. This perceived unfairness generates resentment which attaches to national identity, which is, in turn, positively associated with vote share for populist, far-right parties at the national level. However, the combination of resentment and nationalism make both the populist and far-right characteristics necessary; populist positioning activates feelings of resentment, and its far-right variant provides hypernationalism as a solution. Consequently, the relationship should not exist with parties which are populist but not far-right, or which are far-right but not populist. As such, I propose to test the following hypothesis:

As the number of trans-boundary environmental governance interactions increases between two countries of differing status, vote share for populist, far-right parties at the national level will increase in the lower status country, but not for other categories of extreme parties.

3. Research Design

a. Data

To test these hypotheses, I use a series of interaction models based on country-level observational data, generating a cumulative index of trans-boundary water policy resentment and adding it to a relatively standard model of support for the populist far right drawn from Georgiadou, Rori, and Roumanias (2018). While the cumulative index incorporates trans-boundary events as far back as 1948, I focus solely on elections results from 2000 to the present, in order to test the period in which extreme parties emerged as a significant political force in Europe.

i. Dependent Variable

My dependent variable data are vote shares of extreme parties for lower legislative chambers from the Constituency-Level Elections Archive (CLEA) (Kollman et al. 2024). These data identify party results from 2181 elections across 183 countries and territories, at a sub-national level. To test my theory first at a national scale (although CLEA will allow for sub-national future testing), I aggregated first round party votes and total valid votes additively and then calculated an overall vote share for all parties receiving votes. As I am concerned only with predicting the vote share of extreme parties, I then used party name identifiers in the CLEA data to generate dummy variables identifying parties as far right, far left, populist, or Euroskeptic in the PopuList dataset (Rooduijn et al. 2024), and subset the results only for parties meeting at least one of those criteria. For a few elections in Luxembourg and Switzerland, CLEA reports a

count for party votes larger than the total votes counted, which would seem to be error of some sort. I dropped those cases. While CLEA data are known to have coding issues, verification of my aggregated results against other sources indicates that this approach has produced an acceptably accurate measure.

ii. Independent Variables and Interactions

1. National Capacity and Public Assessment of Status

To test my hypothesis and assess the link between extreme party characteristics and policy-driven resentment, I begin by examining power dynamics in dyads of neighboring countries using Correlates of War's Composite Index of National Capacity (CINC) scores, which currently cover a time period from 1816 to 2016 (The Correlates of War Project 2021). A nation's CINC score assesses national power using six indicators: military expenditure, military personnel, energy consumption, iron and steel production, urban population, and total population. The score in total is calculated as each country's share of the world's total for the six components, ranging theoretically from zero to 1, with a value of 1 indicating that a nation controls the entire world's sum of all six indicators. The resulting score captures national power much more accurately than simpler economic measures like GDP (Singer 1988). Countries and their CINC scores are depicted in Figure 2, with higher CINC scores indicated by lighter shading. Note that the map includes the United Kingdom, but that my analysis excludes it due to its non-continental status (and consequent lack of trans-boundary freshwater basins). Additionally, the plot indicates that Russia's vast geography (along with its hybrid European/Asian location) makes it an outlier.

(ISSP) about perceptions regarding national identity (ISSP Research Group 2015). This dataset (descriptive statistics shown in Table 1) includes a variety of questions about respondents' perceptions of their own national identity, unto itself as well as relative to other countries.

Table 1: CINC and ISSP Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Max
CINC Scores	28,063	0.004	0.01	0.000	0.02
National Pride Responses	28,162	3.3	1.1	1	5
National Shame Responses	28,323	3.4	1.2	1	5
Pride in Political Influence Responses	26,361	3.3	0.8	2	5

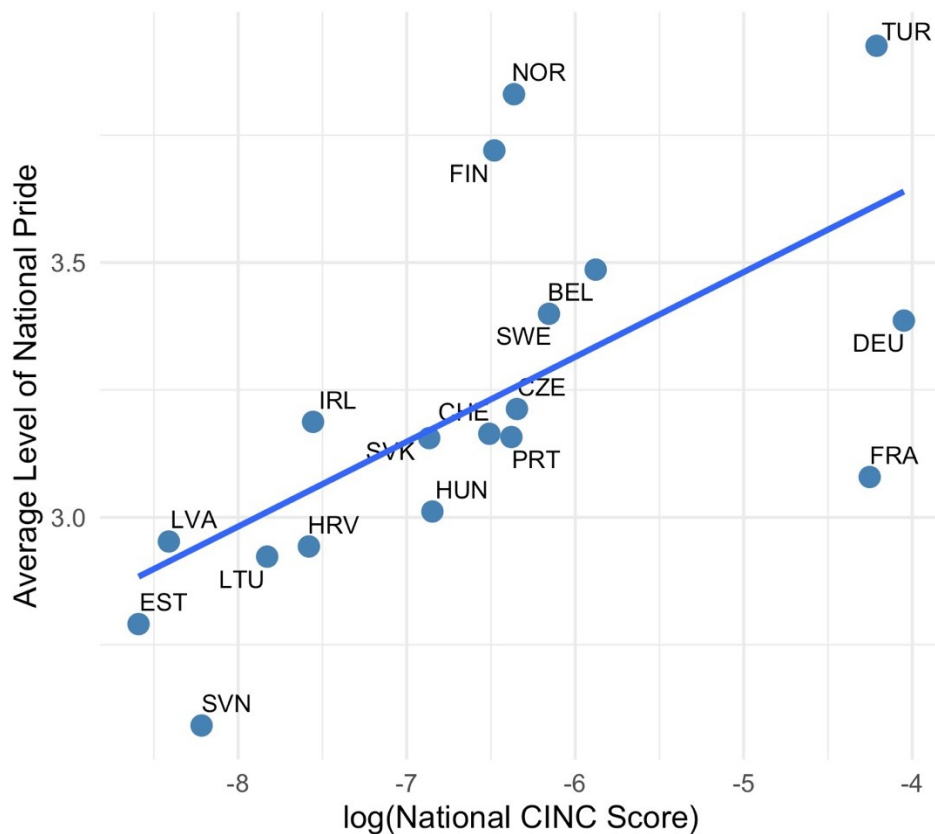
Not every European country is included in the ISSP, but enough are present to permit its use for my purposes. These data were collected across two decades between 1993 and 2013 and have not been updated since. They should still provide a useful indicator of national identity, however, and overlap substantially with the range of years covered by both the CINC scores and the water events database. As such, using scatter plots and simple linear models, I examine this relationship using three questions assessing pride, shame, and pride in political influence in respondents' home countries. I expect a positive relationship between CINC scores and pride, a negative relationship between CINC scores and shame, and a positive relationship between CINC scores and pride in political influence. I transformed CINC scores logarithmically to account for downward compression in the distribution of values. The results are depicted in Table 2 and Figures 3 through 5.

Table 2: Models Linking CINC Scores and ISSP Responses

	National Pride	National Shame	Pride in Influence
log(CINC Score)	0.088** (0.004)	-0.044** (0.005)	0.102** (0.003)
(Intercept)	3.842** (0.028)	3.169** (0.030)	3.969** (0.023)
Num.Obs.	26852	27019	25138
R ²	0.016	0.004	0.035

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

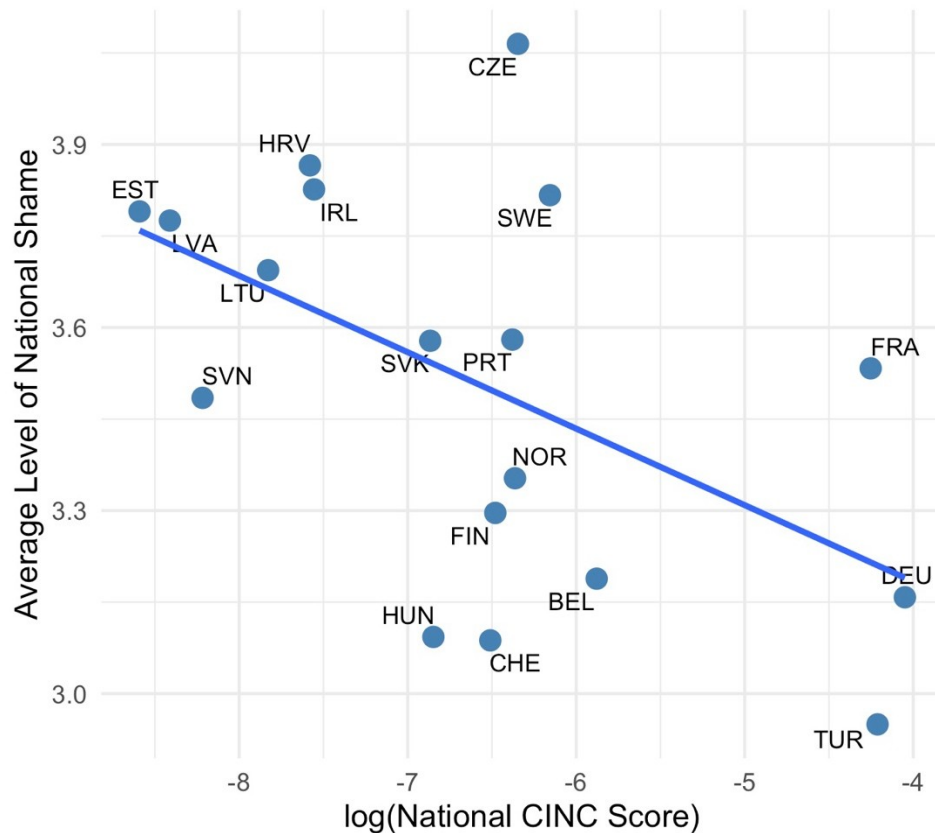
Figure 3: Average Responses to National Pride Question Across CINC Scores



The first question assesses national pride, asking respondents whether they agree that their country is better than others. Average responses are depicted in Figure 3 above. While there is a fair amount of noise in the data, the scatter plot indicates a positive relationship between CINC score and average national pride expressed by ISSP respondents. This is borne out

statistically; a simple linear model predicting average national pride using CINC scores returns a coefficient that is positive and significant ($p < 0.01$). This indicates that citizens are more likely to express pride in their country when that country is, in fact, powerful.

Figure 4: Average Responses to National Shame Question Across CINC Scores

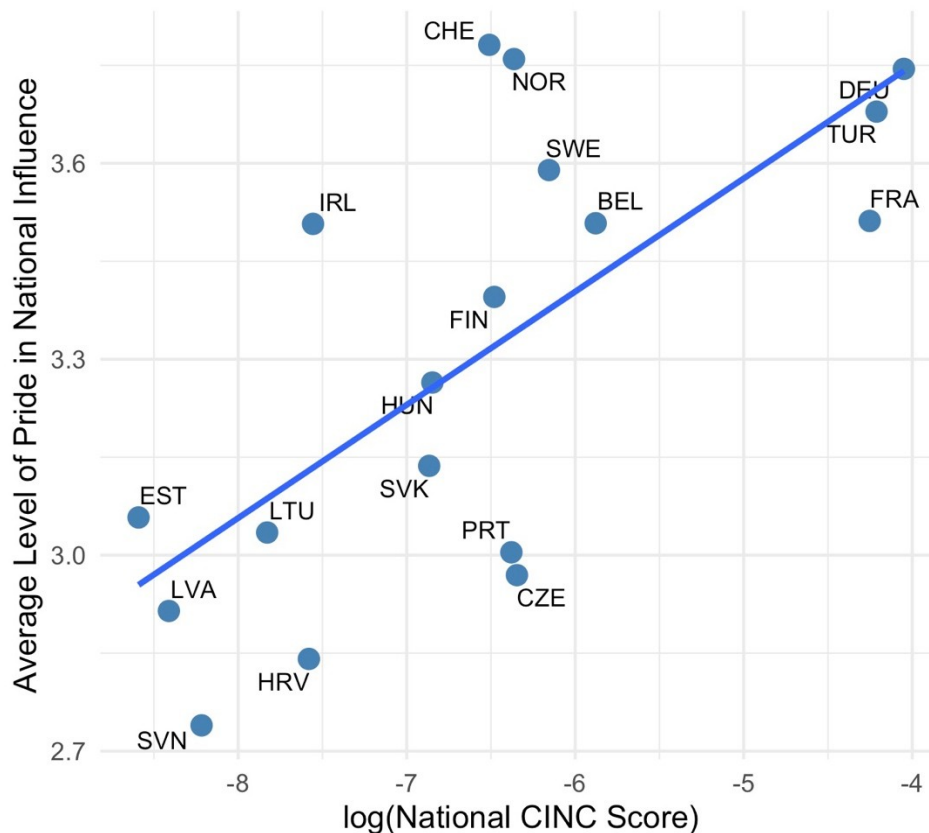


The second question examines the inverse of national pride by asking whether there are things about their country that makes respondents feel shame. Average responses are depicted in Figure 4 above. As expected, the plot indicates a negative relationship between CINC score and expression of national shame, a relationship which is again borne out statistically ($p < 0.01$). The data indicate that citizens are less likely to indicate shame when their country is more powerful.

The final national identity question assesses respondents' pride in their country's political influence. Average responses are depicted in Figure 5 below. Once again, in line with expectations, the relationship is positive and statistically significant ($p < 0.01$). Respondents from

lower powerful nations are less likely to express pride in their country's influence on global politics.

Figure 5: Average Responses to Political Influence Question Across CINC Scores



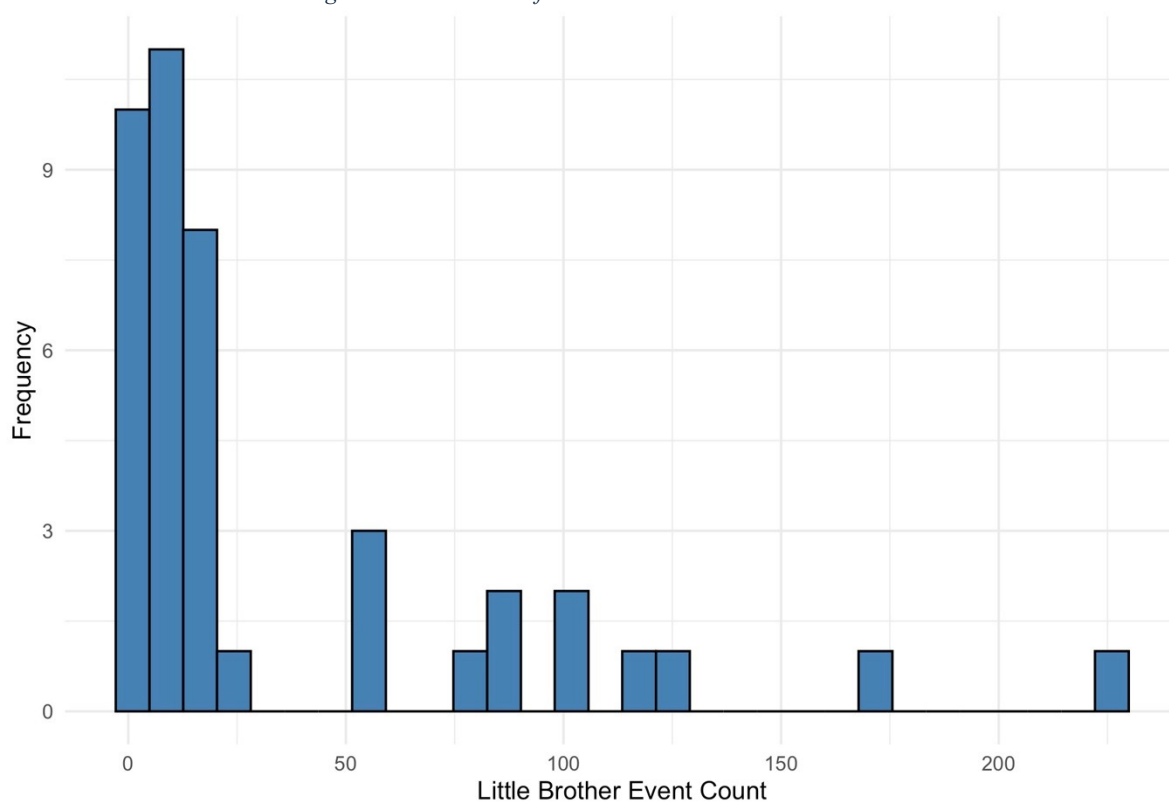
In sum, the ISSP data substantiate a link between a country's actual power, as measured with its CINC score, and public perception of national power, allowing me to move to the next step in the process: linking the power dynamics to trans-boundary water governance events by updating and using the International Water Events Database.

2. Linking Status to Dyadic International Water Events

Next, I linked CINC scores with the International Water Events Database (Yoffe 2002), which documents trans-boundary water events from 1948 to 2008. The data are coded dyadically for interactions between pairs of countries. First, I subset the data to include only basins in

Europe. I then updated the dataset through 2025 by adapting their methodology to Google News, searching for each identified basin in Europe and scanning the results for the search terms identified in the original dataset. This identified 55 additional events across 34 European countries. I coded these events dyadically as well, consistent with the original dataset, for a total of 498 events. To test my hypothesis, I then counted the number of trans-boundary watershed governance interactions for each country where that country has a lower CINC score. The resulting variable is called Little Brother Event Count. The distribution of this variable, depicted in Figure 10, ranges from 1 in 2025 – which is Russia, consistently possessing the largest CINC score in the dataset – to 219, which is Slovakia, which has a low CINC but powerful neighbors.

Figure 6: Distribution of Little Brother Event Count in 2025

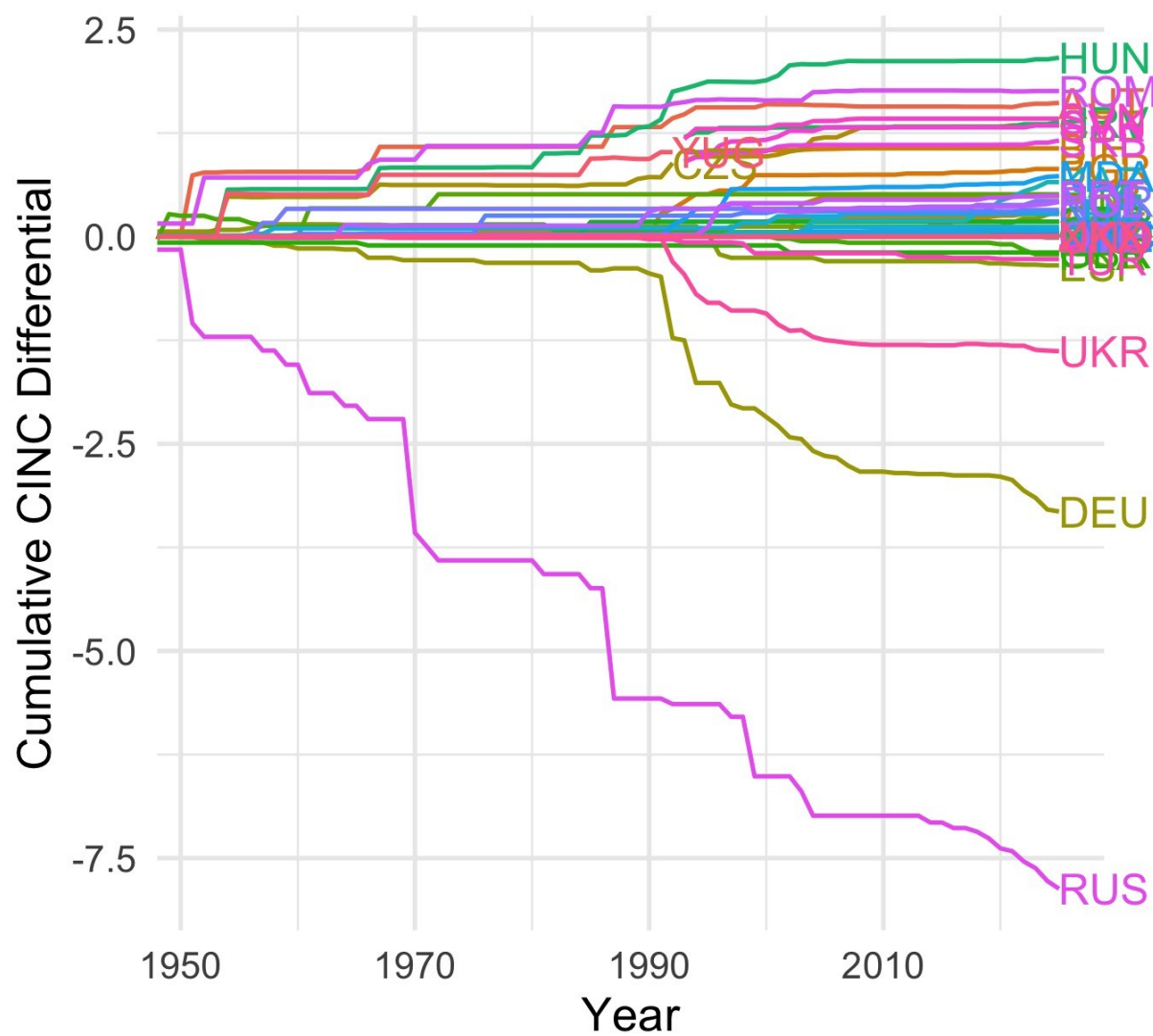


To account for variation in the gap in status attributable to the actual distance in power between the lower-status country and the higher-status country, I then generated a Cumulative CINC Differential of power-dynamic trans-boundary water policy events over time by

combining CINC scores with the same database of dyadic international water events, as described below. First, I numerically characterized the power dynamics of each interaction by subtracting the other nation's CINC score from the nation of interest's CINC score. This generated a power differential value between -0.1724 and 0.1724, where a 0 reflects a dispute between states of equal status and -0.1724 and 0.1724 reflect the maximum power distance in the dataset. A negative sign indicates which nation held the status advantage in the interaction. For example, in the Oder River dispute, Germany's differential is -0.0120 and Poland's is 0.0120. While it might be more intuitive to code the more powerful country's differential as positive, I am coding it as negative to align the sign of the power differential with my theorized policy feedback effect. I then accumulated the index value over time for each nation, developing a temporal series reflecting the volume and direction of dynamic-reifying trans-boundary water events over time. I can then use the resulting Cumulative CINC Differential, depicted visually in Figure 2 below, to estimate the level of resentment-generating interactions for each election year in which extreme parties received votes.

Finally, to assess the differential effect of power dynamics across different categories of extreme party, I interacted dummy variables identifying Populist Far Right parties according to the PopuList classification with both the Little Brother Event Count and the Cumulative Power Differential Index.

Figure 7: Cumulative CINC Differential Over Time (1948-2025)



iii. Control Variables

As control variables, I include the alternative explanations generally associated with extreme party vote share, according to the literature and generally following Georgiadou, Rori, and Roumanias' (2018) form. These controls include unemployment (International Labor Organization 2025a), immigrant population percentage (United Nations Department of Economic and Social Affairs, Population Division 2024) and immigration flow, a vector of economic variables including income inequality and GDP per capita (World Bank 2025), labor tax rate (Organization for Economic Cooperation and Development 2025), GDP inequality between status categories, labor wage share (International Labor Organization 2025b), and a growth dummy, assigned when GDP per capita was greater in a year than in the year before. I calculated immigration flow as the difference in immigration from year to year, as well as a Gini coefficient depicting inequality between status levels. Im-Pesaran-Shin tests indicated that all variables were stationary or included insufficient temporal variation to test. I tested lagged extreme party vote share as a control variable, but the limited temporal variation resulted in perfect correlation between it and the value of extreme party vote share as the dependent variable. Finally, I used year as a linear control and a fixed effect variable to test for additional temporal dynamics, but both variations were insignificant. Table 3 below depicts summary statistics for all variables.

Table 3: Descriptive Statistics

Statistic	N	Mean	St. Dev.	Min	Max
Dependent Variable					
Extreme Party Vote Share	320	0.1	0.1	0.000	0.6
Independent Variables					
Cumulative CINC Differential	321	0.4	0.9	-2.9	2.1
Little Brother Event Count	321	46.8	67.5	1	219
Populist Far Right Dummy	321	0.4	0.5	0	1
Control Variables					
Unemployment (%)	321	9.8	5.8	2.8	25.0
Immigrant Population (%)	321	11.2	7.1	1.7	43.7
Immigration Flow	321	2.6	3.1	-4.5	15.4
Income Inequality (Gini Coefficient)	310	31.2	3.8	23.7	38.5
GDP Per Capita	321	36,348.2	24,621.3	6,734.6	120,000.1
Labor Tax Rate	321	14.9	5.1	6.4	28.7
Regional Inequality	321	0.3	0.1	0.1	0.4
Labor Wage Share	321	55.9	6.7	32.8	68.8
GDP Increase Dummy	321	0.7	0.5	0	1
Year	321	2,012.6	5.0	2004	2023

b. Models

To test my hypotheses, I use two OLS regression interaction models, each testing for an interaction between the Cumulative Power Differential Index and a series of dummy variables identifying types of extreme parties. The unit of analysis is country-party-election year, and the unemployment, immigration, and economic variables from the prior year are used to account for retrospective assessment, in line with the general approach to modeling extreme party vote share (Georgiadou, Rori, and Roumanias 2018). While these variables do vary over time, the in-model temporal variation is minimal, and evaluation of temporal dynamics indicated no meaningful temporal variation in the models. As such, these models are temporally pooled. Additionally, while some testing for unit effects indicated a need for cross-sectional controls, models using fixed effects, random effects, and standard errors clustered on country and party did not produce meaningful differences in results. As such, in the name of parsimony, I have also excluded unit effect controls. Finally, in these models, I have clustered standard errors by country to account for differences in the number of observations per country.

The first model tests my hypothesis using an interaction between the *Little Brother Event Count* and the *Populist Far Right* dummy variable, and is specified as:

$$\begin{aligned} \text{Vote Share}_{it} = & \beta_0 + \beta_1(\text{Little Brother Event Count})_{it} + \beta_2(\text{Populist Far Right})_p + \\ & \beta_3(\text{Unemployment})_{i(t-1)} + \beta_4(\text{Immigration})_{i(t-1)} + \beta_5(\text{Immigration Flow})_{i(t-1)} + \beta_6(\text{Economic} \\ & \text{Variables})_{i(t-1)} + \beta_7(\text{Little Brother Event Count} \times \text{Populist Far Right})_{itp} + u \end{aligned}$$

The next model tests my hypothesis using an interaction between the *Cumulative Power Differential Index* and the *Populist Far Right* dummy variable, and is specified as:

$$\begin{aligned} \text{Vote Share}_{it} = & \beta_0 + \beta_1(\text{Cumulative Power Differential Index})_{it} + \beta_2(\text{Populist Far Right})_p + \\ & \beta_3(\text{Unemployment})_{i(t-1)} + \beta_4(\text{Immigration})_{i(t-1)} + \beta_5(\text{Immigration Flow})_{i(t-1)} + \beta_6(\text{Economic} \\ & \text{Variables})_{i(t-1)} + \beta_7(\text{Cumulative Power Differential Index} \times \text{Populist Far Right})_{itp} + u \end{aligned}$$

This modelling approach may raise concerns of ecological fallacy. To address these concerns, I offer a combination of theoretical argument and robustness checking. First, while indisputably vote share is a product of individual choices, those choices are substantially influenced by the environment in which they are made. Each of my controls is grounded in a literature that links their variation at the regional level to shifts in aggregated individual behavior – as observed by Georgiadou, Rori, and Roumanias (2018), greater unemployment in an area results in a sense of threat for more individuals, which influences their voting decisions. I argue that the effects of cumulative power differentials in international water policy events has a similar effect; voters are aware of both the water policy events and the international power dynamics, the culmination of which is the activation of feelings of resentment in a certain subset of the electorate. Greater activation of that resentment leads to an increased response to the populist far-right's particular brand of hypernationalism. To account for the possibility of error arising from ecological inference problems, I have also estimated hierarchical versions of both models. Those models returned results that are substantially indistinguishable from the models presented in the main text of this paper.

4. Results

I am using these two models to examine the link between resentment generated by trans-boundary water governance events and vote share for populist far right parties, and to assess whether the size of the differential matters. As such, I expect a significant, positive interaction between *Little Brother Event Count* and *Populist Far Right Dummy*, as well as a significant, positive interaction between *Cumulative CINC Differential* and *Populist Far Right Dummy*, in line with my hypothesis. I also clustered both models' standard errors on country to account for cross-sectional variation in the number of observations. The results of OLS regressions testing these hypotheses is reported in Table 4 below. I also estimated hierarchical models by country, which produced substantially similar results, and are included in an appendix.

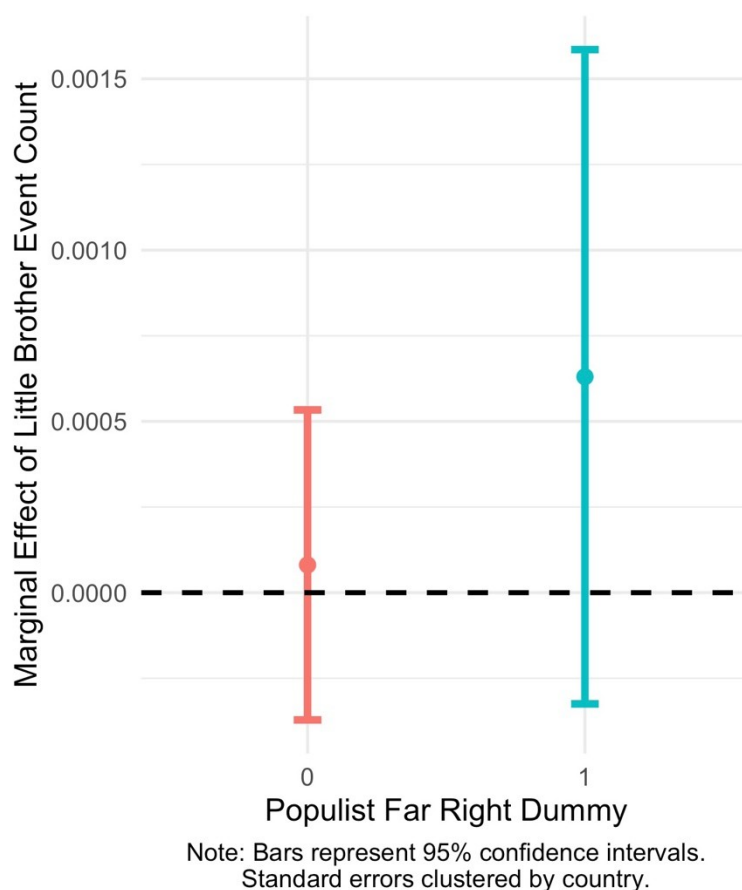
Table 4: Results of OLS Regressions Predicting Extreme Party Vote Share

	Model 1	Model 2
(Intercept)	0.071 (0.171)	0.154 (0.091)
Little Brother Event Count	0.000 (0.000)	
Cumulative CINC Differential		-0.005 (0.012)
Populist Far Right Dummy	0.009 (0.028)	0.011 (0.022)
Little Brother Event Count × Populist Far Right Dummy	0.001 (0.000)	
Cumulative CINC Differential × Populist Far Right Dummy		0.050* (0.021)
lag(Unemployment Percentage)	-0.002 (0.002)	-0.001 (0.002)
lag(Immigrant Population Percentage)	0.003 (0.002)	0.003 (0.002)
lag(Immigration Flow)	-0.000 (0.002)	-0.000 (0.001)
lag(GDP Per Capita)	-0.000 (0.000)	-0.000 (0.000)
lag(GDP Increase Dummy)	-0.016 (0.016)	-0.015 (0.015)
lag(Labor Tax Rate)	0.002 (0.002)	0.001 (0.002)
lag(Gini by CINC Category)	0.067 (0.070)	-0.006 (0.079)
lag(Income Inequality)	0.002 (0.004)	0.001 (0.003)
lag(Labor Wage Share)	-0.001 (0.001)	-0.001 (0.001)
Observations	309	309
R ²	0.087	0.111
Adjusted R ²	0.050	0.075
AIC	-464.5	-472.7
BIC	-412.3	-420.4
Log.Lik.	246.269	250.337
RMSE	0.11	0.11

Standard errors clustered by country, reported in parentheses. * p<0.05, ** p<0.01

In Model 1, among the control variables, none of the variables are significant with a one-tailed test ($p < 0.05$). Nevertheless, assessing the actual statistical effect of the model requires marginal effects and predicted values across the range of the interaction. The marginal effect of Little Brother Event Count for Model 1 is depicted in Figure 8. The effect of *Little Brother Event Count* is statistically insignificant regardless of the value of *Populist Far Right Count*.

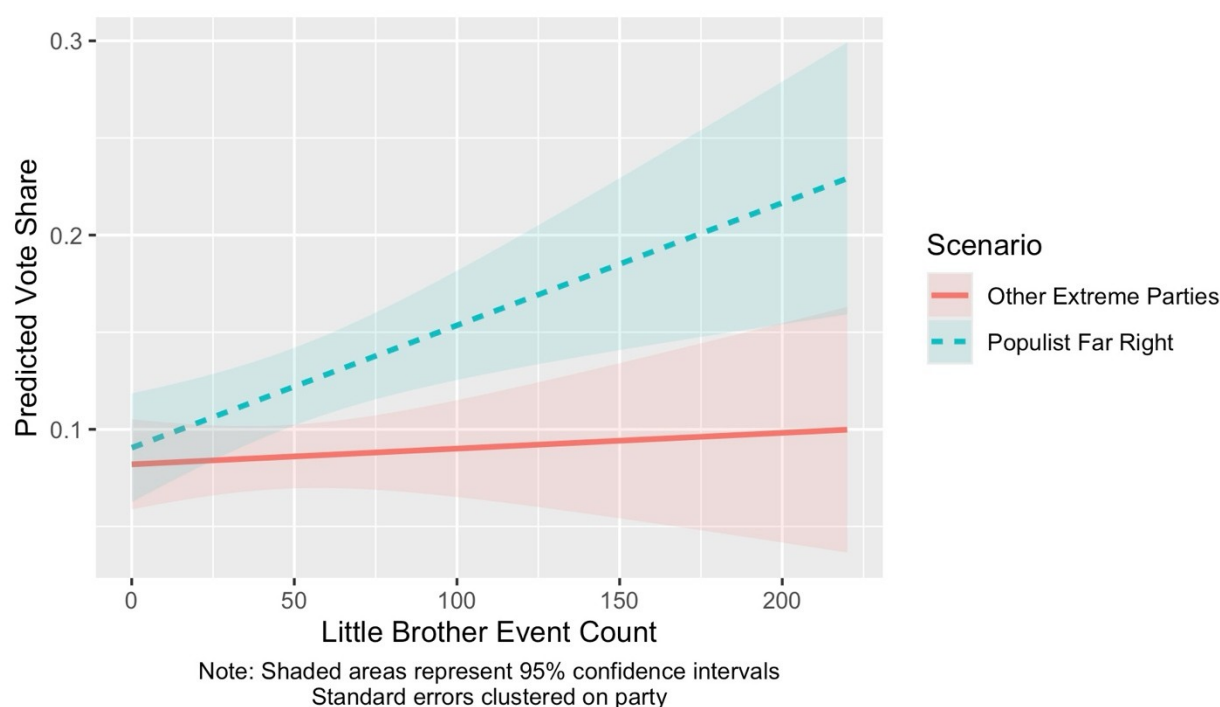
Figure 8: Effect of Little Brother Event Count Across Populist Far Right Dummy



Predicted probabilities for Model 1 are depicted in Figure 9. For other extreme parties, a *Little Brother Event Count* of 0 produces a predicted *Vote Share* of 0.06 (0.02, 0.09), and the value is statistically consistent across the full range to a *Little Brother Event Count* of 219, where the predicted vote share is 0.10 (0.04, 0.16). Populist far right parties produce a predicted *Vote Share* value that is statistically comparable to other extreme parties, from 0.12 (0.07, 0.16) at 0 in

Little Brother Event Count to a value of 0.12 (0.10, 0.14) at 20 in *Little Brother Event Count*. Above 50 in *Little Brother Event Count*, the predicted value of vote share is statistically higher for the populist far right than other extreme parties, up to a vote share of 0.20 (0.15, 0.26) at 180 in *Little Brother Event Count*. Beyond that point, the predicted values are statistically indistinguishable. The slope of the predicted *Vote Share* line indicates a positive relationship, and the difference across the middle portion of the range is significant despite the lack of significance in the aggregated marginal effects. This differential in predicted vote share provides only very weak support for my hypothesis.

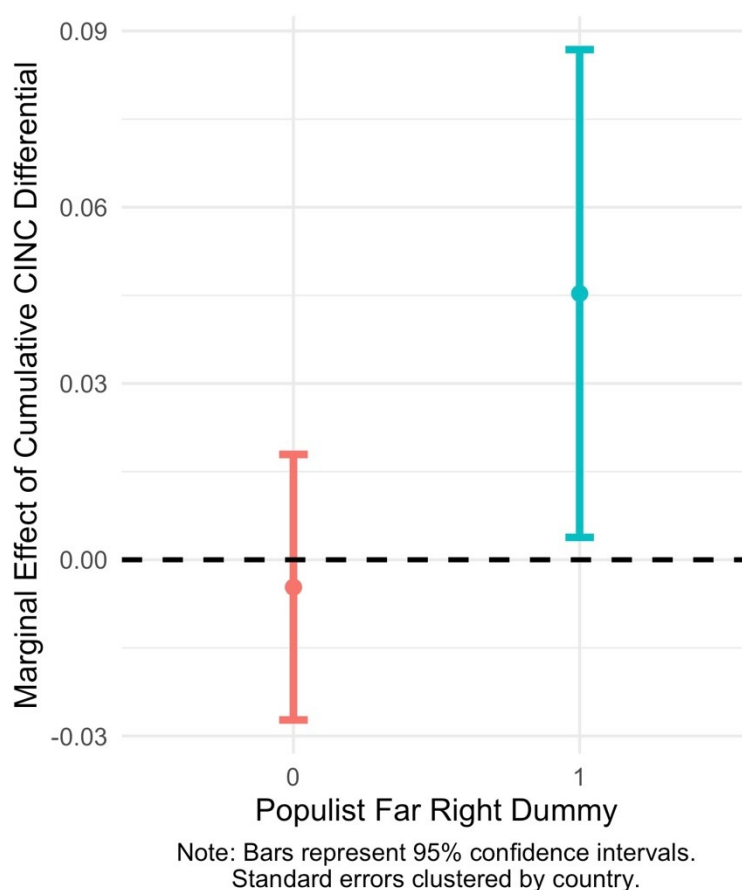
Figure 9: Effect of *Little Brother Event Count* on *Vote Share* for the Populist Far Right



In Model 2, the prior year's *Immigration Population Percentage* is positive and significant with a one-tailed test ($p < 0.05$), with a 1% increase in immigrant population associated with a 0.31% increase in *Vote Share*, holding all else equal. The interaction term is statistically significant ($p < 0.05$), but the coefficients for *Cumulative CINC Differential* and *Populist Far Right Dummy* are not. The marginal effect of *Cumulative CINC Differential* for each value of the

Populist Far Right Dummy is depicted in Figure 10. Where *Populist Far Right Dummy* is 0, the effect of *Cumulative CINC Differential* is statistically insignificant. Where *Populist Far Right Dummy* is 1, the effect of *Cumulative CINC Differential* is positive and significant with a value of 0.04 (0.01, 0.09). In other words, for each one-unit increase in Cumulative CINC Differential, predicted vote share for populist, far right parties increases by 4%.

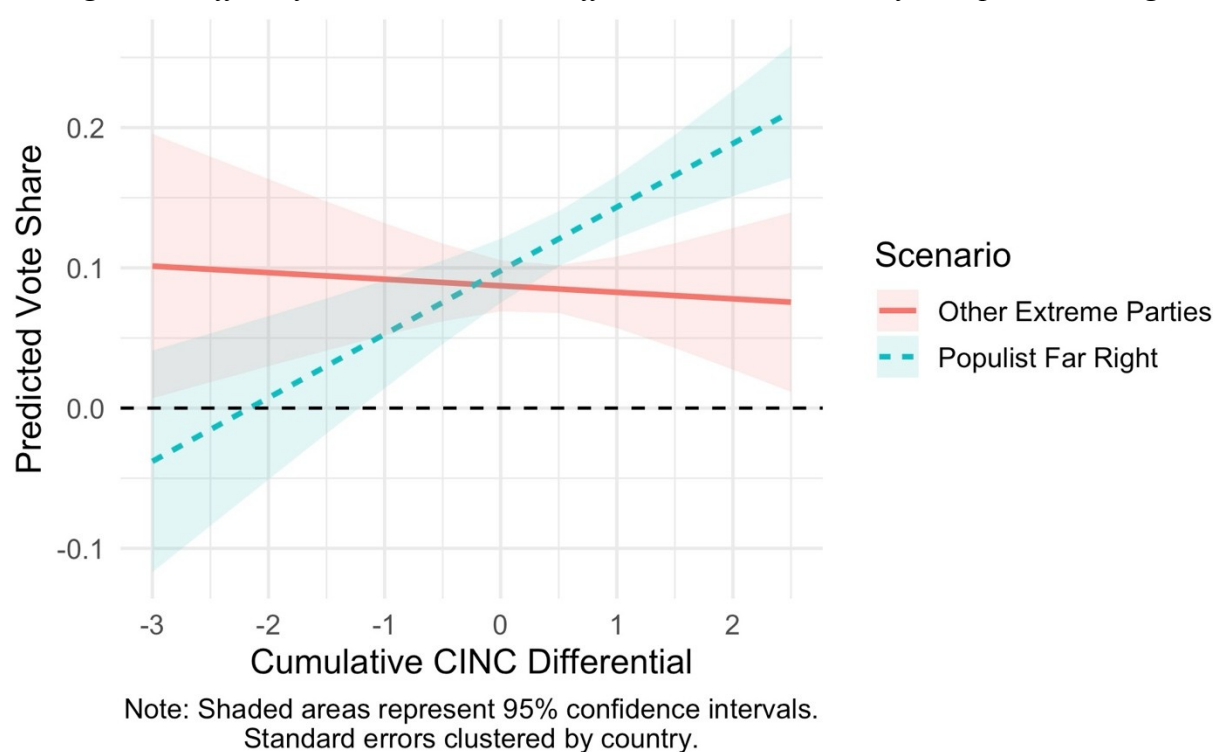
Figure 10: Effect of Cumulative CINC Differential Across Populist Far Right Dummy



The effect of the interaction term on predicted values for *Vote Share* is depicted in Figure 11 below, using the same High Support and Low Support scenarios as in Model 1, across the range of values of *Cumulative CINC Differential Index* from -3 to 2.5. For other extreme parties, a *Cumulative CINC Differential* of -2 produces a predicted *Vote Share* of 0.01 (0.01, 0.20), and the value is statistically consistent across the full range to a *Cumulative CINC Differential* of 2.5,

where the predicted vote share is 0.07 (0.01, 0.14). Populist far right parties produce predicted *Vote Share* values statistically higher than Low Support above a value of 0.5 in *Cumulative CINC Differential*, up to a predicted *Vote Share* of 0.21 (0.16, 0.26) at the upper end of the range. The slope of the predicted *Vote Share* line again indicates a positive relationship, and the difference across the range of values is statistically significant for the populist far right. This supports my hypothesis.

Figure 11: Effect of Cumulative CINC Differential on Vote Share for Populist Far Right



5. Discussion

In this chapter, I examine the interaction between trans-boundary water governance and support for populist far right parties in Europe. I have presented observational evidence that a cumulative pattern of trans-boundary interactions reinforces resentment associated with national identity, which in turn increases support for hyper-nationalist populist far right parties. In doing so, I have also distinguished the populist far right from other categories of extreme parties. This is supportive of the theory that populist far right parties are able to capitalize on place-based resentments, grounded in historic power dynamics and reinforced by trans-boundary policy efforts. Other categories of party are not.

While the foregoing research approach has limitations in causal leverage, my findings nonetheless provide important clarification and nuance to both the literature on trans-boundary watershed policy and the literature on far-right politics. While issues of fairness and resentment are not new to the trans-boundary watershed literature, prior work has been focused on their effects solely within the work of watershed governance. While resentment's ability to undermine the success of important environmental policy work is indisputably important, I have highlighted a previously unconsidered unintended consequence of this work in driving support for the populist far right. This feedback effect has far-reaching ramifications, as populist far right politics are the driving force between much of the global trend away from democratic governance in favor of more authoritarian approaches. While authoritarian governance and environmentalism are not necessarily mutually exclusive, the authoritarian ramping up of interstate conflict may have dramatic ramifications for watershed governance going forward.

Similarly, my policy feedback lens offers a nuanced view on the literature on the populist far right. My results are in dramatic dialogue with much of the literature on these political groups. While my results lend some credence to the linkages between immigration and populist sentiment, the effect of trans-boundary water policy resentment on support for the populist far right is specific to the brand of anti-institutional politics most salient to modern global politics. Economic factors disappear entirely from the model with the introduction of power dynamics to the picture. Finally, my findings support the literature's argument that resentment politics seem to be the sole domain of the populist far right.

While further study is undoubtedly warranted, I propose that anti-immigration sentiment may be an effect, rather than a cause, of populist far right sentiment. If the operative mechanism driving support for the populist far right is resentment of trans-boundary governance, the reification of anti-immigrant attitudes may be a product of the resultant circling of wagons around national identity. Additional work attempting to parse the precise directions of cause and effect between populist far right politics and anti-immigration sentiment is needed.

Finally, at the risk of echoing the numerous and tunnel-visioned Eurocentric scholars who have preceded me, several characteristics of my work here suggests that it is likely to travel to other geographies. My work here is theoretically consistent with literature on populist right-wing politics in the U.S. context (Cramer 2016), and the geographic scope of my work including Eastern Europe suggests that policy feedback effects may be a driver of populist right-wing politics in a variety of contexts. While the specific dynamics may vary – it is hard to imagine that colonial resentments are not the predominant policy feedback effects in a post-colonial context – the colonial history of Eastern Europe lends at least some credence to the viability of this approach to other places and place-based identities.

The opportunities for future work in this area are considerable. In addition to the alternative geographic scopes and causal analyses I have discussed above, this theoretical approach offers at least two additional avenues for further assessment. First, even with clustered standard errors and numerous robustness checks, the causal limitations of an observational study using OLS regression are well-known. Experimental or quasi-experimental methods offering greater causal leverage would both strengthen the approach's argument for validity and offer leverage to suss out the potentially interwoven causal effects. Second, the disjunct in geography between political and natural boundaries offers an opportunity to examine this issue with greater granularity. A study that examines the effect of water policy resentment in at a sub-national level could distinguish the effect of these policies within a watershed and without. That the effect is particularly pronounced in areas where residents are more directly affected by the watershed governance policies seems likely, and the literature further suggests a difference depending on whether a given voter is upstream or downstream of the event.

Finally, the argument I have advanced here begs a subsequent question: what can be done about it? The realities of long-established power dynamics are daunting, and cultural and national identities are difficult to change. The literature on political culture suggests that the problem might itself provide a solution. Established dynamics appear to best be redefined by responses large, disruptive events (Ricart-Higuet 2022), and the acceleration of anthropogenic climate change means we can reasonably expect more events like the Oder River fish kill, both in that watershed and elsewhere. However, further study will be needed to identify the brakes on the runaway system of trans-boundary resentments. Anti-democratic sentiment and the ability to effectively govern trans-boundary natural resources are issues of paramount and increasing significance. As the cascading effects of climate change ramp up, the ability of nations to take

action on these resources without undermining their own institutional stability will be tested with increasing frequency and severity, and the dynamics of interstate conflict are likely to shift as well. Understanding the source and effect of these resentments will be vital for the future of democratic and environmental governance.

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Appendix 1:

List of Watershed Governance Events Since 2008

Basin: Castletown

Event Year: 2019

Countries Involved: EU, Ireland

Description: Designation of Dundalk Bay Special Area of Conservation

Source: <https://www.irishstatutebook.ie/eli/2019/si/609/made/en>

Basin: Danube

Event Year: 2025

Countries Involved: Austria, Slovenia, Croatia, Hungary and Serbia

Description: Dispute over enforcement of Biosphere Reserve

Source: <https://balkaninsight.com/2025/01/15/how-the-amazon-of-europe-is-paying-the-price-of-hydropower-and-poor-river-management/>

Basin: Danube

Event Year: 2024

Countries Involved: Austria, Slovakia, Hungary, Germany

Description: Flooding

Source: <https://scitechdaily.com/water-world-europes-epic-flood-disaster-explained/>

Basin: Danube

Event Year: 2023

Countries Involved: All Danube nations

Description: PFAS detection in Danube

Source: <https://dailynewshungary.com/danube-dangerous-long-lasting-chemical-water/>

Basin: Danube

Event Year: 2023

Countries Involved: Hungary, EU

Description: Flooding

Source: <https://www.euractiv.com/section/eet/news/river-danube-bursts-its-banks-in-budapest-water-highest-since-2013/>

Basin: Danube

Event Year: 2021

Countries Involved: All Danube nations

Description: Management plan for river basin including floodplain restoration

Source: https://environment.ec.europa.eu/news/restored-floodplains-could-remove-38-000-tons-nitrate-pollution-danube-river-basin-2023-01-25_en

Basin: Danube

Event Year: 2022

Countries Involved: All Danube nations

Description: Massive drop in water levels

Source: <https://www.nationalobserver.com/2022/09/20/news/dry-europe-great-rivers-new-normal>

Basin: Danube

Event Year: 2010

Countries Involved: All Danube nations

Description: Flooding

Source: <https://unece.org/media/press/368948>

Basin: Danube

Event Year: 2013

Countries Involved: All Danube nations

Description: Flooding

Source: <https://unece.org/media/press/368948>

Basin: Danube

Event Year: 2014

Countries Involved: All Danube nations

Description: Flooding

Source: <https://unece.org/media/press/368948>

Basin: Danube

Event Year: 2020

Countries Involved: Serbia, EU

Description: Belgrade sewage dumped into Danube

Source: <https://smartwatermagazine.com/news/smart-water-magazine/belgrades-sewage-dumped-untreated-mighty-danube>

Basin: Danube

Event Year: 2018

Countries Involved: All Danube nations

Description: Massive drop in water levels

Source: <https://www.nytimes.com/2018/11/28/travel/european-river-cruises-low-water-cancel.html>

Basin: Danube

Event Year: 2017

Countries Involved: Austria, Bulgaria, Croatia, Hungary, Romania, Serbia).

Description: Restoration of wetland through Living Danube Partnership

Source:

[https://wwf.panda.org/wwf_news/?301750/Danube%2Dcommunities%2Dbenefit%2Dfrom%2Da%2Drestoration%2Dpartnership%2Dalong%2Dthe%2driver](https://wwf.panda.org/wwf_news/?301750/Danube%2Dcommunities%2Dbenefit%2Dfrom%2Da%2Drestoration%2Dpartnership%2Dalong%2Dthe%2Driver)

Basin: Danube

Event Year: 2015

Countries Involved: All Danube nations

Description: Massive drop in water levels

Source: <https://gcaptain.com/low-water-hampers-shipping-on-rhine-danube-river/>

Basin: Danube

Event Year: 2013

Countries Involved: Slovakia, Hungary, EU

Description: Flooding

Source: <https://www.dailymail.co.uk/news/article-2338449/Danube-reaches-record-levels-historic-capital-Budapest-goes-high-alert-river-burst-banks.html>,
<https://spectator.sme.sk/politics-and-society/c/flooding-endangers-slovakia>

Basin: Danube

Event Year: 2011

Countries Involved: All Danube nations

Description: Massive drop in water levels

Source: <https://www.wsj.com/articles/SB10001424052970204026804577100302969404354>

Basin: Dnieper

Event Year: 2023

Countries Involved: Russia, Ukraine

Description: Destruction of Kakhovka Dam

Source: <https://www.rferl.org/a/32987702.html>

Basin: Dnieper

Event Year: 2014

Countries Involved: Russia, Ukraine

Description: Construction of dam on North Crimean Canal

Source: <https://thehill.com/policy/equilibrium-sustainability/597910-how-a-ukrainian-dam-played-a-key-role-in-tensions-with/>

Basin: Dniester

Event Year: 2025

Countries Involved: Moldova, Ukraine

Description: Dniester River Basin Management Plan 2025-2030

Source: <https://gov.md/en/content/water-protection-and-management-dniester-basin-government-approved-new-plan-2025-2030>

Basin: Dniester

Event Year: 2024

Countries Involved: Moldova, Ukraine

Description: Cross-border environmental cooperation agreement signed - Espoo Convention

Source: <https://balkaninsight.com/2024/08/16/moldova-ukraine-urged-to-implement-agreement-protecting-protect-dniester-river/>

Basin: Dniester

Event Year: 2009

Countries Involved: Moldova, Ukraine

Description: Construction of hydroelectric facilities by Ukraine on Dniester

Source: <https://balkaninsight.com/2024/08/16/moldova-ukraine-urged-to-implement-agreement-protecting-protect-dniester-river/>

Basin: Dniester

Event Year: 2021

Countries Involved: Moldova, Ukraine

Description: Restoration of Iahorlyk River (tributary) ecology

Source: <https://www.osce.org/project-coordinator-in-ukraine/504727>

Basin: Dniester

Event Year: 2021

Countries Involved: Moldova, Ukraine, EU

Description: Integrated management plan

Source: <https://www.osce.org/project-coordinator-in-ukraine/484346>

Basin: Dniester

Event Year: 2017

Countries Involved: Moldova, Ukraine

Description: Dniester River Basin Treaty passed

Source: <https://unece.org/environment/press/treaty-sustainable-management-transboundary-dniester-river-basin-can-enter-force>

Basin: Dniester

Event Year: 2016

Countries Involved: Germany, Moldova

Description: Inter-municipal water management project

Source: <https://www.giz.de/en/worldwide/42103.html>

Basin: Dniester

Event Year: 2014

Countries Involved: Moldova, Ukraine

Description: Discovery of hazardous waste in the Dniester

Source: <https://www.occpr.org/en/investigation/ukraine-toxic-chemical-clean-up-under-investigation>

Basin: Drin

Event Year: 2025

Countries Involved: Albania, Kosovo, Montenegro, North Macedonia

Description: Drin Basin Strategic Action Plan phase launch

Source: <https://unece.org/media/press/400843>

Basin: Drin

Event Year: 2011

Countries Involved: Albania, Kosovo, Montenegro, North Macedonia

Description: Drin Sustainable Management Memorandum signed

Source: <https://unece.org/media/press/400843>

Basin: Drin

Event Year: 2020

Countries Involved: Albania, Kosovo, Montenegro, North Macedonia, Greece

Description: Drin Basin Strategic Action Plan signed

Source: <https://unece.org/environment/press/political-cooperation-across-borders-protects-water-resources-drin-basin>

Basin: Drin

Event Year: 2025

Countries Involved: Albania, Kosovo, North Macedonia

Description: Pollution issues in Drin

Source: <https://balkaninsight.com/2025/02/06/lifeless-pollution-threatens-the-drin-and-its-tributaries-in-three-balkan-states/>

Basin: Drin

Event Year: 2017

Countries Involved: Albania, Kosovo, Montenegro, North Macedonia, Greece

Description: Act4Drink project

Source: <https://www.birdlife.org/news/2017/04/20/protecting-the-pristine-europes-last-truly-wild-waterways/>

Basin: Daugava

Event Year: 2024

Countries Involved: Latvia, Belarus

Description: Flooding

Source: <https://eng.lsm.lv/article/society/environment/29.07.2024-flood-risk-on-the-rise-in-latvia-this-week.a563122/>

Basin: Daugava

Event Year: 2023

Countries Involved: Latvia, Belarus

Description: Flooding

Source: <https://watchers.news/2023/01/16/worst-flooding-since-1981-hits-parts-of-central-latvia/>

Basin: Daugava

Event Year: 2009

Countries Involved: Latvia, Belarus

Description: Daugava River Basin development plan

Source: https://www.baltic-course.com/eng/baltic_states_cis/?doc=19473

Basin: Douro/Duero

Event Year: 2024

Countries Involved: Spain, Portugal

Description: Fish kill

Source: <https://www.theportugalnews.com/news/2024-10-22/ash-from-fires-leading-to-dead-fish/92978>

Basin: Douro/Duero

Event Year: 2023

Countries Involved: Spain, Portugal

Description: Massive drop in water levels

Source: <https://theecologist.org/2024/sep/10/shared-waters>

Basin: Douro/Duero

Event Year: 2022

Countries Involved: Spain, Portugal

Description: Violation of Albufeira Convention quotas by Spain

Source: <https://theecologist.org/2024/sep/10/shared-waters>

Basin: Douro/Duero

Event Year: 2019

Countries Involved: Spain, Portugal

Description: Pollution levels create health hazard

Source: <https://www.portugalresident.com/douro-river-pollution-poses-public-health-hazard/>

Basin: Elbe

Event Year: 2024

Countries Involved: Czechia, Germany

Description: Flooding

Source: <https://www.dw.com/en/europe-floods-parts-of-vienna-without-power-as-river-rises/live-70220078>

Basin: Elbe

Event Year: 2021

Countries Involved: Czechia, Germany

Description: Navigability agreement

Source: <https://md.gov.cz/Media/Media-a-tiskove-zpravy/Smlouva-o-splavneni-Labe-mezi-Ceskem-a-Nemeckem-po?lang=en-GB>

Basin: Elbe

Event Year: 2023

Countries Involved: Czechia, Germany

Description: Flooding

Source: <https://www.expats.cz/czech-news/article/almost-50-czech-areas-including-prague-face-flood-alerts>

Basin: Elbe

Event Year: 2022

Countries Involved: Czechia, Germany

Description: Massive drop in water levels

Source: <https://www.aljazeera.com/features/2022/11/29/if-you-see-me-weep-hunger-stones-auguring-drought-in-europe>

Basin: Elbe

Event Year: 2021

Countries Involved: Czechia, Germany

Description: Flooding

Source: <https://www.bloomberg.com/news/features/2021-12-18/how-hamburg-learned-to-live-with-rising-water>

Basin: Elbe

Event Year: 2019

Countries Involved: Czechia, Germany

Description: Massive fluctuation in water levels

Source: <https://cruisepassenger.com.au/rivercruise/europes-water-levels-looking-good/>,
<https://cruisepassenger.com.au/rivercruise/river-itineraries-affected-by-low-water-levels-on-the-danube/>

Basin: Elbe

Event Year: 2018

Countries Involved: Czechia, Germany

Description: Massive drop in water levels

Source: <https://www.sciencealert.com/sinister-hunger-stones-dire-warnings-surfacing-european-heatwave-czech-drought-elbe-decin>

Basin: Elbe

Event Year: 2013

Countries Involved: Czechia, Germany

Description: Flooding

Source: <https://www.spiegel.de/international/europe/floods-in-europe-dresden-prepares-for-record-high-water-a-903872.html>

Basin: Elbe

Event Year: 2011

Countries Involved: Czechia, Germany

Description: Salmon restoration

Source: <https://phys.org/news/2011-05-salmon-czech-elbe-river.html>

Basin: Guadiana

Event Year: 2025

Countries Involved: Portugal, Spain

Description: Flooding

Source: <https://www.dailymail.co.uk/news/article-14515421/flash-floods-hit-south-Spain-towns-submerged.html>

Basin: Guadiana

Event Year: 2024

Countries Involved: Portugal, Spain

Description: Minimum water flow agreement

Source: <https://www.euractiv.com/section/politics/news/portugal-and-spain-agree-on-minimum-monthly-water-flow-for-river-guardiana/>

Basin: Guadiana

Event Year: 2022

Countries Involved: Portugal, Spain

Description: Massive drop in water levels

Source: <https://www.newscientist.com/article/mg25634175-800-extreme-drought-in-2022-exposed-fragility-of-europes-energy-system/>

Basin: Guadiana

Event Year: 2021

Countries Involved: Portugal, Spain

Description: Dispute over agricultural use of water

Source: <https://www.theguardian.com/environment/2021/nov/16/farmers-are-digging-their-own-graves-true-cost-of-growing-food-in-spains-arid-south>

Basin: Kogilnik

Event Year: 2019

Countries Involved: Ukraine, Latvia

Description: Dam removal and wetland restoration

Source: <https://www.theguardian.com/environment/2019/dec/27/it-is-amazing-how-quickly-mother-nature-can-recover-restoring-ukraines-rich-wetlands-aoe>

Basin: Lima

Event Year: 2022

Countries Involved: Spain, Portugal

Description: Massive drop in water levels

Source: https://www.upi.com/Top_News/World-News/2022/08/30/spain-roman-military-camp-drought/4691661855391/

Basin: Lielupe

Event Year: 2024

Countries Involved: Lithuania, Latvia

Description: Lithuanian-Latvian Intergovernmental Commission for Transboundary Cooperation

Source: <https://am.lrv.lt/en/news/lithuanian-and-latvian-representatives-discuss-strategy-and-actions-to-reduce-pollution-in-the-lielupe-river-basin/>

Basin: Mino

Event Year: 2019

Countries Involved: Spain, Portugal

Description: Flooding

Source: <https://www.standard.co.uk/news/world/eight-dead-storm-fabian-storm-elsa-spain-and-portugal-a4319656.html>

Basin: Maritsa

Event Year: 2020

Countries Involved: Turkey, Greece, Bulgaria

Description: Intentional flooding

Source: <https://www.e-flux.com/architecture/at-the-border/325751/weaponizing-a-river/>

Basin: Maritsa

Event Year: 2014

Countries Involved: Turkey, Greece, Bulgaria

Description: Flooding

Source: <https://sofiaglobe.com/2014/12/07/floods-in-bulgaria-leave-villages-without-drinking-water-electricity/>

Basin: Neretva

Event Year: 2024

Countries Involved: Bosnia and Herzegovnia, Croatia

Description: Massive fluctuation in water levels

Source: <https://www.straitstimes.com/world/europe/scary-drought-empties-one-of-bosnias-largest-lakes>, <https://www.bbc.com/news/articles/c4g5elll48lo>

Basin: Neretva

Event Year: 2022

Countries Involved: Bosnia and Herzegovnia, Croatia

Description: Dispute over dam construction

Source: <https://www.cnn.com/2023/08/10/world/neretva-river-save-the-blue-heart-of-europe-c2e-spc-intl/index.html>

Basin: Neretva

Event Year: 2017

Countries Involved: Bosnia and Herzegovnia, Croatia

Description: Massive drop in water levels

Source: <https://phys.org/news/2017-02-kilowatts-bosnian-lake.html>

Basin: Narva

Event Year: 2025

Countries Involved: Estonia, Russia

Description: Dispute over buoys

Source: <https://news.err.ee/1609638583/estonia-reiterates-call-for-russia-to-hand-over-stolen-narva-river-buoys>

Basin: Narva

Event Year: 2024

Countries Involved: Estonia, Russia

Description: Border dispute

Source: <https://icds.ee/en/does-russia-want-to-revise-its-water-border-with-the-nordic-and-baltic-states/>

Basin: Narva

Event Year: 2022

Countries Involved: Estonia, Russia

Description: Dispute over draining of reservoir

Source: <https://news.err.ee/1608707611/back-up-plans-exist-for-russia-shut-off-of-narva-reservoir-scenario>

Basin: Narva

Event Year: 2021

Countries Involved: Estonia, Russia

Description: Dispute over smuggling

Source: <https://news.err.ee/1608345248/narva-river-smugglers-may-move-underwater-to-avoid-detection>

Basin: Nestos

Event Year: 2024

Countries Involved: Bulgaria, Greece

Description: Massive drop in water levels

Source: <https://www.ekathimerini.com/in-depth/1236420/greeces-rivers-running-dry-lakes-disappearing/>

Basin: Oder

Event Year: 2024

Countries Involved: Poland, Czech Republic, Germany

Description: Flooding

Source: <https://earthobservatory.nasa.gov/images/153358/rivers-in-europe-burst-their-banks>

Basin: Oder

Event Year: 2025

Countries Involved: Poland, Germany

Description: Viral fish kill

Source: <https://wodnesprawy.pl/en/cyhv-2-virus-in-oder-river-and-gliwice-canal/>

Basin: Oder

Event Year: 2025

Countries Involved: Poland, Germany

Description: Effort to give Oder River legal personhood

Source: <https://wodnesprawy.pl/en/legal-personality-for-the-oder-river-a-breakthrough-in-river-protection-or-a-misguided-idea/>

Basin: Oder

Event Year: 2022

Countries Involved: Poland, Germany

Description: Golden algae bloom, fish kill

Source: <https://wodnesprawny.pl/en/legal-personality-for-the-oder-river-a-breakthrough-in-river-protection-or-a-misguided-idea/>

Basin: Oder

Event Year: 2024

Countries Involved: Poland, Germany

Description: Cause of 2022 fish kill determined

Source: <https://www.nature.com/articles/s44221-024-00297-4>

Basin: Oder

Event Year: 2024

Countries Involved: Poland, Germany

Description: Dispute over continued water toxicity

Source: <https://worldcrunch.com/in-the-news/oder-river-pollution-crisis/>

Basin: Oder

Event Year: 2023

Countries Involved: Poland, Germany

Description: Oder River Revitalization Act

Source: <https://wodnesprawy.pl/en/the-oder-river-revitalization-act-it-was-supposed-to-be-better-and-how-did-it-turn-out/>

Basin: Oder

Event Year: 2018

Countries Involved: Poland, Germany

Description: Massive drop in water levels

Source: <https://www.dw.com/en/german-river-levels-fall-in-heat-drought-as-farmers-seek-help/a-45100169>

Basin: Oder

Event Year: 2013

Countries Involved: Poland, Germany

Description: Reduction of E50 project to smaller Oder canal

Source: <https://www.obserwatorfinansowy.pl/in-english/business/danube-oder-elbe-water-corridor-project-gives-way-to-smaller-water-canal-project-on-oder/>

Basin: Oral/Ural

Event Year: 2024

Countries Involved: Kazakhstan, Russia

Description: Flooding

Source: <https://www.reuters.com/world/europe/water-levels-rise-rivers-russias-kurgan-tomsk-regions-2024-04-18/>

Basin: Oral/Ural

Event Year: 2023

Countries Involved: Kazakhstan, Russia

Description: Dispute over flows

Source: <https://intpolicydigest.org/can-the-caspian-sea-and-ural-river-be-saved/>

Basin: Oral/Ural

Event Year: 2018

Countries Involved: Kazakhstan, Russia

Description: Meeting to discuss flow issues

Source: <https://intpolicydigest.org/can-the-caspian-sea-and-ural-river-be-saved/>

Basin: Oral/Ural

Event Year: 2021

Countries Involved: Kazakhstan, Russia

Description: Dispute over flows

Source: <https://eurasianet.org/kazakhstan-there-used-to-be-a-river-here>

Basin: Oral/Ural

Event Year: 2019

Countries Involved: Kazakhstan, Russia

Description: Dispute over flows

Source: <https://www.rferl.org/a/kazakhstan-ural-river-ecology-problem/30293382.html>

Basin: Oral/Ural

Event Year: 2019

Countries Involved: Kazakhstan, Russia

Description: Fish kill

Source: <https://eurasianet.org/huge-fish-die-off-in-kazakhstans-ural-river-fuels-fear-for-future-stocks>

Basin: Pasvik

Event Year: 2023

Countries Involved: Norway, Russia

Description: Dispute over flows

Source: <https://www.highnorthnews.com/en/here-russia-could-cut-eastern-finnmarks-power>

Basin: Pasvik

Event Year: 2018

Countries Involved: Norway, Russia

Description: Border dispute

Source: <https://www.rcinet.ca/eye-on-the-arctic/2018/09/27/russia-norway-land-border-agreement-frontier/>

Basin: Rezvaya

Event Year: 2016

Countries Involved: Bulgaria, Turkey

Description: Border dispute

Source: <https://www.dw.com/en/bulgaria-fears-a-tide-of-refugees/a-19464129>

Basin: Rezvaya

Event Year: 2012

Countries Involved: Bulgaria, Turkey

Description: Dispute over nuclear plant proposal

Source:

<https://www.novinite.com/articles/144496/Locals+Alarmed+as+Turkey+Might+Build+NPP+on+Bulgaria%27s+Border>

Basin: Rhine

Event Year: 2022

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://www.nationalobserver.com/2022/09/20/news/dry-europe-great-rivers-new-normal>

Basin: Rhine

Event Year: 2015

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://gcaptain.com/low-water-hampers-shipping-on-rhine-danube-river/>

Basin: Rhine

Event Year: 2025

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/drought-over-large-parts-europe-raises-concern-2025-05-05_en

Basin: Rhine

Event Year: 2022

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://www.joc.com/article/restricted-barge-services-continuing-as-rhine-water-levels-reach-record-lows-5246128>

Basin: Rhine

Event Year: 2024

Countries Involved: All Rhine nations

Description: Massive fluctuation in water levels

Source: <https://www.reuters.com/world/europe/low-water-hampers-rhine-river-shipping-germany-2024-08-29/>, <https://www.cruisecritic.com/news/rhine-and-danube-river-cruises-impacted-high-water-levels>

Basin: Rhine

Event Year: 2023

Countries Involved: All Rhine nations

Description: Massive fluctuation in water levels

Source: <https://www.maritimeprofessional.com/news/river-rhine-south-germany-closed-389561>, <https://www.abnamro.com/research/en/our-research/ripple-effects-exploring-the-impact-of-low-rhine-water-levels-on-the-dutch>

Basin: Rhine

Event Year: 2022

Countries Involved: All Rhine nations

Description: Dispute over plan to deepen river

Source: <https://www.dw.com/en/drought-ships-cargo-vessels-shipping-fossil-fuels-energy-shortage-crisis/a-63255851>

Basin: Rhine

Event Year: 2020

Countries Involved: Germany, Switzerland, France, Luxemburg, Netherlands

Description: Rhine 2020 Programme Developed

Source: <https://smartwatermagazine.com/news/smart-water-magazine/water-quality-rhine-river-declining>

Basin: Rhine

Event Year: 2020

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://www.drishtias.com/daily-news-analysis/dropping-water-levels-in-germany-s-rhine-river>

Basin: Rhine

Event Year: 2019

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://www.insurancejournal.com/news/international/2019/07/24/533767.htm>

Basin: Rhine

Event Year: 2018

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://www.freightwaves.com/news/maritime-rhine-water-levels-rise-rates-jump>

Basin: Rhine

Event Year: 2017

Countries Involved: All Rhine nations

Description: Massive drop in water levels

Source: <https://gcaptain.com/rhine-danube-water-levels-rising-fast-germany/>

Basin: Rhone

Event Year: 2024

Countries Involved: France, Switzerland

Description: Flooding

Source: <https://www.swissinfo.ch/eng/climate-solutions/flooding-of-rhone-river-causes-severe-road-and-rail-traffic-disruptions/82262056>

Basin: Rhone

Event Year: 2018

Countries Involved: France, Switzerland

Description: Massive fluctuation in water levels

Source: <https://earthobservatory.nasa.gov/images/12527/flooding-in-southern-france>,
<https://www.nytimes.com/2018/11/28/travel/european-river-cruises-low-water-cancel.html>

Basin: Rhone

Event Year: 2023

Countries Involved: France, Switzerland

Description: Heat wave restricts nuclear power production

Source: <https://www.bloomberg.com/news/articles/2023-07-13/france-cuts-nuclear-output-as-heat-triggers-water-restrictions>

Basin: Rhone

Event Year: 2022

Countries Involved: France, Switzerland

Description: Heat wave restricts nuclear power production

Source: <https://www.reuters.com/world/europe/warming-french-rivers-could-take-more-nuclear-supply-offline-2022-05-25/>

Basin: Roia/Roya

Event Year: 2023

Countries Involved: France, Italy

Description: Contamination of water

Source: <https://www.fairplanet.org/story/injustice-flows-italys-migrants-drink-contaminated-water/>

Basin: Roia/Roya

Event Year: 2020

Countries Involved: France, Monaco

Description: Cutoff of water supply due to flooding

Source: <https://www.hellomonaco.com/news/latest-news/monacos-water-sources-changed-since-storm-alex/>

Basin: Roia/Roya

Event Year: 2020

Countries Involved: France, Italy

Description: Flooding

Source: <https://www.hellomonaco.com/news/latest-news/monacos-water-sources-changed-since-storm-alex/>

Basin: Samur

Event Year: 2016

Countries Involved: Russia, Azerbaijan

Description: Dispute over water supply

Source: <https://jamestown.org/program/dagestan-azerbaijan-relations-a-new-flash-point-in-the-caucasus/>

Basin: Samur

Event Year: 2014

Countries Involved: Russia, Azerbaijan

Description: Dispute over water supply

Source: <https://www.rferl.org/a/azerbaijan-daghestan-irrigation-water-tensions/26567147.html>

Basin: Seine

Event Year: 2024

Countries Involved: France, Rest of World

Description: Seine too dirty for Olympic swimming

Source: <https://www.newsweek.com/2024-paris-olympics-france-seine-river-pollution-1935323>

Basin: Sarata

Event Year: 2024

Countries Involved: Moldova, Ukraine

Description: Flooding

Source: <https://www.infotag.md/populis-en/318883/>

Basin: Sarata

Event Year: 2019

Countries Involved: Moldova, Ukraine

Description: Dam removal and wetland restoration

Source: <https://www.theguardian.com/environment/2019/dec/27/it-is-amazing-how-quickly-mother-nature-can-recover-restoring-ukraines-rich-wetlands-aoe>

Basin: Tagus/Tejo

Event Year: 2025

Countries Involved: Spain, Portugal

Description: Massive fluctuation in water levels

Source: https://murciatoday.com/government-to-approve-record-tagus_segura-water-transfer-as-reserves-hit-historic-levels_1000206025-a.html,
<https://efe.com/en/latest-news/2025-03-22/flood-alert-in-central-spain-as-river-water-levels-rise/>

Basin: Tagus/Tejo

Event Year: 2023

Countries Involved: Spain, Portugal

Description: Drought

Source: <https://www.euronews.com/green/2023/05/03/murcias-farmers-fear-desertification-as-spain-cuts-water-supplies-from-river-tagus>

Basin: Tagus/Tejo

Event Year: 2018

Countries Involved: Spain, Portugal

Description: Drought

Source: <https://www.worldatlas.com/news/tagus-river-at-the-brink-of-drying.html>

Basin: Tagus/Tejo

Event Year: 2017

Countries Involved: Spain, Portugal

Description: Drought

Source: <https://www.france24.com/en/20171212-focus-spain-river-tagus-drought-irrigation-agriculture-climate-water-management-transfers>

Basin: Volga

Event Year: 2024

Countries Involved: Russia, Kazakhstan

Description: Dispute over water supply

Source: <https://www.juancole.com/2025/03/caspian-environmental-disaster.html>

Basin: Volga

Event Year: 2023

Countries Involved: Russia, Kazakhstan

Description: Dispute over water supply

Source: <https://iranwire.com/en/politics/119516-ecocide-russia-blamed-for-shrinking-caspian-sea/>

Basin: Volga

Event Year: 2022

Countries Involved: Russia, Kazakhstan

Description: Dispute over water supply

Source: <https://earthobservatory.nasa.gov/images/150452/the-caspian-seas-shrinking-coastline>

Basin: Volga

Event Year: 2021

Countries Involved: Russia, Kazakhstan

Description: Dispute over excess impoundment

Source: <https://www.technologyreview.com/2021/12/15/1041312/volga-river-dams-russia-soviets-infrastructure/>

Basin: Volga

Event Year: 2020

Countries Involved: Russia, Kazakhstan

Description: Dispute over excess impoundment

Source: <https://www.tehrantimes.com/news/448110/Caspian-Sea-water-level-sinks-to-lowest-in-25-years>

Basin: Volga

Event Year: 2019

Countries Involved: Russia, Kazakhstan

Description: Dispute over excess impoundment

Source: <https://www.rferl.org/a/volga-low-water-crisis-raises-questions-about-managing-russias-main-artery/29979485.html>

Basin: Vardar

Event Year: 2024

Countries Involved: Greece, North Macedonia

Description: Pollution levels

Source: <https://balkaninsight.com/2024/08/07/in-north-macedonia-boatmen-bear-witness-to-a-rivers-demise/>

Basin: Vardar

Event Year: 2023

Countries Involved: Greece, North Macedonia

Description: Massive drop in water levels

Source: <https://www.slobodenpecat.mk/en/namalen-vodostojot-na-varдар-rekata-prepolovena-kaj-jegunovce/>

Basin: Vardar

Event Year: 2020

Countries Involved: Greece, North Macedonia

Description: Pollution levels

Source: <https://meta.mk/en/river-varдар-abused-as-a-dump-site-is-a-source-of-diseases-can-we-rescue-it-by-2026/>

Basin: Vistula

Event Year: 2014

Countries Involved: Belarus, Poland, Ukraine, EU

Description: E40 waterway proposal

Source: <https://belarusdigest.com/story/poland-belarus-and-ukraine-to-revive-the-baltic-black-sea-water-route/>

Appendix 2:

Temporal Dynamics Testing

Table 5: Stationarity and Trend Testing for Panel Data

Statistic	Im-Pesaran-Shin Test With Trend	p-value
Dependent Variable		
Extreme Party Vote Share	Stationary	2.2e-16
Independent Variables		
Cumulative CINC Differential	Insufficient Variation to Test	
Populist Far Right Dummy	Insufficient Variation to Test	
Control Variables		
Unemployment (%)	Stationary	1.167e-06
Immigrant Population (%)	Stationary	2.043e-08
Immigration Flow	Stationary	2.2e-16
Income Inequality (Gini Coefficient)	Insufficient Variation to Test	
GDP Per Capita	Stationary	0.034
Labor Tax Rate	Stationary	2.2e-16
Regional Inequality	Insufficient Variation to Test	
Labor Wage Share	Stationary	2.2e-16
GDP Increase Dummy	Insufficient Variation to Test	
Year	Stationary	2,012.6

Table 6: Dynamic Models, Temporal Variables

	Model 1: Year Fixed Effects	Model 2: Year Trend Variable
(Intercept)	0.088 (0.129)	−0.730 (3.397)
Year (Trend)		0.000 (0.002)
Fixed Effect: 2005	−0.010 (0.057)	
Fixed Effect: 2006	−0.009 (0.053)	
Fixed Effect: 2007	−0.035 (0.055)	
Fixed Effect: 2008	−0.021 (0.049)	
Fixed Effect: 2009	−0.005 (0.075)	
Fixed Effect: 2010	0.044 (0.064)	
Fixed Effect: 2011	−0.011 (0.056)	
Fixed Effect: 2012	0.035 (0.068)	
Fixed Effect: 2013	−0.030 (0.054)	
Fixed Effect: 2014	−0.013 (0.054)	
Fixed Effect: 2015	0.047 (0.065)	
Fixed Effect: 2016	−0.009 (0.050)	
Fixed Effect: 2017	−0.033 (0.054)	
Fixed Effect: 2018	−0.008 (0.067)	
Fixed Effect: 2019	0.061 (0.059)	
Fixed Effect: 2020	−0.009 (0.039)	
Fixed Effect: 2021	−0.048 (0.046)	

Standard errors clustered by country, reported in parentheses.

Reference category for Year Fixed Effects is 2004

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 7: Dynamic Models, Substantive Variables

	Model 1: Year Fixed Effects	Model 2: Year Trend Variable
Cumulative CINC Differential	−0.009 (0.011)	−0.002 (0.012)
Populist Far Right Dummy	0.019 (0.026)	0.016 (0.025)
Cumulative CINC Differential × Populist Far Right Dummy	0.049* (0.020)	0.049* (0.021)
lag(Unemployment)	−0.002 (0.002)	−0.002 (0.002)
lag(Immigrant Population)	0.002 (0.002)	0.003+ (0.002)
lag(Immigration Flow)	−0.001 (0.003)	−0.000 (0.001)
lag(GDP Per Capita)	−0.000 (0.000)	−0.000 (0.000)
lag(GDP Increase Dummy)	0.029 (0.036)	−0.020 (0.017)
lag(Labor Tax Rate)	0.001 (0.002)	0.001 (0.001)
lag(Regional Inequality)	0.016 (0.118)	0.002 (0.083)
lag(Income Inequality)	0.001 (0.003)	0.001 (0.003)
lag(Labor Wage Share)	−0.001 (0.001)	−0.001 (0.001)
Num.Obs.	310	310
R2	0.141	0.112
R2 Adj.	0.052	0.073
AIC	−435.1	−456.8
BIC	−319.2	−400.8
Log.Lik.	248.531	243.405
RMSE	0.11	0.11

Standard errors clustered by country, reported in parentheses.

Reference category for Year Fixed Effects is 2004.

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix 3:

Robustness Models

Table 8: Robustness Models, Variables of Interest

	Model 1: Non-CINC	Model 2: Parsimony	Model 3: Hierarchical	Model 4: Populist	Model 5: Far Left	Model 6: Far Right	Model 7: Euroskept
Incremental CINC Differential		−0.009 (0.006)	−0.004 (0.017)	0.005 (0.022)	0.047* (0.023)	0.005 (0.015)	0.006 (0.042)
Populist Far Right Dummy	0.041 (0.030)	0.015 (0.025)	0.011 (0.015)				
Incremental CINC Differential × Populist Far Right Dummy		0.057* (0.024)	0.044** (0.016)				
Populist Dummy				0.056** (0.020)			
Incremental CINC Differential × Populist Dummy				0.032 (0.022)			
Far Left Dummy					−0.030 (0.022)		
Incremental CINC Differential × Far Left Dummy					−0.052* (0.020)		
Far Right Dummy						0.004 (0.022)	
Incremental CINC Differential × Far Right Dummy						0.040+ (0.024)	
Euroskept Dummy							−0.055 (0.042)
Incremental CINC Differential × Euroskept Dummy							0.030 (0.057)
N. Obs.	310	321	310	310	310	310	310
Adj. R ²	0.057	0.103	0.091	0.138	0.119	0.089	0.074
Chi ²	0.026	0.095	0.172	0.103	0.083	0.053	0.037
BIC	−444.2	−485.1	−329.4	−467.8	−461.1	−450.9	−445.8
AIC	−399.4	−466.3	−273.3	−415.5	−408.7	−398.6	−393.5

Standard errors clustered by country except for Model 3.

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 9: Robustness Models, Control Variables

	Model 1: Non-CINC	Model 2: Parsimony	Model 3: Hierarchical	Model 4: Populist	Model 5: Far Left	Model 6: Far Right	Model 7: Euroskept
(Intercept)	0.204**	0.087***	0.163	0.018	0.031	0.092	0.100

	(0.076)	(0.009)	(0.139)	(0.105)	(0.084)	(0.088)	(0.131)
lag(Unemployment Percentage)	−0.002		−0.001	−0.002	−0.001	−0.002	−0.001
	(0.002)		(0.002)	(0.002)	(0.001)	(0.002)	(0.002)
lag(Immigrant Population Percentage)	0.004**		0.003	0.003*	0.003+	0.003+	0.002
	(0.001)		(0.002)	(0.001)	(0.002)	(0.002)	(0.002)
lag(Immigration Flow)	0.000		−0.001	0.000	−0.001	−0.001	−0.001
	(0.002)		(0.003)	(0.002)	(0.002)	(0.002)	(0.002)
lag(GDP Per Capita)	−0.000+		−0.000	−0.000	−0.000	−0.000	−0.000
	(0.000)		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
lag(GDP Increase Dummy)	−0.014		−0.024	−0.018	−0.020	−0.020	−0.018
	(0.020)		(0.017)	(0.018)	(0.018)	(0.019)	(0.020)
lag(Labor Tax Rate)	0.001		0.000	0.001	0.001	0.002	0.001
	(0.002)		(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
lag(Regional Inequality)	0.054		0.012	−0.036	−0.012	−0.020	−0.059
	(0.093)		(0.113)	(0.092)	(0.082)	(0.083)	(0.119)
lag(Income Inequality)	−0.000		−0.000	0.004	0.003	0.002	0.002
	(0.003)		(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
lag(Labor Wage)	−0.002+		−0.001	−0.001	−0.000	−0.001	−0.000
	(0.001)		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)

Standard errors clustered by country except for Model 3.

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Figure 12: Interaction between Populist Far Right and CINC Differential, Parsimony

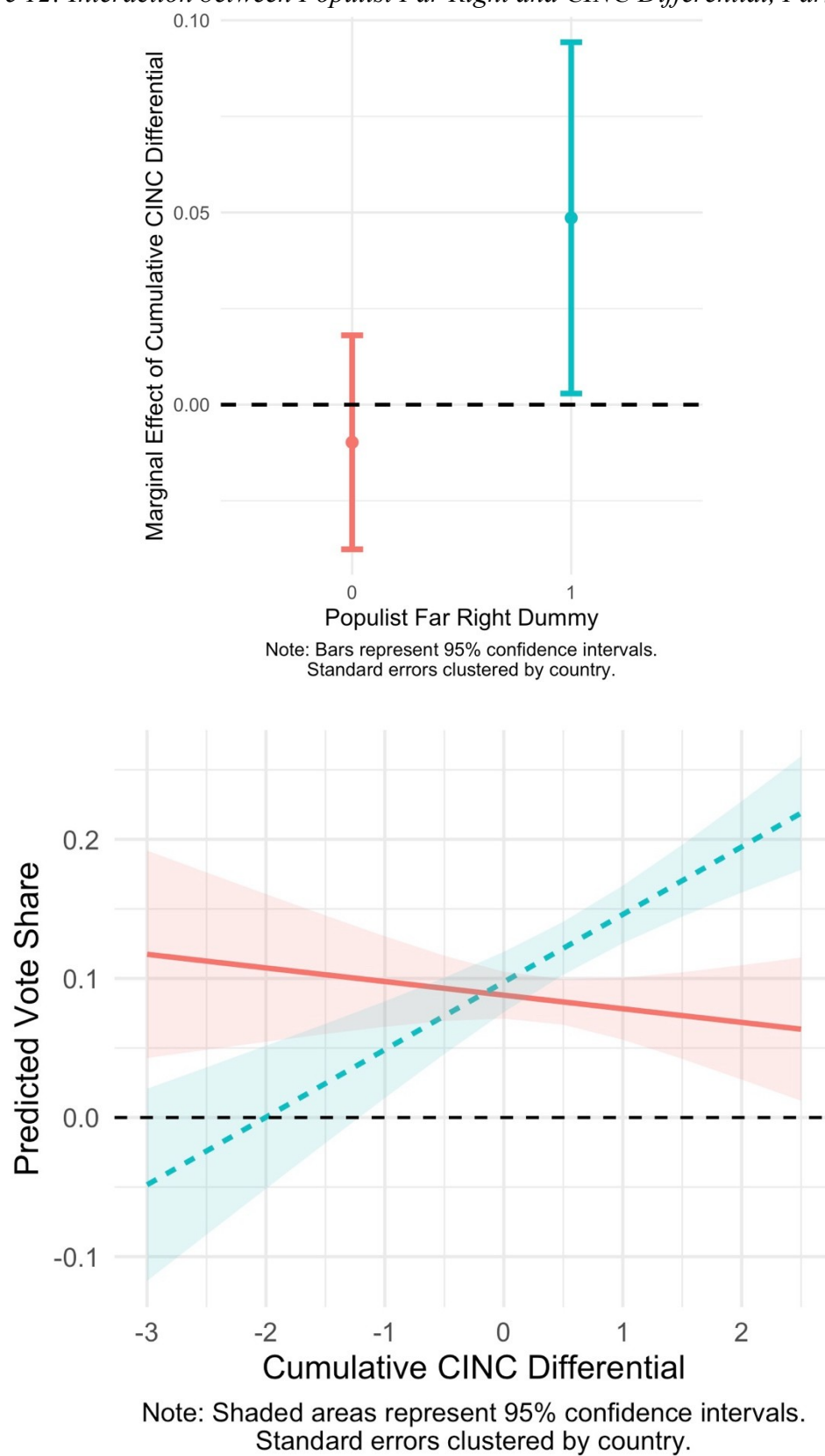


Figure 13: Interaction between Populist Far Right and CINC Differential, Hierarchical

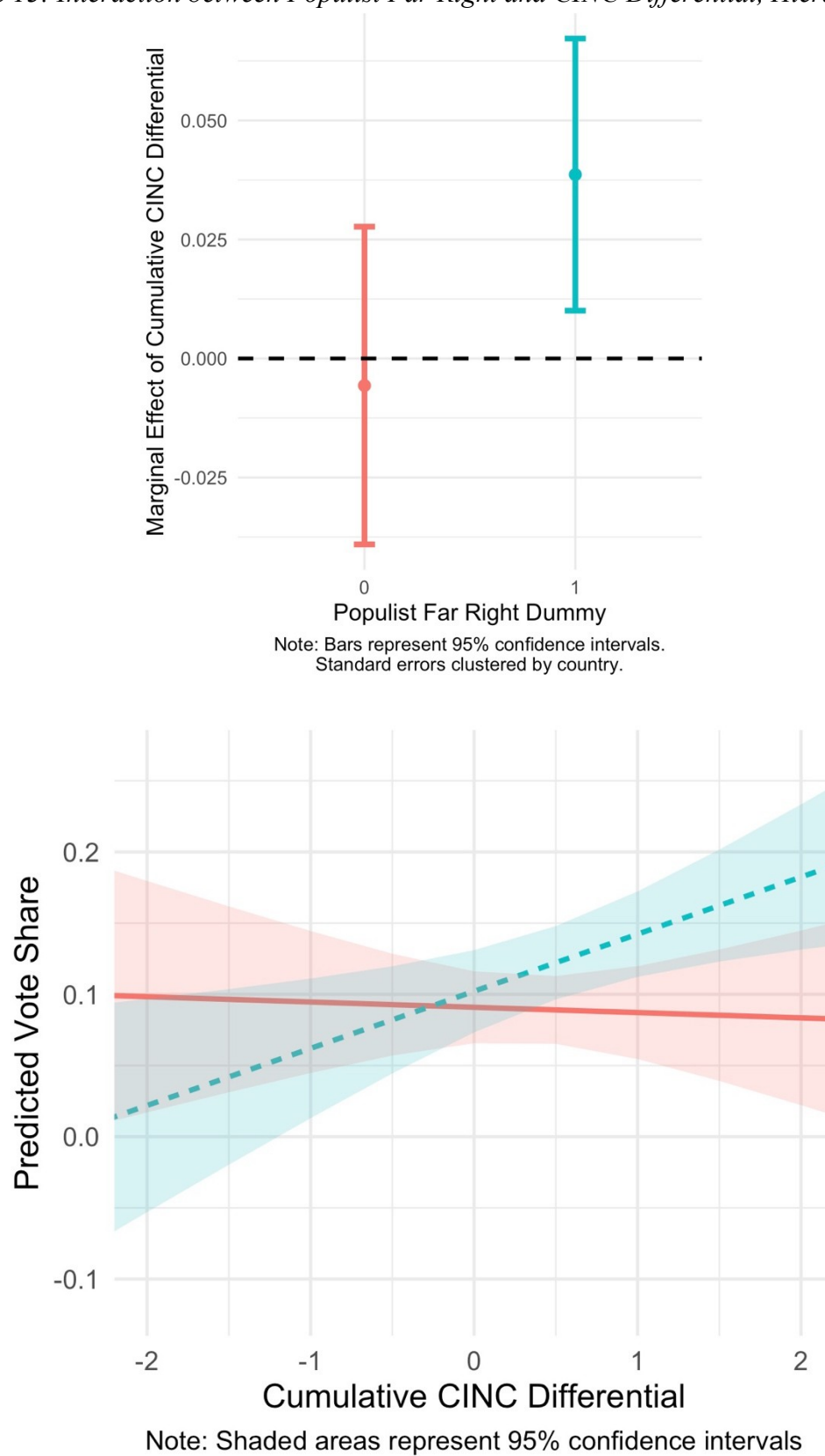


Figure 14: Interaction between Far Left and Cumulative CINC Differential

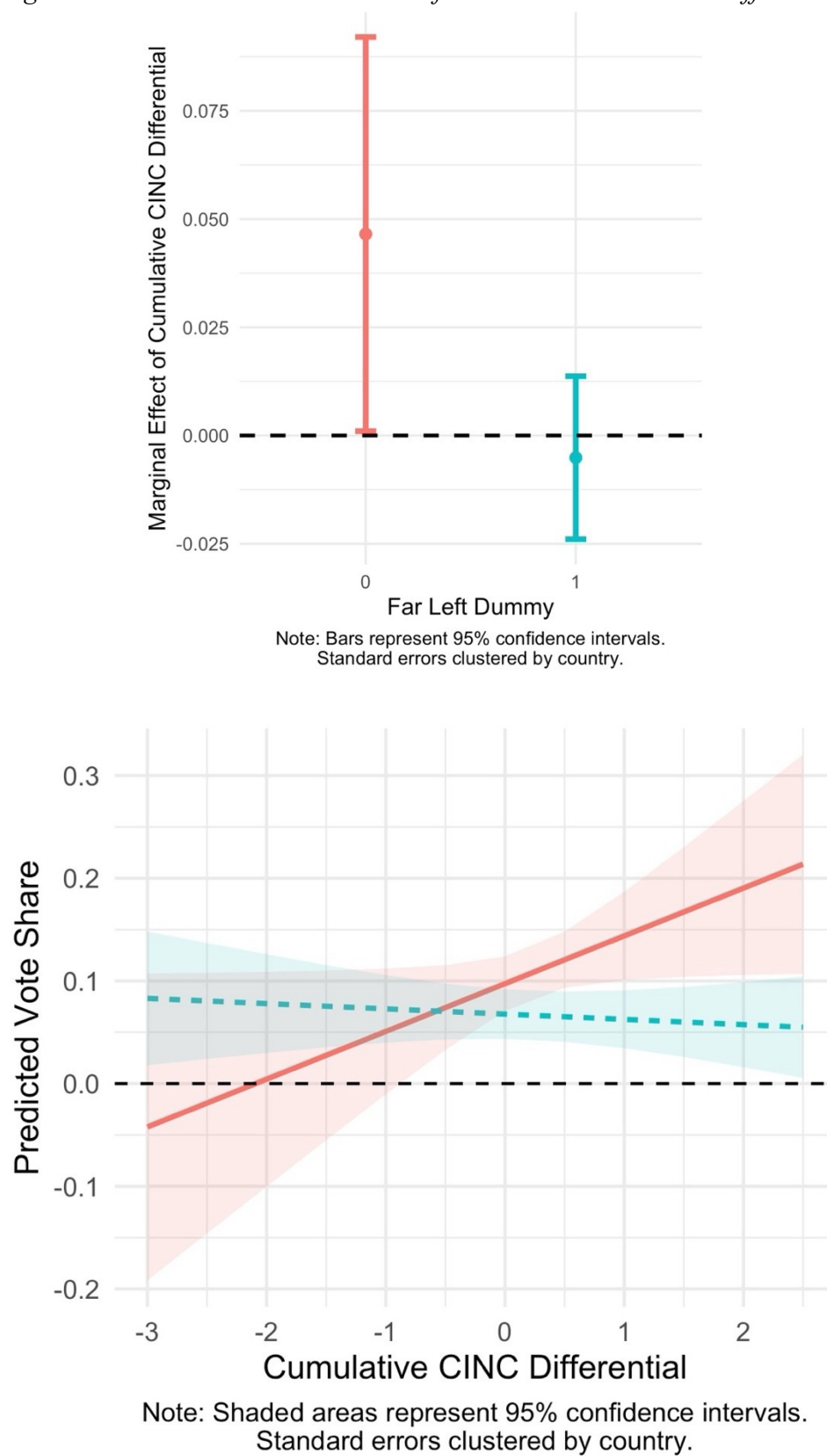


Figure 15: Interaction Between Far Right and Cumulative CINC

