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THE POLITICS OF WATER RESOURCE MANAGEMENT: STATE-GUIDED FRAMING
OF CHINA'S SOUTH TO NORTH WATER DIVERSION PROJECT AND ITS IMPACT ON
CITIZEN PERCEPTION

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By Lennis Barlow

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Abstract

Due to China's geographic and human-exacerbated water scarcity, government leaders have turned to the South to North Water Diversion Project (SNWDP) in order to ensure a reliable source of water for the country's increasingly parched Northern cities and townships. This thesis examines this inter-basin water transfer project (soon to be the world's largest) through the lens of how government actors have framed the project. This official framing analysis is presented in tandem with citizen perceptions observed through online commentary in order to evaluate how effective such framing has been. Through such analysis, this research observes a pattern of nationalism and utilitarianism within state framing which is largely echoed in citizen commentary.

Keywords: China, politics, inter-basin water transfer, water scarcity, framing, sustainability

Chapter I- Introduction

China has historically struggled to access and control its water. In the past, China's most significant water issues lay in unpredictable flooding. Today, while the threat of flooding still looms large, it has largely been surpassed in significance by issues of water scarcity. China's per capita water resources are seventy-two percent lower than the global average, and well within the margin to be classified as a water-scarce nation. Additionally, these scant per capita water resources are unevenly distributed throughout China, and do not coordinate with the distribution of population clusters or agricultural land. Southern China holds eighty-one percent of the country's water resources and fifty-four percent of the country's population. By contrast, Northern China holds only nineteen percent of the country's water resources with forty-six percent of the country's population.¹

China has adopted various environmental and infrastructural projects to alleviate the pressure on existing water resources and expand access to clean drinking water in the North. These include intensive groundwater extraction, rainwater catchment, expanding water reuse capacity, and even desalination of sea water in some coastal areas. Although these approaches mitigated some of the most severe effects of water scarcity, they have not been able to provide long-term or large-scale relief. As a result, starting in December of 2002, the central government began constructing the South to North Water Diversion Project (SNWDP). This water transfer project consists of three main routes, the East Route, Middle Route, and West Route, and will

¹ Yang and Zehnder "The South-North Water Transfer Project in China: An Analysis of Water Demand Uncertainty and Environmental Objectives in Decision Making," 340.

eventually be the world's largest water transfer project, with the goal of transferring 44.8 billion cubic meters of water.²

The first completed route of the SNWDP is the Eastern Route (ER), which runs 1467 km and consists of thirty-four large pumping stations. The ER was completed relatively swiftly, as it utilizes pre-existing sections of the Grand Canal. The ER supplies water to Jiangsu, Anhui, Shandong, Hebei and Tianjin. This route can transfer nearly 9 billion m³ per year of water, with the potential for this figure to rise to as much as 14.8 billion m³ per year by 2030.³

The second completed route of the SNWDP is the Middle Route (MR). The MR brings water to Beijing and Tianjin as well as the provinces of Henan and Hebei in the North China Central Plain. The MR diverts 9.3 billion m³ of water per year from an expanded Danjiangkou Reservoir to the North through a series of canals that flow mostly through gravity, and without major pumping stations.⁴ Similar to the ER, there are plans to expand the current structure to allow for the annual transport of 13 billion m³ of water per year.⁵

The Western Route Project (WR) is the final and most ambitious of the three sections. The WR aims to relieve water shortages in Qinghai, Gansu, Ningxia, Shaanxi, Shanxi, and the Inner Mongolia Autonomous Region by diverting water from the upper Yangtze River.⁶ This section, which has yet to be commenced, necessitates the construction of dammed reservoirs on three of the largest tributaries of the Yangtze as well as a complex system of tunnels and will require extensive pumping. Despite the difficulty required for this section of the SNWDP, it has

² Office of the South-to-North Water Diversion Project Construction Committee, "The South-to-North Water Diversion Project," 265.

³ Wilson, et al. "A Review of the Economic, Social, and Environmental Impacts of China's South-North Water Transfer Project: A Sustainability Perspective," 1489.

⁴ Office, "The South-to-North Water Diversion Project," 266.

⁵ Wilson, "A Review," p. 1489

⁶ Office, "The South to North Water Diversion Project," 266.

remained a crucial component to the achievement of the goals of the SNWDP as a whole, as it is believed that the WR could transfer an additional 17 billion m³ of transferred water.

As with any large-scale national infrastructure project, there is a significant component of state framing which must be used to inform the public of the project's benefits and justify the state's decision making. In the case of the SNWDP, this is especially true due to the high cost, negative environmental impacts, and potentially inadequate nature of the project. This thesis analyzes the complex relationship between the justifications and framing techniques utilized by Chinese policymakers in implementing the SNWDP, and how such framing has impacted the public opinion.

Framing refers to the phrases and themes which most frequently accompany government descriptions and online commentary. The concept of "frames" or "framing," especially observed through "frame analysis," is well-established within studies of public policy. In their analysis of framing as a methodology for studying contemporary policy-making, Hulst and Yanow write, "In policy-making, framing is a process in and through which policy-relevant actors intersubjectively construct the meanings of the policy-relevant situations with which they are involved, whether directly or as onlookers and stakeholders."⁷ In short, framing is used to condense a set of metaphors, catchphrases, images, moral appeals, and other symbolic devices into a comprehensive unit shaped and controlled by the political elite in order to influence how the public understands an issue.⁸ In this thesis, framing analysis allows for the identification of strategies used by government officials and their influence on perceptions every-day citizens.

⁷ Van Hulst, et al. "From Policy "Frames" to "Framing": Theorizing a More Dynamic Political Approach," 97.

⁸ Gamson, et al. "Media Discourse and Public Opinion on Nuclear Power: A Constructionist Approach."

Britt Crow-Miller, in her article “Discourses of Deflection: The Politics of Framing China’s South-North Water Transfer Project” identifies a framing tactic of depoliticizing the project, which allows the state, through the SNWDP, to advance its “ultimate goal of maintaining the high economic growth rates that underpin its continued legitimacy.”⁹ Judith Shapiro and Li Yifei in their research on environmental policy making in China align themselves with Crow-Miller’s analysis in identifying an “authoritarian environmentalism” through which the state monopolizes environmental knowledge and power in order to further the aims of the state.¹⁰ It does this by framing its environmental policy decisions as in step with public desires, while giving little autonomy to individual citizens. This thesis fuses the work of Crow-Miller and Shapiro by expanding Crow-Miller’s discourse analysis of the SNWDP with an understanding of Shapiro and Li’s “authoritarian environmentalism.”

Understanding how the state has framed the SNWDP and its efficacy in shaping public perception is important in light of two important historic events within China in the past thirty years. The first is the construction and subsequent backlash against the Three Gorges Dam. Many Chinese citizens, scientists, and journalists objected to the construction of the Three Gorges Dam due to its social, environmental, and cultural impacts. Even within the CCP, many were torn about the rationale of the project, as seen by the unprecedented number of delegates to the National People’s Congress who in 1992 voted against or abstained from voting to begin construction of the dam. When construction finally began in 1993, objection to the project turned international, resulting in a public relations crisis for the PRC as information on the jailing and silencing of dissidents became global knowledge.

⁹ Crow-Miller. "Discourses of Deflection: The Politics of Framing China's South-North Water Transfer Project," 173.

¹⁰ Li and Shapiro. *China Goes Green: Coercive Environmentalism for a Troubled Planet*.

The second historic event which motivates this research is the rise of China's environmental movement. Andrew Mertha, in his book *China's Water Warriors: Citizen Action and Policy Change* argues that recent environmental issues have galvanized large-scale public responses from citizens, NGOs, and the media, and led to an increasingly pluralized process of environmental decision making.¹¹ In his book *The Struggle for Sustainability in Rural China*, Bryan Tilt concurs with Mertha's perception of citizen sustainability action in China on a number of points, however, Tilt goes further in identifying an emergent environmental civil society which utilizes the words, actions, and limitations of the state to cautiously advocate for environmental protection. This form of "rightful resistance" exists within the parameters set by the government and invokes the rhetoric of the government itself.¹²

In light of both the history of vocal opposition to the Three Gorges Dam and a rise in environmental consciousness, the construction and maintenance of the SNWDP presents an apt window into current Chinese environmental policy making and framing. Understanding how the state has been able to frame the project and the effectiveness of framing in order to garner support has important implications as nations throughout the world increasingly find themselves in the same position as China—balancing a growing population and declining natural resources.

In order to address the research question of this thesis, I have conducted a framing analysis of official rhetoric of the SNWDP as a whole as well as within the case study cities of Beijing and Tianjin. I have also conducted a framing analysis of Zhihu postings by Chinese citizens regarding the SNWDP. By comparing these perspectives, this thesis sheds light on the ways in

¹¹ Mertha, *China's Water Warriors: Citizen Action and Policy Change*.

¹² Tilt, *The Struggle for Sustainability in Rural China: Environmental Values and Civil Society*.

which the state most frequently frames the project in order to garner support and the framing tactics which have proven most effective in influencing public sentiment.

Based on an analysis of government documents and Zhihu microblog postings, I argue that, in order to foster public support for the SNWDP, the state has relied upon utilitarian and neo-nationalist framing devices. Utilitarianism is defined by the Oxford English Dictionary as “the doctrine that an action is right insofar as it promotes happiness, and that the greatest happiness of the greatest number should be the guiding principle of conduct.” Thus, the SNWDP, whose beneficiaries number in the hundreds of millions, is continually praised by the state for its invaluable contribution to the progress of China.

This utilitarian emphasis of SNWDP framing is exemplified most notably by numerous of official statements and online posting enumerating its beneficiaries. Such headlines are eye-catching, overtly supportive of the project, and represent a quantitative metric for evaluating the project while ignoring many of its negative impacts. Furthermore, utilitarian framing explains the support for the project despite what many have described as an “inadequate solution.” Although the SNWDP has provided much needed water to Northern, drought-prone areas, it has by no means *solved* China’s alarming water resource issues. Even in cities such as Beijing and Tianjin, the poster children for the success of the SNWDP, per capita water resources remain below international standards for scarcity. Utilitarianism framing, however, allows the state to support the SNWDP despite its inability to fully resolve the crisis it was intended to combat.

Utilitarianism can best foster support for a project when the benefits and shortcomings of the project are understood/imagined as existing within a single entity—in this case, mainland China. Why else would residents living along the Danjiangkou Reservoir care about the number of beneficiaries in Northern China? The answer lies in the emergence of neo-nationalism, which

allows the South to see Northern benefits and beneficiaries as not entirely separate from themselves. Thus, a second framing theme emerges within the state's dialogue surrounding the SNWDP, which emphasizes the unity of the state as a whole, the importance of Beijing as a historic city and national capital, and the creation of a modern, developed society tied to President Xi Jinping's "China Dream."

Peter Gries in his book *China's New Nationalism: Pride, Politics, and Diplomacy*, understands nationalism in China as evolving in dynamic relationship with other nations and the past. Chinese nationalism is thus ever-changing, intersubjective, and rejects simplification. As it relates to the content of this thesis, Gries asserts that Chinese neo-nationalism is rooted in both projecting China's capability and modernization on a global scale while at the same time drawing upon the "victimization narrative of Chinese suffering at the hand of Western Imperialists."¹³ This echoes Judith Shapiro's assertion of a Chinese "Superiority Inferiority Complex," discussed at length in the following chapter.

These utilitarian and neo-nationalist framing devices identified within official discourse have proven largely effective in garnering support for or at least tacit acceptance of the project. Although online posts by Chinese citizens contain a much more robust account of the shortcomings and negative impacts of the project than official sources, disapproval is often tempered by or buried beneath an understanding of the many beneficiaries of the project who the writers of these posts identify with and sympathize for. Despite their willingness to criticize certain aspects of the SNWDP, online users fall in line with many of the utilitarian frames and neo-nationalist sentiments of the state.

¹³ Gries, *China's New Nationalism: Pride, Politics, and Diplomacy*, 4.

Chapter II- Official Framing of the South to North Water Diversion Project

It is neither a profound statement nor an indictment of the Chinese state to argue that a significant amount of misleading positive framing accompanies the policies created and promulgated by the Chinese Communist Party (CCP). Issue framing is inherent to the political process. All states, whether democratic or authoritarian, emphasize positive outcomes while omitting or minimalizing negative outcomes. Although the line between framing and propaganda is rather blurred, for the sake of clarity and consistency, I will refer to this process as framing.

In order to understand the frames utilized by the CCP, this chapter divides official discussions of the SNWDP into two over-arching framing categories—Economics and Development, and Environmental Sustainability. Each of these categories will include a number of individual frames as well as their underlying motivations.

Methodologically, this chapter is based on framing analysis, through which reoccurring themes and their underlying meanings are extrapolated. I applied this methodology to fifty key government documents published between 2001 and 2020 that involve the SNWDP. The findings of this framing analysis will depict the discourses, incentives, and themes which the CCP has relied upon in order to craft a palatable narrative around a costly project with significant economic, environmental, and social implications.

Economics & Development

Within the framing category of economics and development, I have identified two categories of emphasis—economic growth and social benefits. Economic benefits, at least at the onset of the project, were the most frequent. The reliance on economic framing of the SNWDP is based on two important economic and political factors. The first factor is the post-Tiananmen

(1989) reliance on accelerating economic growth which likely motivated the proposal and approval of the project. The second factor is the post-2016 economic slowdown and the party's efforts to maintain the economic growth which had solidified their legitimacy over the past forty years.

Following the Tiananmen Massacre (1989), the CCP found itself in a highly contentious political position. The deaths of hundreds of protestors at the hands of the state shocked the Western world, and China was criticized as a ruthless authoritarian state. The ensuing sanctions resulted in a precipitous dip in economic growth in 1989 that lasted until 1991. However, China bounced back quickly, even making up for lost time by 1992.

In fact, the growth following 1992 ushered in some of the China's strongest years of economic growth. Many scholars point to the Tiananmen Square Massacre as a turning point in Chinese economic policy, which lent urgency and legitimacy to powerful elites' mobilizing of resources for economic development. The post-Tiananmen phase of State Capitalism was explicitly growth oriented, accompanied by abrupt increases in public investment and provision of public goods.¹⁴ This focus on growth oriented economics required constantly increasing levels of production, a difficult task to accomplish with diminishing water availability, and a sure impetus for the initial proposal and approval of the construction of the SNWDP in the early 2000s.

The resulting economic growth has lifted hundreds of millions out of poverty, brought literacy and health care even to China's most remote provinces, and ultimately allowed for the continued legitimacy of CCP rule, even as it has largely moved away from the ideological purity of the Mao years. However, as with any period of economic boom, a bust is sure to follow.

¹⁴ Naughton, "The Impact of the Tiananmen Crisis on China's Economic Transition."

Between 2014 and 2019, the average annual GDP growth rate diminished to 6.85 percent.¹⁵

Though 6.85 percent GDP growth rate by no means spells imminent economic collapse, it does seem to indicate that China's years of 15 percent (1984) and 14 percent (1992, 2007) annual GDP growth is perhaps a thing of the past.

This gradual slowing of Chinese economic growth, particularly following the 2008 global financial crisis, has prompted calls for sustainable development, or at the very least a more balanced, service-oriented, technologically advanced stage of development. However, as Beijing navigates the tumultuous path of transitioning away from economic growth rooted in manufacturing, low-wage labor, and environmental degradation, it is inevitable that money and economic opportunity will be lost within some sectors of the Chinese economy. Rising unemployment and slowing rates of economic growth, have shaken the confidence of the Chinese people in their economy, causing, some to worry about the legitimacy of continued CCP authority. Given this context—the steady economic slowdown and the worries that the CCP leadership is unfit to handle it—it is unsurprising that the most frequently-used framing of the SNWDP would be one which assuages national fears of economic slowdown.

This propensity for economic framing is well exemplified in the 2003 document, “Expected Benefits of the South to North Water Transfer Project.” In this official statement, the Chinese Ministry of Water Resources states three specific categories of benefits—social benefits, economic benefits, and ecological benefits. Social benefits include the availability of safe drinking water. Economic benefits include the ability to increase agricultural yields as well as industrial production, which would purportedly create 500,000-600,000 jobs per year, and boost the Chinese economy by 0.2-0.3 percent per year. Ecological benefits include the ability to

¹⁵ World Bank. “GDP growth (annual %) – China.”

alleviate overexploitation of groundwater, increased water flow in receiving area waterways, and increased ability for “sustainable economic and social development.”¹⁶

What is interesting about these points is that within each category, whether social, economic, or ecological, the benefits are ultimately rooted in economic development/growth. Ecological benefits, though described as helping to restore the natural environment and creating resilience against climate change, are summarized as allowing for a development path which would sustain the economic growth China is currently pursuing. Social benefits such as the expansion of reliable clean water are summarized as increasing the potential for individual economic opportunities.

This pattern, through which the expected and observed benefits of the SNWDP are each rooted in economic outcomes is observed throughout government documents, government-run newspapers, and speeches by party leaders. In a Xinhua news article published in 2013, Huang Shaoan, a scholar of the Yangtze River and the dean of the Economic Research Institute of Shandong University is quoted “the east route of the South-to-North Water Diversion will enable the optimal allocation of water resources from the North to the South and inject new vitality into the development of the North and South.”¹⁷

In a speech made in November 2019, Premier Li Keqiang stated that the shortage and uneven distribution of water resources is one of the main forces impeding the economic development of North and Northwest China. He goes on to say that improvement to the SNWDP will allow China to overcome the current downward economic pressure, stimulate investment,

¹⁶ Ministry of Water Resources, "Nánshuǐběidiào gōngchéng de yùqí xiàoyì" [Expected benefits of the South-to-North Water Transfer Project].”

¹⁷“Zhōngguó nánshuǐběidiào dōng xiàn gōngchéng tōng shuǐ zònghé xiàoyì tūxiǎn” [Comprehensive benefits of water supply in the East Route of China's South-to-North Water Transfer Project].

increase employment, and stabilize economic growth. These specific points, with the notable inclusion of increased agricultural and industrial productivity, represent the economic benefits most often stated by official sources.¹⁸

Of these established economic frames, the ability to mitigate slowing economic growth (i.e. downward economic pressure) is in many ways a larger category under which all other economic benefits fall. The SNWDP's ability to increase employment, agricultural output and industrial output, while also allowing urban centers to expand can each be understood as an appeal to the economic needs of a diverse citizenry.

On the whole, the SNWDP aims to benefit Northern Chinese urbanites. According to The Ministry of Water Resources website, titled "Main Water Supply Objects of the SNWDP" explicitly identifies cities as its main supply targets because of their concentrated population, severe water shortage, and rapid economic and social development.

As the chasm of economic opportunities and basic living standards between the coastal urban elites and interior rural residents expands, China finds itself caught between the economic needs of two very different constituencies. While China's urban centers continue to expand their reaches, increase their population, and promote development, massive waves of rural to urban migration have made many of China's rural areas places of emptiness and neglect. Thus, if the state is not careful in its framing, if rural residents view the project as an \$80 billion water transfer project built to satisfy the municipal water needs of urban residents, while millions of rural farmers struggle to access clean water for their crops, the state would find itself in a difficult situation with hundreds of millions of citizens.

¹⁸ "Lǐ Kèqiáng: Yī lìshǐ shìyě quánjù yǎnguāng móuhuà hé tuījìn nánshuǐběidiào hòuxù gongcheng" [Li Keqiang: Planning and Advancing the Follow-up Project of the South-to-North Water Diversion Project from a Historical Perspective]

Economic benefits of the SNWDP are also closely tied to the social benefits of the project, through the development potential that clean, reliable water brings. The most frequently, even if also the most ambiguous, way in which social benefits are delineated is by quantifying the number of beneficiaries. This practice is evident in headlines such as “SNWDP Middle Route Projects has benefited more than 58.59 million people,” “Over 120 Million People have Directly Benefited From the SNWDP on its 5th Anniversary,” and “South to North Water Diversion Benefits 50 million Chinese.” The articles, however, remain ambiguous about which people benefit or how they might benefit.

Another aspect of social benefit framing that is worth mentioning, is the way in which social benefits are utilized in information surrounding displaced migrants. In a 2015 article “South to North Water Diversion Work Has Entered a New Stage: Water Quality Preservation and Livelihood Enhancement” published by *People’s Daily*, it states “After the relocation of migrants from the Danjiangkou Reservoir Area of the South-to-North Water Transfer Project, their basic living conditions have improved significantly compared to the past.”¹⁹ An article published by Xinhua News in 2019 titled “Massive Water Diversion Project Proves Monumental Effort” echoes this sentiment with a direct quote from a migrant who recalls his relocation experience, “We finally bid farewell to the days when what we earned was only enough for food and clothing.”²⁰

Environmental Sustainability

¹⁹ Nánshuǐběidiào gōngzuò jìnrù xīn jiēduàn: Bǎo shuǐzhì, qiáng mínshēng” [South-to-North Water Diversion Work has Entered a New Stage: Water Quality Preservation and Livelihood Enhancement].

²⁰ “Xinhua Headlines: Massive Water Diversion Project Proves Monumental Effort.”

Over the last five years, framing emphasis on economic benefits has been superseded by an emphasis on environmental benefits. When the SNWDP was proposed, during construction, and even into the period of actual water transfer following the completion of the Eastern and Middle Routes, party leaders, newspapers, and other official sources, discussed the SNWDP as a project with sweeping economic benefits. This has shifted significantly in more recent official sources to highlight the environmental benefits of the project.

There are two primary explanations for the shift in framing towards environmental benefits. The first explanation is that the task of fostering support for construction and the task of fostering support for continued maintenance require fundamentally different approaches, with the latter necessitating a new emphasis on ecology. This explanation aligns with the fact that, in the early stages of the project, before much was known about the SNWDP's effectiveness or negative effects, economic benefits provided a palatable, uncontroversial justification. Over time, as the public came to interact more personally with the SNWDP, concerns about the destruction of source area water ways and polluted canals became more apparent. This new concern that the SNWDP's ecological costs would outweigh its economic benefits necessitated a new focus on extolling the project's environmental benefits.

The second explanation for the rise in environmental framing, not mutually exclusive from the first, is that during the time period in which China has proposed, constructed, and maintained the SNWDP, public sentiment has shifted towards environmentalism.²¹ Even in China's most rural areas, environmental protests are on the rise as the negative effects of pollution and water contamination become personally felt.²²

²¹ Stalley, et al, "An Emerging Environmental Moment in China?"

²² Jing "Environmental Protests in Rural China."

Since the late-1990s, China has built an environmental legal regime, elevated the environmental protection bureau to ministerial status, and even codified environmentalism into official state planning objectives through Xi Jinping's "Ecological Civilization."²³ Although it remains to be seen whether China will develop a meaningful environmental civil society in the traditional sense—grass roots activism which challenges established institutions and actors—the state has certainly sought to present itself as in-line with the environmental concerns of the people. The recent framing of the SNWDP as a primarily environmental rather than economic policy initiative fits this general pattern.

The framing of the SNWDP as an environmental infrastructure project highlights three themes: Northern water scarcity, Northern ecological restoration, and pollution mitigation. In her work analyzing the framing of the SNWDP, Britt Crow-Miller focuses on the "historicization of northern water scarcity" through "naturalized narratives about water scarcity and the ecological benefits of water transfer."²⁴ These naturalized narratives paint Northern China as a historically arid geographic region, a point which, however accurate, ignores many of the anthropogenic causes of that desertification.

Crow-Miller's findings and analysis of naturalized narratives of water scarcity hold true. Government documents, news articles, and speeches of party members underscore that the aridity of the North is both a justification for the project and an appeal to its projected ecological benefits. One article, published by *Xinhua News* in 2019 and titled "Massive Water Diversion Project Proves Monumental Effort" states, "China's densely-populated northern region has long suffered acute water shortage."²⁵ Another *Xinhua* article published in 2020 leads with the

²³ Tang, et al. "Civic Environmental NGOs, Civil Society, and Democratisation in China."

²⁴ Crow-Miller, "Discourses of Deflection," 173.

²⁵ "Xinhua Headlines: Massive Water Diversion Project Proves Monumental Effort."

prospect of a water scarce North with its title “Middle Route of China’s Water Project Boosts Water Diversion to Parched North.”²⁶ North China is interchangeably referred to as “parched,” “dry,” “arid,” and “water-stressed.”²⁷ The usage of these terms confers more than simply geographic information, it also serves to justify the massive social and economic costs associated with the SNWDP, while minimizing the space for meaningful opposition.

In an article published by *People’s Daily*, titled “Five Questions about the South to North Water Diversion Project,” one question asks “Why is Southern water transferred to the North?” In response, the article cites a number of commonly-reported statistics related to China’s water consumption—Tianjin-Hebei residents only consume 1/9th of the nation’s per capita water consumption rates, with 70 percent coming directly from groundwater. In light of these facts, the article states, “Water transfer is our last resort.” Water scarcity justifies and validates the government’s actions and spending to implement the SNWDP. By constructing the north as an inherently, desperately water stressed place, the SNWDP is framed as an essential infrastructure initiative. Many official documents published by the National Development and Reform Commission, refer to the SNWDP as a “lifeline” for urban and rural Northern residents.

Another common framing of the ecological benefits of the SNWDP is the proposed usage of “ecological water.” Ecological water refers to water utilized for conservation. Ecological water can be used to replenish groundwater, as well as restore of dried rivers and depleted lakes. In the 2005 document “Main Water Supply Objective of the SNWDP” published by the Ministry of Water Resources and previously referenced in this chapter, gradually replenishing

²⁶ “Middle Route of China’s Water Project Boosts Water Diversion to Parched North.”

²⁷ “Factbook: China’s South to North Water Diversion Project”; “Implementation Opinions on Pollution Control Planning of Eastern Route of the South to North Water Transfer Project” ; “South to North Water Diversion Benefits 50 mln Chinese.”

groundwater and improving ecological water use is identified as a primary goal of the project.²⁸

The Ministry of Water Resources and the Ministry of Ecology and Environment frequently praise the SNWDP's contribution to rising groundwater levels.

In 2015, *People's Daily* published an article titled "Beijing's Groundwater Levels Rise for the First Time in 16 Years, South to North Water Diversion is the Biggest Contributor." This article cites a number of impressive commitments undertaken by the Beijing Municipal Water Affairs Bureau in order to combat excessive groundwater exploitation, including a comprehensive and systematic approach to monitoring and recovery.²⁹ In 2020, *People's Daily* published an update on the first-phase of the Middle Route of the SNWDP, enumerating many aspects in which the project had exceeded expectations. Since its inception, the article states, "the ecological water allocation was 2.403 billion cubic meters, which exceeded the annual plan for groundwater overexploitation by 36.8 percent."³⁰

Urban groundwater is not the only usage of SNWDP "ecological water." The SNWDP funnels water toward northern rivers, benefiting much more than urban residents. In the same 2020 *People's Daily* article, it is stated that thirty-nine rivers along the route received water from the SNWDP, greatly improving the livelihood of local residents. Seven separate documents cite that the SNWDP is responsible for the replenishing of approximately thirty Chinese rivers. The frequency with which the use of SNWDP water is used for explicitly environmental purposes

²⁸ "Nánshuǐběidiào gōngchéng zhǔyào gōngshuǐ duìxiàng" [The Main Water Supply Objectives of the South-to-North Water Diversion Project]

²⁹"Běijīng dìxiàshuǐ wèi 16 nián shǒucì huíshēng" [Beijing's groundwater level rises for the first time in 16 years]

³⁰"Nánshuǐběidiào zhōngxiàn yī qí gōngchéng" [The First Phase of the Middle Route of the South-to-North Water Transfer Project]

strengthens the narrative of the project as means of addressing China's myriad environmental challenges.

The third and final component of the SNWDP's environmental framing is pollution mitigation. Pollution mitigation is categorically different from the aforementioned frames of northern water scarcity and ecological restoration, in that pollution mitigation efforts are less a benefit expected from the project than a rebuttal to a common concern of the project.

Transferring polluted water represents the single largest challenge acknowledged within official SNWDP discourse. Although the documents never indicate a truly dire situation in terms of the quality of the SNWDP's water, the sheer frequency of instances in which pollution-mitigation efforts are mentioned indicates that this is likely a very significant barrier to the project's success.

Underlying Themes

Economics and development and environmental benefits represent the most easily observable frames of the SNWDP, and it is through these frames, and their variant emphasis on different components of the project, that we are able to extrapolate more subtle themes, which taken together, convey important meanings regarding the overall narrative which surrounds the SNWDP. Based on the sources analyzed for this research, the theme which appears most frequently between the lines of the explicit framing of the SNWDP is one which fuses nationalism and modernization.

The emphasis on nationalism, through a unified, cohesive national state, is important in order to alleviate the animosity which might eventually result from the fact that the SNWDP is, by and large, a project designed to benefit northern urbanites. Although there are certainly

benefits derived from the project in rural areas along the route, the benefits of the project are felt most fully within northern urban areas, such as Beijing and Tianjin. The emphasis on nationalism, is also intended to combat the disproportionate negative impacts felt in source area waterways. These negative impacts include destruction of wetlands, pollution, shutting down of local industries prone to pollution, and displacement of residents. While the South bears the brunt of the SNWDP's negative impacts, it receives virtually none of its benefits.

Thus, nationalism of SNWDP framing is used to emphasize China as a collective whole, the ways in which the North in other respects aids the South, and the pride the South should take in its ability to aid the North, especially the capital city of Beijing. This nationalism makes Northern water scarcity a national, rather than regional issue as the shortcoming of one region is often tied to the slowed economic growth, degraded environment, and economic disparities of the country as a whole. One way in which this is observed within discussions of the SNWDP is through the project's linkages to Xi Jinping's "China Dream."

The China Dream existed as a nebulous concept in China even prior to Xi Jinping's endorsement of the term. Though Xi's China Dream incorporates a vast array of goals, it is meant to inspire the Chinese people by emphasizing the current and past greatness of the Chinese nation as well as the pursuit of future goals. This dream of national greatness, however, is multifaceted. As Chinese political scholar David Kerr describes it, "The notion of the China Dream is a clever negotiation between collective identity and individual aspirations. It is rather like a large body of water—the dream reveals the Chinese people as having a collective will and identity shaped by a difficult history, but at the same time if individuals and communities look

closely into the dream they should be able to see their own reflection in it.”³¹ Thus, the China Dream, though ostensibly a forward-looking national program, is also largely a historically-based initiative rooted in the national legacy of the Chinese state.

Judith Shapiro, in her book *China's Environmental Challenges*, understands this point as a “Crisis of Face,” or a “Superiority Inferiority Complex.” These points are based, similar to the China Dream, on the dual national identity of the Chinese civilization as historically significant, yet recently humiliated.³² As a result, China has expended great effort to prove itself as a revitalized nation, more similar to its distant past and Middle Kingdom ethos than its recent plights of poverty, corruption, and ecological degradation.

Another guiding principal of CCP policymaking which plays into the nationalist and modernization framing of the SNWDP is Hu Jintao’s “Scientific Outlook on Development.” This slogan, first appearing in 2003, incorporates sustainable development, social welfare, human-centered policy making, and aims to correct the unbalanced growth which characterized the preceding decades.

The SNWDP fits neatly within the goals of both the China Dream and the Scientific Outlook on Development as a project which not only improves the resource allocation of millions, but also displays China’s ability to successfully construct one of the world’s most impressive feats of geological engineering. Thus, much of the framing which emphasizes development and modernization is identified through statements of the unique magnitude, cost, or unprecedented nature of the project.

³¹ Kerr, *China's Many Dreams: Comparative Perspectives on China's Search for National Rejuvenation*, Basingstoke: Palgrave Macmillan, 2.

³² Shapiro, *China's Environmental Challenges*, 84-85.

On the Ministry of Water webpage devoted to the SNWDP, there is an entire category of articles labeled “The Best of the Projects” (*gongcheng zhi zui*). Beneath this category, article titles include the phrases: “One of the Largest Water Transfer Projects in the World,” “One of the Longest Water Transfer Projects in the World,” “The World’s Most Beneficial Water Transfer Project,” “The Largest Pumping Station Group in the World,” “The Largest Dam Heightening Project,” and “The World’s Largest U-Shaped Water Conveyance Aqueduct Project,” among others. A Xinhua News Article published in 2020 echoes this sentiment with the statement, “The project leads the world with its length, population, and area benefited and the size of a pumping station cluster along the eastern route, as well as having one of the world’s largest water supply capacities.”³³ These and other instances in which the SNWDP is framed as a project with impressive metrics begs the question of if the SNWDP was truly initiated as a means to meaningfully address northern water security or as a means of stoking nationalistic pride as a result of the modernization and development potential displayed by the SNWDP.

³³ “Factbox: China's South-to-North Water Diversion Project.”

Chapter III- Model Cities of the SNWDP: A Case Study of Beijing and Tianjin

Understanding the framing of the South to North Water Diversion Project as a whole provides invaluable insights into how the state has sought to highlight the project's benefits to the nation and deflect its shortcomings. In focusing only on the overarching picture, however, one runs the risk of overlooking the localized challenges and opportunities for innovation which in reality determine the success or failure of the project.

Beijing and Tianjin have been held up as prime examples of the SNWDP's benefits. This chapter highlights the specifics of the project in the cities which most fully utilize and depend upon it. Although the SNWDP experiences of Beijing and Tianjin, as wealthy urban centers, are not indicative of the experiences of all municipalities along the water transfer route, they do provide avenues for the state to showcase the SNWDP as an infrastructure project capable of combatting severe water scarcity.

In order to examine the SNWDP through Beijing and Tianjin usage, I introduce the geographic and climactic conditions which have necessitated these cities' reliance upon the project. I then provide a brief overview of framing used by official publications of Tianjin and Beijing.

The framing devices utilized by state-run sources of Beijing and Tianjin largely echo the framing of the project as a whole. One key difference is that Beijing and Tianjin framing make direct appeals to source area communities. The municipalities state their (usually monetary) commitment to southern source area communities as a token of thanks for their "life-giving" waters. Such phrasing is no doubt an appeal to nationalist sentiment and a strategy to diminish the animosity which could potentially boil over from the unequal partnership between the economically insignificant but resource rich source areas and economically and politically

powerful but resource scarce northern cities. This framing thus seeks to bridge the gap between the South and the North by promoting social unity within the nation as a whole.

Furthermore, the framing of Beijing and Tianjin's reliance upon and usage of the SNWDP is more thoroughly utilitarian than official framing of the project overall. Beijing and Tianjin sources often emphasize the importance of the water for their many millions of citizens over the negative or nonexistent impact on smaller, source area communities. This utilitarianism is often rooted in nationalist sentiment which seeks to establish the importance of the country as a whole even as it places more value on the water needs of Northern urban residents.

Current Water Situations of Beijing and Tianjin

When Beijing was first named the capital city of China during the Yuan Dynasty nearly eight-hundred years ago few could have predicted the population explosion in the coming centuries. Today, Beijing is home to 21 million residents, a fact which becomes even more startling when considering the limited natural resource endowment upon which this mega-city rests.

Beijing is located on the North China Plain, in a semi-arid climate zone. In the winter, Beijing's weather is dry and cold, a result of high-pressure systems rolling in from Mongolia. In the summer, Beijing's weather is warm and humid, a result of low-pressure systems from the Pacific. Beijing's annual precipitation is around 23 inches, however, this rainfall is unevenly distributed over time. Between June and September, Beijing may receive up to 85 percent of its annual rainfall. There have been instances of up to 30 percent of annual rainfall occurring in just three days.³⁴

³⁴ Wei, "Beijing Water Resources and the South to North Water Diversion Project."

These geographic water issues are compounded by the rapid development of Beijing's economy, industry, and population, making water shortage issues increasingly severe. By the early 2000s, water shortages had begun to curtail the continued growth and development of the city. Not only had its per capita water resources fallen to 100 m³ (500 m³ is considered absolute scarcity), but a prolonged draught between 1999 and 2007 forced Beijing to become increasingly reliant on groundwater extraction.

Groundwater is used in cities across the globe in order to supplement surface water in times of need, and can serve as a safety measure in times of severe drought. Continual extraction of groundwater, especially if it outpaces natural replenishment, has negative geological effects and creates increased vulnerability in case of future droughts. In Beijing, more than nearly any city in the world, groundwater was over-exploited at dizzying rates. Between 2000 and 2014, the Beijing Plain declined at a rate of ~0.7 m year⁻¹ from 15 m below the ground surface to 26 m. Sinking water tables, combined with changing precipitation patterns, and heightened climate extremes indicated a worsening water situation in Beijing, as the city's population and water needs continued to expand.³⁵

Beijing, however, is not alone in its rapid economic, industrial, and population growth needs amidst a troubling water endowment. Tianjin, China's third largest city by area and fourth largest city by population, shares Beijing's plight of ever-increasing demand for water despite ever-dwindling sources. Although Tianjin does not command the international attention or tourism of Beijing, Tianjin is a major manufacturing center and port city, making it crucial to China's continued economic growth and development.

³⁵ Wei, "Beijing Water."

Tianjin is located along the Bohai Sea, just seventy-five miles southeast of Beijing. Like Beijing, large portions of the year experience lack of rainfall, while rain that does come, usually during the summer, is highly variant. Nearly 85 percent of annual rainfall occurs between June and September, and there are instances of 40-70 percent of rainfall occurring within 3 days. Though annual precipitation in Tianjin is 23.6 inches, this number can vary drastically from year to year, typically in cycles of several consecutive dry years followed by several consecutive wet years.³⁶

As a result of Tianjin's sparse rainfall, naturally dry climate, and rapid population growth, the water resources of the city have been put under extreme stress. As of 2018, Tianjin's per capita water resources were 112 m³, well below international and national levels indicating severe water scarcity. Over time, groundwater reserves have been depleted to make up for unavailable surface water sources, resulting in severe land subsidence and rapidly declining groundwater levels. Because of its coastal location, Tianjin has been able to experiment with desalination technologies as an additional source of water. By 2015 Tianjin operated nine desalination plants, and the total capacity reached 3.2×10^5 m³/d.³⁷ However, in total, this figure represents only three percent of total water supply.³⁸ Although desalination represents a further avenue to combat water scarcity, largely unavailable to Beijing, the high cost energy inputs and ecologically destructive byproducts of desalination, have kept it from being able to fully support the water needs of Tianjin citizens.

³⁶ Song et al., "Assessment of Water Resources Carrying Capacity in Tianjin City of China."

³⁷ Zhu et al., "Seawater desalination in China: An Overview"

³⁸ Gong et al., "Comprehensive Utilization of Seawater in China: A Description of the Present Situation, Restrictive Factors and Potential Countermeasures," 397.

The SNWDP as a Potential Solution

Given the seemingly intractable water crises facing Beijing and Tianjin by the early 2000s, it comes as no surprise that the start of the South to North Water Diversion Project was met with enthusiasm. Although both cities were already using transferred water from local rivers and reservoirs in some capacity, the SNWDP would multiply many times over the percentage of this dependable source of clean water.

As of November 2020, the amount of water transferred to Beijing via the SNWDP reached 5.9 billion cubic meters since the beginning of water transfer. Of this, 3.883 billion cubic meters was allocated as drinking water for residents, and 824 million cubic meters stored in reservoirs such as Miyun and Huairou for environmental replenishment.³⁹ By July of 2019, Tianjin had received 4 billion cubic meters, 800 million of which has been used to replenish depleted rivers and lakes.⁴⁰ In total, SNWDP water comprises on average 71 percent of municipal water usage in both cities.⁴¹

Beijing and Tianjin have served as models for the rest of the country and showcases for the efficacy of the SNWDP. This quantity of water has had far reaching economic, environmental, and social impacts for Beijing and Tianjin, as both cities are able to more sustainably and confidently ensure that the basic water needs of residents are met. In official sources from Beijing and Tianjin, SNWDP usage was most often framed in relation to economic, environmental, and social benefits. The following sections of this chapter will analyze the major

³⁹ “Nánshuǐběidiào gōngchéng rùjīng shuǐliàng yǐ dá 59 yì lífāng mǐ_shuǐwù yàowén_běijīng shì shuǐwù jú” [The amount of water entering Beijing from the South-to-North Water Diversion Project has reached 5.9 billion cubic meters].

⁴⁰ “Tianjin Receives 4 Billion Cubic Meters of Diverted Water”

⁴¹ Kattel, et al., “China’s South-to-North Water Diversion Project Empowers Sustainable Water Resources System in the North.”

economic, environmental, and social impacts that the SNWDP has had on the Beijing and Tianjin municipalities and what these points indicate about the justifications and motivations for SNWDP usage in Beijing and Tianjin.

Economic Benefits

The introduction of millions of cubic meters of clean drinking water benefited the economic growth and development of both the Beijing and Tianjin municipal areas. Most of these effects occur through the trickle-down effects of water-secure citizens and water-secure businesses which are better able to expand their economic influence than they would be under conditions of water scarcity. In this way, the waters of the SNWDP act more as a springboard for pre-existing economic activity than as a direct source of economic growth.

One example of these trickle-down economic benefits as a result of the SNWDP is the rejuvenation of the Grand Canal. This canal, which has great economic significance to both Beijing and Tianjin, has been able to accommodate larger ships with greater stability. After the completion of the first phase of the Eastern Route, the section south of the Yellow River of the Beijing-Hangzhou Grand Canal was made fully navigable from Dongping Lake to the Yangtze River. The port throughput capacity will be increased by 1,350 tons, second only to the Yangtze River, with crucial importance to the economies of Beijing and Tianjin.⁴²

Economic benefits of the SNWDP for Beijing and Tianjin also include what is often, vaguely, referred to as “sustainable development.” The term first entered the lexicon of policy making strategies following the announcement of the United Nations Sustainable Development

⁴² “Jīngjì rìbào: Nánshuǐběidiào yǒulì zhīchēng shòu shuǐ qū hé shuǐyuán qū jīngjì shèhuì fāzhǎn.” [Economic Daily: South-to-North Water Diversion strongly supports the economic and social development of water-receiving and water-source areas]

Goals in 2015. These goals were meant to provide a blueprint for cities, states, and nations to continue expanding and developing economically without compromising the environment. The most commonly cited definition of sustainable development, produced by the Brundtland Commission, states, “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development has become uniquely salient within China as large-scale ecological crises threaten the long term economic growth of cities and the country as a whole become imminent.

Sustainable development as it relates to the SNWDP has meant a reevaluation of water-wasting activities within the cities, an increase in water reuse capacity, and innovation for new means of maximizing water resources. This is due to the relatively high cost of SNWDP water usage. In order to even receive water from the SNWDP, Beijing and Tianjin were both responsible for fronting the cost of infrastructure to pipe the water through their cities as well as check for any contamination of the water. Such efforts have simultaneously increased the price of SNWDP water while also heightening pressure to ensure its conservation.

Since SNWDP implementation in Beijing and Tianjin, agriculture, irrigation, and industry/manufacturing which use disproportionately large quantities of water have been expelled from the city in order to both ensure proper use of the SNWDP and development which incorporates the long-term ecological needs of the municipality. Since 2014, when SNWDP water was introduced to Tianjin, the city’s cultivated area has been reduced by 35,000 hectares—a process occurring at the same time as the city’s population grew by over 2 million.⁴³ During

⁴³ Tianjin Statistical Yearbook 2019, Conditions of Agricultural Production.

that same period of time, Beijing's cultivated land decreased by 64,500 hectares while population grew by 2.5 million.⁴⁴

Although the SNWDP has led to a decrease in agricultural land and certain industrial activities, ample evidence indicates that the SNWDP has had a net positive economic impact. One research paper, compiled by a professor at Tsinghua University showed that the SNWDP and the increased urban water supply brought Beijing direct economic benefits of RMB 56 billion (8.6 billion USD), and comprehensive economic benefits of RMB 231.86 billion (35.85 billion USD) by 2013. Using economic modeling, this same paper predicted that, by 2020, direct economic benefits to Beijing would be RMB 38.72 billion and comprehensive economic benefits RMB 207.04 billion.⁴⁵ These predictions, according to the statements by Beijing sources, have proven accurate, and economic benefits continue to be a widely cited success of the SNWDP.

In Tianjin, similarly, the guarantee of an extra source of water has allowed for increased urban productivity. Prior to the SNWDP, Tianjin depended almost entirely on water diversion from the Luanhe River. Much like groundwater reserves, however, due to long-term over extraction, the Luanhe water diversion was becoming increasingly vulnerable to falling water levels. Periods of drought which affected the Luanhe River, thus left areas of Tianjin and large areas of economic activity vulnerable to water shortage.⁴⁶

In multiple instances, the economic growth of Tianjin, enabled by the ready supply of SNWDP water, was linked to the political goal of the "Five Modernizations of Tianjin." The

⁴⁴ Beijing Statistical Yearbook 2019, Sown Area and Output of Major Crops.

⁴⁵ Gao, et al., "Assessment of the economic impact of South-to-North Water Diversion Project on industrial sectors in Beijing."

⁴⁶ "Nánshuǐběidiào zhōngxiàn gōngchéng tōng shuǐ sān zhōunián 23.7 Yì chángjiāng shuǐ rùnzé jīn chéng 910 wàn rén bùmén dòngtài tiānjīn zhèngwù wǎng." [2.37 billion Yangtze River water brings water to 9.1 million people in Tianjin_ Department news_ Tianjin government network]

Five Modernizations of Tianjin refers to comprehensive, high-quality, innovation-based development, and construction of a “modern socialist metropolis.” This is achieved through continued economic advancement, strengthening the rule of law, and advancing science and technology, among other things. The SNWDP, through its ability to safeguard urban water usage and promote sustainable economic development, is intimately tied to this policy goal.⁴⁷

Environmental Benefits

Environmental benefits to Beijing and Tianjin as a result of the SNWDP are far-reaching. However, the two most commonly cited examples are groundwater restoration and replenishing of depleted rivers and lakes. These benefits are easily identifiable and thus appear frequently within official sources celebrating the many accomplishments of the SNWDP.

Both the Beijing and Tianjin Statistical yearbooks show steadily rising groundwater resources over the period between 2001 and 2018. During this time, groundwater usage fell, allowing for increasing groundwater levels after decades of intense extraction. The Beijing Water Affairs Bureau announced that between the beginning of June and the end of July, groundwater reserves had increased by 180 million cubic meters, and groundwater levels rose throughout the city by an average of .36 meters.⁴⁸ In 2015, Beijing’s groundwater levels rose for the first time since 1999, and have risen 1.2 meters since SNWDP implementation in 2014.⁴⁹

⁴⁷ “Jiànshè “wǔ gè xiàndàihuà tiānjīn” zhǐmíng wèilái fāzhǎn xīn zuòbiāo -- tiānjīn xiānfēng wǎng.” [The construction of "Five Modern Tianjin" points out new coordinates for future development - Tianjin Pioneer Network.]

⁴⁸ “Běn shì xùnlí dìxiàshuǐ chúlìàng zēngjiā 1.8 Yì” [The city's groundwater reserves in flood season increased by 180 million cubic meters]

⁴⁹ Lyu, et al., “Change in regional land subsidence in Beijing after south-to-north water diversion project.”

Tianjin has also been able to replenish severely depleted groundwater as a result of the SNWDP. Although groundwater remains depleted, Tianjin has implemented a number of groundwater protection measures to quickly and effectively restore groundwater levels. In following the “Overall Plan for Groundwater Pressure Extraction in the Receiving Area of the East Middle Route of the South-to-North Water Diversion Project,” recommended in August of 2014, the Tianjin municipal government approved the “Tianjin City Groundwater Pressure Extraction Plan.” The Tianjin municipal government also issued a series of notices prohibiting groundwater extraction in certain areas while also requiring stricter management of groundwater. Since the advent of the SNWDP and these groundwater protection policies, Tianjin has accelerated the groundwater replenishment of the Binhai Area and four other districts around the city.⁵⁰ As of 2018, the ground water level in Tianjin had increased 38 percent since the beginning of the SNWDP in 2014.⁵¹

Ecological benefits of the SNWDP in Beijing and Tianjin, however, do not end with policies to stop over extraction of water resources. Since receiving water from the south, both Beijing and Tianjin have prioritized using portions of SNWDP waters for replenishment of local rivers and lakes. Throughout North China, along the route of the SNWDP middle line, more than 950 million cubic meters of water has been injected into rivers. Not only has this restored depleted rivers, but it has also revived marine ecosystems and improved water quality.⁵² Whereas

⁵⁰ “Nánshuǐběidiào zhōngxiàn gōngchéng tōng shuǐ sān zhōunián 23.7 Yì chángjiāng shuǐ rùnzé jīn chéng 910 wàn rén bùmén dòngtài tiānjīn zhèngwù wǎng.” [2.37 billion Yangtze River water brings water to 9.1 million people in Tianjin_ Department news_ Tianjin government network]

⁵¹“2020 Nián wěi bàn jú cháng niánzhōng fǎngtán,” [Interview with the director of the CPC Committee in 2020].

⁵²“Nánshuǐběidiào zhōngxiàn shēngtài bǔshuǐ 9.5 Yì lífāng mǐ” [Ecological replenishment of 950 million cubic meters of water].

in 2001 only 30 million cubic meters of water were used for ecological restoration, by 2018 that figure had risen to 1.3 billion cubic meters.

The eastern route of the SNWDP has utilized over 280 million cubic meters of water for ecological restoration. Major recipients of this water from the eastern route are Nansi Lake, Dongping Lake and Weishan lake. The mid-line project, similarly, has supplied 4.96 billion cubic meters of ecological water to 47 rivers in the receiving area, including the Hutuo River, the Fuyang River, and the Nanjuma River.⁵³ Strengthening these local water sources is crucially important for long-term water security in Beijing and Tianjin, as these bodies of water provide water storage capacity for use during periods of drought.

Social Benefits

The social benefits of the use of the SNWDP in Beijing and Tianjin overlap heavily with economic and environmental benefits. The SNWDP's ability to promote sustainable development and ensure water security for businesses, industries and individuals also contributes to very tangible social benefits. Furthermore, the SNWDP's ability to stabilize groundwater extraction and replenish local rivers and streams results in social benefits through ecological restoration and beautification of marine ecosystems.

An obvious social benefits of the SNWDP for citizens of Beijing and Tianjin, also with foundations in economic and environmental benefits, is the improved quality of water. As a result of rigorous attention to polluting activities in the source area, along the route, and within the receiving area of the SNWDP water, the average water quality in Beijing and Tianjin has greatly improved. The water quality of 95 percent of Danjiangkou Reservoir, the source of the

⁵³ “Nánshuǐběidiào 6 nián chāoguò 1.2 Yì rén. [More than 120 million people have benefited]

middle line, is Class I water, and the water quality of the middle line has been better than Class II standard for many years.⁵⁴ SNWDP water in both Tianjin and Beijing is typically reported as Type II, though continued efforts at purification aim to raise this average to Type I.

In 2014, a national order affecting both Beijing and Tianjin was issued by the State Council titled “Regulations on Water Supply Management of the South-to-North Water Diversion Project.” In this order, The State Council prohibited a number of potentially polluting activities along the route of the SNWDP while also creating a line of authority for managing future water quality monitoring. Construction projects, livestock farming, and the dumping of sewage were banned while constant monitoring of key water pollutant discharging was adopted.⁵⁵ As a result of such policies, the water of the SNWDP has been maintained above the surface water environmental quality standard II.

Much as in the social benefits framing of overall SNWDP official reporting, the number of beneficiaries is frequently cited. Articles from both Tianjin and Beijing publications explicitly state the number of beneficiaries with titles such as, “More than 120 million people have directly benefited from the SNWDP,” published by the People’s Government of Beijing Municipality. In contrast to framing of the SNWDP as a whole, however, the social benefits of Beijing and Tianjin are routinely tied to social benefits of water source areas through monetary and infrastructure investment in source area economies. These appeals to southern water source communities are overtly nationalistic in their emphasis on the importance of the unity of the China as a whole.

⁵⁴ “Nánshuǐběidiào 6 nián chāoguò 1.2 Yì rén. [More than 120 Million People Have Benefited]

⁵⁵ “Guówùyüàn.: Nánshuǐběidiào gongcheng” [State Council. South-to-North Water Diversion Project].

In one article which simultaneously celebrates the anniversary of SNWDP in Beijing and Beijing's investment in water source area projects, the entry of southern water into Beijing is imaged as connecting the hearts of distant Chinese citizens. "Since the beginning of cooperation in 2014," the article states, "Beijing has allocated 3.2 billion yuan to implement more than 900 projects, focusing on supporting the economic and social development of water source areas in areas such as water quality protection, targeted poverty alleviation, industrial transformation, people's livelihood, exchanges and cooperation."⁵⁶ It goes on to speak specifically of Shiyan City, Hubei, the water source area of the SNWDP Middle Route. Known as the "North China Well," Shiyan City has been the recipient of large scale investment by Beijing. According to the article, Beijing has invested more than 200 million yuan to help more than 20 rural villages develop niche industries, affecting more than 20,000 impoverished people. The deputy mayor of Shiyan City, Wu Ye, is quoted as saying that his city will work diligently to guard the North China Well in gratitude for the contributions of Beijing.

Tianjin has undertaken similar initiatives, as exemplified by an article published in April 2020 by the Tianjin Municipal People's Government, "1.62 billion yuan in Tianjin-Shaanxi cooperation funds to support 286 key projects." The article states that these initiatives initiated and funded by Tianjin include primarily ecological restoration projects which are directly linked to the SNWDP's water quality, but also focus on social development of source area communities. Teaching facilities and medical facilities that seek to improve the livelihood and welfare of Shaanxi citizens have clear social benefits. This framing, thus, attempts to conjoin the

⁵⁶ Nán shuǐ jìn jīng wǔ zhōunián. [The Fifth Anniversary]

social benefits of the source and receiving areas by making the case that source areas are not being exploited for the benefit of northern cities.⁵⁷

Conclusion

Beijing and Tianjin have each benefited greatly from the water of the SNWDP. Economically, the SNWDP has provided higher levels of water security to businesses, individuals, and industries. Environmentally, the SNWDP has been used to replenish depleted rivers and lakes and halt overexploitation of groundwater. Socially, the SNWDP has improved water quality and the health of local residents, while also incentivizing investment from Beijing and Tianjin to improve the living conditions of source area communities.

However, it is not merely Beijing and Tianjin municipalities or source area communities which are the recipient of monetary investment that have benefited from the success of the SNWDP. The state itself, which has recommended, approved, initiated, and maintained the SNWDP also benefits from the perceived and projected success of the SNWDP in these cities. Despite the SNWDP's inability to "solve" the water issues of Northern China, the central government appears to be making the case that successes in Beijing and Tianjin, cities recognized internationally for the inadequacy of their water resources, justify the project and provide examples of the SNWDP at its best.

By alleviating the water scarcity of internationally recognized cities, China serves to project the message of its commitment to environmental restoration not only to its citizens, but to the international community as well. Judith Shapiro and Li Yifei, in their book *China Goes Green: Coercive Environmentalism for a Troubled Planet*, understand this environmental

⁵⁷ 16.2 Yi yuán jīn shǎn xiézuò zījīn zhīchí. [1.62 billion Tianjin-Shaanxi collaboration funds]

posturing to the international community as a pivotal component of authoritarian environmentalism and its coopting of the environmental movement.⁵⁸ This framing, in its alignment with nationalism and modernization, thus intimately serves to bolster the legitimacy of the party state while projecting China's "commitment" to international efforts to protect the planet.

The framing of Beijing and Tianjin is also decidedly utilitarian, as it advances the narrative that the project is justifiable for its ability to economically, environmentally, and socially benefit the millions of residents of the two cities. Despite the project's high costs and environmental impact on source area water ways, the benefits expected for Beijing and Tianjin residents outweigh such concerns.

⁵⁸ Li and Shapiro, *China Goes Green*.

Chapter IV- Public Perception of the South to North Water Diversion Project

The previous chapters of this thesis have focused on how the State has framed the SNWDP, and the political, economic, and environmental motivations which have guided that framing. This chapter builds upon such framing analysis by unpacking how Chinese netizens discuss and frame the SNWDP on the online platform, Zhihu.

The internet was first connected in China in 1994. Throughout the Western world scholars and casual observers alike were quick to predict that the introduction of the internet and its ability to connect and amplify citizen voices spelled the end of CCP authority.⁵⁹ However, the reality of the effects of internet usage upon the CCP's hold on power as well as the social and political identities of Chinese citizens is much more complex.

As of March 2020, China's population of internet users, rested at 903 million, nearly doubling since 2010.⁶⁰ The growth of internet users, often referred to as "netizens," has paralleled the growth of an extensive Chinese internet industry. Platforms such as Weibo, WeChat, QQ, Douban, Tianya, and Zhihu are some of the largest social media platforms in the world. In 2018, WeChat, a messaging platform, surpassed 1 billion users, and by 2020 had grown to 1.2 billion. QQ, another messaging platform, boasted 648 million users by 2020. Weibo, a microblogging platform often compared to Twitter, currently has a user base of 523 million.⁶¹ These statistics show Chinese social media usership in the hundreds of millions, or in the case of WeChat, the billions, indicating that internet usage in China is no longer an exclusive pastime of the urban, educated, or wealthy.

⁵⁹ Damm, *Chinese Cyberspaces: Technological Changes and Political Effects*.

⁶⁰ Thomala, "China: Number of Internet Users 2020."

⁶¹ Thomala, "Most Used Social Media 2020"

Despite, or perhaps because of such widespread access to and usage of the internet, CCP authority has held firm. An array of scholarly literature has been produced which seeks to explain this paradox by analyzing Chinese citizens' internet usage habits and government responses to that usage. This area of research has effectively broken down the false dichotomy of digital activism versus online censorship by explaining the nuances that exist within Chinese cyberspace.

Although the expansion of internet usage among Chinese citizens has not effectively challenged authoritarianism, it has gradually opened up new spaces for Chinese citizens to express opinions despite government censorship. The Great Firewall, which bans most mainstream Western internet and social media platforms and certain sensitive political topics from Chinese internet users, does little to prohibit Chinese citizens from using the internet to criticize government actions, propose remedies to social issues, or even mobilize for offline protests. "State power," writes Guobin Yang, a pioneer of research on the rise and effects of the internet in China, "constrains the forms and issues of contention, but instead of preventing it from happening, it forces activists to be more creative and artful."⁶² Chinese online activists have perfected the ability to operate within, though on the edges of, legal and acceptable online behavior, gradually prying open the CCP's monopoly on information and control of public opinion.

Internet activism, however, cannot be solely understood as a battle between citizens for open access to information and the state for control of that information. The rapid expansion of internet usage in China has also been used as a tool to deepen and reinforce CCP control. For example, the Communist Party has in recent years perfected its e-government strategy which

⁶² Yang, *The Power of the Internet in China: Citizen Activism Online*, 7.

allows citizens to use official party websites to lodge complaints and make suggestions. These online forums are often seen as a “safety valve” which allow citizens to speak frankly about their frustrations and feel as if those frustrations are heard, thereby reaffirm the legitimacy of the state.⁶³ This has become important in allowing citizens to vocalize environmental grievances, particularly air and water pollution.

Another way in which the CCP has been able to utilize the internet for its own gain is through what is known colloquially as the “Fifty-Cent Army.” These online commentators are employed by the CCP to promote a pro-government discourse within online discussions, and are believed to be paid ¥0.50 per post, resulting in their moniker. Such individuals are, with varying degrees of success, able to move online conversations in directions that promote the party-state’s authority and curtail anti-government sentiment.⁶⁴ The internet, viewed from this light, has thus served as an additional, highly-trafficked platform for propaganda.

Regardless of whether the internet is used to promote or subvert CCP authority, it has without a doubt raised new questions regarding governance, communication, and knowledge acquisition, and its impact is unlikely to diminish anytime in the near or distant future. Conversely, internet usage in China is predicted to grow by over 200 million by 2025.⁶⁵ This situation necessitates creative solutions by both the Chinese state and its citizens. This chapter seeks to shed light upon the online discourses employed in discussions surrounding China’s SNWDP. I argue that the framing devices employed by the state have proved effective in shaping public opinion as observed through Zhihu discussion. Although online commentary is not devoid

⁶³ Kluver, “The architecture of control: A Chinese strategy for e-governance.”

⁶⁴ Han, “Manufacturing Consent in Cyberspace: China’s “Fifty-Cent Army”

⁶⁵ Thomala, “China: Mobile Phone Internet Users 2015-2025”

of criticism, indicating that such topics are open to discussion, most online users are sympathetic to the project, and often overtly echo the phrasing of official sources.

Zhihu was chosen as the platform of analysis for gauging public opinion due to its function as a question-and-answer platform where Chinese citizens are able to discuss their thoughts on topics of interest. Users follow “threads” related to certain concepts and “like” the questions and responses which they agree with. Questions and responses with the most likes will be pushed to the top of users’ feeds. As of 2018, Zhihu membership had surpassed 220 million, making it one of China’s most heavily trafficked social media platforms, with over 30 million questions and 130 million answers.⁶⁶ Topics discussed on Zhihu can range from light-hearted discussion of pop culture to analysis of weighty political, social, and economic issues.

Although Zhihu exists as a space for debate, there are certainly limits to what may be discussed on any internet platform. Comments which include phrases such as “corrupt government” or “corrupt politicians” or which discuss highly sensitive political topics (Xinjiang, Tibet, or Taiwanese Independence) are likely to be taken down. Despite such censorship, Zhihu has remained a lively platform for Chinese netizens to learn about the different perspectives surrounding politics, culture, economics, and the South to North Water Diversion Project (SNWDP).

As of 2020, the SNWDP had been discussed on Zhihu 2,598 times, meaning there are questions from 2,598 individuals, each with its own set of responses (and responses to those responses) discussing the effects and implications of the SNWDP. In order to use these postings to observe the most widely-held views in regards to the SNWDP, I have chosen the twenty-five most trafficked posts.

⁶⁶ Smith, “Interesting Zhihu Statistics and Facts.”

Taking these twenty-five posts, I have created two categories of analysis. The first category of discussions is made up of those that address the shortcomings of the SNWDP. Within this category I identify and analyze the most commonly stated reasons for concern within Zhihu postings discussing the water transfer project. The second category of question and comments focus on the more common postings among Zhihu users which reaffirm the stated, observed, or expected benefits of the SNWDP. Within this category I focus on the reoccurring frames supporting the building and maintenance of the SNWDP.

Addressing Shortcomings

Although the majority of Zhihu commentary related to the SNWDP views the project sympathetically, there remains significant doubts regarding the project. By far the most commonly identified critical comment related to the SNWDP is that the project, despite its cost and construction time, has not yet achieved the results it promised.

As noted in the previous chapter on official framing, the SNWDP has been repeatedly promoted, especially in recent years, as an environmental project which will significantly aid Northern water scarcity and allow for more sustained economic growth. Yet, many netizens remain skeptical of this framing's accuracy. One question, which received thirty answers and was browsed by 197,000 accounts asks, "Can the South to North Water Diversion Project Improve the Uneven Distribution of Water Resources in the North and South?" The most liked response to this question, with 572 likes, begins with the sentence, "My opinion is that it can, but its ability is limited." Without the completion of the western line, he says, the water is mainly delivered to Northwest China and even then, it is concentrated only within certain areas (Beijing,

Tianjin, Hebei). Furthermore, water is only being pulled from a few sections of the Yangtze, which is not enough to solve the major flooding issues in the South.

This dilemma of how to evaluate the utility of the SNWDP as a whole comes up again in a question which asks “Was the South to North Water Diversion Project a Failure? If Not, How Should the Results be Evaluated?” The most popular answer to this question states, “In the short term, the South-to-North Water Diversion Project has helped alleviate the urgent need for water in northern China.” He follows this, however, by listing five major long-term shortcomings of the project. He states that saving water and preventing pollution should have preceded water diversion, diverting water to Beijing has been inappropriately prioritized, and ecological damage to the source area and the effects of climate change have been ignored. He concludes that projects which made full use of the laws of nature were beneficial for thousands of years. He hopes that the SNWDP will be among them, but worries that his hope is misplaced.

Uncertainty and disappointment in the overall assessment of the SNWDP is the most commonly observed grievance among Zhihu postings. Dissatisfaction ranges from the previous instances of hope for future improvement to outright anger. Two points in particular, forced migration and negative environmental and economic impacts in the source area, galvanized the most emotional responses by Zhihu bloggers. Importantly, both issues involve the disproportionate impact of the project for those living along source area waterways.

Blogging about forced migration relies on highly personal migrant stories in order to relay their individual tragedies. One question asks “What do you know about the relocation of immigrants because of the South to North Water Transfer Project?” The most popular response, instead of answering the question, tells the story of Wu Degong a man from Henan Province who was relocated on three separate occasions by the state. He was forced to move when the

Danjiangkou reservoir was built in 1966 and yet again for the construction of the middle route in 2004. His life story of poverty and constant uncertainty as a result of the state's actions is meant to evoke emotion and impossible to read without both sympathy for others in his situation and disdain for the state which subjected him to such treatment.

A second, highly trafficked Zhihu post detailing the struggles of SNWDP-induced migration is not a question, but instead a long-form essay published by the True Story Project. The True Story Project is a platform that was created to share the everyday struggles of Chinese citizens through social media. The story is titled "Corruption, Straining, and the Relocation of Unregistered Households: The Past of Migrants in the South to North Water Diversion Reservoir." As the title suggests, it takes a much more negative look at the migration which China's decades of development have caused by telling the story of a group of migrants who have all been economically and psychologically impacted by forced immigration. On this post, more so than any other examined for this research, the presence of censorship was undeniable. Although the story only accumulated around one hundred likes, the comment section showed a number of "deleted" and "removed" posts. However, one particularly emphatic posting escaped deletion despite its pointed rhetoric:

"I am quite opposed to this practice of sacrificing personal interests for the country. I think this should not happen in a democratic and strong country. Personal interests should be given priority. The purpose of social development is to protect the interests of hundreds of millions. Relying on the sacrifice of the individual to meet the needs of the ruling party itself violates the basic principles of law"

Although the estimated 200,000 migrants created as a result of the SNWDP may seem minimal in relation to China's population of 1.4 billion, this process is clearly an issue with deep significance for Chinese citizens who feel that forced migration is an exhausting, demoralizing, and unfair ordeal. Furthermore, the deleted comments under the True Story Project posting seem to indicate that this is an issue which Zhihu is inclined to censor.

Unfortunately, water source communities are not impacted by the SNWDP solely through forced migration. There is a large body of evidence which supports the idea that the SNWDP will damage southern waterways and marine ecosystems. In addition, in order to prevent pollution in the middle line, a number of potentially polluting activities which had previously served as the economic backbone within and along the Danjiangkou reservoir have been prohibited. Both of these situations, combined with the fact that source area regions are not situated to benefit from the SNWDP, has created a tense situation.

Another subject of discussion which sparks equal amounts pointed questions and angry responses is the topic of desalination. This process, though it has become a major source of water for many water-scarce countries in the Middle East, remains controversial for large scale usage in China because of the large amount of energy which is required, and the hazardous brine which is produced. Despite the drawbacks to desalination, many individuals feel that China has neglected developing the technology, instead settling on the equally expensive and environmentally destructive SNWDP.

Questions related to desalination within the top twenty-five most trafficked SNWDP Zhihu posts are "Why can't seawater desalination work with the same huge sums devoted to the South-to-North Water Diversion?", "Why can't we extract fresh water from seawater to solve the problem of water scarcity in big cities (such as Beijing)? And Is the South-to-North Water

Diversions necessary because of the high cost?” and “Why would you prefer to transfer water from the south to the north instead of using desalination?”

The discussion within the comments of the question “Why can’t we extract fresh water from seawater to solve the problem of water scarcity in big cities (such as Beijing)?” are skeptical of the wisdom of pursuing the SNWDP over desalination. The top answer to this question argues that the prospect of seawater desalination for places like Beijing and Tianjin is better than that of the SNWDP. The high cost of desalination, he believes, will still be lower than water delivery by the SNWDP after the full costs of forced migration, reservoir expansion, maintenance, etc. are included. The reason why the SNWDP was chosen over desalination was an underestimation of the cost of the SNWDP when it was first planned, as well as the decreasing cost of desalination as technology has improved. Later answers agree with this sentiment, however, it must be acknowledged that these cost estimates apply only to Beijing and Tianjin, and not to some of the more remote, landlocked municipalities which currently benefit from the SNWDP.

Reaffirming Benefits

Before beginning the discussion of how Zhihu commentary most often affirms the project, I would like to begin by giving separate emphasis to the most circulated question on the topic of the SNWDP. Due to the high level of engagement with this question, the overarching nature of its subject matter, as well as the unique perspectives within its comment section, I believe this posting deserves specific examination.

The most circulated question, browsed by over 2,800,000 individual accounts, poses the question “From a historic perspective, to what extent can the SNWDP affect China?” This

question was liked 26,000 times, with 1723 individuals commenting their opinion. The most upvoted comment, which was liked 840 times, and prompted 96 comments of its own, was posted on December 22, 2019, by a user named Ai Liyan. In his post, I identified three major themes regarding the SNWDP.

The first and most obvious theme throughout this post is Ai Liyan's belief in the importance of the collective use of China's resources, and thus that it is completely fair that each region shares its resources with less endowed areas. This point is no doubt in response to the criticism that the SNWDP disproportionately damages southern, water-source areas, while the water goes primarily to northern cities. To this, he says coal is transported to the South from the North and that gas is transported from the West to the East. Thus, although he concedes that negative impacts are disproportionately felt in the South, it is still the South's duty to give to the North for the benefit of the nation. This point clearly echoes the nationalist sentiment found within official framing of the SNWDP.

The second theme, closely related to the first, is the emphasis on the poor resource allocation in China and the resulting ecological crisis which China faces. He states that resource allocation in China is woefully uneven, with 340 million people in the North receiving only 10 percent of water resources. This point, he believes, necessitates the construction of the SNWDP so that citizens of the North can live comfortably and contribute to production. This point falls in line with previously identified emphasis on Northern water scarcity by the state.

The third and final theme is his acceptance of the SNWDP despite his characterization of it as a short-term, somewhat ineffective project. In the first point he makes in the post, he encourages the reader not to overestimate the impact of the SNWDP. Due to current limits in engineering, the SNWDP cannot be expected to alleviate all of China's water scarcity problems

on an individual level. He also says that the SNWDP will likely only operate for about 100 years before it is replaced. However, this point is not framed as backlash against the SNWDP. He says the project is more complicated than simple gains and losses and to reduce it to such is to put oneself basically at the level of a grocery store owner (*Záhuò pù diànzhǔ de shuǐpíng*).

All in all, this perspective is one of approval for the building and maintenance of the SNWDP. Although the author acknowledges some of the drawbacks of the SNWDP, he ultimately ignores them in favor of the project's ability to improve the ecological state of the nation. This posting and the degree of favor it garnered seems to indicate that public opinion of the SNWDP—despite its very significant shortcomings and very localized benefits—has remained largely positive. The shortcomings such as high costs, short term benefits, can be rationalized through appeals to nationalism, economic growth, and environmental restoration, and through a utilitarian view of the project's benefits.

This pattern of minimizing the SNWDP's shortcomings due to its ability to bring much needed water to the North, a pattern acutely observed in the state framing of the project, is a constant theme of Zhihu commentary regarding the project. The frequency of positive framing in discussions of the SNWDP on Zhihu indicates that identifying and emphasizing the strengths of the SNWDP is not an onerous undertaking for many Chinese citizens. The project, despite the controversy it has brought, has been perceived as highly beneficial in relieving over-reliance on groundwater and increasing the security of access to clean municipal water in certain areas. These positive effects are most easily observed and, as a result, most frequently discussed in the contexts of localized benefits felt within specific areas. In the case of the 25 discussion posts analyzed for this analysis, that locality of emphasis was most often Beijing.

Two questions in particular, “The Middle Route and East Route of the South-to-North Water Diversion Project have been put into use. What is the effect?” and “After the opening of the South-to-North Water Transfer Project, what impact will it have on Beijing’s tap water supply? What improvements did it bring?” initiated lengthy discussions of the significant beneficial effects of the SNWDP in Beijing, and praise for the project as a whole.

The responses to the aforementioned questions pointed out that since the SNWDP, groundwater in Beijing has been replenished, the trend of land subsidence has eased, the water quality has improved, and local rivers and reservoirs are able to be replenished. These impacts have had far-reaching economic, environmental, and social benefits for the residents of Beijing, a point of praise within discussions of the project. In this discussion post, we are able to see just how effective the state’s framing has been, especially for localized benefits. Beijing as well as the national government have worked to present Beijing as a model city of the SNWDP’s positive effect, and Zhihu commentary has validated this.

It would seem to follow, given the SNWDP’s emphasis on aiding Beijing, that discussions would regard such a hierarchy of water target areas as unfair, however, Zhihu users are quick to point out that the SNWDP, as much as it may aid Beijing, is a project with dispersed benefits. In one question, cleverly titled “Is it more appropriate to rename the South-to-North Water Transfer Project the South-to-Beijing Water Transfer Project,” the most popular answer lists paragraphs of data conveying the SNWDP’s role in aiding numerous cities and villages along with pointing out the comparatively minimal water quantity which is delivered to Beijing.

This emphasis upon the wide-spread benefits of the SNWDP represents another major point of approval within Zhihu discussion. In discussing the question “Is the “South-to-North Water Diversion” really necessary? What are the pros and cons?” respondents came passionately

to the defense of the project. The most popular comment stated “The South-to-North Water Diversion is of great significance to the improvement of drinking water for residents along the route and the restoration of groundwater levels.” By including the phrase “along the route,” this respondent clearly emphasizes water delivery to persons and places not specifically urban. Another comment on the same post says that the SNWDP has positively impacted “the overall living standards of the farmers in our hometown,” further emphasizing a nonurban place of water transport and a nonurban individual beneficiary.

Although a majority of the comments supporting the building and maintenance of the SNWDP relate to the people, places, and ecosystems which stand to benefit from an additional source of fresh water, one highly-supported comment takes a different approach to the benefits of the SNWDP by rejecting adherence to the often unsustainable, unrealistic expectations for the project. The comment follows from the question, “Is it possible in the future to use the transfer of water from the South to the North to improve the local geology to form a large oasis and large-scale industrial agriculture?” The author of the question follows with his belief that such a process would also help prevent flooding in the south and better maximize usage of Chinese land.

In answer to this, comes one of the most straight-forward appeals to a sustainability mindset found within the top twenty-five Zhihu discussions of the SNWDP. The respondent starts by saying “It is 2020, why is there still someone thinking about destroying the desert all day.” They then explain the many positive benefits associated with desert ecosystems, concluding that seeking to eradicate the desert by bringing in Southern water would have the same ecological effects as “cutting down the trees and grasses of the Loess Plateau, the trees of the Hengduan Mountains, and the grasses of the Hunlunbuir,” examples of actions which have

had devastating effects on the Chinese natural landscape. Viewed in this light, the SNWDP which merely transports water from a few source areas to a few receiving areas is perhaps sustainable, as it extends, but does not overreach the bounds of nature.

Conclusion

This chapter has listed many of the themes occurring within discussions of the South to North Water Diversion Project by everyday Chinese citizens. Although the perspectives range widely, there are undertones and reoccurring points which weave through vastly different arguments and lend understanding to a cohesive view of the SNWDP. This is not to say that Chinese citizens have collectively come to understand the SNWDP in a singular light, but rather that the frequency of certain frames has permeated arguments consistently enough to point out some of the major aspects of public opinion on the SNWDP.

The first undertone worthy of mentioning is the acceptance of the SNWDP as an expenditure of state money and as an approach to alleviating Northern water scarcity despite what many are quick to label as an inadequate solution. This acceptance is observed first, through the structure of discussions in which if a question is posed pointing out a shortcoming of the project, a flurry of comments will come to its defense. Similarly, if in response to a question, a negative comment is asserted, the comments spinning off of that comment are often in favor of the project. Lastly, it is often the case that a comment critical of the project is either preceded or followed by that same individual tempering their words with an understanding of the ways in which it has been beneficial.

This acceptance of the project despite the inadequacy of its results is frequently coupled with the affirmation of the extreme water scarcity in Northern China. In none of the Zhihu

discussions analyzed for this research were there comments diminishing the current water crisis faced in Northern China. Criticism, when it occurred, stemmed from acknowledgment of the shortcomings of SNWDP or belief that other alternatives (desalination, water saving, pollution reversing) should have been pursued more fully.

In short, the Zhihu posts analyzed within this chapter point to a public perception of the SNWDP that conforms to the state rhetoric analyzed in preceding chapters. Despite the well-reported negative impacts of the project, its benefits are much more prevalent within online discourse. Perhaps, in the international and domestic uproar surrounding the Three Gorges Dam, in which dissidents were jailed and an unprecedented number of representatives to the People's Congress abstained from voting on the issue, the party state has learned how to prevent such a crisis from boiling over again. Its strategy lies in calculated framing which presents the project as beneficial to a large number and diverse set of people, while serving as a harbinger for further economic and sustainable development for the nation.

The efficacy of state framing of the SNWDP, however, points to a further dilemma—what is lost when utilitarian state framing goes so far as to eradicate large-scale dissent? One answer lies in the resumption of the “conquer nature” mindset among Chinese citizens and policy makers, a mindset often associated with the Maoist Era.⁶⁷ Despite the rhetoric of sustainability which cloaks official discourse and online discussions, both leaders and citizens retain a desire for innovation to weaken nature's natural barriers to human encroachment. Within Zhihu discussions, netizens are more often disappointed that the project could not solve Northern water scarcity than with the fact that such an option was chosen over more gradual, long-term

⁶⁷ Shapiro. 2001. *Mao's War Against Nature: Politics and the Environment in Revolutionary China*. New York and Cambridge, U.K.;: Cambridge University Press.

solutions. As a result, although the CCP may have won the battle of peacefully implementing the world's largest inter-basin water transfer project, it remains to be seen whether they will be victorious in the war of awakening to the existential threat of resource depletion and environmental degradation which currently plagues the country.

Conclusion

This thesis finds that the state takes into account potential dissent and an emerging environmental civil society by adopting framing strategies which produce a modicum of consent for its policy decisions. Though this pattern of state conduct is likely pervasive within CCP policies, examining framing strategies through the case study of the SNWDP provides a particularly salient window into this pattern of state behavior.

First and foremost, the SNWDP is an important case study due to the sheer severity of the water-related issues which it was constructed to combat. In mainland China, pollution, groundwater depletion, and the drying of rivers and lakes have compounded to make China one of the world's most water insecure nations in the world.

Second, the SNWDP is an important case study due to the population density within water-scarce areas which it serves. Over 100 million people live within the Yellow River basin alone. This demographic feature makes addressing water security in this area critical to the continued economic, political, and social stability of the PRC. Failing to do so would affect the livelihoods of millions of people.

Third and finally, the SNWDP is an important case study due to its massive scale and array of negative effects. The SNWDP, when it is fully operational will be the largest inter-basin water transfer project ever completed. However, such construction comes at the cost of the creation of 300,000 migrants in the Danjiangkou reservoir region, degradation of water quality and quantity in the Yangtze source area, pollution of waters within the canals of the SNWDP, and \$79 billion USD.

Through analysis of the framing surrounding the SNWDP and its impact on online discourse, this thesis finds that, despite the negative impacts of the project, the state's framing

has been largely effective in swaying public perception toward understanding the project as a positive development. Official sources rely on nationalism, rooted in an emphasis on the unity of the state as a collective whole, the importance of Beijing as an internationally recognized city and national capital, and Xi Jinping's developmental "China Dream" to present the project as an important economic and environmental infrastructure project. Such appeals to nationalism are also tied to utilitarian framing which tacitly presents the hundreds of millions of beneficiaries as much more significant than the few millions of individuals negatively impacted. Such top-down policymaking allows the state to decisively direct environmental policy and, as this thesis argues, the ways in which it is framed and perceived.

It appears that the Chinese state has learned a great deal since the early 1990s and the controversy over the Three Gorges Dam, which shares a number of similarities with the SNWDP. Both projects are large-scale undertakings by the national government in order to alter the natural environment and promote the economic development of the state. Both forced the relocation of a large number of local residents, and both cost the state billions of dollars.

Despite the similarities of the projects and the emerging environmental movement, the SNWDP has not galvanized the same backlash as the Three Gorges Dam. This paradox points to an authoritarian state with unexpected flexibility. China has found that, rather than jailing dissidents and barring discussion, allowing critical discussion to occur while aligning potentially unsatisfactory policy with national goals of economic development, nationalism and environmentalism has been more effective in controlling discourse and promoting approval. The state has thus coopted the public's desires for economic and environmental improvement by presenting itself as in line with these policy goals. As a result, the state leaves no meaningful room for objection and maintains its continued legitimacy.

The SNWDP confirms what Judith Shapiro and Li Yifei identify as a pattern of authoritarian environmentalism within Chinese policy making and framing. China has used the project and its promise of stable water resources to stoke nationalism, project its scientific and technological prowess, and align itself with the international and domestic environmental movement. The state has found such framing effective in shaping public perception and online discourse, thus, it is safe to assume that such framing devices will reemerge to justify future Chinese megaprojects.

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