1 Discussion

The discourse on water quality should have a more holistic focus which values local knowledge, subjective perspectives and increased awareness to complement the current primary focus on direct water quality.

China has made a range of commitments, and notable action, on improving the country's water quality. The government invested 717.6b RMB (US$110.3b) to address water quality, quantity and flooding issues in 2017 alone. (The World Bank 2019, p.. vii). The priority improvement method is infrastructure development – Since the founding of the P.R.C., over 800 billion cubic meters of water storage has been constructed though over 400 thousand kilometers of river dikes and over 98000 reservoirs. (The World Bank 2019, 2) Additionally, nearly 6000 water supply projects provide rural services to more than 800 million people.

Progress is being made towards Sustainable Development Goals 6 – Clean Water and Sanitation. However, China still has substantial improvements to make: for example, water stress is high and expected to increase (SDG 6.4.2), and household wastewater treatment is low (SDG 6.3.1 - 38%). ("Country (or Area) | SDG 6 Data" n.d.)

SDG 6.3 focuses on water quality:

> By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally. (Martin n.d.) #check-source

Another key component to China's water policy is its efficiency. SDG 6.4 focuses on this:

> By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the num-

> ber of people suffering from water scarcity. (Martin n.d.) #check-source

China is currently far from achieving this target. A recent study found that not only does China have a significant lack of resource efficiency, there are also significant discrepancies between provinces. (Song, Wang, and Zeng 2018) This indicates the situation is local, and a homogeneous national-level solution may not be appropriate. Currently, China spends two to three times more than the average upper-middle-income country for the same economic output.[1] (The World Bank 2019, 2) Furthermore, while agricultural and industrial water use has remained relatively constant in recent years, domestic use has and continues to increase.

The two main driving forces for economic growth with relation to water resources are quantity and utilization. (Chen and Tang 2017) Since current technology all but prohibits increasing the overall quantity, the main method of achieving economic growth is to increase the quantity of usable water (by increasing quality) and decreasing inefficiency.

State-lead infrastructure programs are not enough to meet many of the SDG 6 targets and indicators #cite. Inclusion of local knowledge and expertise can aid in this effort. The less-discussed SDG 6.B mentions this:

> Support and strengthen the participation of local communities in improving water and sanitation management. (Martin n.d.) #check-source

While data is limited, China had low participation from users and communities for drinking water, sanitation and hygiene promotion in both rural and urban areas, and only had moderate participation for national water resources planning and management in 2017. ("Country (or Area) | SDG 6 Data" n.d.) This seems to have improved with urban and rural

[1] This is a measurement to compare how much water is used to achieve a set amount of added value in the industrial sector. "China's water consumption per RMB 10,000 (roughly US$1,450) industrial added value is two to three times greater than the average upper-middle-income country (UMIC)."

drinking water, with high and moderate levels of participation in 2019, respectively.

Chen, S, and X Tang. 2017. "Where Is the Way for China's Economic Sustainable Development." Acad. Mon 49 (1): 179–84.

"Country (or Area) | SDG 6 Data." n.d. Accessed March 9, 2021. https://www.sdg6data.org/country-or-area/China.

Martin. n.d. "Water and Sanitation." United Nations Sustainable Development (blog). Accessed March 9, 2021. https://www.un.org/sustainabledevelopment/water-and-sanitation/.

Song, Malin, Rui Wang, and Xiaoqian Zeng. 2018. "Water Resources Utilization Efficiency and Influence Factors Under Environmental Restrictions." Journal of Cleaner Production 184 (May): 611–21. https://doi.org/10.1016/j.jclepro.2018.02.259.

The World Bank. 2019. "Watershed : A New Era of Water Governance in China - Synthesis Report." Working Paper 138084. Water Security Diagnostic. The World Bank. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/888471561036481821/watershed-a-new-era-of-water-governance-in-china-synthesis-report.