

Guideline targets health of Yangtze

New mechanism to help shore up ecosystems in the river basin

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A plan to establish an environmental evaluation and assessment system that prioritizes the health of aquatic ecosystems in the Yangtze River will help address “weak links” in the conservation of Asia’s longest watercourse and better meet people’s ever-growing demands for a beautiful environment in the region, officials and experts said.

In a move to further enhance the protection of China’s mother river, the Ministry of Ecology and Environment, together with the National Development and Reform Commission and the ministries of water resources and agriculture and rural affairs, issued a guideline for the trial implementation of the system in late June, vowing to conduct the first evaluations and assessments in the 17 provincial-level regions in the Yangtze basin in 2025.

In 2023 and 2024, pilot programs will be rolled out in these regions to fine-tune the evaluation and assessment mechanism before its 2025 debut and also to set benchmark indexes for the 50 water bodies that will be covered, according to the guideline.

The programs will be carried out in these water bodies, including the main stream of the Yangtze, its major tributaries and key lakes and reservoirs in the basin, while taking into account their unique characteristics.

Currently, there are 10 environmental assessment indexes for rivers, 11 for lakes and six for reservoirs. But these types of water bodies have three indexes in common — one that assesses the number of fish species, one for the number of key State-protected aquatic organisms and one that measures human influence on the habitats of these animals.

Rivers and lakes have two indexes in common — one that looks at the number of macrobenthic species and another focusing on the proportion of natural shorelines.

The mechanism’s design will adhere to the principle of prioritizing environmental protection and letting nature restore itself, the Ministry of Ecology and Environment said in a media release after the guideline was made public.

With the health of aquatic ecosystems as the core, its index system aims to promote concerted efforts to improve the management of aquatic environments’ ecosystems, as well as water resources, it said.

The indexes that will be part of the evaluation and assessment mechanism — all of which will employ well-established monitoring methods — have been chosen from almost 200 that have been applied in other mechanisms domestically and overseas, it continued.

Scores will be assigned to each water body and region. The scores for each of the water bodies will be calculated based on comparisons between the current actual index levels and the expected levels, though the weight of each index will be different.

The scores for each provincial region will be based on the sum of the scores for all the water bodies under their jurisdiction.

Furthermore, the efforts that these regions have made to protect these water bodies will also be evaluated, the guideline said, adding that the degree of improvement in water quality will be a key consideration.

Based on their overall performances, the 17 provincial-level regions will each be assigned one of three grades: excellent, good or poor.



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Resolving ‘weak links’

Wang Dong, deputy chief engineer of Chinese Academy of Environmental Planning, said the guideline was introduced against the backdrop that the country’s efforts to conserve the Yangtze over the past 10 years have seen sweeping, historic and transformative changes, but there are still some prominent environmental and ecological problems in the basin.

In 2022, the water quality in 98.1 percent of the monitoring sections in the Yangtze basin stood at or above Grade II, up 15.8 percentage points from 2016, he said, adding that 2022 was the third consecutive year that the water quality throughout Yangtze’s main stream had reached that grade level.

China has a six-tier quality system for surface water, with Grade I being the best quality and below Grade V the worst.

Wang, however, also noted severe ecological imbalances in some of the water bodies in the basin.

“With frequent outbreaks of blue algae and water blooms, some water bodies have experienced remarkable declines in their biological diversities,” he said.

Some areas in the basin are also still plagued by severe water pollution, which is particularly bad during flood season, and black and odorous water bodies have not yet been completely eradicated, he said.

If these “weak links” cannot be resolved, he stressed, the country will not be able to realize its vision of “Building a Beautiful China.”

The environmental evaluation and assessment mechanism outlined in the guideline, which focuses on the health of aquatic ecosystems, will help shore up these weak spots in a more targeted manner, Wang said.

He also noted that the introduction of the mechanism would serve as a measure to implement the Yangtze River Protection Law, which states that the State must adopt a tar-

geted accountability and performance evaluation system for environmental protection work in the Yangtze basin.

As the country’s first legislation on a specific river basin, the law took effect on March 1, 2021.

The guideline has sent a clear signal that the country will make full use of performance evaluation as a means to guide local governments to ramp up water conservation and beef up ecological remediation efforts.

For the people

The document stressed that the results of evaluations and assessments should be in line with people’s expectations, he said. It also underscored the importance of increasing people’s sense of happiness and security by meeting their water consumption demands and passion for water-related recreational activities.

Huo Chuanlin, head of the Ministry of Ecology and Environment’s administration for the Taihu Lake basin and the East China Sea, also highlighted the people-centered philosophy in the guideline.

With a focus on aquatic organisms rather than physical and chemical data as the key factor, the environmental evaluation and assessment mechanism in the document is more people-friendly, he said.

As important indicators of the condition of the waters they live in, he said, these organisms can give the public an intuitive feeling about ecological and environmental improvements.

Xu Chong, head of the Ministry of Ecology and Environment’s bureau that oversees the Yangtze, said that under the evaluation and assessment mechanism, index levels will be set in accordance with the conditions in the various water bodies.

The guideline stipulates that the differences in environmental and ecological conditions and economic development levels, as well as the characteristics of different types of

water bodies, should be fully considered when setting the expected levels for the indexes, he said.

Historical records and the restoration potential of the water bodies are both key considerations that will factor in determining the expected levels, and will help guide local governments to devote more efforts to nature conservation and ecological remediation, he said.

A welcome change

Liu Guocai, head of the Nanjing Institute of Environmental Sciences, lauded the great importance that the guideline has attached to the aquatic ecosystems and habitats, which he emphasized were the crux of environmental and ecological problems in the Yangtze.

Despite marked improvement in its aquatic environment, the river is generally lacking fish due largely in part to damage wrought on their habitat.

He also noted the imbalance of the aquatic ecosystems that have seen declines in populations of some key fish and zooplankton species as fundamental reasons for the frequent outbreaks of blue algae and water blooms in key lakes in the Yangtze basin, including the Taihu and Dianchi lakes.

Among the indexes in the evaluation and assessment mechanism, six concern the health of aquatic ecosystems and four focus on the conservation of aquatic habitats, he stated.

The four indexes for aquatic habitat protection, for instance, aim to direct local governments to remediate damaged shorelines, restore basic ecological functions of water bodies and enhance their interconnectivity, and gradually eliminate improper human activities in aquatic habitats, he said.

Regarding the restoration of the aquatic organism population, the guideline stressed the principle of letting nature restore itself.

“This will help local governments avoid pursuing short-term results by overusing artificial means for conservation and remediation, which may negatively affect the health of aquatic ecosystems,” he said.

He stressed the evaluation and assessment mechanism is not meant to depopulate the area.

Rather, it aims to push local governments to better implement the ecological civilization philosophy of respecting, accommodating and protecting nature, to explore a development path that features harmonious coexistence between humanity and nature, and to better balance and coordinate economic development and environmental protection, he said.

As part of its efforts to promote ecological stability, the nation began a 10-year fishing moratorium on key areas in all natural waterways of the Yangtze River, including its major tributaries and lakes, on January 1, 2021.

A full fishing ban was first implemented in 332 conservation areas in the Yangtze River Basin in January 2020, and the ban has since been expanded.

According to the Ministry of Agriculture and Rural Affairs, in these conservation areas alone, more than 84,000 fishing boats have been decommissioned, and 180,000 people have left the fishing industry.

With no available experiences from home and abroad to draw on, the evaluation and assessment work in the Yangtze basin is meant to break new ground, and a lot of effort will be needed to establish it properly, Liu stressed.

The vast stretches of the basin and the great variations of the conditions in the areas in it mean that the index system for the evaluation and assessment mechanism “will have to be consistently improved”, he said.

Policy Digest

Notice aims to ensure drinking water safety

The Ministry of Ecology and Environment has issued a notice asking for officials to increase monitoring to ensure the safety of drinking water during the flood season.

Efforts should be strengthened to detect risks and hidden dangers, the notice said.

There should be a full examination of sources of pollution that threaten drinking water source protection zones and other key areas, it said, calling for heightened supervision on the pharmaceutical, chemical, tannery, electroplating and smelting industries that may have an impact on the safety of drinking water.

In addition, authorities should closely monitor the water quality of drinking water sources, it said.

Efforts urged to curb sales of tainted food

Local market regulation authorities should strengthen efforts to prevent tainted food from being sold or donated, the General Office of the State Administration for Market Regulation said in a notice issued in the wake of the floods that hit northern China.

Companies must not sell food that has been immersed in flood water or whose packaging has been broken, the office said, adding that the authorities must urge such companies to take effective measures to prevent their products from being tainted and avoid selling sub-standard goods.

The authorities must enhance random inspections on food being distributed, donated or sold to people in flood-hit areas and on food made by companies located in the areas, it said.

Any substandard food products that are found should be disposed of, the office said, calling for the authorities to strictly punish companies that make or sell tainted, expired or spoiled food.

The authorities should urge food companies to fully inspect their workplaces, equipment, raw materials, and food processing and storage facilities to prevent spoilage, according to the office.

The office also asked the authorities to issue food safety reminders to enhance public awareness in flood-hit areas so that people will avoid drinking unclean water, purchasing food from unknown sources and eating food that is not well cooked.

Ministries allocate funding for flood relief

The Ministry of Finance and the Ministry of Emergency Management on Friday allocated an additional 1.46 billion yuan (\$200 million) to five provinces and municipalities in northern China to help them recover from floods.

The money has been distributed to help Beijing, Tianjin and the provinces of Hebei, Heilongjiang and Jilin ensure the well-being of their residents and rebuild homes destroyed by floods, according to the Ministry of Finance.

Since the beginning of the flood season, the central government has allocated more than 5 billion yuan of disaster-relief funds to the five provinces and municipalities.

These areas should distribute the funds in a timely manner, strengthen their monitoring of the funds’ usage and use the money wisely, the Ministry of Finance required.

WANG QINGYUN

Local governments urged to boost remote sensing capabilities

By HOU LIQIANG

A senior environmental expert has called on local governments along the Yangtze River to improve their remote sensing-based aquatic ecological monitoring capabilities, as China plans to introduce an environmental evaluation and assessment mechanism that no longer focuses on pollution control in the basin of Asia’s longest watercourse.

Based on pilot programs this year and the next, the nation will commence establishment of the new mechanism, which prioritizes the health of ecosystems rather than the intensity of major water pollutants. The programs will kick off in 2025 and will involve 50 key water bodies in the 17 provincial-level regions in the Yangtze basin, according to a guideline issued by four central government bodies, including the Min-

istry of Ecology and Environment, in late June.

Gao Jixi, head of the Center for Satellite Application on Ecology and Environment, said that to ensure the pilot programs can be carried out in a meticulous and effective manner, the general aquatic ecological conditions in the Yangtze must first be determined.

A key task in the work is to conduct a survey on the aquatic habitats —

the core of aquatic ecosystems — analyze their conditions and problems and then establish a database of the information collected, he noted.

Gao stressed the key role of satellite remote sensing in the survey as, unlike traditional ground environmental sampling and monitoring, it can cover a vast region and thus cover each aquatic habitat in the basin.

Remote sensing has also been

widely applied in the monitoring of shorelines, algae and water blooms and aquatic plants, he said.

Although an integrated space- and ground-based system mainly supported by remote sensing has been the general monitoring method employed at the national level for aquatic habitat monitoring, local governments need to beef up their capacity to conduct such monitoring, Gao said.

He said they should make consistent efforts to also gradually develop tower-based remote sensing and promote the use of drones and vehicles to carry monitoring equipment to improve their space-ground monitoring network.

The application of these facilities can help them develop an all-around monitoring system that is highly precise with minimum monitoring gaps, and thus manage to rapidly detect changes in aquatic habitats and roll out tailored management measures accordingly, he said.