

CHINA

Intl cooperation key to environment regulation

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As environmental crimes increasingly cross borders and threaten ecosystems, communities and sustainable development, prosecutors and experts called for stronger cooperation to close enforcement gaps and improve global environmental governance at a roundtable meeting in Beijing on Monday.

The meeting, themed "The Role of Prosecutors in Global Environmental Governance", gathered prosecutors and experts from more than a dozen countries and organizations for discussions on strengthening environmental enforcement, combating environmental crimes and protecting the public interest.

Participants said climate change, biodiversity loss, pollution and the illegal exploitation of natural resources are interconnected global challenges that cannot be solely addressed by any one country or institution. They called for closer judicial cooperation, information sharing and professional exchanges among prosecutors, courts, law enforcement agencies, civil society as well as international organizations.

Zhang Xueqiao, deputy procurator general of the Supreme People's Procuratorate, said building a clean and beautiful world is both a Chinese initiative for global ecological civilization and an essential requirement for sustainable human development.

China has advanced ecological civilization through legislation, enforcement and judicial practice in recent years, he said, noting that the country's top legislature adopted the Ecological and Environmental Code in March.

Chinese procuratorial organs have placed ecological and environmental protection high on their agenda, using criminal, civil, administrative and public interest litigation functions to strengthen judicial protection. The SPP has launched public interest litigation campaigns involving major river basins, including the Yangtze, Yellow and Pearl rivers, and carried out supervision campaigns on hazardous waste crimes and green, low-carbon development.

In complex cross-regional cases, procuratorial organs have strengthened integrated case handling, cross-regional cooperation and the use of technologies such as satellite remote sensing, drones and rapid testing to improve evidence collection and damage assessment, he said.

Xu Xiangchun, head of the SPP's public interest litigation department, said procuratorial organs have handled more than 608,000 public interest litigation cases involving ecological and resource protection since July 2017, accounting for 47 percent of all such cases.

More than 90 percent of administrative public interest litigation cases were resolved before trial, he said, helping reduce judicial costs while encouraging administrative authorities to perform their duties.

Xu said procuratorial organs have also strengthened coordination with courts, the public and administrative departments including those responsible for water resources, ecology and environment, agricul-

ture and rural affairs and forestry. The SPP also promoted public participation through a volunteer platform that has recruited 126,000 volunteers nationwide.

International participants said environmental governance requires stronger cross-border cooperation and more effective legal enforcement.

Hindenburgo Chateaubriand, deputy prosecutor general of Brazil, said environmental crimes do not stop at national borders and enforcement cannot be carried out by any single institution alone, making transnational judicial cooperation an important priority for prosecutors.

He said China is currently Brazil's largest export market for agricultural and livestock products, with large volumes of trade in key commodities such as beef, adding that the deep economic ties between the two countries also create favorable conditions for closer cooperation in social development, environmental protection and sustainability.

Trade growth should go hand in hand with ecological and climate protection, he said. Brazil has taken steps to strengthen regulation in the beef industry and plans to extend supervision to supply chains such as soybeans to build greener and more resilient systems.

Elizabeth Mrema, assistant secretary-general of the United Nations, said China has made inspiring progress in environmental legislation, enforcement and jurisprudence. She said China's public interest litigation system offers important innovations and lessons, with prosecutors playing a key role in closing the gap between environmental laws and their implementation.

She also noted that China's Ecological and Environmental Code is an important development not only for China but also for the region and the world, as it reflects a broader trend of modernizing environmental legal frameworks to respond to increasingly complex environmental challenges.

Adam Weiss, chief programmes and impact officer at environmental law organization ClientEarth, said China's experience has become an important reference model for many countries seeking more effective legal and institutional responses to environmental challenges.

While environmental laws and policies continue to develop around the world, effective implementation and enforcement remain essential, he said. Prosecutors have a unique role in ensuring compliance, pursuing accountability for environmental harm and safeguarding the public interest.

Participants noted that dialogue among prosecutors and other justice actors can help countries share good practices, improve enforcement capacity and better implement international environmental commitments.

Zhang said Chinese procuratorial organs will continue to actively perform their duties, make full use of the public interest litigation system and strengthen exchanges and cooperation with international partners to build a fair, reasonable and mutually beneficial global environmental governance system.

Haven for migrants



A staff member cleans a crane rehabilitation enclosure at a migratory bird rescue center in Hengshui Lake national nature reserve, Hebei province, on Sunday. Located along the East Asian-Australasian flyway, the reserve is home to diverse ecosystems and has recorded 337 bird species, making it an important refuge for migratory birds. YANG WENBIN / XINHUA

CCG holds ops east of Taiwan island

China terms Japan-Philippines delimitation talks illegal and invalid

By JIANG CHENGLONG
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China conducted law enforcement and maritime traffic patrols in waters east of its Taiwan island in early June, moves that are believed to demonstrate the country's jurisdiction, capability and resolve to safeguard its rights in the area following the Japan-Philippines unilateral delimitation move.

The Ministry of Transport organized a special maritime traffic law enforcement operation on Saturday in waters east of Taiwan island, fully exercising China's maritime administrative law enforcement jurisdiction, according to the ministry.

The operation was carried out by maritime safety administrations in Fujian and Guangdong provinces, as well as navigation support and rescue authorities in the East China Sea. It aimed to strengthen long-range offshore patrol and law enforcement capabilities, improve traffic management in key waters, ensure maritime traffic safety and safeguard national interests, the ministry said.

On June 1, China Coast Guard spokesman Jiang Lue said a CCG vessel fleet conducted law enforcement patrols in accordance with the law in waters east of Taiwan island.

Both the CCG and the Ministry of Transport stressed that the operations were "necessary actions" in response to Japan and the Philippines' unilateral announcement of

launching maritime delimitation talks regarding waters east of China's Taiwan island, which they said seriously infringed upon China's territorial sovereignty and maritime rights and interests.

Jiang urged the two countries to immediately stop all illegal actions that undermine China's sovereignty and rights, noting that the CCG will continue to strengthen control and management over relevant waters and resolutely safeguard national territorial sovereignty and maritime rights and interests through "concrete actions".

Zhang Junshe, a former researcher at the Naval Research Academy, said the operations were not only the most direct response to the so-called delimitation talks by Japan and the Philippines, but also demonstrated China's jurisdiction over relevant waters east of Taiwan island.

The operations came after Foreign Ministry spokeswoman Mao Ning said at a regular news conference on May 29 that the so-called delimitation talks between Japan and the Philippines are "completely illegal and invalid" and will have no impact on China's rights claims in waters east of Taiwan island or China's exercise of its lawful rights.

On May 28, following a meeting between Japanese Prime Minister Sanae Takaichi and visiting Philippine President Ferdinand Marcos Jr, Tokyo and Manila announced the launch of formal negotiations on the delimitation of their exclusive economic zones and conti-

mental shelves. According to the joint statement, the proposed delimitation areas include overlapping waters east of Taiwan.

Mao said that under China's domestic law and international law, including the United Nations Convention on the Law of the Sea, China has an exclusive economic zone and continental shelf in the area.

She added that Japan and the Philippines' unilateral launch of so-called maritime delimitation talks seriously infringes upon China's maritime rights and interests, and violates international law, including the United Nations Convention on the Law of the Sea, as well as the basic norms governing international relations, expressing strong dissatisfaction and firm opposition to the move.

Zhang said the latest operations showed that China's maritime law enforcement forces have not only the determination, but also the capability and strength to safeguard the country's rights.

He said the waters east of Taiwan island are complex and pose a major test for vessel performance and law enforcement capabilities. Those operations proved that China's coast guard and maritime safety forces are already capable of conducting regular law enforcement patrols, control and management in waters east of Taiwan island, he said.

More importantly, Zhang said, they show that China has effectively established a relatively complete system for protecting sovereignty and maritime rights and interests, as well as governing waters around Taiwan island.

New tech surgery aids recovery of vision

By CHEN MEILING in Beijing
and HE CHUN in Changsha

A blind woman in China has recovered partial vision after receiving a brain-computer interface surgery in Changsha, Hunan province, bringing new hope to patients suffering from degenerative retinal diseases.

Chen, 61, was diagnosed with retinitis pigmentosa at the age of 40, a condition that eventually left her completely blind in both eyes. On April 23, she was selected for a clinical trial and underwent an implantation surgery at Xiangya Hospital of Central South University.

During the surgery, an electrode array measuring 6 millimeters by 10.8 mm — roughly the size of a fingernail — was implanted onto the retinal surface of the macular region inside the eyeball.

Following the procedure, the patient wears a pair of glasses equipped with a miniature camera and a wireless transmission module. The camera captures environmental images, which a video processor analyzes and encodes. The encoded data is then transmitted via radio frequency wireless technology to the implant, which converts the data into electrical stimulation signals that act on retinal nerve cells. This visual information is ultimately relayed to the brain.

"If we compare the eyeball to a camera, the retina is the film. When the film is damaged, we directly use electrical signals to 'tell' the intact nerve cells behind what is being seen, which is equivalent to building a bypass for the visual system," said Xu Huizhuo, who conducted the surgery and leads the clinical trial project called the IMIE intelligent retina system.

Once the system is activated, patients initially experience phosphenes — a visual phenomenon manifesting as bright pinpoint lights against a dark background. Through systematic training, patients learn to assemble these light spots to identify object outlines, obstacles, directional markers and simple letters.

Xu explained that bionic vision functions more like a low-resolution visual system delivering light and dark outlines, and cannot yet match the rich, colored vision experienced by people with normal sight.

"Nevertheless, for patients who have been blind for a long time, such visual information can greatly improve their ability to live and move around independently," Xu said, emphasizing that artificial vision helps patients regain a degree of visual perception rather than restoring normal eyesight. Patients usually require several months or longer of rehabilitation training to interpret the new information.

At present, Chen's visual acuity has recovered to 0.1. During tests, she was able to recognize striped patterns in specific orientations and complete tasks such as indoor directional walking.

Degenerative retinal diseases like retinitis pigmentosa are major causes of irreversible blindness. Among advanced-stage patients, conventional medicines, surgeries and gene therapies often fail. The new method bypasses impaired photoreceptor cells to reconstruct an artificial visual pathway.

Remarkably, China's self-developed IMIE intelligent retina system boasts 256 stimulation channels, marking a more than fourfold improvement in data capacity compared with comparable overseas products featuring 60 channels.

"If artificial vision is compared to an electronic display screen, the number of stimulation channels is equivalent to 'pixels'. A 60-channel system is like a very blurry black-and-white image, whereas the 256-channel version delivers far more details," Xu said.

The team has already completed the development of 512-channel flexible electrode technology, aiming for future iterations ranging from 1,024 to 2,048 channels. The technology is applicable to patients whose optic nerves and brain visual pathways remain functional. As the system is still in the clinical research stage, relevant costs will be finalized following subsequent regulatory approvals.

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2025 data shows marine conditions remain stable

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China's marine ecological protection and restoration efforts yielded preliminary results, with overall marine conditions remaining stable and localized improvements observed last year, according to a bulletin released on Monday by the Ministry of Natural Resources.

Coral reefs, seagrass beds, mangroves and island ecosystems remained in good condition, the ministry said in its 2025 bulletin on China's marine ecological early warning and monitoring.

Released to mark the 18th World Oceans Day, the bulletin drew on monitoring data from 14 standard offshore transects, 1,579 monitoring stations, 126 typical ecosystem areas and 350 islands across China's jurisdictional waters.

The report showed that biodiversity indicators for plankton and large benthic organisms in near-shore waters remained consistent with the five-year average. Surface

seawater salinity, pH levels, inorganic nitrogen concentrations and dissolved oxygen levels in bottom waters also remained close to the 10-year average.

According to the bulletin, key bays and estuaries maintained stable biological community structures, with no significant shifts in dominant species groups. Sediment conditions remained sound, although localized eutrophication persisted in some areas.

The bulletin also warned of marine ecological risks linked in part to global climate change. Last summer, nearshore surface water temperatures in China were 0.7 C above the long-term average.

Although both the frequency and affected area of red tides declined compared with the 10-year average, risks from Ulva prolifera, or green tides, localized biological outbreaks and estuarine hypoxia remain, it said.

The ministry also released the second batch of its marine data open-sharing catalog on Monday,



Fishermen dry seaweed on a beach in Qionghai, Hainan province, on Monday. Processed into high-quality feed for marine creatures, the seaweed industry helps support both marine conservation efforts and local livelihoods. MENG ZHONGDE / FOR CHINA DAILY

providing data support for marine economic development, disaster prevention and mitigation, resource exploitation and scientific research.

Building on 37 data products included in the first batch released in June 2024, the updated catalog adds 10 global three-dimensional ocean datasets covering tempera-

ture, salinity, currents, waves and atmospheric pressure, as well as seven new statistical analysis products for global marine hydrological and meteorological data.

Since the first catalog was published, marine data services have been accessed more than 600,000 times by more than 100 government departments, research institutes and maritime enterprises, delivering more than 600 million data records, the ministry said.

China's marine monitoring capacity has expanded significantly in recent years, forming an integrated observation network that combines coastal stations, radar systems, buoys, research vessels, drones and satellite remote sensing.

The outline of the 15th Five-Year Plan (2026-30) calls for enhancing the protection and sustainable use of marine resources and accelerating the building of a maritime power.

In line with the plan, the ministry said it will continue advancing marine ecological protection and restoration, using high-level environmental protection to support the high-quality development of the marine economy.