HRC's Annual Report on Foreign Affairs in 2020 and Work Plan for 2021

In 2020, HRC earnestly studied and implemented Xi Jinping Thought on Socialism with Chinese Characteristics for the New Era, and the spirit of the 19th CPC National Congress and its 4th and 5th plenary sessions of the Central Committee. Centering on the basic principle of reform and development for water conservancy to strengthen the weak links in water projects and intensify the supervision & management in water sector, and under the guidance and support of Ministry of Water Resources (MWR), China International Development Cooperation Agency and Ministry of Commerce (MOFCOM), HRC has played an active role in response to COVID-19 and in implementing the Plan on Cooperation in the Fields of Energy and Rural Electrification for Countries Involved in the Belt and Road Initiative (BRI). Besides, HRC has made unremitting endeavors in preparation for the forthcoming foreign-aid trainings, international sci.-tech cooperation, the construction of 4 overseas technology transfer centers and the promotion of international capacity cooperation, and all the work has yielded fruitful results.

I. Consolidation of International Training

In order to make solider foundations for international training, HRC has made improvements in diverse aspects related to international training,

including improvement of management on international training as well as safety measures, optimization of teaching faculty, course and study tour arrangement, sorting out of the typical training cases, completion of the revision on the course material. In addition to that, HRC has been exploring to find a new mode for online training, and successfully hosted the first online training named as "Technical Workshop on Green Hydropower Development". Through the video link, HRC has also met with the old participants who attended the trainings in the previous years and discussed about the potential future cooperation. Besides, the participants' information of the previous years starting from 1983 has been collected to be a database via ArcGis, providing data support to the upcoming international sci.-tech cooperation. HRC has made various efforts to publicize its international training and international cooperation, including the 13 seminars and workshops conducted by HRC in 2019. HRC delegates also took part in the work conference on "Belt and Road" Water Conservancy Construction, and the annual meeting of South-South Cooperation. Moreover, the Technology Transfer, Research and Training Center on Clean Energy and Rural Electrification for African Countries established in Ethiopia by HRC was selected as Good Practices in South-South and

Triangular Cooperation for Sustainable Development. HRC has also been active in applying for some sustainable development technologies that could be shared with other Belt and Road countries.

II. Smooth Implementation of International Sci.-tech Cooperation

In 2020, HRC successfully concluded the project of Scientific & Technical Innovation of Zhejiang Province for the Belt and Road Country called "China-Indonesia Technology Transfer Center for Rural Electrification Technology Based on Hydropower". HRC continued to undertake the National Key R&D Program of China called "China-Pakistan Joint Research and Development Center on Key Technologies of SHP and Rural Electrification", the Inter-governmental International Sci.-Tech Innovation Cooperation under the National Key R&D Program called "China-Serbia Joint Research on the Development Technology of Low-head Run-of-the-river Hydropower" and China-ASEAN Maritime Cooperation Fund program called "Renewable Energy Assessment and Demonstration for Islands of ASEAN Countries". These international

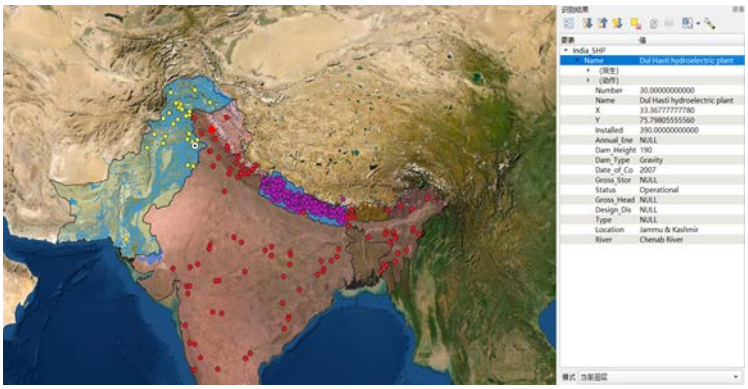
cooperative projects were delayed due to coronavirus pandemic, but HRC has timely adjusted the schedule and changed the cooperation mode to forge ahead with international exchange, joint research and development. Meanwhile, the project of China-Pakistan Joint Research Center on Small Hydropower starting from 2013 was approved to be the National Key R&D Program. The project team drafted a detailed implementation plan and work assignments, carried out both internal meetings and online meetings with project partners in Pakistan, pushing forward the project smoothly.

III. Smooth Progress of 4 Overseas Center Construction

(1) The construction of the China-Pakistan Joint Laboratory for Small Hydropower under the "Belt and Road" Initiative

The already built China-Pakistan Joint Research Center on Small Hydropower will be upgraded to the China-Pakistan Joint Laboratory for Small Hydropower under the "Belt and Road" Initiative. HRC project team visited Pakistan for technical exchange, compiled the laboratory development plan, and carried out the cooperation of hybrid power-generation technology based on hydropower, and the research and

demonstration of the new technology of "integrated and optimized control of cascade SHP plants". At the same time, the project also aims to increase the influence among the neighboring countries, thus promoting



the application of SHP technical standards and the sharing of basic data of SHP in South Asian countries, as well as the cultivation of young talents working in the field of hydropower in South Asia.

(2) Preparation for the establishment of "China-ASEAN Technology Transfer Center on Renewable Energy and Rural Electrification"

On the basis of the established "China-Indonesia Technology Transfer Center for Rural Electrification Technology Based on Hydropower", the scope and content of cooperation has been further expanded. HRC has promoted renewable energy cooperation among ASEAN island countries,

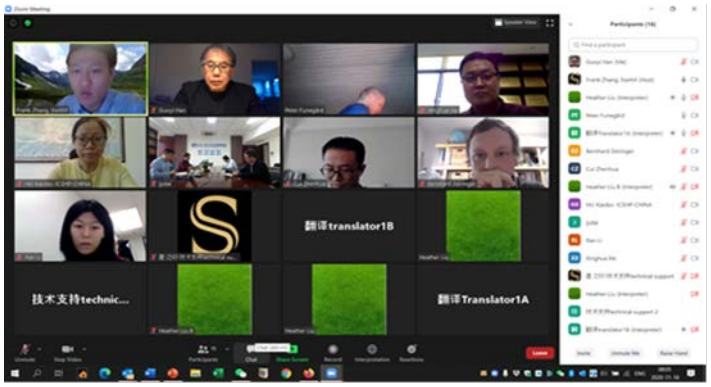
undertaken surveys and assessments of renewable energy resources in selected typical areas in Indonesia and the Philippines, prepared evaluation & development reports, and made comparison and selection of

hydropower development plans. In active cooperation with the Department of Agriculture of the Philippines in solar-powered water pumping technology, the application of small-scale photovoltaic water pumping technology and equipment has been promoted. The Pérez-Guerrero Trust Fund (PGTF) project of G77 was successfully implemented, in which the research on photovoltaic technology and application in Asian countries was conducted. HRC participated in the UNICEF Water and Sanitation Project and planned to set up the East Asia & Pacific Regional Innovation Center for Solar-powered Water Supply Technology. Besides, HRC has actively participated in cooperation on Technology Sharing and Capacity Building of Green Hydropower Development and the cooperation & exchanges on dam safety management, and cooperated with ASEAN Center for Energy (ACE) to establish the China-ASEAN Technology Transfer Center on Renewable Energy and Rural Electrification.

(3) Operation of China-Serbia Joint Research and Training Center for Small Hydropower Technology

HRC further strengthened technical exchanges with the University of Belgrade in Serbia. The two sides have agreed on the demonstrative scheme of the low-head run-of-the-river hydropower technology. HRC donated face masks and other anti-epidemic materials to the Serbian side shortly after the global pandemic emerged. HRC continued to participate

in the project of "Sustainable Hydropower Use and Integration in China and Europe (SHUI-CHE)" under the framework of China-Europe Water Platform (CEWP),



sharing and exchanging policies and regulations on ecological restoration and efficiency improvement of small hydropower in China and the case study on ecological monitoring of Panxi River. In cooperation with University of Natural Resources and Life Sciences in Vienna, Austria, the book named Riverine Ecosystem Management: Science for Governing towards a Sustainable Future was translated, which will share EU's experience and practice with Chinese colleagues about the construction of ecological water projects. Both sides jointly applied for the program of Research on Watershed-scale Impact Assessment and Response Strategy of Hydroelectric Power on River Ecosystem.

(4) Enhancement of China-Africa Technology Transfer, Research and Training Center on Clean Energy and Rural Electrification

HRC maintained close contact with African countries including Ethiopia, Rwanda, Kenya, Nigeria, Cape Verde, etc., preparing the exchange of visits and the personnel training delayed by the outbreak of pandemic, and exploring to carry out new patterns of human resource development

in the field of water and hydropower in Rwanda, Cape Verde, Nigeria and other African countries. At the same time, the achievements of cooperation on China-Africa clean energy and rural electrification were summarized, promoted, and awarded as the "Best Practices of South-South Cooperation and Triangular Cooperation for Sustainable Development", which greatly enhanced the international influence.

IV. Continued Expansion of Overseas Markets

HRC made full use of resources of foreign-aid training and achievements from international scientific and technological cooperation to implement the existing projects and explore the markets. Small hydropower projects have been launched in Kenya, solar-powered irrigation projects were expanded in the Philippines, designing and consulting services on hydropower in Indonesia were progressed, and markets in Nepal and Myanmar were to take off. HRC collected and analyzed project information of East Africa, South Asia, Southeast Asia and other countries, participated in the projects bidding of World Bank, Asian Development Bank (ADB) and key countries, and tapped the market potential. Good relationship is maintained with old customers and carried

out spare parts supply and on-site maintenance & upgrading of the old and ageing hydropower stations. With the pandemic rampaging abroad, HRC engineering team overcame various difficulties and punctually completed the on-site installation guidance, commissioning and trial operation of Sirvan Hydropower Station (2×15MW) in Turkey, greatly reducing the negative impact of force majeure on the project, saving the economic loss for the owner, and winning the owner's praise.

In addition, HRC improved the foreign affairs management and adjusted the plan on abroad business tours. The full play was given to the advantages of two special committee platforms and the standard formulation & revision, strengthened the exchange and cooperation, and summarized the international cooperation experience and the promotion & implementation of small hydropower standards. Besides, the team building and business development capability has been enhanced.

In 2021, HRC will follow the "14th Five-Year Plan" to make a good start and found a new chapter. It will strengthen the construction of disciplines, platforms and professional teams, strive to overcome the impact of the pandemic, adjust and optimize work priorities, integrate domestic and foreign market resources, and build a multi-level international cooperation network based on the inter-governmental international cooperation and scientific & technological exchange platforms as well as

the channels of international organizations in China. In addition, it will coordinate both the domestic and international situations, actively participate in the global climate governance relying on the four overseas centers, carry out the green and low-carbon technology research, strengthen the policy communication, technical exchange, project cooperation, and personnel training in the field of green and low-carbon circular development, and effectively improve the capability and level to promote the development of international green and low-carbon cycle, and make positive contributions to building up a community with a shared future for mankind. The specific work plan is as follows:

1. HRC will prepare and implement the training programs, namely "Ministerial Seminar on Water Resources Management and Social & Economic Development for Developing Countries" and "Seminar on Water Resources Utilization and Water Environment Management for Latin America, the South Pacific and the Caribbean", as well as the overseas training course for Nigeria to be co-organized by the IN-SHP. It will carry out online education programs, make MOOC videos, and cooperate with research institutes, equipment manufacturers and project sites to innovate new training models incorporating both online and offline courses. It will strengthen the cooperation with related sectors, reinforcing complementary advantages and expanding the fields of technical trainings. It will also make full use of network and mobile

terminal programs for promoting a scientific management on foreign-aid training. It will continue to carry out online exchanges with HRC alumni of training programs as well as specific seminars on the international cooperation project. It will complete the publication of small hydropower training materials called "Small Hydropower Technology in China" and "Riverine Ecosystem Management: Science for Governing towards a Sustainable Future".

2. HRC will further carry out the construction of the four overseas centers and promote the building up of regional cooperation platforms. It will continue the international scientific and technological innovation project "China-Pakistan Joint Research on Small Hydropower Technology", China-Serbia key inter-governmental project for scientific & technological innovation called "Joint Research on the Development Technology of Low-head Run-of-the-river Hydropower", and the China-ASEAN Maritime Cooperation Fund project named "Renewable Energy Assessment and Demonstration for Islands of ASEAN Countries". It will join the international cooperation project on green hydropower and dam safety of Nanjing Hydraulic Research Institute, and implement the Pérez-Guerrero Trust Fund (PGTF) project. It will follow up the approved projects and continue to apply for new international cooperative projects. In cooperation with ASEAN Center for Energy, it will promote the "China-ASEAN Technology Transfer Center on Renewable Energy and

Rural Electrification" to be put into operation officially. It will carry out the demonstration and promotion of solar-powered water supply technology in Lancang-Mekong countries with UNICEF.

Based on the cooperation mechanism between China and South Asian Association for Regional Cooperation (SAARC), HRC will improve the basic database of small hydropower and rural electrification in South Asia, and share small hydropower standards, renewable energy resource assessment and development planning, and the rural electrification model with the South Asian countries. Based on the China-Europe Water Platform and the cooperation mechanism between China and Central & Eastern European Countries, HRC will promote the China-Austria and China-Serbia inter-governmental scientific and technological cooperation, and carry out the water resources cooperation among China, Europe and the third country. Based on the China-ASEAN (10+1) cooperation framework, HRC will carry out renewable energy technology sharing and capacity cooperation with the ASEAN Center for Energy. Based on the China-Africa Technology Transfer, Research and Training Center on Clean Energy and Rural Electrification, HRC will set up the sub-centers in different directions of Africa.

In addition, HRC plans to build up the China-Indonesia Hybrid Power System Research Laboratory under the "Belt and Road Initiative" at Zhejiang provincial level. It will strengthen the operation of International

Science and Technology Cooperation Base of Zhejiang Province for Renewable Energy and Rural Electrification and apply for an upgrading to the national level.

3. HRC will investigate the overseas market demand and determine key countries and priority projects. It will regularly contact the alumni of the training courses to explore the markets and strengthen the cooperation. It will value the cooperation with other organizations and expand new business areas. It will connect with international organizations and provide technical consultation accordingly. Based on the international scientific and technological cooperation and the platforms of overseas centers, it will set up the international working teams and establish a new operating model to promote production capacity cooperation internationally.

4. HRC will strengthen the foreign affairs management and system construction, and improve the related regulations and management methods. It will continue to assist in the article submission, translation and publication of the two HRC journals, the newsletters and the website of HRC, as well as the Zhejiang Foreign Affairs Yearbook and the magazine of China South-South Cooperation Network. It will strengthen the contact and communication with the media of cooperating countries and the Chinese media abroad, making further contribution to the sharing of information and the promotion of technology.