

## **HRC's Annual Report on Foreign Affairs in 2017 and Work Plan for 2018**

In 2017, HRC earnestly studied and implemented the guiding spirits of the 19th CPC National Congress. Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for the New Era, and led by the Ministry of Water Resources (MWR) of China and its affiliated Nanjing Hydraulic Research Institute (NHRI), HRC has organized international training, carried out extensive visit exchange, successfully implemented international sci.-tech. cooperation. Meanwhile, HRC strived to expand his foreign market, and promoted technical transfer and demonstration, so the work on foreign affairs has achieved good results and created considerable economic & social benefits.

### **I. International Training**

In order to enhance the foreign-aid capacity building, deepen the South-South Cooperation, uplift China's international influence in water and energy fields and promote exchange & cooperation among the developing countries, especially for those along the *Belt and Road*, HRC successfully



organized 9 international trainings (seminars) in 2017. Among them, 6 are foreign-aid training programs of MOFCOM, another one is sponsored by National Development and Reform Commission,

and other two are Perez-Guerrero Trust Fund (PGTF) projects held respectively in Nepal and Ethiopia for South Asian and East Africa. There is a total attendance of 278 officials and engineers in the fields of water resources, climate change, SHP and rural electrification from 40 countries in the world.

The six foreign-aid training courses (seminars) entrusted by MOFCOM are *2017 Seminar on Electrification Mode Based on Clean Energy for Countries along the Belt and Road* (28 days, 33 officials from 6 countries along the *Belt and Road*), *2017 Seminar on Water Resources Management & Small Hydropower Development for Countries along the Belt and Road* (28 days, 44 officials from 12 countries along the *Belt and Road*), *2017 Training Course on SHP for Rwanda* (25 days, 31 participants from Ministry of Infrastructure, Energy Development Co., Ltd. (EDCL), Integrated Polytechnic Regional Center (IPRC), Ngali Energy Ltd, Novel Energy, Prime Energy Ltd., Pepro Ltd., So Energy International etc.), *2017 Seminar on Small Hydropower and Sustainable Development of Rural Communities for ASEAN Countries* (14 days, 19 participants from 3 ASEAN Countries), *2017 Seminar on Small Hydropower and Sustainable Development of Rural Communities for Developing Countries*, (14 days, 55 officials from 18 developing countries) and *2017 Seminar on Small Hydropower Development and Management for Central and East European Countries* (21 days, 25 officials from 10 countries).



The foreign-aid training program entrusted by National Development and Reform Commission of China called *Seminar on Greenhouse Gas Reduction and Energy Transformation*, with the participation of 30 officials from 12 countries for 14 days.

In addition, HRC hosted two seminars sponsored by PGTF, respectively named *2017 Seminar on Hydropower Development Planning for South Asian Countries* (25 participants from 6 South Asian nations) and *Seminar on Renewable Energy and Off-grid Hybrid Power Generation System for East African Countries* (24 participants from 5 East African Countries).



In 2017, HRC has been continuously expanding training channels and enriching training subjects and contents. The subjects are not only focus on SHP and rural electrification, but also expand to water

resources management, clean energy, GHG reduction and energy transformation, etc. Entrusted by National Development and Reform Commission of China, HRC organized one seminar about climate change entitled the *Seminar on Greenhouse Gas Reduction and Energy Transformation*, undertook two seminars especially for the countries along the *Belt and Road*, and implemented the 3rd Training Course on SHP in Rwanda. These foreign-aid training courses (seminars), on one hand, disseminate advanced experience and proven technology to the rest world

and help to cultivate professionals of other countries, thus improving their competence in rural electrification construction. On the other hand, all the training programs promote the widespread cooperation with developing countries especially those along the *Belt and Road* and further share the Chinese technology, equipment and standard.

Entrusted by the Department of International Cooperation, Science and Technology of MWR, HRC drafted the *Planning on Foreign-aid Human Resources Development & Cooperation in Water Field for 2018-2020* and submitted the 3-year plan on the training courses (seminars) of the Ministry of Commerce. HRC also applied for the 2018 PGTF project called *Seminar on Small Hydropower Operation and Maintenance for Asian Countries* and got approval, and meanwhile, signed an agreement with Hohai University to foster high-level professionals and establish *HRC-Hohai Internship Practice Base* to realize the degree education for HRC trainees jointly.

## **II. Visit Exchanges**

### **1. Foreign Guests to HRC**

In 2017, HRC received five delegations of 20 foreign guests in total, respectively from the Philippines, Georgia, Ethiopia, Nepal and Vietnam, for technical exchange and project cooperation.

(1) From Jan. 15<sup>th</sup> to 18<sup>th</sup>, a 3-person delegation headed by Mr. Armando Liwag Diaz, the President of Matuno River Development Co. Ltd. visited HRC and negotiated the contract for Butao hydropower project, as well as visited the E/M equipment manufacturers.

(2) On Sep. 27<sup>th</sup>, a Georgian delegation of 3 persons headed by Mr.

George Pirtskhalaishvilia, a board member of ENGURI visited HRC for cooperation on silt dredging of Enguri reservoir in Georgia.



(3) On Oct. 31<sup>st</sup>, a 2-person delegation including Prof. Nurelegne Tefera Shibeshi, President of Addis Ababa Science and Technology University (AASTU) of Ethiopia visited HRC. Both sides agreed to promote the construction of *Technical Transfer, Research and Training Center on Clean Energy and Rural Electrification for Africa*, and discussed the follow-up work.

(4) On Nov. 1<sup>st</sup>, a 2-person delegation headed by Dr. Suresh Kumar Dhungel, Chief of Faculty of Technology of Nepal Academy of Science and Technology (NAST)



visited HRC. Both sides discussed cooperation in capacity building such as training, joint R&D etc. and agreed to make joint research and training in the field of renewable energies to facilitate technical progress and accelerate the development of renewable energy for all South Asian

countries.

(5) On Nov. 17<sup>th</sup>, a 10-person delegation headed by Mr. Nguyen Ba Cuong, Deputy Director General of Institute of Energy (IE), Ministry of Industry and Trade of Vietnam paid a visit to HRC. Two sides agreed to have wide cooperation in human resources training, joint research, demonstration and technical promotion under the cooperative protocol of both governments.



## 2. Outbound Visits

In 2017, HRC dispatched 9 delegations of 27 staffs respectively to Nepal, Ethiopia, Rwanda, Kenya, Macedonia, Serbia, Laos and Indonesia etc. for conferences, foreign-aid trainings, international sci.-tech. cooperation, etc.

(1) From March 26<sup>th</sup> to April 1<sup>st</sup>, a delegation of 6 persons headed by Prof. Huang Jianping, Deputy Director of HRC, visited Nepal for organizing *2017 Seminar on Hydropower Development Planning for South Asian Countries* sponsored by PGTF, and 24 representatives from Afghanistan, Bangladesh, India, Nepal, Pakistan and Sri Lanka attended.



Participants had in-depth discussions, shared expertise and experience in SHP, and signed cooperation resolution and MOU.

(2) From May 9<sup>th</sup> to 11<sup>th</sup>, a 2-person delegation headed by Dr. Xu Jincai, Director General of HRC, attended the 6th World Hydropower Conference in Ethiopia. Meanwhile, the delegation paid a courtesy call to Dr.



Ing Seleshi Bekeie, the Minister of Water, Irrigation and Electricity of Ethiopia, and met Mr. Chen Ning, the Counselor of Chinese Mission to the African Union, and Ms. Liu Yu, the Economic and Commercial Counselor of Chinese Embassy to Ethiopia. The delegation also organized *Seminar on Renewable Energy and Off-grid Hybrid Power Generation System for East African Countries* funded by PGTF, and inaugurated *Technical Transfer, Research and Training Center on Clean Energy and Rural Electrification for Africa* together with ZTE Ethiopian Branch and AASTU. HRC and AASTU discussed and signed agreement for future cooperation.

(3) From May 15<sup>th</sup> to 19<sup>th</sup>, a delegation of 2 persons visited EDCL of Rwanda Energy Group in Kigali to discuss the implementation plan on *2017 Training Course on SHP for Rwanda* and delegates had a visit to the on-site teaching area. A consensus reached on training approach, content, task assignment and the minutes of meeting signed.

(4) From May 15<sup>th</sup> to 20<sup>th</sup>, HRC dispatched staffs to Kenya to cooperate with Power Technology Solutions Ltd. for developing the 9.6MW Earth Head hydropower project. Delegates visited Dedan Kimathi University of Technology and Presbyterian Teachers College Rubate respectively, and reached consensus on capacity building, technical training, joint R&D and project demonstration etc.

(5) From Sep. 13<sup>th</sup> to Oct. 7<sup>th</sup>, HRC delegation of 8 persons went to Kigali, Rwanda and hosted *2017 Training Course on SHP for Rwanda* there. 31 participants from Mininfra, EDCL, IPRC, Ngali Energy Ltd., Novel Energy, Prime Energy Ltd., Pepro Ltd. and So Energy International etc. attended the 25-day training, which achieved a full success.

(6) From Nov. 8<sup>th</sup> to 15<sup>th</sup>, HRC staff joined a delegation of the Department of International Cooperation, Science and Technology of MWR to visit Macedonia and Serbia for water-related cooperation. The delegation visited the related governmental authorities, ministers and directors of two countries, exchanged policies and cooperative proposals, and reached agreements on capacity building, joint R+D and technical promotion in the field of water resources and hydropower development.



(7) From Nov. 29<sup>th</sup> to Dec. 2<sup>nd</sup>, a delegation of 4 persons headed by Dr. Xu Jincai, Director General of HRC, paid courtesy calls to Dr. Sommad



Pholsena, the Minister of Natural Resources and Environment of Laos, and Dr. Sinava Souphanouvong, the Vice Minister of Energy and Mines of Laos. The delegation had an intensive exchange for

future cooperation with Mr. Saysana Sittiphonr, the Director of Chief Cabinet of Lao-China Cooperation Commission and Mr. Chantho Milattanapheng, the Acting Director General of Institute of Renewable Energy Promotion (IREP). The delegation also visited Mr. Wang Qihui, the Economic and Commercial Counsellor of Chinese Embassy to Lao PDR. and introduced HRC's contributions to the implementation of the *Belt and Road Initiative* and other cooperative activities in Laos in the fields of water management, environment assessment, hydropower development and dam safety management, etc. HRC signed a MOU with IREP on the application of Lancang-Mekong Cooperation Special Fund, South-South Cooperation Fund and Intergovernmental Sci.-Tech. Innovation Cooperation projects.

(8) From Dec. 3<sup>rd</sup> to 5<sup>th</sup>, a delegation of 4 persons headed by Dr. Xu Jincai, Director General of HRC, met with Dr. Sanjayan Velautham, Director of ASEAN Center for Energy (ACE), and had an in-depth discussion and both sides agreed on the building-up of *China-ASEAN Technical Transfer and Training Center for Clean Energy and Rural Electrification*. Besides,

HRC discussed with PLN Indonesia about joint research and personnel training for hybrid power-generation technology with use of clean energy on islands, and a MOU signed. The delegation then visited Mr. Tan Shufu, the



Economic and Commercial Counselor of Chinese Mission to ASEAN, and introduced HRC's cooperation with ASEAN countries and the future work plan. The delegation met with the experts of Brawijaya University, Indonesia and discussed bilateral cooperation on hybrid power-generation technology for seawater desalination. In addition, personnel training and education programs were also touched upon between HRC and PLN Corporate University.

(9) From 13<sup>th</sup> to 16<sup>th</sup>, Dec., HRC's expert joined the delegation of the Department of International Cooperation, Science and Technology of MWR for attending the 10<sup>th</sup> *Technical Committee Meeting on Maritime Cooperation between China and Indonesia*. The delegation discussed with Indonesian counterpart about the China-Indonesia Maritime Cooperation Fund project called *Seawater-desalination Demonstration with Hybrid Wind & Solar Power-generation for Islands*", which is going to be on the agenda of the 3<sup>rd</sup> *China-Indonesia Maritime Cooperation Meeting* in 2018.

### **III. Information Dissemination**

In 2017, HRC edited and published *SHP News* of 2017 in English, which

shared with 74 countries, including 37 ones along the *Belt and Road*. Besides, the database of training alumni updated, and the website released nearly 100 pieces of news in Chinese and English. Tens of contributions submitted to *Zhejiang Foreign Affairs Yearbook* and *China SSC Network* and its journal.

Moreover, in order to expand the publicity of HRC cooperative activities on clean energy and rural electrification under the *Belt and Road Initiative*, HRC made a special webpage called *the Belt and Road Cooperation* in both Chinese and English languages, to improve the cultural image for international exchange and promote project cooperation.

#### **IV. Technical Transfer**

Focusing on the plan of setting up four overseas technical transfer and training centers, HRC carried out cooperative activities steadily for joint research and technical transfer by means of upgrading one center, setting up one center and preparing to build two centers.

##### **1. Upgrading "China-Pakistan Joint Research Center for Small Hydropower Technology"**



On April 20<sup>th</sup> 2015, Chinese President Xi Jinping paid a state visit to Pakistan, and unveiled for 8 China-Pakistan Cooperative Projects together with the former Pakistani Prime Minister

Nawaz Sharif, among which *China-Pakistan Joint Research Center for Small Hydropower Technology* is the one implemented by HRC. In July 2017, the Minister of Science and Technology (MOST) of China Mr. Wan Gang visited Pakistan and had a site investigation about the Center and explored further cooperation with the Pakistani counterpart on renewable energy development including PV, hydropower and wind energy etc.. With the strong support of Chinese MOST, HRC is now implementing a key project of Strategic International Sci.-tech Innovation Cooperation called *China-Pakistan Joint R&D Center on Key Technology of Small Hydropower and Rural Electrification*. On Nov. 13<sup>th</sup>, the kicking-off meeting was done in HRC, in which Dr. Raza Baq, the Director General of Pakistan Council of Renewable Energy Technology (PCRET) attended and technical discussion was held. HRC will next conduct research and development and project demonstration of key technologies of SHP and rural electrification, expand S&T cooperative activities and realize technical transfers. Both parties will also extend the cooperation with other South Asian countries including Nepal, Bangladesh and Sri Lanka etc. as to promote a regionalized development of renewable energies.

## **2. Setting up "Technical Transfer, Research and Training Center on Clean Energy and Rural Electrification for Africa"**



In May 2017 the *Technical Transfer, Research and Training Center on Clean Energy and Rural Electrification for Africa* was jointly unveiled and commenced by HRC, ZTE

Ethiopian Branch and AASTU. The Center is open to all African countries to achieve the *China-Africa Cooperation Plan* for agricultural modernization, infrastructure construction, green development and poverty alleviation by means of capacity building, joint R+D, technical transfer and project demonstration. The Center also aims to promote the cooperation between China and Africa in the field of rural energy and infrastructure construction for opening up a “common progress, mutual benefit and win-win” prospect. In October, the President of AASTU of Ethiopia visited HRC for further discussion on the content of cooperation as well as the implementation plan. The next step is to explore cooperation with POWERCHINA to establish the *Sino-Africa Friendship Research Institute on New Energy* in order to provide stronger technical support for the development and utilization of renewable energy in Africa.

### **3. Preparing to Build "China-ASEAN Technical Transfer Center on Renewable Energy and Rural Electrification" and "China-Serbia Joint Research and Training Center for SHP Technology"**

HRC is now implementing the project of Scientific & Technical Innovation of Zhejiang Province for Countries along the *Belt and Road* called *China-Indonesia Joint Research Center for Rural*



*Electrification Technology Based on Hydropower*. With the participation of PT PLN (Persero) Pusharlis and the Research and Development Center for Electricity & Renewable Energy of the Ministry of Energy and Mineral

Resources of Indonesia, HRC is going to set up a joint research center in Indonesia to research the hybrid power-generation and rural electrification technology based on hydropower. Extensive cooperation will be also explored with other ASEAN countries including Laos, the Philippines and Malaysia etc.. In December 2017, HRC delegation headed by Director General of HRC Dr. Xu Jincai, visited ASEAN Center for Energy in Indonesia, and reached consensus on the building-up of *China-ASEAN Technical Transfer and Training Center for Clean Energy and Rural Electrification*. The detailed proposal is to submit to the ASEAN Ministers' Meeting on Energy for approval in February 2018.

In May of 2017, HRC signed a MOU with University of Belgrade of Serbia, and discussed the development technology and project demonstration of small hydropower and other renewable energies,



exchanged the ideas on cooperative framework and main activities, and unanimously determined to set up the *China-Serbia Joint Research and Training Center for Small Hydropower Technology*. The key project of 2017 Intergovernmental Scientific and Technical Innovation, called the *Joint Research on the Development Technology of Low-head Run-of-the-river Hydropower*, approved by the concerned authorities of both China and Serbia.

## V. International Sci.-tech Cooperation

In 2017, under the guidance of *South-South Cooperation* and the *Belt and Road Initiative*, HRC implemented the project of Strategic International Cooperation for Scientific and Technical Innovation and the project of Scientific and Technical Innovation of Zhejiang Province for Countries along the *Belt and Road*. HRC also applied for China-ASEAN Maritime Cooperation Fund, China-Indonesia Maritime Cooperation Fund and National Key R&D Program etc., and dispatched staffs to African Union, ASEAN and Eastern Europe for expertise sharing and exchange among the countries along the *Belt and Road* with remarkable results achieved.

### 1. HRC applied for two projects of Strategic International Cooperation for



Sci.-tech Innovation under the National Key R&D Program called *China-Pakistan Joint R&D Center on Key Technology of Small Hydropower and*

*Rural Electrification and Research and Demonstration on Hybrid Power-generation Technology Based on Hydropower*. The kick-off meeting of *China-Pakistan Joint R&D Center on Key Technology of Small Hydropower and Rural Electrification* was held in HRC with the participation of Pakistani partner, and both sides agreed on the implementation plan, research content, task allocation, demonstration proposal, etc.

2. HRC pushed forward the project of Scientific and Technical Innovation of Zhejiang Province for Countries along the *Belt and Road* called *China-Indonesia Joint Research Center for Rural*



*Electrification Technology Based on Hydropower*. Five engineers from PT PLN (Persero) Pusharlis and the Research and Development Center for Electricity & Renewable Energy, the Ministry of Energy and Mineral Resources of Indonesia visited HRC, and had technical discussions and visits to typical demonstrative projects and equipment manufacturers. A joint research center will be set up to undertake R+D on rural electrification technology and equipment fabrication for hybrid power generation that is based on hydropower, as well as technical training and demonstration etc., thus finally applying the Chinese technology of hybrid power-generation with hydropower, wind and solar power together.

3. HRC applied respectively for two maritime cooperation fund projects, i.e. China-Indonesia Maritime Cooperation Fund project - *Research on*



*Island Energy Resource Assessment and Development Mode, and China-ASEAN Maritime Cooperation Fund project - Assessment of Renewable Energy,*

*Capacity Cooperation and Demonstration for ASEAN Countries*. The latter approved by the Ministry of Foreign Affairs of China, and was just under the final review of the Ministry of Finance of China. In addition, HRC joined Nanjing Hydraulic Research Institute for the application of another China-Indonesia Maritime Cooperation Fund project - *Seawater-desalination Demonstration with Hybrid Wind & Solar Power-generation for Islands*, which has been shortlisted and is going to be on the agenda of the 3<sup>rd</sup> China-Indonesia Maritime Cooperation Meeting in 2018.

4. HRC applied for three special projects of Intergovernmental Scientific and Technical Innovation under the National Key R&D Program, i.e., *China-Mongolia Joint Research on Decentralized Power Generation and Rural Electrification*, *China-Serbia Joint Research on the Development Technology of Low-head Run-of-the-river Hydropower*, and *China-Egypt Joint Research & Demonstration on Micro Hydropower Development and Integrated Water Resources Utilization in Oasis Area*. Among them, the second was approved by the Ministry of Science and Technology of China. HRC signed MOU and technical agreement respectively with Mongolia Renewable Energy Center and Serbia University of Belgrade.

5. HRC applied for 4 Foreign-aid Reserve Projects of the Ministry of Commerce of China. They are *Cooperation on Technical Transfer and Capacity Building for Rural Electrification between China and Africa*, *Assessment and Planning on Renewable Energy and Capacity Cooperation in ASEAN Countries*, *Development of Decentralized Clean Energy & Construction of Rural Electrification System in Lao PDR* and *Hydropower Planning in Typical River Basin and Research, Development and Demonstration of Low-head Hydropower Equipment*. As requested by MOFCOM, HRC contacted foreign counterparts to submit same project proposals to the Economic and Commercial Counsellor's Office of the Chinese Embassies in their respective countries, so that these projects can be included in the implementation plan in time.

中国驻非盟使团合作交流处

关于“中国—非盟农村电气化技术转移与能力建设合作”项目的意见

近日，水利部农村电气化研究所就“中国—非盟农村电气化技术转移与能力建设合作”项目征求我处意见。该项目主要针对非洲国家开展农村电气化领域联合研究、技术转移、项目示范和能力建设。

上述项目符合中非“十大合作计划”，具体涉及中非农业现代化、基础设施、绿色发展和减贫惠民合作计划等，符合非洲农村及能源发展现实需求，有利于促进中非在农村农业发展和能源基础设施建设领域开展合作，有利于推进中非共同发展、互利共赢。

建议予以支持。



6. Entrusted by the Research and Development Center of the Ministry of Water Resources of China, and based on his foreign-aid trainings and international cooperation, HRC collected valuable information about SHP development and utilization of major countries along the *Belt and Road*. HRC also investigated the demand of these countries for small hydropower, and provided consultancy services to MWR regarding the international cooperation on water issues along the *Belt and Road*. HRC will strengthen cooperation with the Development Research Center, the International Economic & Technical Cooperation and Exchange Center, the Lancang-

Mekong Water Resources Cooperation Center, MWR to jointly apply for Lancang-Mekong Cooperation Special Fund, South-South Cooperation Fund, etc., and enhance the *Belt and Road* strategic research.

## **VI. Overseas Marketing and Projects**

In 2017, HRC made efforts for SHP project planning, design, consultation, E/M equipment supply and site installation as well as overhaul or maintenance for the built hydropower stations, etc. These services not only meet the demands of other developing countries, but also really benefit the local governments and people and definitely show the Chinese capability in the field of water resources and hydropower to the international society, which has ultimately achieved favorable economic and social benefits.

### **1. Engineering Design and Consultation**

Cooperating with POWERCHINA, China Railway International Group,



China Sinogy Electric Group Co., Ltd and China National Geological & Mining Corporation, HRC helped site selection, evaluation and bidding of hydropower projects for countries along the

*Belt and Road*, and signed agreements for project design and consultation.

HRC has accomplished SHP project design in the Philippines, preliminary design of SHP project rehabilitation in Vietnam, and site investigations for hydropower stations in Laos, Chile and Guinea, etc.

## **2. Equipment Supply and Field Service**

In 2017, HRC contracted for hydropower projects in Laos and the Philippines based on EPC cooperative mode, and finished feasibility study and preliminary design of the projects. HRC provided AVIC International with technical services on feasibility study and site survey for hydropower projects in Kenya, and will conduct the construction design and supply the E/M equipment supply afterwards. HRC finished an engineering design for a hydropower project in Papua New Guinea, provided E/M equipment and on-site installation for a hydropower project in Cuba and carried out after-sale services for those built hydropower plants in Turkey and Peru.

## **3. On-site Inspection and Standard Popularization**

Cooperating with Chongqing Water Turbine Factory Co., Ltd, HRC provided on-site technical services including unit efficiency test, output test, power analysis & test and performance test for its hydropower plant built in Laos. HRC began to apply the inspection technology in foreign countries and gradually more and more on-site inspection and tests will be carried out for overseas hydropower projects. Meanwhile, much attention is now given to fully use HRC's role in formulating/revising the national & professional standards in small hydropower field, and to translate and popularize the standards in terms of SHP planning, design, operation & maintenance, consultation and construction as well as E/M equipment manufacturing etc., thus finally promoting the wide application of these standards abroad.

## **VII. Work Plan for 2018**

In 2018, HRC shall strictly follow the guidelines and policies related to

foreign affairs of the central government, observe *the Belt and Road Initiative*, and rely on his own advantage and meet the needs of foreign countries for capacity building, joint R+D, project demonstration and technical transfer etc.. HRC will continue to provide personnel training and technical service to developing countries, undertake joint research and project demonstration, promote technical transfer and indigenization of equipment fabrication, promote international standardization and enhance the international capacity cooperation.

### **1. International Training**

HRC plans to host ten foreign-aid training courses/seminars (including 3 trainings abroad) of the Ministry of Commerce, one training course of National Development and Reform Commission, one training course of Ministry of Science and Technology, and one seminar funded by Perez-Guerrero Trust Fund. It's expected to cultivate 300 officials and engineers for the countries along the *Belt and Road* and others. HRC will make full use of the fund from the international organizations such as PGTF to carry out technical exchange on South-South Cooperation in water sector and related industries. Responding to *2018 China-ASEAN Year of Innovation* activity, HRC will organize relevant trainings or seminars. HRC will continue carrying out data collection and strategic research on clean energy and rural electrification for countries along the *Belt and Road* with the supports of former trainees from 113 countries.

### **2. International Sci.-tech Cooperation**

HRC will make full use of *Asian Regional Cooperation Special Fund*, *China-ASEAN Maritime Cooperation Fund*, *China-Indonesia Maritime Cooperation Fund* and *Lancang-Mekong Cooperation Special Fund* to

apply for and implement the related projects. HRC will continue to apply for the second batch of projects of 2017 Intergovernmental Scientific and Technical Innovation for carrying out innovation collaboration on science and technology at home and abroad, according to HRC's Implementation Plan on Cooperation of Clean Energy and Rural Electrification for Countries along the *Belt and Road*. HRC will vigorously enhance *China-Pakistan Joint Research Center for Small Hydropower Technology*, further consolidate *Technical Transfer, Research and Training Center on Clean Energy and Rural Electrification for Africa* and fully complete *China-ASEAN Technical Transfer Center on Renewable Energy and Rural Electrification* and *China-Serbia Joint Research and Training Center for Small Hydropower Technology*. Meanwhile, by taking advantage of being "International Sci.-tech Cooperative Base of Zhejiang Province for Renewable Energy and Rural Electrification", HRC will strive to be approved the national-level international sci.-tech. cooperative base in the future. HRC will follow up the applied Foreign-aid Reserve projects of the Ministry of Commerce of China and wish to realize one by one.

### **3. International Capacity Cooperation**

Combining the foreign-aid training and the market development, HRC will give emphasis to market Southeast Asia and East Africa, to accelerate the export of SHP and renewable energy technology and equipment, and provide services such as project planning, technical consultancy, standard compilation, detailed design, engineering supervision, equipment supply, installation, testing and commissioning etc., so as to promote international capacity cooperation.

As the "Family of SHP in the World", HRC will extend his links with more

and more governmental departments and counterparts worldwide, enhance intensive cooperation with World Bank, Asian Development Bank and other international financing institutions, strengthen reciprocal relations with Chinese investors and take the lead to expand business and deepen the market influence. HRC staff will make all efforts to sustain the overseas market exploration.

#### **4. Internationalization of Standards**

HRC will actively promote and internationalize the Chinese standards on engineering design, consultation and construction technology, and will continue to translate the related standards including those on engineering contracts, bidding documents and equipment fabrication. Meanwhile, the translated versions are to publish for internationalization in overseas markets as to help the capacity cooperation. HRC will revise and publish the foreign-aid training textbooks both in English and French languages.

#### **5. Foreign Affairs Administration**

In 2018, HRC will continue improving his administration on foreign affairs and will assist to translate, publish and promote two magazines, namely *SMALL HYDRO POWER* in Chinese and *SHP NEWS* in English, and provide articles for *HRC website*, *Zhejiang Foreign Affairs Yearbook* and *China SSC Network*. All these would absolutely increase the international awareness about HRC activities and Chinese achievements on water policy, technology, equipment and philosophy.

The very beginning mind itself is the most accomplished mind of true enlightenment. In 2018, all the HRC staffs will have a clear understanding about the situation both at home and abroad, study the national principles

and policies comprehensively, and will orient on the Implementation Plan on Cooperation for Countries along the *Belt and Road*, to boost the future work and self-development to a new higher level.