

# Work Plan 2009/2010

International Network on Small Hydro Power  
(IN-SHP)

Hangzhou, China

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## **Keynote**

As a leading international consulting organization in the SHP field under UNIDO, IN-SHP will continue to pursue its non-profit activities, dedicated to deepen the triangular technical and economic cooperation among developing countries, developed countries and international organizations for global SHP development. On the other hand, IN-SHP, the first China-based international organization, will provide better services to the hosting country by strengthening communication as well as cooperation for further promotion of Chinese SHP solutions worldwide.

## **Activities**

### International Conferences and Workshops

By organizing international conferences, IN-SHP provides a platform for dialogue and information exchange, helping to promote SHP and other renewable energies through “triangular cooperation”. Besides, IN-SHP has provided training workshops for over 60 developing countries. As an important approach for global SHP communication and promotion, SHP will in 2009 continue to co-organize the following main conferences and workshops with local government and/or other international organizations such as UNDP, UNIDO etc.

The 5<sup>th</sup> Hydro Power for Today Forum. The annual event will be held on May 11-12, 2009 in Hangzhou, China. This year, the forum is focused on Small Hydropower Development and People’s Well-being Improvement.

The Coordinating Committee Meeting. The CC meeting of IN-SHP will be held on May 12, 2009 in Hangzhou, China. The meeting targets at further development of IN-SHP as well as improvement of SHP promotion worldwide.

The Seminar on Small Hydro Power and Sustainable Development of Rural Communities for Officials of Developing Countries. The workshop sponsored by the Ministry of Commerce will be held on May 8-21, 2009 in Hangzhou, China. Officials from over 20 developing countries will attend the seminar.

### Multilateral Cooperation

IN-SHP is a member-based international organization. To strengthen relations with over 330 members worldwide by multilateral cooperation is always the priority task on IN-SHP's agenda. Apart from the members, IN-SHP will improve management and promotion of IN-SHP sub-centers in Asia, Africa and South America. Furthermore, IN-SHP will positively take its advantages to implement SHP projects by cooperating with other related international organizations as an important component of triangular cooperating. This modality is defined as technical and economic cooperation among developing countries, developed countries and international organizations.

IN-SHP membership. For further promotion of the network, IN-SHP plans to expand and recruit new members worldwide. In the meantime, a series of regulations will be stipulated by the Coordinating Committee of IN-SHP to improve the management of the network. Besides, related activities will be organized by IN-SHP to strengthen cooperation with members on SHP projects.

Sub-centers. IN-SHP sub-centers in Asia, Africa and South America were established aiming at SHP development on these continents respectively. Apart from the tasks and responsibilities which the sub-centers continue to undertake, IN-SHP will strengthen communication, management and capacity building activities in order to provide better services to developing countries and to promote SHP development.

Latin America. The countries in this region are abundant with unused hydro resources. However, the total installed hydropower capacity is still low and barely developed compared to the SHP potential. In Africa for example, currently not more than 7% of all hydropower potential has been developed. There is also great potential for development of small hydro power in Latin America. In this case, IN-SHP will positively explore the SHP market in Latin America Region (LAR) by carrying out SHP-based economic cooperation. In the meantime, through SHP project cooperation, IN-SHP will establish contacts and strengthen communication with the LAR countries which have no diplomatic relations with China.

Cooperation with REEEP. The Renewable Energy & Energy Efficiency Partnership's (REEEP) goal is to accelerate the global market for sustainable energy by acting as an international and regional

enabler, multiplier and catalyst to change and develop sustainable energy systems. IN-SHP has submitted a project proposal titled Efficiency Improving and Energy Saving Scale Up of Existing Small Hydro Power Plants in Rural Area of China. The proposal has been accepted by the REEEP project secretariat for final approval. IN-SHP will implement the project once approved in 2009.

Cooperation with UNESCAP. IN-SHP has been established for international coordination and promotion for the global development of small hydropower. UNESCAP has been a mandate to support and promote sustainable development through regional cooperation. Aimed to further promoting sustainable development in the Asia-Pacific region, IN-SHP and UNESCAP have drafted an MoU to work together to promote regional cooperation through enhanced utilization of small hydro power in the Asian Pacific region. IN-SHP and UNESCAP shall cooperate for promotion of sustainable development through enhanced utilization of small hydro power as clean development mechanism (CDM) in the Asian Pacific region.

Cooperation with G77. Partnership of IN-SHP with the Group of 77 is important for multilateral cooperation. The G77 projects implemented by IN-SHP were completed successfully and contributed a lot to the targeted people in developing countries. IN-SHP will continue to cooperate with the G77 on SHP projects of which one has been already accepted for final approval.

Cooperation with UNIDO. IN-SHP keeps close cooperation since its establishment with UNIDO on SHP projects for global development. In 2008, Mr. Chen Lei, the Chinese Minister of Water Resources visited UNIDO. IN-SHP will implement the follow-up activities after Minister Chen Lei's visiting to UNIDO and exchange opinions on development strategies as well as project cooperation of the SHP field and the Lighting-up Rural Africa (LURA) program at the next stage. Furthermore, IN-SHP and UNIDO will discuss the issues of strengthening capacity building of IN-SHP.

### **Bilateral Cooperation**

Demonstration SHP project in Zambia. IN-SHP will cooperate with Zambia on the Shiwang'andu mini hydro project with an installed capacity of 1000kW. In 2008, IN-SHP sent an experts delegation to Zambia several times for site selection and reconnaissance as well as a feasibility study. IN-SHP and the Zambia project owner have signed an agreement for implementation. As a demonstration SHP project of the Lighting-up Rural Africa Program, IN-SHP will provide technical

assistance and equipment supply. All the preparation has been finished at present, the project will be officially kicked-off for construction soon in 2009.

Demonstration SHP project in Sierra Leone. The Port Loko mini hydro project is another demonstration SHP project of the Lighting-up Rural Africa Program (LURA). IN-SHP will provide technical assistance and equipment supply to the hydro project with an installed capacity of 1000 kW. In 2008, IN-SHP has completed the feasibility study and signed an agreement for detailed implementation after deep-going discussion with the project owner. The project will soon be officially kicked-off for construction in 2009.

Equipment Supply for Madagascar SHP projects. Madagascar is one of the countries in which IN-SHP will assist to construct SHP projects in Africa. As component of the Lighting-up Rural Africa Program (LURA), IN-SHP will donate 10 sets of turbine generator units for 10 pico hydro projects selected in Madagascar according to the MoU signed between IN-SHP and Madagascar in 2007.

### **Lighting-up Rural Africa Program**

The Lighting up Rural Africa Program ( LURA) will be implemented by applying a new model of combination of multilateral and bilateral cooperation. On the basis of cooperation with African governments, IN-SHP experts have already completed the site selection and reconnaissance with collaboration of Ministry of Commerce of China and UNIDO. The LURA program plans to construct 100 pico installations in rural areas in 10 African countries including Cameroon, Ethiopia, Kenya, Liberia, Mali, Nigeria, Uganda and Zimbabwe. Besides, two SHP stations with an installed capacity of 1 MW each will be constructed for demonstration in Zambia and Sierra Leone respectively. The LURA program is supported by the Ministry of Commerce of China and UNIDO, IN-SHP will provide technical assistance. In September 2008, Chinese premier Wen Jiabao delivered a keynote speech at the U. N. High-Level Meeting on the Millennium Development Goals (MDGs) at the United Nations headquarters in New York, committing that in the coming five years, China will develop 100 small-scale clean energy projects for developing countries, including small hydropower, solar power and bio-gas projects. That is the continuation and extension of the LURA program. The implementation of the LURA program will bring about long-lasting and far-reaching influence among African people, symbolizing the positive role that the Chinese water conservancy industry plays for global SHP development, which is of dramatic significance in political, economic and diplomatic fields. Furthermore, the LURA program will

deepen Sino-Africa cooperation and contribute to a harmonious world, explore further the African market and benefit African people.

On November 6, 2008, Mr. Chen Deming, Minister of Commerce, on behalf of the Chinese government and Mr. Yumkella, visiting Director-General of UNIDO, signed an agreement to cooperate on Sierra Leone Port Loko SHP project. This event symbolized the official kick-off of the LURA program and the great support of the Chinese government. UNIDO places dramatic emphasis on SHP cooperation with China, as the experiences and practice China attained in the field will contribute significantly to the development of clean renewable energy resources in other developing countries.

In the framework of the LURA program, IN-SHP signed an agreement with the Ministry of Energy of Zambia and ZESCO Limited to construct a SHP project with an installed capacity of 1 MW in the North Province in Zambia. This was done under the observation of UNIDO in September 2008.

The two demonstration SHP projects of LURA in Zambia and Sierra Leone will soon be officially kicked-off for construction in 2009. This event symbolizes the all-round start-up of the LURA program. IN-SHP will provide technical assistance and equipment supply to other proposed SHP projects in targeted African countries of the LURA program. In Madagascar, IN-SHP will donate 10 sets of turbine generator units to the 10 selected pico project in Madagascar.

### **Serving the hosting country**

IN-SHP undertakes domestic SHP-related tasks and projects entrusted by the Chinese government through its headquarters, the International Center on Small Hydro Power (IC-SHP), the institution directly under and managed by the Ministry of Water Resources of China. Apart from the same aims of IN-SHP, IC-SHP contributed persistently since its establishment to non-profitable and public-spirited activities with the aim of promoting further development of Chinese SHP and functioned as bridge for global SHP cooperation.

IN-SHP Bases. IN-SHP bases in Zhejiang, Gansu and Hunan provinces were established for promotion of Chinese SHP development by taking advantages of the network. Through the activities of equipment exportation, technology transfer, project consultation etc. , Chinese SHP

participates more and more in international cooperation and thus the domestic SHP industry develops dramatically. Therefore, IN-SHP will continue to strengthen management and construction as well as capacity building of the bases in order to serve better the hosting country better. Besides, IN-SHP bases will keep on playing a positive role as a bridge to promote the Chinese SHP industry through international cooperation.

NASHPEM. The China National Association of SHP Equipment Manufacturers (NASHPEM) in which more than 100 major SHP equipment manufacturers joined was established by IC-SHP with the aim of further promoting Chinese SHP as well as providing better service to the hosting country. There are more than 300 SHP equipment manufacturers in China, who produce more than 6,000 MW of SHP equipment each year. SHP equipment manufactured by China can be found in almost all countries with SHP resources. Through the IN-SHP, the NASHPEM is capable of providing all kinds of SHP equipment to world markets for a reasonable price with good quality. IN-SHP has functioned as an effective bridge between China's SHP manufacturers and international counterparts. In 2009, the 18<sup>th</sup> annual meeting of NASHPEM will be held in Hangzhou, focusing on reform and strategies for its further development. IN-SHP will continue to promote the exportation of Chinese SHP equipment to meet the demands of global SHP development.

CDM Projects. IN-SHP will make continuously apply for CDM projects. Several SHP projects located in Shanxi, Hunan, Yunnan and Guangdong provinces are in the process of CDM application and make smoothly progress. The Laopokou and Qinan SHP projects which are in the process of registration will be approved by the National Development and Reform Commission, the Ministry of Technology and the Ministry of Foreign Affairs. Apart from that, other SHP projects which apply for CDM are under evaluation of the Project Approval Commission of National Clean Development Mechanism. Furthermore, IC-SHP is conducting a study on emission reduction and exploring approaches to carry out cooperation with international organizations in order to constantly promote Chinese SHP's participation in the CDM as well as SHP development by utilizing foreign funds. Notably, IN-SHP has signed an MoU and will cooperate with UNESCAP for promotion of sustainable development through enhanced utilization of small hydro power under the clean development mechanism (CDM) in the Asian Pacific region.

Domestic Cooperation. As the first China-based international organization, IN-SHP along with its implementing agency IC-SHP, directly under and managed by the Ministry of Water Resources, has contributed significantly to Chinese SHP industry though international cooperation.

Strengthening domestic cooperation as well as promoting civil SHP development is always the guiding principle of IN-SHP to serve its hosting country. Therefore, IN-SHP will expand cooperation in the SHP field with relevant organizations and institutions in China. At present, IN-SHP has established relations for strategic development with the Bureau of Rural Electrification of Ministry of Water Resources, Nanjing Hydraulic Research Institution as well as Hangzhou Regional Center (Asia-Pacific) for Small Hydro Power (HRC) etc.

### **Development of IN-SHP**

In order to provide better services to members and the hosting country while promoting further development of global SHP, IN-SHP will strengthen internal reform and management. Managing systems and regulations will stipulate how to improve the daily functioning. On the other hand, IN-SHP will put significant emphasis on capacity building. As an international organization specialized in the SHP field, a competent and competitive team which is composed of multi-disciplinary talent is essential for development. In this sense, IN-SHP will improve the team construction by recruiting and optimizing the human resources. Furthermore, close cooperation will be carried out with UNIDO on strategies for capacity building of IN-SHP.