ASIA CLEAN ENERGY FORUM 2026

Beyond Transition: Building Secure, Resilient, Inclusive, and Intelligent Energy Systems

8-11 June | ADB Headquarters, Metro Manila, Philippines

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ADB

Next Generation Energy Systems in Central, West and East Asia: Technology, Markets and Regional Integration

Beyond Power Generation: Unlocking Small Hydropower's Ecosystem Value and Green Transformation

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Deputy Director, International Center on Small Hydro Power

11 June 2026 | 9 am- 12:30 p.m. (GMT+8)

Status of Small Hydropower (SHP) in China

Definition: installed capacity up to **50 MW**

Technically exploitable capacity:**128GW**

(≥1700 counties)

Amount:**41,000** SHP stations

Total installed capacity: **81GW**

Exploitation rate: **63%**

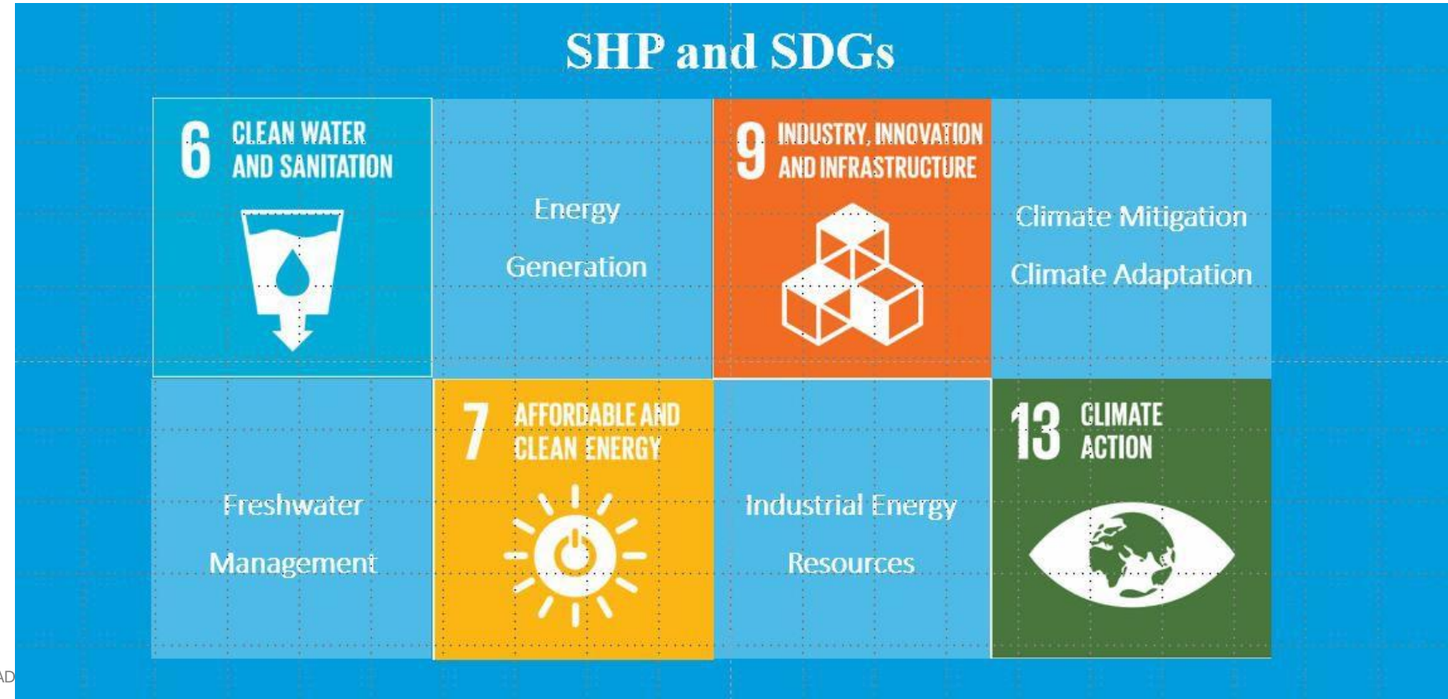
SHP Definition (ISO/TC339): up to 30 MW

SHP station in Hechi City, China (6000kW)

Promotion of Rural Electrification

The role of SHP in China has never been limited to power generation. It has been a vital catalyst for broader rural development, integrating ecological, economic, and social benefits. In the 1990s, 300 million people, 1/3 of the counties and 1/2 of the territories mainly relied on SHP.

- Adress r**ural electricity supply**
- Improve **rural livelihoods**
- Drive r**ural economic and social development**
-Promote **energy conservation and emissions reduction**



Ecological Protection

Optimize SHP layout by promoting categorized rectification.

Restore river ecology by discharging ecological flow

Green Development

Conduct Green Small Hydropower Evaluation

Modernization Upgrading

Promote High-Quality Development by promoting intelligent, intensive, and standardized development

Energy Storage

Support renewable energy consumption and grid stability in rural areas as distributed regulation resource.

01

Legal Guarantees

Energy Law（2025）

02

Standard Guidance

ecological flow technical guidelines

03

Policy Support

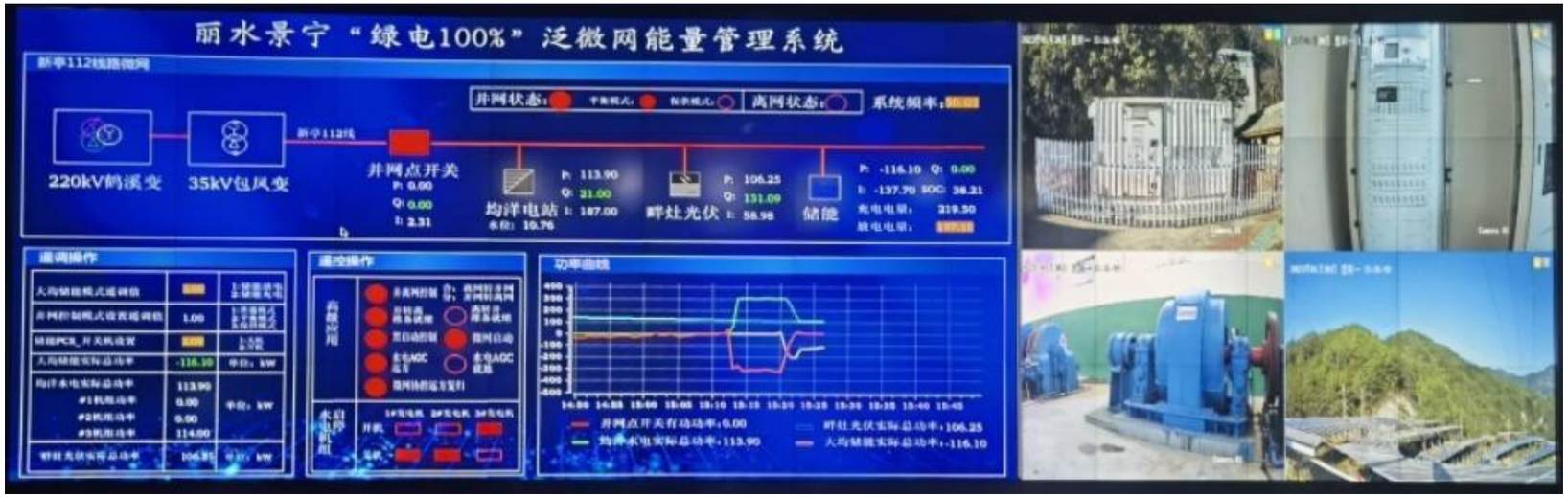
Action Plan for Carbon Deoxidize Peaking Before 2030(2021)

“water-taking loans”
“green electricity loans”

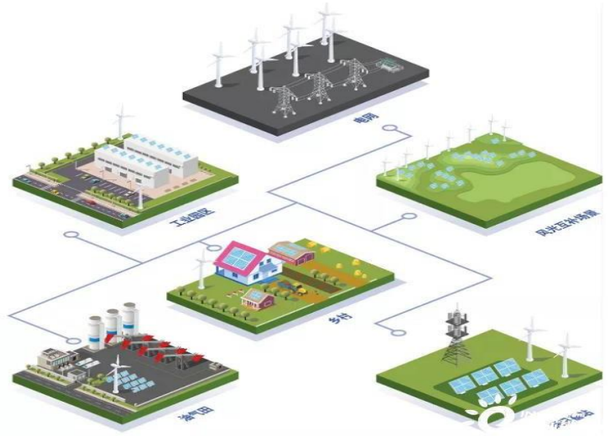
More than **100,000 km** of dewatered river sections have been restored, effectively improving **river connectivity** and **water resource** condition.
All small hydropower stations have basically discharged ecological flow as required.

Green SHP stations have played a positive pilot role in promoting **river ecological restoration**, improving **safety production management** and assisting **rural revitalization**.

200+ centralized control centers for small hydropower have been built.



“100% Green Power Pan-microgrid Energy Management System” in Jingning County, Lishui City, China

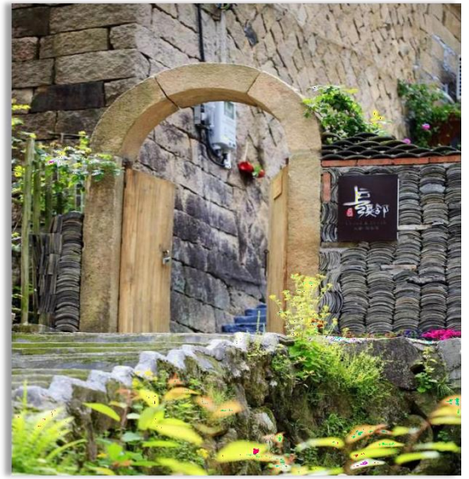


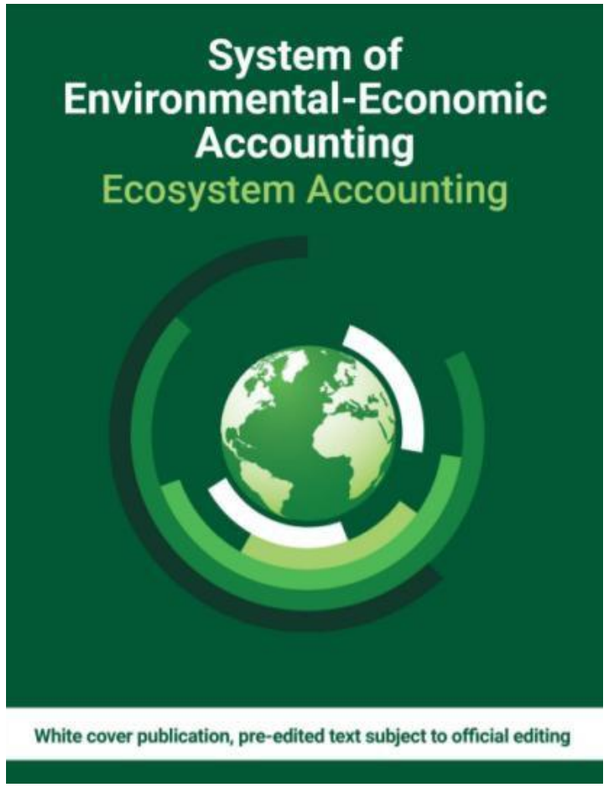
The complementary multi-energy supply system combining small hydropower with wind and solar power can promote an energy self-sufficiency model in rural areas, reducing dependence on external power grids.

SHP boosts local employment, increases tax revenue, and raises villagers' incomes. With the emergence of new technologies and business models, SHP offers even greater value for rural development.

A "wind-solar-hydro-storage" charging station for EVs in Jinhua, Zhejiang Province

Cultural tourism products or activities integrated with SHP





GEP is acknowledged as an independent indicator to assess nature's contribution to human well-being, including ecosystem services and ecological asset value accounting.

Basic research on the value realization mechanism of hydropower ecological products have been carried out in some cities and counties in China.

ADB TA 10637-PRC：Research and Demonstration on Mechanisms for Realizing the Ecological Product Value and Key Technologies for Green Transformation of Small Hydropower

The kick-off meeting and the first seminar were successfully held on 8 May, 2026 in Hangzhou.

ADB TA 10637-PRC：Research and Demonstration on Mechanisms for Realizing the Ecological Product Value and Key Technologies for Green Transformation of Small Hydropower

Impact of the TA:
PRC's carbon emission peaking before 2030 and carbon neutrality by 2060 achieved.

Outcome of the TA:
readiness for sustainable SHP development improved.

TA outputs:
(i) technical instruments on ecosystem product valuation for small hydropower developed;
(ii) technical instruments to capture hidden and untapped hydropower potentials of the existing water infrastructures developed; and
(iii) knowledge and skills on sustainable small hydropower development enhanced

About ICSHP/INSHP

International Center on Small Hydro Power (ICSHP) was established in 1994, it is a public and non-profit institution directly under auspices of UNIDO, UNDP, China's Ministry of Water Resources and Ministry of Commerce, serving as the headquarter of **International Network on Small Hydro Power (INSHP)**, with 400 members from 80.

- consultative status with UNIDO
- secretariat of ISO/TC339 (Small Hydropower Plants) and its mirror committee in China

World Small Hydropower Development Report

Technical Guidelines for the Development of Small Hydropower Plants

(Madagascar)

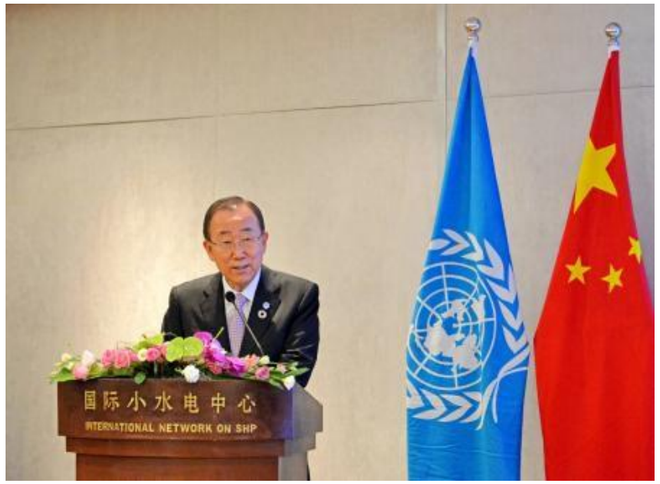
(Zambia)

Training Workshops and Pilot SHP plants

Hydropower for Today Forum

In 2016, UN Secretary General Mr. Ban Ki-Moon visited the International Center on Small Hydro Power and delivered speech at the Session on South-South Cooperation for Climate Change jointly organized by UNDP, UNIDO and ICSHP.

“Small hydropower is an important renewable energy. I hope the International Center on Small Hydro Power (ICSHP) continues to make great contributions to the development of small hydropower worldwide”.



July 9, 2016
Small hydropower is an important renewable energy. I hope the International Center on Small Hydro Power (ICSHP) continues to make great contributions to the development of small hydropower worldwide.
Ki Moon Ban 潘基文
Secretary General 联合国秘书长
United Nations

THANK YOU !

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