









PROJECT IMPLEMENTATED BY



KEY PARTNERS



National Centre for School Curriculum and Textbook Development: Ministry of Education of China (MOE-NCCT)



UNESCO Beijing Office



Education for a Sustainable China (the National ESD Association)

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BACKGROUND

The Greater Shangri-la RCE acts as a regional hub, linking ESD stakeholders in the region in order to link with other ESD organisations nationally and internationally. A diverse group of 27 members form the Greater Shangri-la RCE, of which the Shangri-la Institute for Sustainable Communities (SISC) is a key facilitator. The RCE has been built around the projects, networks, funding and staff of SISC and has a similar management system.

One such project is the Waterschool China programme, a component of the International Water School Programme initiated in Austria by Swarovski. The project has been implemented by SISC and other Greater Shangri-la Members in China since 2008, and seeks to educate school students and engage communities throughout the Yangtze basin in ways that enable them to become active participants in sustainable water resource management.

RCE members participating in the project include:
Shangri-la Vocational College;
Institute of Sustainable Development (Tibet University);
Baimaxueshan Nature Reserve;
Dongzhulin Monastery;
Southwest University (Chongqing);
Mianyang Teachers College;
Qinghai University and
local communities.

VISION

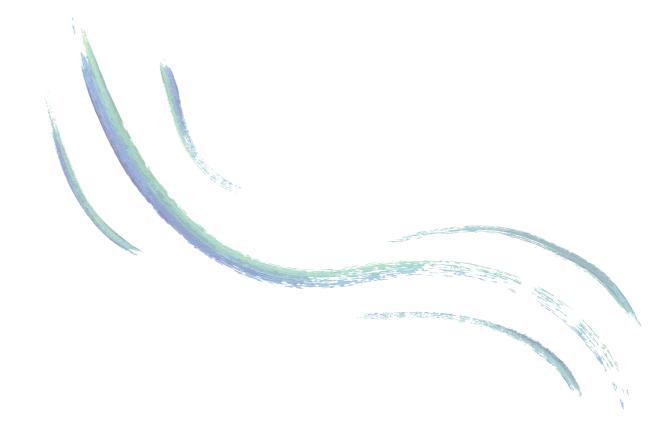
People living in harmony with nature across China

GOAL

Restore the ecological integrity of the rivers in China through effective public participation in sustainable water resource management.

PURPOSE

Foster environmental stewardship in selected watersheds through participatory learning and action by schools and communities, contributing to improved social and environmental conditions in river basins and beyond.



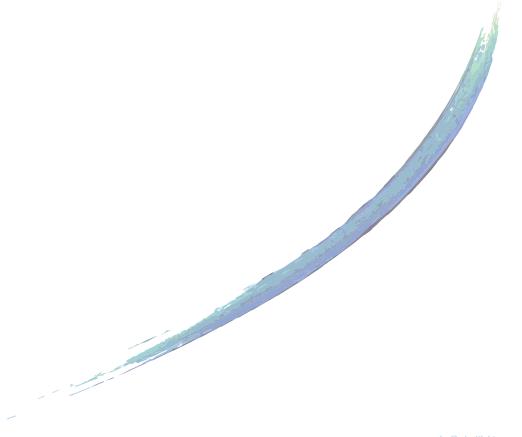
PROJECT RATIONALE

China's development over recent decades has helped to lift some 600 million people out of poverty. However, the rapid economic growth and intensive agricultural practices that have taken place have resulted in the degradation of water quality, putting the country's natural resources under threat. While domestic in nature, China's significant environmental, social and cultural challenges are already shaping the global struggle to protect the environment, with major impacts on global climate change, regional water shortages and pressures on globally threatened biodiversity and natural resources. The future of the global community is tied to the success of China's sustainable development, and as such, effective assistance to its communities is a matter of great urgency.

Following the Chinese government's 18th Party Congress in November 2012, the importance of improving ecological protection has been at the forefront of discussions in China, making environmental issues more of a priority than ever before. Waterschool China, which has developed extensive partnership with schools and communities and accumulated rich experiences in water education, is well positioned to engage communities in a movement towards sustainable water resource management in river basins across the country.

Water is the earth's eye, looking into which the beholder measures the depth of his own nature.

- Henry David Thoreau



PROJECT IMPACT

From 2008-2014, 103 primary & secondary schools have been established as Waterschools in 4 key river basins across China

IMPACT ON PEOPLE

To date, over 130,000 students and 200,000 community members have participated in the project. Over 1,100 interactive and innovative water education activities have been carried out, involving a broad range of stakeholders with many activities winning awards at both national and provincial levels. Experiences from the project have been disseminated at a broader level with over 200 media outlets reporting on Waterschool activities.

IMPACT ON NATURE

Through the many activities that have been implemented, the relationship between students and communities with their surrounding environment has been strengthened. Each of the 103 schools choose a local river to focus their efforts to implement sustainable water resource management, and some large-scale watershed investigations have also been implemented. Through the project, some of the participants also link up with local nature reserves, take part in organic farming, habitat protection for endangered species, ecoskills development and biodiversity education. These activities are integral for the effective protection of nature resources.

4 River Basins

12
Provinces

103 Schools

3,000
Teachers Trained

197,000 Students

300,000 Community Members

HISTORY

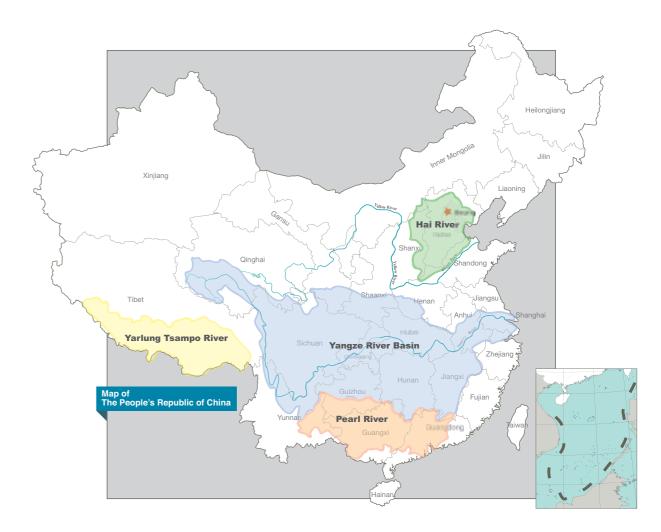
Phase I of the project (Jan.2008–Dec.2010) saw the project established in 5 regions along the Yangtze River basin (Qinghai, Chongqing, Sichuan, Yunnan and Shanghai), where an alternative approach to sustainable water resource education and management was initiated and developed. During this time, over 60,000 students engaged in learning and action in sustainable water resource management and contributed to the restoration of Yangtze's ecological integrity.

In **Phase II** (2011-2013), Hubei was also included in the project, making a total of 59 schools serving as core learning bases. It is from these schools that the project developed and expanded, involving more communities and partners, and supporting other schools in their area to engage in sustainable water resource management.

Encouraged by the great success of the first two phases, **Phase III** (2014-2018) has extended to include three new watersheds: one of China's largest and most densely populated watersheds, the **Pearl River**; the **Yarlung Tsampo River** in Tibet and the **Hai River** at China's capital, Beijing.

The impact of the project is increased by engaging a broader range of social players through national and international meetings; as well as strengthening existing relations with project partners, government departments, the media, the corporate sector and university students. The continued partnership with China's Ministry of Education is a unique feature of the Waterschool China programme, as it is through this partnership that the methodology and resources developed have the potential to become an integral part of China's national curriculum reform.

LOCATIONS



RIVER BASIN DESCRIPTIONS

Yangtze River

Chang Jiang, Yangzi, 长江

Highlights

• 3rd longest river in the world

• Important throughout Chinese history

• Delivers 40% of China's freshwater

• Feeds 25% of its total arable land

• Habitat of 48% of China's freshwater fish

• Serious water degradation and pollution

Source

Geladaindong, Tanggula Mountains, Qinghai

Elevation

5,042m

Mouth

East China Sea

Location

Shanghai and Jiangsu

Length

6,300 km

Basin Area

1,808,500 km²

Population

400 million

Endangered Species

Yunnan Golden Monkey, Chinese river dolphin, Yangtze Finless

Porpoise, Yangtze Sturgeon, Giant Panda, Red Panda, Chestnut-throated Partridge, Lady Amherst's Pheasant, White-eared

Pheasant, Black-necked Crane, Dwarf Blue Sheep.

Due to its **critical importance to ecology and sustainable development in China**, the project has been implemented in key regions of the River Yangtze since 2008. Running 6,300 kilometres from Tibet to the Pacific Ocean, the Yangtze cuts through the heart of China and serves as a **source of livelihood to a large part of China's population** (the Yangtze Delta region itself produces 20% of national GDP) and as a home to a large number of rare and endemic animal species, critical to China's biodiversity.

Over the years, various measures have been taken by the government to address the degradation of water quality and loss of biodiversity. Examples include top down measures such as logging bans, the relocation of residents at the source of the river, law enforcement etc. Despite all the efforts, however, water situation in China including the Yangtze remains a **huge challenge** to the country's efforts in moving towards a path of sustainable development.

It was for this reason that the Yangtze River Basin became the first site of Swarovski's Waterschool project in China. By promoting an **alternative approach** to sustainable water resource management, of public empowerment and participation, a process of **social learning and action** that contributes to restoring the ecological integrity of China has been initiated.

Pearl River

Zhu Jiang, 珠江

Highlights

 Feeds three major cities: Guangzhou, Shenzhen, and Hong-Kong

• Drains most of Guangdong and Jiangxi

• Regularly dredged for ocean vessels

Named after pearl coloured shells found in the city of Guangzhou

Source

various tributaries (network of East, North and West rivers)

Mouth

South China Sea

Location

Guangdong

Length

2,400 km

Basin Area

453,700 km²

Population

120 million

Endangered Species

Chinese White Dolphin, Taiwan Shoveljaw Carp,

Chinese Bahaba, Indo-pacific Humpback Dolphin,

Chinese Sturgeon, Giant Mottled Eel.

The Pearl River Delta is the **most extensive river system in south- ern China** and a major addition to the Waterschool China project.

With a length of 2,400 km it is China's third longest river (after the Yangtze and Yellow River). The lower reaches of the river also pass through densely populated, modern cities, such as Shenzhen, Guangzhou and Hong Kong.

When compared to China's other river basins the Pearl river can be described as being rich in freshwater biodiversity and rich natural resources, however the rapid industrialisation and growth which has taken place over recent decades has resulted in the degradation of water quality and an increase in water shortages.

Not only does the river basin encompass some of the most densely urbanised regions in the world, despite the astounding rate at which the economy has developed in certain parts of the river, the gap between the rich and poor along the whole river basin remains great.

It is also home to a rich cultural heritage with a total of 50 of China's 56 recognised ethnic minorities living in the watershed, including the Yao ethnic group (some 3 million are found in the Pearl River Basin). This group is of particular significance because while they make up only a small proportion of China's whole population, the Yaos played an active role in the founding of the People's Republic and their traditions of sustainable living have greatly influenced modern China.

Yarlung Tsangpo

雅鲁藏布江

Highlights

• Highest major river in the world

Flows through the world's largest, deepest, and possibly longest canyon

• Three major waterfalls (discovered 1987)

Long stretches are still unexplored, as they remain almost unreachable

• Source of the Bramaputra

Source

Angsi Glacier near Mount Kailash, Himalayas, Tibet

Elevation

5,210 m

Mouth Bay of Bengal

Location

Ganges Delta, Bangladesh

Length

2,900 km

Basin Area

935,000 km²

Population

1 million

Endangered Species

Snow Leopard, Tibetan Antelope, Tibetan Macaque, Bhutan

Takin, Barcheek goby, Bactrian Red Deer, Bhutan Pine, Tibetan

cypress, Blue Sheep, Argali.

The Yarlung Tsangpo originates in the glaciers at Mount Kailash in south-western Tibet at an elevation of 5,200 m above sea level. Travelling through the northern section of the Himalayas, it forms the South Tibet Valley and the Yarlung Tsangpo Grand Canyon before entering India where it is known as the Brahmaputra, finally emptying into the Bay of Bengal in Bangladesh.

With a total length of 2,900 km, this river is the **main water source for hundreds of millions living downstream**. As it descends, the surrounding vegetation changes drastically from cold desert, to arid steppe and deciduous scrub vegetation, and ultimately conifer and rhododendron forest.

The Yarlung Tsangpo is of both international and regional importance; besides being the highest major river in the world, it s a hub of environmental diversity and cultural significance in the Tibetan region. Even so, the Yarlung Tsangpo and its communities are particularly vulnerable to **increasingly serious challenges in environmental degradation**, as well as the disappearance of indigenous knowledge and traditions. The Waterschool Programme will be key to provide much needed support to implement sustainable water resource management that will benefit both local and international communities.

Hai River

Hai He, 海河

Highlights

• Only waterway from Beijing to the sea

• Constructions greatly altered its course

• Connects to the Yellow and Yangtze rivers at the Grand Canal

• Industrial and urban development caused a huge decrease of

water flow

Source

Taihang Mountains and Yan Mountains

Elevation

2,000 m

Mouth

Bohai Gulf, Yellow Sea

Location

Tianjin

Lanath

1,329 km

Basin Area

318,200 km²

Population

131 million

Endangered Species

Northern Chinese Flying Squirrel

As the capital of one of the world's most rapidly developing nations, Beijing is a key location for the Waterschool project. As a city with a permanent population of almost 20 million, and the political and cultural centre of China, is it also the location where stakeholder engagement can be most effective.

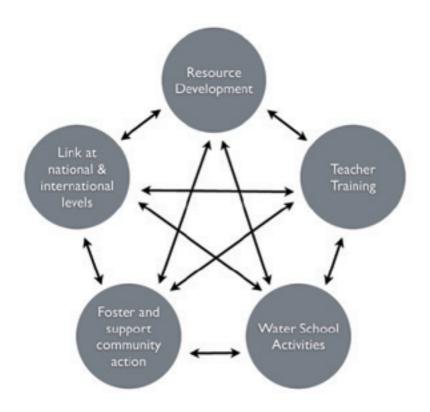
Apart from providing the potential to build stronger partnerships with media, government, national and international organisations; Beijing is an important region as it also faces **chronic water shortages** due to water-intensive agriculture, industry, population growth and illegal use by ski-resorts, golf courses and bath houses. Currently, the average share of water resources per person in Beijing is only one eighth of the average per capita in the rest of country, and one thirtieth of the average per capita globally.

The Hai River flows through **Beijing** before reaching the Yellow Sea at the Bohai gulf. Industrial and urban development in this watershed has resulted in a radical decrease in water volume, with many of the Hai River's tributaries now dry for most of the year. While this arid region is expected to benefit from the South-North Water transfer project, public action to preserve precious water resources is of great importance.

INTRODUCTION TO ESD

Education for Sustainable Development (ESD) seeks to achieve sustainable development by empowering people through education to assume responsibility for creating a sustainable future. Based on the premise of 'learning by doing', the Waterschool China Programme embeds ESD concepts, principles and methodologies to create opportunities for students to take action, and to promote public participation.

The project features the following 5 components



Resource Development

Objective:

Develop national and locally based Waterschool China resources for teachers, students and broader communities.

Materials developed:

14

Student books

6

Teacher books

2

Community books

Through co-operation with the Ministry of Education China (MOE-NCCT) new educational materials for teachers and students on conservation, water resource management and biodiversity are being developed, some of which are to be incorporated into the national curriculum. This includes a Waterschool China National Curriculum and Activity Pack, which is a collection of hands-on multidisciplinary water-related activities for K-12. All materials are interactive, innovative and multidisciplinary, featuring water-education activities that are hands-on and easy to use. Localized components and practical investigations are included so that students use their own environments as the basis for learning. Locally adapted components with practical activities are included to encourage students to use their own environments and communities as the basis for learning.

In addition, a range of materials on various water related topics are developed and adapted to meet the needs of diverse target groups and styles of learning: including specific materials for teachers, students, and urban and rural communities. Apart from books developed, 108 columns in the Tibetan Children's Newspaper have been published which reaches 160,000 students every 20 days, and 36 columns in the Geography Teaching Journal, which is distributed to over 10,000 teachers across China.

Beyond this, the programme makes use of the resource materials developed by the Shangri-la Institute including journal articles, academic papers as well as books detailing cultural and ecological biodiversity of China's watersheds, and highlighting the success of community driven projects. These publications will help further engage project participants and raise awareness of ESD and sustainable water resource management among the broader public in China and beyond.

Teacher Training

Objective:

Train teachers and community educators for the Waterschool China Programme and facilitate shared learning.

Workshops:

55

Teacher Training Workshops

5

National

50

Regional

3,000

Teachers Trained

Learning of innovative teaching methods are facilitated through continuous capacity building and participatory training courses for the teachers and community educators involved in the programme. Each year several training workshops are held across the project regions, engaging a wide range of stakeholders and participants (including staff from nature reserves, members of local communities and representatives from government bodies as well as teachers from water schools).

Teacher training workshops cover a broad range of topics, from initial discussions of project implementation to mid-term assessments of lessons learnt and achievements realised to the final dissemination of experiences. The workshops are important to help teachers develop engaging, hands-on and interactive education methods and to develop the participants' ability to communicate, exchange and share experiences on management and implementation of the programme.

School Implementation

Objective:

Conduct the Waterschool China in selected schools in project regions.

> 179,000 Students Involved

> > 1,110

School Activities

9,660

Class Hours Dedicated to Water Education

Lessons and activities are individually designed and tailored to the local cultural and ecological conditions of the school and community; in addition to classroom instruction, the teachers and students work with environmental specialists and local communities to carry out a range of activities.

Many activities undertaken by Water Schools include steps of:

- **Investigation:** students focus on a water-related issue of concern to their community and gather relevant environmental and social data within the watershed using a variety of methods and tools
- **Communication:** students exchange data from across the watershed using a variety of media and forums
- Analysis: students examine collected data to better understand the
 interaction between their community and the water environment.
 They identify the interacting structures and processes operating in
 society and the water environment, and suggest what social changes
 (technology, laws, regulatory regimes, institutions, beliefs and values,
 etc) might enable people to live more sustainably with water resources.
- Action: students create and implement an action plan to resolve the problems they have identified. This should be realistic given their own, the school's, and the community's resources.
- Evaluation: teachers and students reflect on what they have learnt and achieved. They celebrate success and decide how weaknesses/failures might be overcome. They may decide to embark on a further related cycle of social learning.

By the end of such a project, students should see their watershed as both a unique environment and a key element of their daily lives. They should more clearly understand the interactions between ecology and society, and should realize how their actions, now and in the future, affect the quality of life in whatever watershed they make their home. Finally, they will have learned to take responsibility for their learning and to apply that learning to the real world.

^{*} Examples of school activities can be found under Case Studies on pages 30-43

Community Outreach

Objective:

Foster and support water community action.

204,970

Community Members Engaged (direct & indirect)

Most of our project schools are located in large communities and nature reserves. As such they are effective at actively engaging community stakeholders, with an average of 3500 people directly involved by each school. Some of the examples include: water quality monitoring, cultural performances and public awareness campaigns, local biodiversity studies and activities promoting preservation of endangered species such as the Giant Panda and Yunnan Golden Monkey.

Strong partnerships between Waterschool co-ordination centres, pilot schools and local communities are key in implementing social learning activities that are based on local natural and cultural characteristics. Each of the water schools links with a local community, and under the guidance of teachers, students from Water Schools work with them to investigate and identify local water resource problems.

In addition, community demonstration sites have been developed as a showcase of sustainable water resource management and eco-living, to increase the awareness of community members on water issues. In all community activities, an emphasis is put on linking water education with traditional culture and indigenous knowledge of each region or locality to enrich the educational process.

Link at National & International Levels

Objective:

Facilitate learning and change at a broader level and expand the influence of the Waterschool China project.

200 +

media outlets have reported on the project

259,000

members of broader society (indirectly engaged)

The Waterschool project has always placed great importance on the facilitation of platforms for learning and exchange at local, regional, national and international levels. Emphasis is placed on creating learning partnerships and platforms that combine learning in formal, non-formal and informal settings, and efforts are made to link learning institutions from the different settings. By creating such platforms change happens at a broader level and the influence of the Waterschool project is expanded.

Waterschools are linked through a 'sister-school' initiative, training workshops and regional newsletters, which for the majority of teachers and students provide a means to voice their thoughts and opinions. National events also enhance regional communication between schools, for example the annual participation in the UN's World Water Day.

An external relations programme to engage media, local authorities and potential partner organisations has been established. Through this programme we aim to impact policy and decision-making processes by increasing participation and voice; this is done by engaging a broad range of regional, national and international stakeholders including: government departments, higher education institutions, businesses, nature reserves, monasteries. In terms of social impact, we work to create social awareness by sharing experiences from the Waterschool programme through CSR events and by participating in international meetings such as the 2009 World ESD Conference in Bonne, 2012 IUCN World Conservation Congress and the World Water Forum. The project has also been reported on several national media platforms including: People's Daily, Sina News, Chinanews.com, China Education Information Network, People.com.cn, The Chinese Central Government's Official Web Portal, China Radio International Online and China Development Gateway. Journalists from the "World Trade Organisation Tribune" and "Green Living" have published articles on the project in the Chinese language magazines.

MILESTONES AWARDS OUTCOMES

2008

Waterschool for a Living Yangtze Project officially launched

2009

Kesong Community Learning Centre on Napa Lake, Shangri-la was opened

2010

The Water School for a Living Yangtze film 'I am a water drop!' was awarded UN prize

2011

The construction of two Water Education Bases in Sichuan was successfully completed

2012

The project received two national awards for its engagement of communities in the Yangtze

2013

Two large-scale river investigations were held in Sichuan and Hubei, reaching thousands of community members

2014

Phase III was officially launched and the project was renamed 'Waterschool China', marking the expansion into 3 new river basins

2008

On January 2008 the Water School project was officially launched in China, with Shanghai, Yunnan, Sichuan and other participating regions establishing a framework for project implementation. In June, 3.6 million RMB raised and donated by Swarovski for the Water Schools and communities hit by the Sichuan Earthquake. Later in the same year The 'Blue Planet' textbook recommended by UNESCO was been translated into Chinese for use in pilot schools.

2009

March 2009 saw the project being chosen as one of the only five projects in the Asia-Pacific region to exhibit their activities on sustainable development at the World Conference on ESD in Bonn, Germany. In October 2009, The Swarovski Water School Community Learning Centre in Kesong Community, Napa Lake, Shangri-la was officially opened. The project was also featured in December on Shanghai's official television channel.

2010

This year saw the most teacher trainings organised, with a total of 10 over the project regions. In August 2010, the Water School for a Living Yangtze film 'I am a water drop!' was awarded second place in the UN Decade of Education for Sustainable Development 'Learning Today to Change Tomorrow' Short Video Clip Competition. Also in June, a large scale event was held at Dujiangyan, with local schools, local authorities, water experts and scholars attending to share expertise on the project.

2011

Phase II of the project kicked off in the newly included region of Hubei in March 2011, with the number of participating schools increasing to 52. In July, Shanghai Huaping Primary developed a range of school-based water education materials for each grade. In Chongqing, the Water School regional co-ordination centre developed a capacity building project with local government partner: the Chongqing Municipal Education Commission, reaching teachers across the province. As of Autumn, the construction of two specialised Water Education Bases in Sichuan was successfully completed; these centres were part of the post-2008 earthquake restoration project, and feature a range of water education resources, multi-media equipment and a high-tech lab. SISC was invited to share experiences from the project at the 6th World Environmental Education Congress in Australia, and the 5th IUCN Asia Regional Conservation Forum in Korea.

2012

In April, a county-wide environmental protection campaign was organised by Diqing, engaging a wide range of stakeholders. Students from Wuhan were awarded silver and bronze prizes for their essay submissions to the Stockholm Junior Water Prize. A school in Shanghai raised 300,000RMB to establish a water laboratory and enhance students' participation and learning from the Water School Project. A poster about the project was featured at the IUCN World Conservation Congress, and the project also received two national awards: Ford's Conservation & Environmental Grant, and at China's National Water Protection Charity Awards, the project was chosen from over 70 entries to receive the highest prize, The People Award.

2013

Based on the many years of experience gained form the project, two major publications were completed in 2013: Yangtze River Bird Watching Field Guide, and Training Booklet for ESD among others. Students at a college in Sichuan received a national invention patent for a rainwater collection and flushing system that they designed. Also in Sichuan, water school students were awarded with the National Youth Science and Technology Invention prize, for designing a wetland water-purifying device. Schools in two regions have organised large-scale investigations of rivers, reaching out to communities living on the banks of some of the Yangtze's most important tributaries. The project's first national 'Fine Art' competition was also held in the latter part of this year.

2014

Much work has been done to build up the project framework which now includes new partners in the Pearl River Basin, 3 tributaries of the Yangtze, the River Hai basin in Beijing and the Yarlung Tsangpo in Tibet. This exciting new phase was launched with a National Water Education Forum in May which was participated by over 70 key stakeholders including UNESCO; EU delegation in Beijing; China's Ministry of Education; ESD (education for sustainable development), environment and education experts; and representatives from the 12 regional co- ordination centres, schools and communities. Moreover, great progress has been made in the development of resources including *Xiang River Classroom*, a local school-based curriculum documenting Hubei Secondary School teachers' great wealth of knowledge and experience implementing environmental education.



Bazhu Primary School has taken part in the Water School for a Living Yangtze programme since the beginning of Phase I in 2008. Surrounded by huge sacred mountains and thick forests, Bazhu Primary School is located just below the source of Bazhu River, a tributary of the upper-reaches of the Yangtze in Bazhu Administrative Village in Weixi County, part of the Diqing Tibetan Autonomous Prefecture in Yunnan Province.

Situated deep in the mountains on the edge of Shangri-la, Bazhu Community has little contact with the outside world. Before joining the Water School programme students and teachers at Bazhu primary school were not used to meeting people from other places, and few had traveled outside of their county. By attending workshops in Beijing and Shangri-la, teachers have had the opportunity to see new places, and meet and share experiences with other Water School teachers. Initially shy and reserved, students at Bazhu Primary School now confidently hold activities to tell other villagers, local communities and even strangers how to protect local water resources.

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- . View of Bazhu Village's farmland, which is also a demonstration site for eco-farming and permaculture.
- 2. Celebrating June 1st "Children's Day" with cultural performances
- 3. A typical Water School class: students learning about local plants
- Students outside Bazhu primary school studying, the conditions are quite basic with Bazhu being one of the poorest villages on the Tibetan Plateau.

Water Education On Campus

While the school is located in one of the poorest and least developed parts of China – some students walk up to 10km a day to attend classes; it is also surrounded by some of the most beautiful nature in the whole country. The school focuses on facilitating students' learning for sustainability, with water education becoming part of the daily curriculum. Teachers apply learning from the water school project in all subjects, from science and geography, to social learning and literature. They utilise knowledge of local rivers, mountains and forests so that students can relate to this learning, and understand the importance of protecting the environment.

Going Into Nature

Apart from having lessons in the classroom, students partake in interactive learning in the environment also. As Bazhu village is a rural area on the edge of the Tibetan Plateau with abundant natural resources, the children have a wealth of opportunities for in-depth learning about a variety of ecosystems, and rich cultural & biological diversity. Activities have included investigating the source of the water in their home; clearing up rubbish and debris in the forests and river; putting up wooden notices with environmental slogans and instructions on watershed protection; and exploring the habitat of endemic and endangered species such as the Yunnan Golden Monkey.

Linking With The Community

Bazhu River is the primary source of water for drinking and agriculture, the local communities rely on it for their livelihoods. The Tibetan village of Bazhu is home to 267 families, with a total population of 1,373 people including 679 women. There is a strong natural connection between the local community and the watershed; indigenous knowledge, traditional practices and cultural values play an important role in relating to water conservation. For this reason, the teachers and students have been very successful in their community outreach work, and have collaborated on activities such as a river clean up and the development of eco-friendly livelihoods.





- Students collecting water samples from Bazhu River
- 2. Water testing kits are used to determine the pH and other factors



Activity: Investigation of Water Shortages

Qi Bie village just north of Bazhu has a population of only 20 families, with access to only two springs the villagers experience serious water shortages every year from November to May. During this time villagers have to travel over 10km to Bazhu in order to get water for everyday use, this has lead to many problems between locals from different villages who will often argue over water resources. Bazhu Primary School organised a trip to Qi Bie to investigate and understand their water situation and the reasons behind the shortage. Through this visit and following discussions, students from Bazhu learned the great impor-tance of local water resources.

- 1 2 3 4 5 6
- Students learning about the drinking water situation for other villages
- 2. Water for livestock
- Drinking water needs to be carried down from the mountain
- 4. Students help the villagers carry water
- Hard-earned water collected back at the village
- 6. Students learn the value of even just one bucket of clean water



CASE STUDY #2:

Shanghai Qibao Foreign Language Primary School

This school is found near the banks of the Puhuitang river in the ancient town of Qibao, this river flows through Shanghai and is a tributary of the famous Huangpu – the last major tributary of the Yangtze before it enters the East China Sea. During the Ming Dynasty over a thousand vessels would navigate the river each day, connecting the town with the outside world. Throughout the 1980's many of the surrounding factories and industrial plants dumped much of their waste into the Puhuitang River. The river, once filled with fish and shrimp is now overrun with algae. However, in a collaboration between the community and the *Water School for a Living Yangtze* programme, a restoration process has begun and the Puhuitang has since been cleaned and the water quality significantly improved.

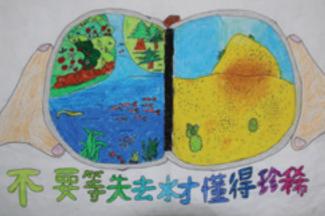
Since joining the *Water School for a Living Yangtze* programme in 2008, a special water education activity room has been set up in the school and is used for various activities within the "Loving my Qibao Town, Protecting my Hometown River" project. Each week teachers and students come together to study and research a specific topic related to water education, the school has drawn up its own programme that consists of three phases:

The **first** step concentrates on **water understanding**; the students participate in research activities focused on their local Puhuitang River. As well as observing the environmental water situation the students learn about the cultural and historical background of the Puhuitang.

Students creating posters on key water issues to raise awareness in their school and community.









The **second** phase focuses on **water protection**. Based on their enhanced environmental knowledge and water awareness, are encouraged to develop their own innovative ways to protect water resources. Dai Yilin, a third grade student, expressed a serious concern to his mother one day; "each time we shower we let the faucet run for a long time before the hot water comes out; it's too much of a waste to let the cold water directly drain away. Instead, we should save that water in a bucket and make use of it when we mop the floor or do our laundry." His mother shared with the school his idea, and cannot help but feel proud of her son's dedication to water conservation.

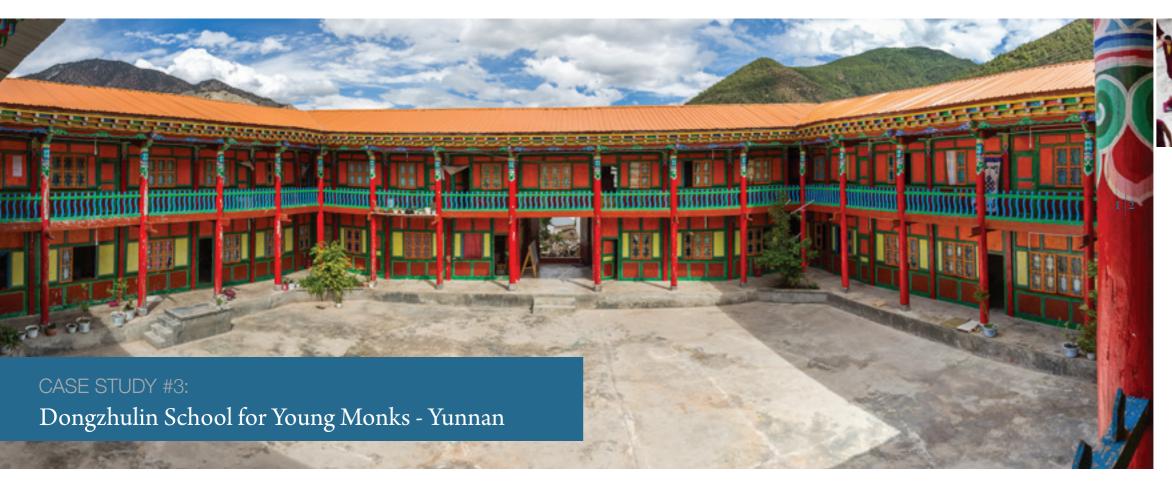
The **third** step of the programme involves the students sharing what they have learned about water to their families and the wider community. In this way the Water School message of water protection is further disseminated and its influence even greater. For example, one of the students, Gu Luyao, contacted the Water Supply Department in order to collaborate with them in cleaning an area of the river near her home that was filled up with debris and garbage. "It's so dirty, next time I would like to organize all the students of all the classes to work together and help," Gu Luyao remarked whilst gathering up plastic bags from the riverbanks.

Students from Qibao Primary School



- 1. Students from Qibao Primary School
- 2. Teachers, students and staff from SISC join together at the school.





 View over Dongzhulin Monastery and surrounding mountains of Baima Xueshan Nature Reserve.

 Monks debate in traditional Tibetan style embellished with hand clapping and emphatic gestures.

The Water School for a Living Yangtze emphasizes communities' reconnection with indigenous knowledge and local culture, learning from ancient eastern philosophy and wisdom to contribute to global action for a sustainable earth. We believe that through learning from the experiences of local people, local lifestyles and local traditional values can be of great benefit to the Water School implementation process. In fact, we have found this so through our project practice in the different Water School areas.

Set amidst the breathtaking scenery of Baima Xueshan Nature Reserve, the school for young monks is situated within Dongzhulin Monastery in the northern part of Yunnan Province. At present, it accommodates more than 500 monks and is the second largest Tibetan Buddhist Monastery in Yunnan Province. Established in 1667, Dongzhulin Monastery is famous for its splendid history; under the monastery's guidance this region enjoyed centuries of harmony between humans and nature.

However, the cultural revolution of the 1960s' brought much destruction to this 'harmony'. Nowadays Shangri-la has become an international tourist destination —but this opening up to the outside world has been accompanied by serious environmental and economic pressures and the area now faces a severe threat of over-exploitation and overuse of its natural resources.



Dongzhulin Monastery has been working with Baima Xueshan Nature Reserve and Shangri-La Institute in the areas of nature conservation and preservation of traditional culture since 1996. In all its activities the Monastery emphasises and applies a traditional Buddhist perspective. This helps the surrounding communities and tourists to understand that mankind and nature can and should live in harmony with each other and that the conservation and preservation of nature and local cultural traditions is of vital importance.

In March 2008, Dongzhulin School for Young Monks, became an official member of the Water School for a Living Yangtze project. As a special pilot school, young monks here have launched a series of water protection initiatives. They have organized Jinsha River investigations (a major tributary of the upper reaches of the Yangtze), community education on environment protection, tree-planting and so on. At the same time, Dongzhulin Monastery also opened a new community education centre, nature conservation seminars for the older monks, and has developed many materials on Buddhism and environment protection. The participation of the young monks in the Water School and their continuing efforts in water and nature conservation have set an excellent example for local communities, more and more of whom have been inspired to join in Water School activities.



- 1 Tibetan is the mother tongue of the monks, and the language they use to share Buddhist learning on nature with local communities, most of which are also Tibetan.
 - 2. A young monk learning prayer in the monastery.



- 1. Dongzhulin monks leading a water education activity with nature reserve staff and local community members
 - Monks in the courtyard of the monastery participate in debates daily
 - 3. A young monk from
 Dongzhulin learning to
 write in Tibetan



- Community members visit & investigate local water bodies Birdwatching activity with community members and students School children and community members learn about local plants and test water quality

sustainable water management demonstration site has been Aestablished in partnership with the Sanhui 'Green Island' community in Mianyang, Sichuan's 2nd largest city. The community is located at the confluence of Mianyang's three rivers: the river Fu, Anchang and Furong, all of which form part of the Yangtze watershed. These rivers are of great importance, not only as the main source of drinking water for thousands of households, but also for their abundant vegetation and as a place of 'green' recreation for the local residents. Through their participation in the water school project, the Sanhui 'Green Island' Community has partnered with Sichuan's regional co-ordination centre (Mianyang Teacher's College) and Water Schools to promote the protection of the local ecology.

Under the guidance of water experts and teachers from the university, the community has carried out a series of educational activities:

1. Raising environmental protection awareness

Introducing the Water School Project; promoting the United Nations 'Water for Life'; sharing knowledge on water resource preservation; participating in World Water Day and World Earth Day campaigns; and the establishment of a monthly 'Green Island Ecology' monthly publication.

2. Community water use evaluation

The community took action to find help households work out their monthly water use. By finding out which homes were using the most water, they were able to help them to find feasible methods to reduce their water use.

3. Plant investigation and documentation

For this activity, community members joined up with student organisations from the Life Science and Technology department from the college, and school children from Dongchen International School. More then 30 species of trees and shrubs found locally were identified and indexed, improving students understanding of plants and the local ecology. Moreover, they learned about different scientific approaches and developed enthusiasm for keeping their local environment green.

4. Community 'Birdwatching'

Located near the community is 'lake island', also at the confluence of Mianyang's three rivers. This island is the habitat for many species of birds all year round - a key indicator of the high quality environment. More than 500 students from the college and community members have taken part in bird watching on the island, with the on-site guidance of local experts. By gaining a deeper understanding of local biodiversity, participants are willing to adopt 'greener habits', and protect local bird and animal species.

中国水学校 43 42 Waterschool China

CHILDREN'S PARTICIPATION

CHILDREN OF THE YANGTZE DECLARATION

waters; please give us a chance to enjoy clear blue skies, turquoise lakes and lush green mountains. Please support us in creating a clean environment for us to grow up in. We want to take action, and with your help we can make a big difference. We are the citizens of the future; we need to work together, hand in hand, to protect the Yangtze River.

We will set an example; we will show others how to protect the sacred waters of the Yangtze River. Throughout the River Basin we will appeal to every child and their family for help. We need to take action not only for our generation but for all the children of the Yangtze in generations to come. Let us work together, through learning and action, to protect our homeland; to protect our mother river –our life source– the Yangtze River.

Waterschool for a Living Yangtze Song

SMALL HANDS JOIN BIG HANDS

Composer: DanZeng Lyrics: Yaoqing Ding

We are the snow

We are the ice

We are the rain

Drop by drop we flow

Over the mountains and past our homelands

We are the grass

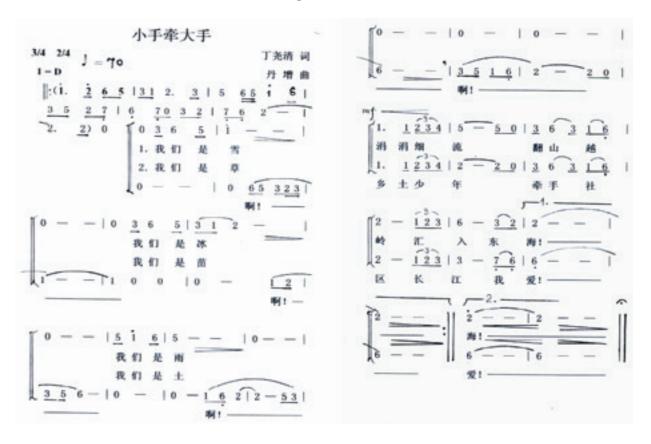
We are the seeds

We are the earth

Mountain ranges converge

All flowing into the East China Sea

The Yangtze River I cherish



STRATEGY

Water School for China project aims to enhance education, encourage stewardship, inspire hope, and build community sustainability. This learning and action takes place at three levels:

INDIVIDUAL

Enhancing knowledge, skills and commitment of teachers, students and community members in sustainable water resource management. Action takes place in various areas:

Environmental: watershed protection;

Social: education, health care, traditional culture revitalization;

Economic: livelihood improvement; and

Participation: villagers as people's representatives in decision-making.

ORGANISATIONAL

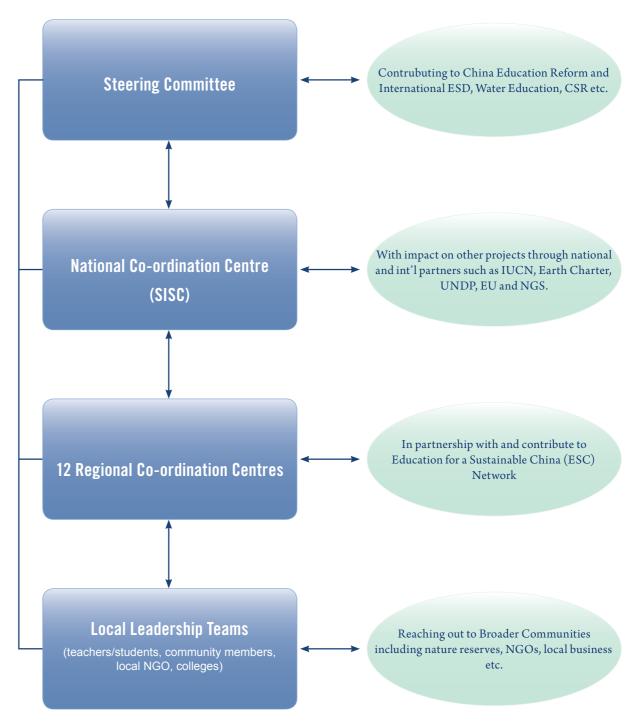
Strengthening institutional capacity in water education in selected watersheds of the Yangtze including:

- The Water School for a Living Yangtze National Co-ordination Centre
- Regional Co-ordination Centres in Qinghai, Sichuan, Yunnan, Chongqing, Guizhou, Hubei, Hunan, Shanghai, Tibet, Jiangxi, Guangdong and Beijing
- Local Leadership Teams, which are composed of representatives from schools, communities, nature reserves and monasteries.

SOCIETAL

Connecting with broader structures and decision-making processes through partnership building, networking and policy influence.

MANAGEMENT STRUCTURE



SWAROVSKI WATERSCHOOL



Shangri-la Institute 香格里拉可持续社区学会

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