



WWF

FRESHWATER

CASE STUDY

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## WWF-Pakistan, India & China / WWF Freshwater Practice

# COLLECTIVE ACTION FOR BETTER GOVERNANCE

Implementing water stewardship with micro, small and medium enterprises in China, India & Pakistan

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### What did we do?

‘Collective action’, step 4 of WWF’s five-step water stewardship framework or ‘ladder’, involves companies thinking beyond their own operations and supply chains and engaging with other stakeholders to improve the governance and management of shared water resources – and associated risks. These risks are frequently beyond the control of individual enterprises and arise from collective mismanagement (by a wide variety of stakeholders) throughout a basin or sub-basin. Eliminating or significantly decreasing these risks means collaborating with other businesses, but also with governments, government agencies, NGOs and communities, as well as technical and academic institutions.

WWF’s freshwater teams in China, India and Pakistan have engaged actively with micro, small and medium enterprises (MSMEs) in specific parts of the Yangtze, Ganga and Indus basins respectively, with the aim of achieving more sustainable management of water resources, in terms of both quality and quantity. This has been achieved through the establishment of pioneering mechanisms that facilitate collective engagement of



“The ultimate aim of any collective action project is to strengthen the way in which water resources are governed. This end-goal must be clear from the outset, or projects and activities may not lead to the necessary long-term change.”

Step 4 of the ‘Water Stewardship Ladder’: *From Risk to Resilience: Does your business know its water risk?* (WWF-UK, 2015)

MSMEs in water stewardship initiatives to influence water governance and to better manage their shared water risks.

Although the contexts (e.g. policy and regulatory framework, economy) and specific interventions made by WWF vary from country to country, in all three cases WWF has recognised that MSMEs represent a critically important sector to work with. MSMEs account for the largest proportion of industrial operations and are collectively major users and polluters of water but, individually, have the least capacity and resources to allocate to improving their environmental performance and engaging with water stewardship. WWF recognised that basin-level impacts could be achieved by making a convincing business case for more sustainable water management through water stewardship, demonstrating this in practice through pilot projects in specific locations, and up-scaling that work to additional cities, tributaries or sub-basins.

#### How did we do it and what have we achieved so far?

As mentioned above, the common feature of WWF’s approach in all three countries was to facilitate collective action by MSMEs to implement water stewardship. In China and Pakistan the WWF teams engaged with small and medium enterprises (SMEs) but in India the scope of the work extends to ‘micro’ businesses (essentially, just single households). For that reason in this case study we use the term ‘MSME’ to encompass the work of all teams, but ‘SME’ when referring solely to the work in China or Pakistan.

The specific conservation challenges, socio-economic contexts, and industrial profiles of each country and basin meant that different strategies were needed in the different locations. The work undertaken and achievements to date are summarised on a country-by-country basis below.

Much of the work has been ground-breaking in nature and focused on the establishment of innovative mechanisms for collaborative action together with the implementation of compelling pilot/demonstration projects. It is therefore too early to expect to see basin-level impacts, but these are expected to emerge in the longer term.

#### CHINA

The water stewardship programme in China has been supported by WWF-UK under the HSBC Water Programme since June 2012; H&M has also provided funding for the China water stewardship programme. A ‘Water Stewardship China Strategy’ has been developed as a roadmap for multi-



Taihu basin ©SUN Xiaodong



Industrial Park Water Stewardship Action opening ceremony in Changzhou ©A Tu

stakeholder engagement towards better water governance and healthier river basins.

The textile and dyeing industry is one of the priority industries for the Water Stewardship Strategy in the vast Yangtze basin. Textiles and dyeing constitute one of the pillars of industry in the Taihu basin, a c.37,000 km<sup>2</sup> sub-basin within the Yangtze catchment and one of the regions of China that has experienced the most rapid economic growth in recent decades.

A number of international fashion brands are taking part in collective water stewardship action for the Taihu basin. For example, H&M has supported the development of local guidance and its application to the pilot Industrial Park (IP – explained below) and has been working with WWF on stakeholder engagement in the Taihu basin since 2013. From 2016, Tommy Hilfinger is joining the initiative to engage suppliers and reduce IP water impacts, as well as contributing to the multi-stakeholder water stewardship platform for the Taihu basin.

Challenges associated with the thousands of textile and dyeing facilities scattered across the sub-basin include: outdated production technology, low profitability, low investment in wastewater treatment (in spite of a strict regulatory framework), and a lack of capacity, funding and supportive government policies in relation to cleaner production technology.

Within the Taihu basin, WWF-China decided to work with Industrial Parks – clusters of enterprises in a defined region, headed by an ‘Administration Committee’ (composed mainly of government department representatives). Each IP has its own wastewater treatment plant to which individual mills are connected through a network of pipelines. The wastewater entering the treatment plant from each factory is monitored and those facilities that fail to meet the applicable quality standard are subject to penalties fixed by the Administration Committee of each IP. WWF recognised that IPs could provide a good platform for influencing SMEs to take collective action. After considering several candidate sites for establishment of a pilot project, WWF selected an IP that was:

- Relatively smaller and less complex than the other IPs (potentially easier to establish a pioneering project); and
- Wholly occupied by textile/dyeing enterprises (all owners/operators have similar requirements and face similar problems, making collective action potentially easier).

The aim of WWF’s work was to:

- Facilitate the sharing of cleaner production technology by SMEs;
- Improve the water stewardship performance of SMEs individually and collectively;
- Reduce the impact of the whole IP on the catchment.

Within the chosen IP, WWF-China further focused its work by selecting a single dyeing mill to become a pilot/demonstration site. Here WWF facilitated the implementation of the Alliance for Water Stewardship Standard (the site is currently in the process of certification) and other cleaner production projects. This has already led to economic benefits for the mill, generating strong interest from other facilities.

WWF is also working with the relevant IP Administration Committee and a technical partner (Jiangsu Engineering Consulting Center) to prepare a water stewardship plan for the whole IP, from which all SMEs in the Park will benefit. Functioning as a government agency, the IP Committee has greater credibility than individual SMEs when it comes to applying for loans to invest in cleaner production. In addition, a local dyeing association has been established with participation of all 23 dyeing mills in WWF's target IP. The association has been proactive in establishing a dialogue with local government to ensure that their priorities and needs are communicated to the relevant authorities. WWF is also working with the China National Textile & Apparel Council (CNTAC) to provide technical support to SMEs to help them identify issues and improve capacity for better chemical, water and energy management.

WWF first summarised good management practices and a methodology framework relevant to IP water issues using information from WWF's international network. WWF then established an expert panel, including experts on cleaner production, industrial ecology, circular economy, and catchment ecosystem evaluation, to help localise the IP water stewardship methodology to the Chinese context. After several rounds of reviews and based on the actual experiences acquired from the demonstration IP, the "Industrial Park Water Stewardship Guidance" has been developed to provide instructions for the IPs to improve water performance and reduce water impact on the catchment. As of December 2016, following the application of the Guidance in three Taihu basin IPs, 346 SMES had been engaged with through training sessions and on-site expert support.

In addition to the work carried out with selected IPs and SMEs, WWF has facilitated the establishment of a multi-stakeholder water stewardship platform for the Taihu basin. This brings

together different groups that have little tradition in China of working collaboratively together, especially in relation to environmental problem-solving. Stakeholders participating in the multi-stakeholder platform include government (national, provincial and municipal), business (international brands and supply-chain SMEs), NGOs (local and international) and academia.

In August 2015, the first dialogue between SMEs and decision-makers from the Ministry of Environmental Protection was convened. This was followed in December 2015 by the ‘First International Forum of Taihu Basin Water Stewardship’, attended by basin stakeholders (including IPs, among them the WWF pilot IP), national government and international NGOs, including the Alliance for Water Stewardship (AWS). One key output from that Forum was the ‘Taihu Declaration’, which sets out a framework for action by stakeholders. The Forum was also chosen for the launch of ‘Industrial Park Water Stewardship Guidance’ (in Chinese). This provides practical advice for SMEs and IP Committees on the integration of water stewardship into management systems, and the evaluation and reduction of water-related risks to surrounding catchments that may arise from IP operations.

## INDIA

In the Ganga basin, WWF-India focused on working with MSMEs in the cities of Kanpur and Moradabad in the state of Uttar Pradesh. Moradabad, a city of 1 million people located on the banks of the Ramganga River, an important tributary of the Ganga, supports a cluster of more than 5,000 SMEs in the metalware sector. Effluent from the metalware industry is high in acids, heavy metals and cyanides, with electroplating being the most polluting of the processes used. Kanpur has a population of 3 million people and is also home to more than 330 operational leather tanneries, which discharge effluent high in heavy metals and organic pollutants, contributing to making this the most polluted stretch of the entire Ganga River.

WWF-India had been working on projects in Kanpur since 2007 and so had already established a presence and profile in the city. In Moradabad, WWF-India approached industry associations and formed an advisory committee before starting engagement with individual companies.

WWF-India’s theory of change identifies the key drivers of change as physical and regulatory risk and buyer pressure, with the main enabling factors being clean technology research and development, green finance and policy support. WWF has undertaken work in all of these areas. For example, WWF-India partnered with the Indian Institute for Technology (IIT) based



The Ramganga River at Moradabad ©WWF-UK/Anne-Claire Loftus



Saddle production in Kanpur  
©WWF-UK/Conor Linstead



Hides being stacked following  
chrome tanning process ©WWF-  
UK/Conor Linstead



Leather hide following dyeing and  
drying ©WWF-UK/Conor  
Linstead



Lime water recycling and reuse  
system Kanpur leather tannery  
©WWF-UK/Conor Linstead

in Kanpur, to conduct research into suitable cleaner technology solutions for both the metalware and leather industries. In conjunction with consultations with other industry experts, this resulted in the identification of a number of detailed technical solutions that are being implemented within SMEs, with the support of water treatment technology manufacturers and consultants, in order to act as pilots and demonstration sites for clean technology. For example, for the brassware sector WWF-India's research identified a counter-current process for washing the metalware that reduces effluent volume which, coupled with small scale effluent treatment plants, would provide an appropriate and scalable means of reducing pollution from the sector.

As of March 2017, five pilot/demonstration projects had been completed and five more had been initiated for the metalware industry in the city of Moradabad. Outreach and capacity building initiatives also reached at least 550 SMEs. It is hoped that some 20-30% of these SMEs will take steps towards cleaner technology solutions. A similar approach has been used in Kanpur to undertake clean technology assessments in 50 tanneries, with full Leather Working Group (LWG) protocol implementation having been initiated in 10 demonstration tanneries to pilot the proposed clean technologies. An additional 70 small tanneries have been sensitised regarding water risks and clean technology solutions.

There are a range of activity types being undertaken to engage SMEs in the two locations, with some differences in approach to account for the contrasting profiles of the two sectors. The key engagement routes are:

- Convening of training workshops to demonstrate clean technologies and the business case for adopting them.
- Publication and dissemination of booklets on the business benefits of cleaner technology. Dissemination will be through industry associations to their membership and, in the case of Moradabad, through the businesses using a government-supported service and testing centre.
- Direct one-to-one engagement at industry fairs and expos, and by WWF technology consultants with their clients.

In Kanpur, there has been a significant increase in interest in the issue of pollution from tanneries in recent years, from both government and civil society, and this has meant that there are several organisations and NGOs starting to implement projects with tanneries. A key part of WWF's strategy is to develop partnerships with these new projects to ensure that there is no duplication of effort and each organisation can focus on its areas of strength to deliver a common goal.



Metalware production centre in Moradabad ©WWF-UK/Anne-Claire Loftus



Metalware production centre in Moradabad ©WWF-UK/Anne-Claire Loftus



Wastewater from leather tanneries ©WWF-India/Sanket Bhale

In addition, water risk studies were completed for both cities, demonstrating the water-related risks to both businesses and the cities as a whole. A city-level platform was established in Moradabad for stakeholders to discuss water risk mitigation strategies and to encourage participatory water governance. In the longer term this will be replicated in Kanpur.

A supply-chain mapping exercise was conducted to help WWF identify opportunities to leverage international buyer pressure by engaging the customers of the Kanpur and Moradabad manufacturers. Working together, WWF-India and WWF-UK have established a platform for international buyers of leather from Kanpur (as well as from the neighbouring town Unnao) to coordinate collective efforts to reduce water pollution and water risks in their supply chains.

The purpose of this platform is to facilitate the buyers applying pressure on their supply chain to adopt clean technologies, engage with WWF-India's initiatives on the ground, and to collectively advocate to authorities and water management institutions in India for better governance of water around Kanpur. The theory of change is that if a sufficient number of buyers can be engaged with the platform so that it represents a significant percentage of the exported production from Kanpur, then the platform can exert enough influence to make a substantive difference in the tannery sector in Kanpur.

This approach of developing platforms for international buyers linked to specific priority places for WWF is novel and, if it proves successful in the longer term, could potentially provide a model for other areas and conservation issues. It is hoped that this approach can eventually be expanded to other multinational business sectors that have important supply-chain links to the Ganga basin and to other cities with tannery clusters (other major leather production centres in India include Kolkata, Agra, etc.).

A key intervention for WWF-India's work with tanneries is leveraging financial support to enable tanneries to invest in cleaner technologies. Many government-operated green finance schemes are under-utilised by tanneries as a result of lack of awareness of their existence and/or lack of capacity to access them. Overcoming these barriers is seen as key for the work in Kanpur and WWF-India is actively engaged in advocacy work with green finance scheme providers. This work aims to increase the providers' understanding of the needs of local industry, leading to corresponding improvements in the design and relevance of new schemes for SMEs.



Textile production in Lahore  
©WWF-Pakistan



Textile printing in Lahore  
©WWF-Pakistan



Textile production in Lahore  
©WWF-Pakistan



Leather coating and dyeing process ©WWF-Pakistan

## PAKISTAN

WWF-Pakistan partnered with the Cleaner Production Institute (CPI), which had a track record of more than 20 years' engagement with industry, and WWF-UK, to launch the Water Stewardship Pakistan project in January 2013 with the aim of promoting sustainable production practices and water stewardship. The project focused initially on better water management in the production practices of water-intensive SMEs located in the urban agglomeration of Lahore and its surrounding districts in Punjab province.

Lahore is sited on the Ravi River, a major tributary of the Indus, rising in northern India and flowing south-west through Punjab. Half of all pollution in the Indus downstream of its confluence with the Ravi can be attributed to an 84-km stretch of the Ravi, which is heavily industrialised. Four sectors dominate: textiles, pulp & paper, leather tanning and sugar processing. Many multinational retailers have suppliers in the region.

WWF gathered a range of evidence to support better understanding of the overall water context in Lahore, the risks faced by businesses and communities from the deteriorating condition of the area's water resources, and the potential benefits to business of improved practices and engagement in water stewardship. WWF used demonstration projects focused on better water management practices (BWMPs) – aimed at reducing both water consumption and water pollution load in water-intensive SMEs – to help generate a solid business case for such engagement.

However, the partners also gathered evidence showing that improved water management practices within individual enterprises would not – on their own – be sufficient to avoid the significant water-related business risks confronting SMEs, and that these could only be addressed adequately through a multi-stakeholder approach.

### Demonstration project

The demonstration project involved direct engagement with 35 SMEs across all four key sectors (textiles, pulp & paper, leather, and sugar). Each enterprise was audited to assess current practices related to water use and effluent management, and a bespoke action plan drawn up with recommendations for process changes, maintenance, or new equipment to reduce water use and improve the quality of effluents. Following the implementation of these action plans, follow-up visits were conducted to assess the degree of water and energy saving, pollution reduction, and the financial costs and benefits of implementing the recommendations.



Based on projected cost savings, the 35 SMEs invested PKR120 million (about US\$1.1 million) in one-off costs to implement the recommended BWMPs. As a result of this investment, the businesses saved PKR178 million per year (about US\$1.2 million), which will continue to be saved annually while the BWMPs are in place. The savings result from reduced pumping, heating and cooling of water, as well as less use of process chemicals. The total reduction in water use was 4.6 M m<sup>3</sup>/year (or 10% of overall water consumption by the 35 SMEs), while the use of process chemicals, which are discharged in effluent, was cut by 1,088 tonnes and power consumption was reduced by 6.6 MW. The payback period for BWMP investments was typically around 9 months.

The project team has documented these savings and prepared detailed BWMP guidance manuals for the four sectors WWF worked with. Both the business case and associated BWMP guidance have been shared widely with around 300 businesses in Lahore and the surrounding industrial centres through bespoke training seminars and workshops.

### **Multi-stakeholder platform**

The completion of a situation analysis for water resources in Lahore and a supply chain water footprint study for the major industrial sectors in Punjab served to provide a basis for a common understanding amongst stakeholders of their shared water risk and to mobilise relevant institutions. A key objective of these studies was to demonstrate to businesses that, while cost beneficial and clearly necessary, addressing water issues within their own operations would not be sufficient to address shared water risks, and that collective action is needed.

A key outcome of the Water Stewardship Project has therefore been the establishment of a Lahore partnership for sustainable water use and water stewardship in SMEs. The partnership has a Steering Group composed of stakeholder representatives, including local and provincial government, civil society, and water management institutions, as well as industry. Nestlé, Coca-Cola and Levi's are among the multinational corporations supporting the multi-stakeholder platform.

It is anticipated that through a follow-on project to be funded by the European Commission the city-scale water stewardship platform approach will be replicated in other major industrial cities in Pakistan.

### **Contribution to conservation goals**

The application of water stewardship and industrial wastewater treatment improvements is a prerequisite for reaching WWF's



Effluent treatment plant in Moradabad metalware factory ©WWF-UK/Conor Linstead



Wastewater treatment in Lahore tannery ©WWF-Pakistan



Wastewater collection tank in the Industrial Park's wastewater treatment plant, China ©A Tu



Dyeing process in Lahore textile factory ©WWF-Pakistan

conservation goals in all three basins. Unsustainable management of water resources is contributing to deteriorating ecological functioning, biodiversity loss and increased risks to communities and businesses.

In the Ganga, an estimated 286 million litres of industrial effluent, largely untreated, is discharged to the river daily across the basin, with major centres of industry, such as those targeted by WWF's pilot activities, responsible for a large proportion of this load.

As noted above, half of all pollution in the Indus downstream of its confluence with the Ravi can be attributed to single heavily industrialized stretch of the Ravi in Punjab. Addressing pollution from businesses is therefore a key element in WWF's strategy to conserve the biodiversity of the Indus River, including the Indus River Dolphin, a priority species. In China, unsustainable water resource management by industry is a major contributor to growing water scarcity and declining water quality in the Yangtze basin.

As an illustration, the linkages between water stewardship by SMEs and basin-scale conservation goals is explicitly reflected in the goal of WWF-China's Water Stewardship Strategy: "By 2025 ecological health has improved in the Yangtze's 3 priority sub-basins (Taihu, Dongting Lake and Chishui River) as a result of reduced industrial impacts on water and by establishing effective multi-stakeholder platforms in each basin, which include businesses from each target sector, that contribute to improvements in water governance. In addition, opportunities to influence water governance at a national and international level will be leveraged using our work in the Yangtze as a demonstration."

### What didn't go so well?

#### Pitching the case in the language of business

WWF-India's initial engagement with SMEs focused more on the medium- to long-term business risk of unsustainable water resource management. However, it quickly became clear that most SMEs in the targeted cities and industry sectors were focused on, and motivated by, much shorter time horizons. There tended to be a view that solving longer-term risk was a job for government, not for individual businesses.

WWF-China found that the bonds between international brands and local suppliers are not necessarily strong enough for the brands to be able to require or ensure change in their supply chains. The key is for suppliers to be able to see

economic benefits for themselves before they will participate in cleaner production programmes.

### **Overcoming scepticism**

As the largest environmental NGO in Pakistan, WWF-Pakistan was already well known among many stakeholders. Nevertheless, at the beginning WWF met a great deal of resistance and scepticism from industry. It took time to develop cooperative, trust-based relationships, something that was facilitated by working with various chambers of commerce and industry associations.

### **Working with micro-enterprises**

WWF-Pakistan also encountered specific challenges when working with industrial units at the smaller end of the MSME scale. Here, it was particularly important to build awareness and support from the CEO (or equivalent), rather than to solely rely on interactions with technical staff.

### **Legal and regulatory challenges**

WWF-India's work with SMEs in the city of Kanpur has been delayed by a legal ruling requiring all enterprises to install expensive Zero Liquid Discharge technology. The decision from the Green Tribunal is still awaited on this point at the time of writing. WWF-India is trying to enable solutions which are practical and more long-term in nature. An emerging challenge is linked to a potential relocation of the Kanpur tannery cluster away from the Ganga River, which was proposed in 2017 by the Uttar Pradesh state government.

WWF-China encountered a regulatory barrier that effectively prevented the dyeing industry in the Taihu basin from implementing new production projects such as upgrading outdated, energy-inefficient and water-inefficient machinery to modern environmentally efficient systems. The intention of the regulation was to prevent dyeing mills from installing new production lines and expanding capacity, which, it was argued, would result in higher pollution. In practice, the regulation restricted opportunities for 'green transition'. Multi-stakeholder lobbying of Jiangsu Provincial Government is required to promote revision of the policy and regulatory framework to favour cleaner production technologies.

## **Where will we go from here?**

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### **CHINA**

WWF is planning to partner with a new IP that will hopefully include suppliers of the international fashion retail brands H&M and Tommy Hilfiger. Through WWF's global

partnerships with these two brands, it is hoped that work pioneered in the Taihu Basin can be extended to other countries of South and Southeast Asia.

It is also anticipated that the approaches, tools and lesson learned from work in the Taihu Basin will be applied to additional areas of the Yangtze basin, including Dongting Lake (Central Yangtze) and the Chishui River (Upper Yangtze).

#### INDIA

WWF is currently preparing a scaling-up strategy for 2017 onwards, which will also address aspects of the policy and regulatory framework. For example, WWF is aiming to work more closely with the Pollution Control Board (PCB) of Uttar Pradesh, which, following rulings from the High Court, has been pressurising SMEs to comply with water quality and wastewater treatment regulations (following historically poor enforcement). A key part of this involves building the capacity of the PCB itself through providing information about new solutions for reducing water risk that can in turn be promoted by the PCB when they make enforcement visits to individual companies and sites.

#### PAKISTAN

WWF aims to upscale the successes achieved in Lahore by applying the model to other cities, beginning with Faisalabad and Karachi, and eventually to the whole Indus basin.

#### Key lessons

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The following lessons about engagement with MSMEs were drawn up by WWF-China, WWF-India and WWF-Pakistan based on their experiences over the last few years:

- Being properly prepared for engaging with MSMEs and ensuring that WWF understood how the relevant industry sector operates (both commercially and technically), what are likely to be the main priorities and motivations for businesses in that sector, and that WWF was able to ‘speak the language’ of those businesses (e.g. highlighting cost savings and building a business case) were found to be vital. Depending on the background and experience of WWF staff, this sometimes required both close cooperation with external experts and internal capacity building well before any approaches were made to target businesses or business associations. WWF needed to focus on gathering information that builds the business case and as much as possible by gathering financial figures about investment

costs, running costs and return on investment, along with quantifying the conservation benefits.

- Working with trade associations, chambers of commerce, business park collectives or similar helped build trust, open doors for engagement with individual companies, and access networks that offered the potential for scaling up of pilot initiatives. This is far more likely to be successful than working only through individual enterprises.
- Undertaking ‘bottom-up’ supply-chain mapping; finding out who are the major (national and multinational) buyers in the sector and working with them to incentivize local supplier companies to improve their water stewardship performance. Looking into the possibility of securing funding from the big players, but being aware that some suppliers may be powerful in their own right and not assuming that multinational buyers can necessarily dictate how their suppliers behave.
- Not focusing on the negative, not simply talking about theoretical problems and risks to industry but being fully prepared to present both the business case and the technical solutions for addressing those risks, as well as an introduction to the business partners who are able to implement the solutions. Being able to address questions about solutions, costs, savings and benefits is essential.
- Focusing not only on the businesses whose water stewardship needs improving, but also on the businesses that are needed to provide and install technical solutions (equipment and training). There needed to be sufficient market access to the solutions being promoted by WWF, with sufficient capacity to meet demand. Companies selling cleaner water technology therefore needed to be a central part of WWF’s scaling up efforts. While long-term sustainability will ultimately be market driven, in the shorter term WWF and its partners may need to help build capacity and to play a catalysing role by stimulating and linking initial supply and demand, while ensuring procurement remains fair.
- Establishing a few pilot activities and running them successfully was found to be a good basis for scaling up.
- WWF found it important to include financial analysis (cost – benefit) as a central component of pilot activities because MSMEs struggling for their own financial survival need evidence of short-term payback benefits. In a related point, MSMEs were not able to contribute financially to supporting WWF’s work on water stewardship.

- Introducing innovative financial mechanisms to support implementation of water stewardship projects with MSMEs. Banks and other financial institutions often associate MSMEs with high financial risk and it can therefore be difficult for MSMEs to obtain affordable loans for cleaner production projects. Banks may regard an approach from a consortium of MSMEs, trade association (or similar) based on a comprehensive and fully costed joint action plan – where the risks are shared and therefore spread – as more credible.

## Resources

General and sector-specific water stewardship information

Alliance for Water Stewardship website

A newsletter from the WWF/H&M partnership including updates on work in the Taihu basin

General information about the H&M partnership

WWF-India's work on water stewardship

WWF-Pakistan's water stewardship work

WWF-Pakistan publications, including the series of 'Training Manuals' on BWMPs in the leather tanning, sugar refining, textiles and pulp & paper industries

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