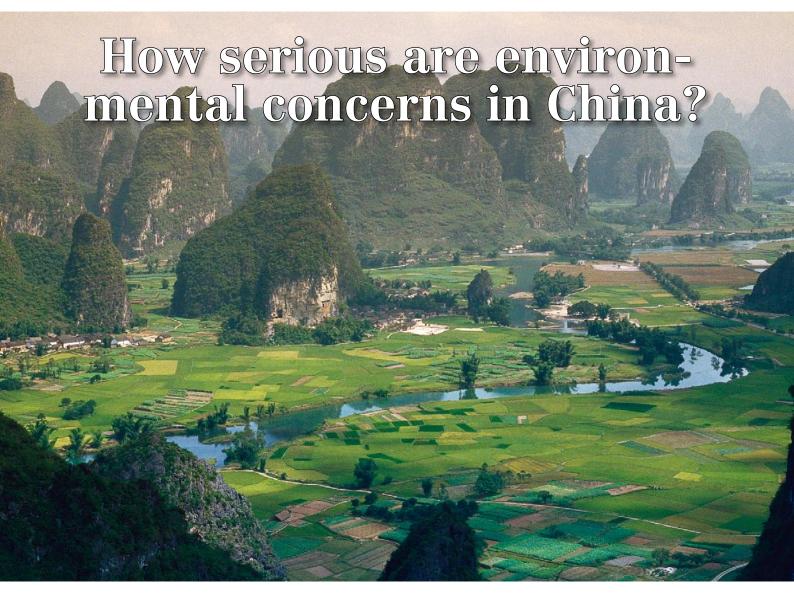
GIT VERLAG GmbH & Co. KG, Darmstadt, Germany

www.gitverlag.com

THE NEWSPAPER
FOR THE CHEMICAL AND
LIFE SCIENCES MARKETS



China has long been known as a leader in market growth. However, this fast growth has been accompanied by massive environmental problems.



What about the environment?

A study by the World Bank claims that 16 of the world's 20 most polluted cities are in China. Some environmental accidents occurring in China are also reported in the Western press. In November 2005, a plant operated by the China National Petroleum Corp. exploded, leading to a spill of

about 100 tons of benzene into a river flowing on to Russia, and impacting the supply of drinking water in the major Chinese city of Harbin. In May 2007, a serious outbreak of blue-green algae at Lake Taihu was attributed to manmade pollution as the lake is an outlet for untreated wastewater from many chemical and agricultural enterprises.

And in early 2008, the State Environmental Protection Administration (SEPA) reported on an arsenic pollution accident in Guizhou province and a pollution spill in Hubei.

Not even state-run agencies claim these to be isolated incidents. According to a 2006 risk review by SEPA, 45% of the 7,555 chemical and pet-

rochemical plants nationwide pose major threats to the environment. The newspaper China Daily claims that as a consequence of air and water pollution combined with the widespread use of food additives and pesticides, cancer is now the most lethal disease for urban residents in China.

Awareness of these threats has also been increasing among the Chinese population. The planned construction of a paraxylene plant near Xiamen in Fujian province led to massive protests by local citizens. As a result, construction is currently suspended and will be reassessed.

Strong efforts ...

Apart from such ad-hoc reactions to public concerns, the Chinese government does in fact undertake substantial steps towards improving the environmental situation in China, ranging from symbolical to detailed prevention measures:

- China has set itself ambitious emission reduction targets for 2008, e.g., a reduction of sulphur dioxide by 6% from the 2005 levels. Achievement of these targets is to be enhanced by high spending on environmental protection the investment is scheduled to reach 1.35% of GDP for each of the next three years.
- SEPA has just been upgraded into an environment ministry in March 2008. This may strengthen green legislation and enforcement as it will put the institution on a more even level with interests represented by other ministries
- A timetable was set for pollution control at lakes, asking existing sewage treatment plants to install nitrogen and phosphorus removal facilities by the end of 2010
- Valid from June 2008, the government has banned the production of ultra-thin plastic bags, and banned shops from giving away free plastic bags. Huaqiang, China's largest plastic bag manufacturer, has al-

ready stopped production as a consequence.

• Depending on the initiative of local governments, in some of the more developed regions of China chemical companies are being moved out of urban areas. For example, in Shanghai chemical companies are forced to move to specially set up chemical parks. In Guangzhou, about 50 chemical companies are to move out of the city.

... but also mixed signals

Despite these positive signals, it is still too early to conclude that China is safely on the right track towards better protection of the environment. In fact, environmental policy seems to be one of the main battlegrounds between central government and SEPA on the one side, and the local governments on the other side.

This becomes quite obvious on the official SEPA website. There, SEPA criticizes many projects quite openly, but seems not to have sufficient power to eventually stop them. A prominent deputy director of SEPA, Pan Yue, is quoted as follows: "Some of the projects did not apply for government approval before beginning construction, and some local governments provided highlypolluting enterprises asylum in the blind pursuit of economic development". In another example, SEPA complains on its website about a polluting company that has not stopped production despite SEPA intervention: "Haixin Iron and Steel was ordered to stop the project and apply for approval from environmental authorities. But it has so far failed to comply with the ruling".

Resistance from provincial leaders is also suspected to have stopped an earlier SEPA initiative to quantify the environmental effects of China's growth in a number called "Green GDP". While a first 2004 calculation estimated real growth to be reduced by about 3% due to the concurrent environmental damage, a

second report never materialized. The researchers behind the Green GDP project suspect provincial leaders of being responsible for this.

Effects on Chemical Companies

The measures taken by the Chinese government have already led to the closure of many small chemical companies, e.g., in the Lake Taihu reaches in Jiangsu province, 1197 small chemical plants were shut down in 2007.

Large Chinese companies tend to be less affected as they have more influence, and can more easily install modern technology.

For Western companies, the benefits of tightened environmental policies tend to outweigh the disadvantages. First of all, most Western companies already operate within Western environmental standards in China and thus do not face substantial additional costs from these changes. In addition, they may benefit from the market consolidation caused by the effect of these policies particularly on small and medium-sized local companies. In some segments they may also be the only ones with the technology required by raised environmental standards.

However, Western companies also need to be aware of the risks of these changes. Some Western chemical companies are being affected by governmental requests to move chemical production out of urban areas. In addition, any M&A activities within China need to take the environmental background of the targets into account. Finally, Western companies are often suppliers of local chemical companies. Any policy affecting local companies therefore may also affect Western companies via their customer base. Whenever Stratley supports Western companies in developing strategies for China, we therefore ensure to take the effects of China's developing environmental policy into account.

Conclusion

While concern for environmental protection is definitely growing among Chinese citizens and the government, it still faces an uphill battle. Particularly in the less developed provinces and on local levels, awareness is still limited, and there is a stronger interest in fast economic development than in environmental sustainability. The timeframe for an overall greening of the Chinese economy is difficult to predict. However, Western chemical companies are expected to benefit from this trend as it levels the playing field with the local competition.



Dr. Kai Pflug, Stratley AG, Shanghai
Tel.: +86 21 2890 9677
Fax: +86 21 2890 9999
k.pflug@stratley.com
www.stratley.com