Advancing Toward Sustainable Business Practices

Task Force on Enterprises' Development and Environment

Chinese Co-Chair: Zhang Yanning
International Co-Chair: Björn Stigson

Enterprise is the most important micro subject in national economy, while it is also the most major contributor to the environmental pollution load. Therefore, many of the environment protection issues will have to be studied and analyzed at the enterprise level, before the causes and contexts of the pollution problems be can be learned, so that the policies can be more specific and practical.

Task Force on Sustainable Industry Development and Environment was charged with identifying policy recommendations to energize and promote business progress toward more sustainable practices.

We reviewed four different industrial sectors during the work program: cement, oil refining, sugar, and pulp and paper. Separate studies were made comparing programs for small and medium enterprises (SMEs) in China with several other countries. The general approach taken was to collect current Chinese practice and best international practice in each sector. The pairs of sectors were then compared, and potential lessons drawn by analyzing the differences in performance between the two.

The large number of SMEs with out-dated technology in the industries that are easy to pollute the environment is one of the major sources in the current industrial pollution in China. It has been the difficulty in dealing with the environmental pollution problem of those SMEs because the treatment cost by the enterprises and monitoring cost by the environmental agency of government are comparatively high. Therefore, this TF has emphasized our study on the countermeasures to be taken against the environment pollution made by the SMEs this time. The concerns and recommendations related to strengthening sustainable business practices frequently cut across these related issues.
Overarching Themes

Despite the brief term of the Task Force, and the limited information made available, several overarching themes have emerged from these sector comparisons which appear common to all four sectors. We have identified these as five basic needs:

1. Business Scale

In the industries examined, we found that Chinese companies operate on a smaller scale than current international firms. The average cement plant in China produces less than 500 tonnes/day compared to a new world-class facility typically designed for 2500-4000 tonnes/day. The average Chinese refinery processes less than 50,000 BPD (with many processing less than 4000 BPD). Existing refineries outside of China have average capacities 2-3 times as great. More than 85% of China’s paper mills have capacities of 10,000 tonnes/year, compared to a world average (excluding China) of nearly 80,000 tonnes/year.

Consequently most of the small size plants cannot compete economically because their costs per unit of output are spread over a smaller product output. In isolated regions, there may be little competition and this may not be so great a problem. In places where products are made for export (such as some cement) it would be difficult for Chinese plants to compete economically. Equally important, smaller plants cannot support significant environmental investments: They cannot support a staff size which might include experts in quality, control, and environmental matters. They are not able to support sufficient training, management development, and research. Their sales are not sufficient to support investments in efficiency.

This is not to say that “small is necessarily bad”. Many small and medium-size enterprises (SMEs) function effectively in many businesses. However, for energy and capital-intensive industries manufacturing bulk commodity products (such as the four studied here) pressures for quality, low costs and well-managed environmental impacts encourage the use of large facilities or seek for more optimal mitigation of environmental impacts via, amongst others innovative collaborated action; e.g. combined treatment facilities for clusters of companies or more preventative via smart choices under an industrial ecology concept.

It is also not to say that “small associated facilities are not needed, even in these commodity industries”, on the contrary because SME’s are in many cases the motor of economic growth and innovation, also in China. In many industries (paper, cement, and petroleum are three) manufacturing is done in large, complex facilities, which offer the scale advantages noted previously. These facilities provide the energy intensive processing, and also contribute the major environmental impacts. But smaller facilities can be used for local blending, packaging, terminal and distribution services after bulk products are delivered from more centralized
manufacturing facilities. It appears this model could be expanded more fully in China, where currently weak infrastructure requires more local storage and handling for many products.
2. Strengthening Governance Frameworks

There appears to be a considerable gap between “theoretical” frameworks and their direct application to a business setting. Regulations, particularly those relating to Health, Safety and Environment exist, but their application and enforcement are far from adequate. Having laws without enforcement reduces their effectiveness and their value in providing a framework for acceptable behaviour. Added to this is the presence of corrupt practices in application of the rules such that some enterprises who are prepared to pay bribes to officials can avoid the much larger costs of abiding by the government’s requirements, thus distorting the competitive arena and damaging the environment. It is important that this practice and the perceptions of poor application of rules are eliminated. Doubtless this will take considerable time, and effort but it is a fundamental problem, and unless resolved, can indeed result in lack of foreign or local investment in sustainable development of industries and enterprises.

In the last thirty years, globally a complex mixture of systems and practices has evolved for governing the complex interactions between economic, environmental and social activities. These systems and practices define the “playing field” and “rules of the game” for enterprises in society. Most developed countries are now characterized by the kinds of systems and practices noted above. These are what China should learn, which will no doubt, help further define and level the “playing field” in China.

3. Key Performance Indicators (KPIs)

Enterprises have been simultaneously recording two opposing performances with their marching footsteps, which are “economic growth” and “environment destruction”. In this manner, it might be a wrong to define the “merits” and “faults”, from a single aspect, of “industrial civilization process” in the long history of human civilization. This demands us to search for a tool, on a new score, weighing in an objective and all-round way the ultimate contribution that an enterprise makes via production activities to the sustainable development of the society. Such a system must first be able to reach a full-scale understanding of the performance of enterprise activities. One area that appears particularly poorly connected to business performance in China is employee health and safety. Several standard measures are widely used internationally to track this, and would serve as useful benchmarks for their counterpart Chinese industries.

4. Need for Capacity Building

Despite much progress in China during the last 20 years, our Task Force found continuing, significant gaps in knowledge and implementation skills between Chinese and international business and government personnel at equivalent levels of responsibility in the areas of management, environment, and law. Both additional training and new delivery mechanisms are needed to speed up knowledge transfer and application.
The presence or absence of a functioning environmental industry (equipment suppliers and consulting/assessment services) is critical to increasing environmental protection in China. Without these native skills and services, environmental products may be too expensive and/or remote for common use.

**Discussion and analysis of the SME-study**

Our government and environment protection agencies have published many orders to severely punish the serious environmental pollution caused by some SMEs, either by fining or suspending or merger or even getting them closed down. All these measures, however, will be effective for a short period of time, and the pollution will come back again not long after. Therefore it seems that the administrational decrees can hardly cure the pollution although they can be effective for a period of time. We will have to make careful studies on the causes and difficulties of the pollution problem, before we can find a sustainable and effective measure to deal with it.

First of all, it must be clarified that the big cluster of the SMEs is an important supporting force for the development of our national economy, playing its irreplaceable role in employment, the support of economic growth, the promotion of specialized collaboration and division that will strengthen the competitiveness of our industries in the world and satisfying the diversified demands of our daily and economical activities. Hence, when we try to find the countermeasures in dealing with the environmental pollution caused by the SMEs, the compulsive closure orders can only be given to the minor enterprises that are proved to be serious pollution makers but have no way in their financial limitation to get the pollution controlled. While for the major SMEs, we have to try our best to find some way of economically feasible to deal with their pollution problem.

Secondly, as for the pollution control in the SMEs, the external monitoring (including that from the government, NGO, and public. In China, the role of the government is obviously more important.) is an important precondition. Without the external monitoring, there will be no driving force for them to pay the cost for the pollution control. In the past, the Centering Our Work Around The Economical Construction has been too much emphasized, which has led to a tendency of Judging a Success or Failure By GDP when we examine the performance of a local government. It is the factual inducement for the local government to neglect, or even ignoring the monitoring of the environment protection that has, in fact, indulged the enterprises’ polluting activities, in order to maximize the local economical development at all costs.

Thirdly, in view of technical economy, there are actually some difficulties for the SMEs to handle the pollution treatment, including the low production capacity (less than half of their
pollution treatment facilities can meet the requirement of economical operation scale), and the short average survival period of 5-7 year, difficult to be funded for the investment on their pollution treatment facilities, unavailability of human resources and fund to keep the normal operation of the pollution treatment facilities.

Fourth, “local protectionism” has become one of the most common obstacles inhibiting the implementation of bans for pollution treatment. Taking account of requirements for environmental protection, it is very natural to close or halt the operation of a number of small enterprises that are sources of serious pollutions. But in the perspective of local governments, sudden closure of a good many small enterprises will not only seriously cut down local financial revenues and create practical troubles that are hard to get over temporarily, but will compel large amounts of labor force to run out of work, triggering off social problems in some areas and, in grave circumstances, jeopardizing social stability. To date, the Central Government keeps stressing that stability is an overwhelming task. Consequently, local governments must pay greater forethought on the relations of pollution treatment and social stability, compared with environment protection administrations with more candid objectives. This might be a deep-seated element for the existence of local protectionism. Accordingly, we must take earnest measures on policies to harmonize inconsistencies and realize win-win objective for the two. Otherwise, efforts in honor of needs and benefits of any of the two will hardly make the best of both worlds.

Policy Recommendations

1. By policy tools of market mechanism, encourage the enterprises of energy and capital intensive, which have big influence on the environment, to be restructured within the industries in order to obtain the benefit of scale of economy.

This should focus on energy- and capital-intensive industries producing bulk commodity products. These industries have major, lasting environmental impacts, which cannot be managed well in small-scale facilities. As for the producers of bulk commodities that are energy and funds intensive, support should be given to the relatively large enterprises to encourage the technical upgrading and transformation so as to improve their competitiveness, and encourage them to solve the existence problem of some of the small enterprises and the employment by merger and restructuring. On the policy level, economic measures and competition shall be more considered, letting the market mechanism of superior survival and inferior elimination to fundamentally handle the pollution problem caused by the small enterprises, not relying solely upon the administrational orders which are proved to be a failure in dealing with the problem.

Such restructurings must necessarily consider a wide variety of factors, including:

- Widespread use of quality and performance standards for major industry sectors,
including appropriate timeframes for industries to make improvements.

- Consolidation of energy-intensive manufacturing activities in fewer larger facilities, taking advantage of economies of scale and their ability to spread necessary environmental costs over a larger product base.¹
- With necessary re-education and training programs, preserving local employment when facilities are closed by using portions of smaller facilities to serve as local centers for operations downstream of manufacturing: grinding, packaging, blending, storage and distribution.
- Features which will enhance the attractiveness to private-sector foreign joint venture partners for participating in restructuring.

2. Develop strategy, tactics and institutional capacity for improving performance of SMEs.

Small and medium enterprises in both developed countries and in China must be managed in very different ways than large companies. Any system for dealing with SME’s must include elements that are:

(1) Promoting centralized pollution treatment of the SMEs. Now that it is difficult to get the pollution treatment facilities by single SME to satisfy the economic operation scale requirement, measures shall be taken to move the SMEs into industrial parks so as to get the pollutants produced by the SMEs to be centrally treated. The practice in Zhejiang province demonstrates that in areas where the industrial cluster is formed, the mode of central treatment, by which one treatment enterprise can supply specialized pollution treatment services to many the SMEs, is an effective solution to the problem of not being able to reach scale of economy for a single small enterprise to deal the pollution problem by its own who is lack of necessary fund and technologies.

(2) The establishment of specialized companies with environmental protection facility operation certificate is a necessary system innovation. The establishment of specialized pollution treatment companies will lead to market-based operation of pollution treatment facilities. Here, market-based operation has three implications: First, pollution treatment enterprises and pollution discharging enterprises set up such a relationship as service providers and buyers. Second, pollution treatment enterprises and operating companies assume sole responsibilities for their profits or losses. Third, pollution treatment enterprises and operating companies must compete with each other as candidate service suppliers on the market. However,

¹ For example China has recently announced that it will raise the threshold size of permitted cement plants to 2000 tonnes per day, and continue to encourage consolidation among smaller plants. (Lexis-Nexis, 20 August, 2003). The government continues to encourage the formation of large industrial groups in sugar making, and electronics.
at the present time, pollution treatment enterprises are more or less in a monopoly situation. Since pollution discharge prices are approved and checked by the government, the implementation of the scheme demands for policy support and supervision from the government. The government must ensure that private investments are rewarded reasonably and, meanwhile, such efforts do not create additional burdens to pollution discharge enterprises. As the government is confined with limited fiscal capacity, such a scheme of inviting and profiting private capital in pollution treatment virtually resembles subsidizing loan discount interests to pollution treatment enterprises with national finance.

(3) As for SMEs of resources processing, comprehensive utilization of the "3 wastes" shall be strongly promoted in order to minimize the wastes discharge. This suggestion is made because that the resources processing enterprises produce large quantity of the "3 wastes". The wastes will become pollutants if they are not recycled. They will become resources if they can be recycled. What is more, the comprehensive utilization of the "3 wastes" can usually bring us reasonably good economic benefit and win-win effect of economic benefit and environment benefits as long as proper technology is used. Guangxi Guitang Group has set us a successful example of the resources comprehensive utilization.

(4) Integrating the policies for the SMEs with the environment protection policies, so as to obtain a combined policy force. In China, policy system for the SMEs has formed its shape, and the socialized service system for SMEs, consisting of the SMEs service center, the SMEs credit guaranty center and productivity promotion center is now in construction. The policy goals for the SMEs, however, is quite simple, only focusing on how to support the establishment and development of the SMEs, with no interaction with the policies of environment protection. It is suggested, therefore, that the communication and cooperation shall be strengthened between the economic development department and environment protection agencies in the government, so as to effectively combine the policies for the SMEs and those for environment protection. For instance, projects related to the pollution treatment, cleaner production, waste comprehensive utilization and energy saving shall be clearly listed as key supported projects in the supporting policies for the SMEs, and supported in terms of financing guarantee, technical consultation and information supply and so on.

3. Strengthen Governance Frameworks

In the last thirty years, globally a complex mixture of systems and practices has evolved for governing the complex interactions between economic, environmental and social activities. These did not happen quickly and the details differ from place to place. There are, however, some common characteristics:

- A clear legal structure with adequate, consistent enforcement of laws and regulations at national and local levels provide specific Chinese examples for some of the following.
- Transparency and effectiveness in application of laws
- Public participation in rulemaking.
- Public reporting of health, safety, and environmental information by business and
- Active roles for trade and industry associations in assisting business understand and
effectively manage environment, health and safety requirements
- Use environmental quality standards (ISO, EMAS, product specifications, etc.) and
sectoral emission targets²
- Effective use of incentives and disincentives e.g. taxes, fines, “green” fees, and permit
trading so that pollution reduction investments are less expensive than paying fines.³
- Integrate environmental success factors into economic evaluation of local government
performance⁴

4. Develop Key Performance Indicators (KPIs) both for specific industries and for
China’s key social, environmental and economic goals, so as to open up effective
approaches for the government and whole society to understand and mutually
supervise the process

Effective policy can only be built with an effective set of tools. It has been said many times that
what is measured receives attention. This applies to sustainable development as well. Key
Performance Indicators are one of those tools. It is strongly recommended that China develop
and actively promote an appropriate set of performance indicators for critical industries that can
then be used nationally and internationally for benchmarking, problem analysis and
improvement. This demands that enterprises (at least “listed enterprises”) will not only submit
Financial Statements to the government and society, but also Overall Reports of Enterprises for
Sustainable Development. They include that these indicators may be used nationwide to evaluate
management, analyze problems, and indicate improvement orientations. They mainly comprise
such indicators as financial operation management status, production management efficiency,
resources consumption, environment impacts, safety and health of staff workers and neighboring
residents, and employment burdens.... In developed countries, increasingly more international-
grade enterprises start to tap the measures of environment management accounting system
(EMA), environment performance indicators and environment performance evaluation (EPI and
EPE) to set up and promote the “performance indicator report system for sustainable development
of enterprises”. It will facilitate us to measure more accurately costs of environment damages from

² In June, 2002, a new Cleaner Production Promotion Law was approved which went into effect on 1 January
2003.
³ At present local government has limited authority for enforcement. Pollution fines are limited to 10,000, 50,000
or 200,000 RMB (approx. $1100 USD – 23,000 USD) far below the investment cost for pollution control
equipment. Should the Environmental Protection Bureau wish to close a polluting facility, this action must be
approved by the local governor, Commerce Bureau, and Tax Bureau.
⁴ Since “economic development as center” has been emphasized without considering environmental protection
equally, GDP has been the only criteria to judge performance of local government.
production activities and benefits from sustainable production. This has become one of the most essential ways for a country, a region or an enterprise to seek sustainable development.

Successful indicators would preferably be developed working jointly with industrial sectors to build meaningful, business relevant indicators that will be measured and tracked as a normal part of business operations. The sector studies provide some indicators that others have used for these particular industries.

In a business setting, successful indicators have common properties:

- They are simple to understand and explain
- They can be measured easily
- They are important to the ongoing health and operations of the business and its employees
- Their performance can be tracked over time

5. Give attention to both environment protection and local economic development

In order to avoid the passive results bringing by the compulsory indications, government'd better carrying out more flexible policies.

(1) The central government shall take policy measures to limit the impact of suspending and closing the polluting SMEs on the local finance revenue, such as fiscal subsidies, preferential taxation and so on.

(2) The enterprises that benefit from the technology upgrading and extension shall make some contribution to the local governments.

(3) SME’s even require a tailored governance framework, and in order to keep the strength of this sector we have to allowing them time to learn to make a change-over to improved environmental standards while improving their economic conditions. The learning process is to be guided with a mix of instruments:

- set minimum standards that allow for the immediate closure of those facilities that have an unacceptable impact on the environment; unacceptable in terms of immediate danger to health and safety of people, and which cause irremediable damage; decisions to this effect should be transparent and openly publicized;
- set ‘growing’ standards (at increasingly higher levels) to be achieved over time, enforcement and compliance with these rules needs—in a learning-process - to become stricter over time (first check and advise; then penalties, then -if conditions remain unchanged- close down of facilities);
- break down the standards to clear sectoral targets for comparable industries in various
sectors; determine priority sectors;
- create a level playing field: all rules are valid for all and enforcement is equal to all; enforcement decisions are clear, transparent and are published and made known to all; such 'teaching-enforcement' capabilities and capacity requires priority attention of the government
- involve companies by providing fiscal/economic incentives for the installation of simple protective measures, expanding to incentives for the installment of cleaner technology; organize sectoral learning processes with the demonstration of improved practices and better technologies; provide cost-effective water treatment facilities; introduce waste collection structures and cost-effective waste treatment and recycling facilities;
- involve companies by introducing an expanding scale of over time increasing pollution charges (to allow them to make their own marginal cost/benefit analysis);
- involve companies by allowing them to relocate their business on favorable economic conditions under stricter new environmental rules (relocate to locations where they can cause less damage, or where the damage can be better controlled)
- involve companies by organizing learning events for sectoral / regional better- to- best production practices; those successfully attending are ineligible for economic incentives, and priority advisory services from enforcement staff

6. Speed up capacity building within a broad spectrum of business, management, legal systems, and social institutions.

Both additional training and new delivery mechanisms are needed to speed up knowledge transfer and application. In best-practice organizations, knowledge is shared between different operating units, making use of modern electronic delivery systems, and traditional management emphasis on problem solving. Some of the most successful organizations today are those that have mastered the difficult art of knowledge management. Training is used extensively to increase skills, introduce new ideas, solve old problems, implement new programs, identify new issues, and build teams. Areas where strengthening of existing Chinese systems would improve progress toward future sustainability include:
- Management training,
- Environmental knowledge and training
- Local environmental industry development
- Inspection and enforcement training
- Roles of business associations
- Community engagement training