

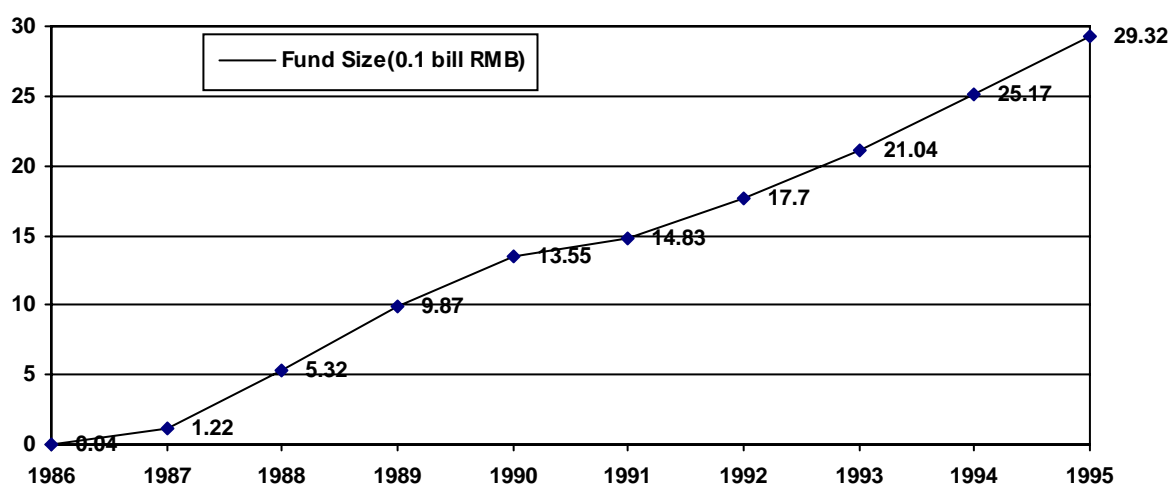
# Environmental Funds in China: Experiment and Reform

Jinnan WANG  
Chinese Research Academy of Environmental Sciences  
Xinyuan LU  
National Environmental Protection Agency, China

## 1.0 History: Local Environmental Funds in China

After 1988 different provinces and municipalities established a series of environmental funds. Different models were chosen for the funds in light of their differences in function and financial sources. Figure 2 shows the trend in the size of local pollution control funds. Over the last ten years, and drawing on the experience of experiments by the Shenyang Environmental Investment Company, more than 20 provinces and municipalities have sponsored pilot projects in establishing environmental investment companies. The following is a brief introduction to two typical approaches adopted in these pilot projects, including that of the Shenyang Environmental Investment Company and the Tianjin Municipal Fund for Industrial Pollution Control.

**Figure 2: Trend in the Size of Local Funds for Pollution Control in China**



Source: NEPA, Statistics on the Pollution Levy from 1986 to 1995.

## 1.1 The Shenyang Environmental Investment Company

The Shenyang Environmental Investment Company ( hereinafter abbreviated as the Shenyang Investment Company) was established as a result of the policy reform which enabled loans to be offered

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from revenue raised by the pollution levy. Established in 1988, the Company was intended to be an organisation in charge of fund operation. It is a typical form of an environmental fund established on the basis of revenue from the pollution levy.

(i) *General Background*

The Shenyang Investment Company is based on an environmental protection fund capitalised at 10 billion yuan accumulated after 1983 when some loans began to be provided for environmental purposes, including control of pollution. Categorised as a policy investment company, the Company is wholly responsible for the operation of all its capital. Its financial source is revenue from the pollution levy. The revenue is included in the government budget before it goes into the fund. The emphasis of fund investment is mainly limited to projects defined in the government's pollution control plan. Following investment of the fund capital, loans are extended to projects. Exemption from repayment of the principle is possible in specific circumstances. Personnel, capital and accounting procedures of the Company are independent from the government. The Company is a legal entity subject to industrial and commercial registration and to paying tax.

(ii) *Business Scope*

The business scope of the Company covers the following:

- participating in the selection of projects to be funded and formulating a preliminary annual loans program;
- reviewing the budget and the technical programme of the project receiving the loan. Designing and organising bid invitation and tendering;
- organising, co-ordinating and supervising the progress and conclusion of the project and monitoring the performance of the investment; and
- collection of loan interest and ensuring repayment of the principal.

(iii) *External Relationships*

The Shenyang Investment Company is affiliated to the Shenyang Municipal Environmental Protection Bureau, with the manager of the Company nominated by the Bureau. The company and the Bureau have to agree on those projects that should be offered loans. The Bureau delegates responsibility for the management of the environmental fund to the Company and the latter operates on the basis of a contract and is subject to the co-ordination and control of the Bureau concerning the application of loan conditions, collection of loan interest, etc. The Company has established a working relationship with government departments such as the finance bureau and the planning or economic commission and accepts the latter's directions and services. All the funds controlled by the Company are deposited in a bank. As the company is not a financial institution, it has no right to grant credit. The extension of loans is a responsibility of the bank and consequently a close relationship is established between the bank and the Company.

(iv) *Achievements*

Since 1988, all revenue from the pollution levy has been channeled to the environmental fund and 95% of the fund has been allocated. The fund has also attracted inflows from enterprises and the ratio between the two is 63.8: 36.2, which is within the limits set by Decree No.10 and the Shenyang

Municipality. The fund has therefore greatly increased in size. By the end of 1994, a total of 0.2 billion yuan had been invested in 340 projects for environmental protection purposes. Excluding those projects exempt from repayment, the environmental fund still retained 40 million yuan as floating capital. The interest on the loaned funds amounted to 15.045 million yuan. 92% of the projects receiving loans were assessed as well designed and 93.5% of the projects to be constructed had been successfully organised through bid invitation. 90% of the completed projects were deemed successful.

(v) *General Evaluation of the Shenyang Investment Company*

The experiments undertaken by the Company have introduced a mechanism for funding investments in pollution control, centralised fund management and supervisory procedures and promoted wider use of, and familiarity with, loans among enterprises. In principle, the approach adopted has broken away from the old practice of refunding up to 80% of the revenue collected from polluters under the pollution levy. During the transition from a planned to a market economy the new practices are timely. Revenue from the pollution levy is collected to sustain the fund and the distribution of funds has changed from one based on automatic allocation to one of loans and the collection of interest thereon. The Shenyang Investment Company is an important, progressive experiment which has raised the efficacy of revenue use.

As the practices of the Company to some extent contravene the provisions of current legislation, the Shenyang model needs to be further refined. The focus of future reform will be a revision of its operational methods, the administrative arrangements and investment distribution policies (e.g. between investments in policy-type public projects and investments in profit-oriented projects).

## **1.2 Tianjin Municipal Industrial Pollution Control Fund**

(i) *Sources and Size of the Fund*

The Tianjin Municipal Industrial Pollution Control Fund (hereinafter abbreviated as the Tianjin Fund) was established in July 1993. The capital sources of the Fund consist of a loan provided by the World Bank, part of the revenue from the pollution levy and interest on loans provided to enterprises. The World Bank is to inject a total of US\$19 million into the fund in installments of US\$3.8 million spread over five years starting from 1993. The Chinese side, represented by the Tianjin Municipal Environmental Protection Bureau, is to contribute a specified amount of revenue from the 80% share of the money collected by the pollution levy. This contribution is an additional financing source in the ratio of 4:6 between the amount of capital provided by China and that contributed by the World Bank (the exchange rate is set at US\$1 = 8.4 yuan). The Municipal Environmental Protection Bureau will contribute 21 million yuan each year, being in total 105 million yuan over the five years. At the end of this period when all the pledged capital has been provided by the World Bank, the Municipal Environmental Protection Bureau will continue to provide contributions in order to repay the interest and principal on the World Bank loan and to maintain the general size of the Fund.

The loan provided to the Tianjin Fund is similar to the soft credit facility provided by the International Development Association (IDA). China's Financial Affairs Ministry has agreed to a credit period of 15 years with a preferential 5% annual interest rate for five years. The Tianjin Fund will also pay the World Bank 0.5% of the unremitted loans each year as a commitment fee.

(ii) *Structure of the Fund*

A Board of Directors has been constituted and serves as the principal authority of the fund. The Board consists of seven persons. Two of them were nominated by Tianjin Municipal Environmental Protection Bureau, one was nominated by the Municipal Sight-seeing and Health Administrative

Committee and one was nominated by each of the Financial Affairs Bureau and Economic Commission. In addition, two persons from the local industrial bureau serve as advisors. Of the two nominees of the Environmental Protection Bureau, one serves as the President of the Board and the other is the Executive Director of the Board. When the board stands adjourned, the Executive Director exercises responsibility on its behalf. The executive board meeting must be attended by the President, the Executive Director and a director of the board from the Financial Affairs Bureau. The standing institution of the fund is the Fund Management Office established under the board of directors and to which it is accountable. The fund management office operates as an independent institution with sole responsibility for both fund gains and losses. The office has established four affiliated departments: a technical department, an economics department, an accounting affairs department and an administrative department.

(iii) *Institution in which Fund Money is Deposited*

All money under the control of the Fund is deposited with the International Business Department of the Tianjin Branch of the China Construction Bank. When the Fund Management Office was being established the Construction Bank provided considerable assistance to the Office in undertaking economic evaluations and accounting audits of projects. This work is now conducted by the Fund Management Office itself.

(iv) *Scope of Fund Assistance*

The Fund offers financial assistance to municipal institutions and agencies for industrial pollution control projects such as the following:

- projects intended to control the release of pollutants and projects promoting technical innovation in resource and energy saving;
- comprehensive projects intended to control the “three wastes” and projects promoting centralised treatment of wastes;
- other pollution control projects with clear social or economic efficiency benefits.
- The Fund may provide credit to a project up to a maximum of 70% of the total investment value of the project.

(v) *Status of Fund Operation*

The Fund began operating in July 1993. Since then the Fund has reviewed its experiences, improved its working procedures and accelerated the process of granting credit. To date, the Fund has agreed contracts with ten other institutions with a total contracted credit amount of 110.48 billion yuan. In addition, the Fund has established contact with, and is conducting assessments of, nearly 20 more projects with a total investment value of about 40 million yuan.

## **2.0 A Framework for China National Environmental Fund**

### **2.1 Selecting the Type of NEF**

The existing fund systems in China can be categorized into three types:

- special funds established and run by the government;
- public welfare funds; and
- commercial investment funds.

When the NEF is established in China, and whatever type is chosen, consideration needs to be given to such factors as demand for investment, economic effectiveness of the fund, arrangements for fund disbursement, relevant national policy concerning the operation of the fund and ensuring that the fund is sustainable. A comparison of the advantages and disadvantages of the three types is shown in Table 2.

**Table 2: A Comparison of Three Types of NEF**

Type of Fund	Advantages	Disadvantages
Special Government Fund	<ul style="list-style-type: none"> <li>• Better adapted to existing policies.</li> <li>• Some experience available and fund is easier to operate.</li> <li>• Simple administration and structure</li> <li>• Less financial management capacity required</li> </ul>	<ul style="list-style-type: none"> <li>• Attached to government agencies and less independent</li> <li>• Limited fund sources</li> <li>• Single method of investment</li> <li>• Organizational problems</li> <li>• Fund prospects less promising</li> </ul>
Public Welfare Fund	<ul style="list-style-type: none"> <li>• Simple and easy to establish</li> <li>• Wide range of fund sources</li> <li>• Simple internal structure</li> </ul>	<ul style="list-style-type: none"> <li>• Disparity between fund sources and demands on fund</li> <li>• Narrow field for investment</li> <li>• Size of fund limited and restricted scope for development</li> <li>• Environmental funds already exist in China</li> </ul>
Commercial Investment Fund	<ul style="list-style-type: none"> <li>• Improved capability in fund distribution</li> <li>• Compatible with principles and standards of a market economy</li> <li>• Better prospects for development of the size of the fund</li> </ul>	<ul style="list-style-type: none"> <li>• Policy and administration barriers</li> <li>• Cannot receive donations</li> <li>• Difficult to control investment orientation</li> <li>• Lack of practical experience in the operation of such a fund</li> </ul>

Based on the actual situation in China and experiences in environmental funds in economies in transition and in OECD countries, it is suggested that a mixed environmental fund be established in China. It should draw on the advantages of the above three types of funds. The main features of such a mixed environmental fund include:

- it can receive money from various sources, augmenting the size of the fund;

- it can fulfill multiple investment functions, with objectives to fund both policy-type investments and commercial investment;
- its organizational structure is compatible with institutional arrangements of a market economy and thus the fund has better long-term development prospects;
- it can guide the orientation of environmental investment and facilitate improved efficacy and effectiveness of environmental investment.

## **2.2 Stared Goals of the NEF**

As a national fund, the NEF is able to receive funds from various sources, develop a capital market for environmental protection, and provide support to environmental projects. Its long-term objective is to be recognised as an organization similar to an investment fund or bank that directly participates in environmental investment in China. Given the background of economic policy reform, institution building and the establishment of a market for pollution control and treatment projects, the long-term objective can be realized in two stages:

Stage I: This includes establishing the national environmental fund, defining a project appraisal procedure and supporting projects in progress that might not be in accord with the long-term objective of the NEF. The following specific tasks are suggested: (1) the NEF should focus on priority projects and those with low risk, such as river basin pollution control and treatment projects; (2) revenue from the pollution levy and potential environmental taxes should be channeled to the NEF to provide income. This money can be used to repay debts and increase the capitalisation of the fund; (3) projects in this first stage should be extremely well organized and managed to ensure that NEF income is self-sustaining; (4) the NEF should co-operate with, and facilitate the development of, existing funds for pollution control and treatment, including funds managed by agencies attached to environmental protection bureaus and companies so as to improve both national and local efforts in environmental protection; (5) the NEF should maintain contact with a wide range of domestic and international financing sources, including banks and investment funds.

Stage II: This is the mid- and long-term stage. Once the necessary reform is completed, that is, the NEF is authorised to use revenue from the pollution levy and environmental taxes as fund sources and to undertake investments according to the Funds criteria, the following actions could be implemented: (1) seek to attract funds for the NEF from a wide variety of sources. At this stage, projects should be open to a wide range of potential investors; (2) set up a clear project appraisal system which includes assessment of the compatibility of project proposals with government policies and commercial loan conditions; (3) removal of some policies which make provision for subsidies except in regions where revenue from taxes or appropriation from government funds are used to support special projects under specific government policies; (4) use money from the NEF to deepen development of a market for environmental services and technologies which support environmental objectives.

## **2.3 Legal Structure of the NEF**

It is suggested that the organisational structure of the Fund be set up in two phases. In the first phase, the administrative arrangements for the NEF should be established. An administrative committee or board of directors for the fund, responsible for supervising and managing the work of the fund, should be set up. The administrative committee should consist of representatives of different institutions such as the State Planning Commission (SPC), Ministry of Finance (MOF) and State Commission for Economic System Reform, with NEPA playing a lead role. The committee will be responsible for determining the

objectives and development strategy of the NEF, defining regulations, rules, and a plan of operations, making decisions on staffing, etc. A preparatory NEF office or management centre should also be established. The administrative committee and preparatory office/management centre are both transitional organizations. After one or two years of operation, a national environmental investment company should be set up.

The administrative committee of the NEF will entrust responsibility for managing the NEFs assets to a competent organization and delegate investment management control to the national environmental investment company. The asset management organization and the investment company will sign contracts with the NEF. It is preferable that the asset management organization is a large commercial entity.

The environmental investment company will be the main body responsible for disbursing the assets of the NEF. Its principle function is to use the available assets effectively and according to the specified objectives and principles of the NEF to realize the basic goal of the fund. The investment company and the NEF should be structured as two independent corporations. A contract between the NEF administrative committee and the investment company will establish the rules for management of fund investments.

In a second phase, the national environmental investment company (NEIC) will be set up. The administrative structure of the NEIC as an corporate entity will be determined according to company law and other relevant laws and regulations. The establishment and scope of business operations of the NEIC will depend on the amount of funds available and the possibilities for investment.

The administrative structure of the NEIC will comprise a board of directors, a president, a supervisory board and several business units. Major responsibilities of the board of directors include defining rules, regulations and operational plans for the NEF, reviewing reports submitted by the president, auditing the financial accounts of the company, taking decisions on staff appointments and termination of employment, etc. The board of directors will consist of five to thirteen members, with the chairman being the legal representative of the board. According to the rules and regulations of the NEIC, the chairman and key members of the board are nominated or appointed by departments of the State Council responsible for environmental protection.

The president of the NEIC is appointed or removed by the board of directors. He or she is directly responsible to the board. Responsibilities of the president include managing and administering the NEIC, plus implementation of decisions made by the board of directors; preparing and implementing the annual workplan; co-ordinating project evaluations in terms of their technical and economic implications; preparing loan plans, overseeing implementation of loan policies and ensuring timely collection of loan principal and interest; and sustaining and increasing the value of the money provided from the NEF to the NEIC.

A board of supervisors consisting of three supervisors will be set up, responsible for legal supervision of the operation and overseeing the financial affairs of the NEIC. Also, in order to meet the practical needs of the business environment within which the NEF will operate, two departments focused on funding government policy projects and commercial fund management respectively will be established.

## **2.4 Sources of Income for the NEF**

The Fund's income comes from three major sources: appropriation from the Chinese government, multilateral and bilateral assistance and donations, and commercial investments. Appropriations from the government include a special fund which channels contributions by financial sectors of central government

to the NEF (this money could be used as seed capital) and a certain amount of money from local EPBs collected by NEPA. Funds from international donors are sourced principally from the World Bank, the Asian Development Bank and some developed countries.

In the future the NEF could raise funds from the domestic and international capital market by encouraging individual contributions and issuing fund bonds. In addition, the revenue from some potential environmental taxes could be included in the NEFs income as a special tax fund.

## **2.5 Investment Orientation of the Fund**

Based on the principle of separating the administrative jurisdictions of central and local government under a market system, and taking into account the purpose of establishing the NEF, it is considered that the fund should be used for the following purposes:

- to establish pilot projects and demonstration areas for industrial pollution prevention and control, including the demonstration and dissemination of cleaner production technology in key polluting sectors, the diffusion and application of best practical technology for environmental protection and establishing demonstration projects and areas for the comprehensive reuse of waste and treatment of regional pollution problems;
- to implement centralized control and comprehensive treatment projects which address major urban environmental pollution problems;
- to solve specific and important pollution problems, including protection of drinking water sources, prevention and control of significant pollution threats and emergency treatment of sudden pollution events;
- to undertake demonstration projects to ensure compliance with international conventions and agreements, including development of key technologies and engineering expertise for reducing greenhouse gas emissions and replacing ozone depleting substances; demonstration projects to protect biodiversity and the further establishment of nature reserves; and environmental protection projects for shared rivers and ports close to borders;
- to develop cross-regional and trans-river basin projects in pollution control to improve environmental management;
- to develop “green” products and to develop and introduce environmental equipment and technologies.
- to undertake profitable and commercial investments that are consistent with environmental protection goals and which maintain and increase the value of the fund’s assets. The main form of such investment is stock investment, for which greater risk control is required.

## **2.6 Methods of Distributing Money from the NEF**

Since the NEF is not a pure investment fund, its money can be used in the following ways:

- Loans: For most environmental protection and pollution treatment projects it is appropriate to distribute funds in the form of loans. Loan repayments can be used to augment the cash flow



of the fund. Assistance from many international multilateral sources has been provided in the form of loans which are required to be used and repaid in the same form. Thus, granting loans to eligible projects is a major method of using the assets of NEF;

- **Investment:** In some cases, the total amount of cashflow generated by environmental projects is insufficient to repay the loans. In other cases, the projects seek to establish commercial organizations. In these cases, it is more appropriate to invest in the form of capital shares. The NEF will therefore invest in these types of projects as a shareholder and retain a certain proportion of shares. The NEF will participate in decision-making process associated with the projects, but in principle will not participate in daily operational and management activities. After a period of time, the Fund will reassess its position taking account of the financial prospects for the projects;
- **Reduction of Interest and Principal Repayment:** Currently, most environmental projects are not very profitable. It is difficult for such borrowers to repay the interest from their cashflow. Moreover, some borrowers cannot repay the principal. For those projects that have very low economic benefits but which need money to treat and control pollution urgently, the NEF could reduce the interest repayment and provide a grant for part of the principal due. In order to encourage developers to invest more money in environmental projects, it may be necessary to provide some economic benefits as an incentive for them to become involved in projects whose financial prospects appear promising;
- **Paying Interest Due on Loans:** In order to encourage relevant organizations to use commercial loans and credits for environmental projects, the NEF can establish a sub-fund within the annual fund which would be used for paying interest on loans. This sub-fund could be used to provide a guarantee for interest payment and to pay the interest on loans from commercial banks for environmental projects. In other words, borrowers can obtain loans for environmental projects at the prevailing commercial terms and interest rate, and the sub-fund would pay the interest due;
- **Diversified Investment:** The amount of the fund that remains unused should be kept and increased through diversified investment. Activities in this area need to be approved by the Fund board of directors and will be implemented by the managing company.

## **2.7      Loan Terms**

The following factors will be considered by the NEF in evaluating loan proposals:

- **Investment Structure of the Project:** In order to increase the scale of investment, and to spread the risk between the Fund and the borrowing enterprise, the latter will be required to raise a certain amount of money themselves as a counterpart to that provided by the Fund. The amount of money raised by enterprises should not be lower than 30% of the total amount invested in the project. If the money raised by the enterprise is not available or accessible, the borrower is not permitted to use the contribution from the NEF;
- **Duration of Loans:** In order to accelerate the turnover of capital and reduce risks the terms of loans granted to enterprises should be reasonably determined. For general projects, the loan period is three to five years, while for some special projects the loan period can be as long as seven years. Extensions in the duration of loans will not exceed two years at most;

- Favourable Loan Interest Rate: The interest rate and overdue interest rate charged for loans made to industrial enterprises for technological modernisation projects can be 10% lower than the prevailing market, when necessary. The interest rate of loans in foreign exchange is set as a floating rate, and is 1.5% higher than the loan rate of the World Bank. Project developers who receive such loans will bear all foreign exchange risks. For some public interest projects a certain amount of loan interest can be deducted but the deduction should not mean that the loan is less than the project's capital cost;
- Methods of Repayment: Because the Fund's income will come from many sources, money repaid by borrowers is received and then redistributed. The National Environmental Investment Company (NEIC) should define arrangements for fund use and repayment for all projects, prepare schedules for loan repayment to the NEF, and make the necessary financial arrangements. When repaying loans from the NEF, borrowers could pay from their own funds (from profits or savings) or from funds retained as a result of undertaking comprehensive re-use of waste or from special funds appropriated by a higher level of government or funds from any other sources.

## 2.8 **Loan Application and Approval**

The NEF will operate as a project manager. Possible projects include industrial developments and public interest projects, with industrial developments taking precedence. Concerning public interest projects, the managers of fixed assets or tangible assets resulting from investment will submit proposals for loans from the NEF and local financial agencies will guarantee the proposed projects. For projects which cross different administrative boundaries, agreement on responsibilities will be reached by the relevant provincial and municipal governments and the project owners. After the projects are completed, and as appropriate, the borrower will repay loans with income from their services, or local governments, as the beneficiaries, will repay the loan.

The procedure for loan application and approval is:

- for all projects that meet the criteria established by the NEF and in accordance with the standards set for fund applications, applicants will submit the relevant forms to the NEIC following completion of all the necessary preparatory work;
- the operations department of the NEF will make an assessment of the project or entrust a relevant organization to undertake this task. The assessment will cover the type of equipment or technology to be used, the investment budget, cost-effectiveness, environmental benefits and loan repayment capability;
- after a proposed project passes this assessment, and at the request of the NEF operations department, the loan applicant will develop an investment plan according to established procedures and provide valid guarantee documents from local financial, banking and other organizations;
- the operations department of the NEF will make an overall assessment and determine implementation plans for the loan, based on the annual development plan ratified by the NEF's administrative committee. After signing contracts with the borrower, the operations department of the NEF will inform the Fund's trustee bank and request it to action the necessary formal procedures for granting the loan;

- after the project is approved the NEF operations department will submit the necessary documentation to the NEF administration committee for record keeping;
- the borrower will be responsible for implementing the project and meeting the conditions of the loan.

## **2.9 Relations between the NEF and Relevant Government Institutions**

These include relations between the NEF and NEPA, between the Fund and other government ministries and commissions, between the Fund and the trustee bank where its money is lodged and between the Fund and state policy organisations charged with promoting investment to achieve national objectives.

### *(i) Relationship between the NEF and NEPA*

In terms of long-term development, it is inevitable that a relationship be established between the NEF and national agencies responsible for environmental protection according to the principle of separating administrative functions from business functions. However, in order to accurately reflect the nature of the Fund's activities, it is not practical to separate the NEF from the administrative agencies responsible for environmental protection. NEPA should thus be identified as the responsible administrative agency of the Fund.

It should be noted that the relationship between a "responsible administrative agency" and the NEF is very different from that of command and compliance between administrative agencies and enterprises in a planned economy. The current administrative function is embodied by appointing an administrator of the Fund such as the chairman of the board of directors, in supervising the operation of the Fund and in establishing policies to guide action. While being subjected to supervision by NEPA, the NEF has full power to take independent decisions on operational matters within the framework of relevant national investment policies, environmental policies and environmental investment plans. With an improvement in the operational capability of the NEF, the direct influence of NEPA on the Fund will gradually decrease. It is anticipated, however, that NEPA will retain some influence by providing policy guidance and participating in significant investment projects.

### *(ii) Relationship between the NEF and Relevant Ministries and Commissions*

Relevant ministries and commissions include the State Planning Commission (SPC), the Ministry of Finance (MOF) and the People's Bank of China. The SPC and the MOF should be invited to participate in establishing the Fund and efforts need to be made to obtain some funding from them. They could be invited to appoint directors or members of a committee responsible for the administrative organization of the NEF, together with directors or members from other institutions and agencies. The appointees would be able to participate in the administration and supervision of the NEF and provide policy guidance on its operation.

According to China's Banking Law the People's Bank has the authority to approve the establishment, modification and termination of the business scope of funds. After the NEF is established, it will be subjected to the leadership administration, co-ordination, supervision and auditing of the People's Bank of China concerning its business affairs.

### *(iii) Relation between the NEF and its Trustee Bank*

This refers to the association between the Fund and the commercial bank where the NEF holds its account, i.e. the trustee organization. As noted above, a large commercial bank is the most appropriate trustee organization for the NEF. The board of directors of the Fund should sign an agreement to entrust

the Fund's assets to this bank. The NEF will then deposit all of its funds in an account. It should be stipulated in the agreement that the disbursement of money associated with the NEFs investment should be managed and operated by the bank.

(iv) *Relationship between the NEF and National Policy Investment Organizations*

National policy organizations responsible for investment are special financial organizations established to ensure the implementation of policies aimed at reorienting China's economic structure during the period of transition to a market economy. The major mission of these organizations is to grant loans to those projects that can achieve very good social benefits but which cannot show high economic benefits and which cannot repay loans at the standard interest rate or those projects that demand a large amount of money and take a long time before they are able to repay the loan and to which, therefore, commercial banks are not willing to grant loans. Environmental projects are one of the important target groups of the national policy investment organizations. Loans are given only to projects that need money at a favourable interest rate.

The operation of the NEF should not substitute for the investment activities of the national policy investment organizations in funding environmental projects. When investing in a large scale environmental project, the NEF should co-ordinate and co-operate with the national policy investment organization in preparing and implementing plans and in granting loans. This reflects the capacity of the NEF to contribute funds and to take some of the project risk. For other environmental projects, the NEF should co-ordinate with the national policy organisation on an as-required basis.

## **2.10 Ensuring Coherence between National and Local Environmental Funds**

At present, China is in a transitional stage from a planned economy to a market economy. Accordingly, her finance, taxation and investment systems are being adjusted and undergoing reform. Since China is such a large country and its economic development is uneven in different regions, it is not possible to overcome some of the disadvantages of the existing environmental investment system by relying solely on local environmental funds (LEF) or a national fund (NEF) operating in isolation. This implies that establishing a coherent relationship between the two funds is required.

In the course of reform of environmental funds in China, LEFs have always been the pioneers. In order to adapt to the new situation of developing a market-oriented economy, the special fund for pollution source control and treatment, the revenue for which comes from the pollution levy, and which was established under a planned economy, is being thoroughly reformed.

Experience in reforming environmental funds can be summarized as follows. On the one hand, it is possible to retain the existing structure of the local special fund for pollution source control and treatment while at the same time reforming some of its procedures and scope so its operation better meets the requirements of a market economy. For example, changes could be made in fund management, areas of investment, pre-requisite conditions for project applications, loan interest rate and the terms and conditions of exemptions for repayment of principal. This type of reform is currently being carried out and deepened. The Shenyang Investment Company and the environmental fund in Tianjin are two examples of this.

To deepen the reform of LEFs, the following five issues need to be addressed:

- whether the environmental fund or investment company is subordinate to any governmental institution or is independent;

- the fund's capability to distribute money and the effectiveness of fund spending;
- the policy of exempting principal repayment on loans repaid late;
- the split between national policy-related investments and commercial investment;
- flexibility to consider all feasible investment opportunities including, but not limited to, investment in key fields of pollution control.

On the other hand, and on the basis of experience in the reform of local special funds, a NEF and LEFs that can meet the requirements of a market economy could be established. These funds would aim to support the achievement of national environmental policy goals and to reflect the special requirements of environmental protection and investment in environmental projects. With these criteria as pre-requisites, the funds could introduce market mechanisms and operate in a way that is consistent with the functioning of a market economy so as to maintain and increase the value of the fund. These funds should have all the advantages of special government funds, public welfare funds and investment funds and have some of the functions of all three in terms of operational procedures, aims, investment skills, investment coverage and management. The type of NEF to be established should be consistent with the stage of economic transition. Reference could be made to experience in transitional countries of central and eastern Europe such as Poland.

Generally speaking, except for commercial investment funds, various special funds are established to solve problems in a specific field which cannot be solved by standard approaches. However, special funds, like environmental funds, are not a panacea. We should not expect that all environmental problems that cannot be solved because of lack of funding will be solved once environmental funds are established. All relevant institutions and sectors involved should recognise this in the course of establishing the NEF.

The differences between these two types of fund implies a difference in spatial coverage. LEFs are not subordinate to a NEF in terms of administration. Both funds, after their legal registration, are considered as equals.

NEF(s) and LEF(s) will carry out their respective activities according to their jurisdiction. Although a NEF and LEFs focus on different fields, their business is very similar. When investing in some projects, different funds can take part in the activities of the other, and co-operate on the basis of discussion and consultation.

In order to co-operate and co-ordinate better with LEFs, it is preferable for NEF(s) to establish subordinate agencies or offices in specific regions, with responsibility for its business in these regions.