Environmental Assessment Sourcebook
UPDATE

Environment Department
The World Bank

March 1994
Number 6

Privatization and Environmental Assessment: Issues and Approaches

The World Bank is actively assisting borrowing member governments in their efforts to privatize public enterprises (PEs). These enterprises include various environmentally sensitive activities such as industrial manufacturing, mining, oil and gas development, and water and sanitation services. Moving these enterprises from the public domain to the private is not neutral in environmental terms as it raises the issue of responsibility for environmental impacts from past and ongoing operations as well as the broader concerns of environmental management.

The Bank uses several lending instruments in support of privatization, including adjustment operations, sector programs, investment projects and technical assistance. These instruments support privatization methods such as partial or full sale of individual PEs, issuance of vouchers, management buy-outs, and liquidation and sale of assets. Given this wide variety of contexts and means and the cross-sectoral scope of privatization, it is not possible in this context to provide all-encompassing environmental guidance. Instead, this Update seeks to (1) present the main environmental issues frequently associated with privatization; (2) show how these issues can be addressed in preparation and implementation of privatization schemes within the framework of the Bank's environmental assessment (EA) Operational Directive (OD) 4.01; and (3) suggest options for ensuring appropriate implementation of the required or recommended actions. The Update belongs in chapter 2 of the Update Binder, "Global and Cross-Sectoral Issues in Environmental Review." Due to the different nature of the privatization operations of the International Finance Corporation (IFC), the Update only addresses the operations supported by the Bank (IBRD/IDA).

Environmental issues

Environmental issues in privatization operations are commonly divided into two general categories. The first category is pre-existing environmental problems—or "pollution stocks"—resulting from activities while under public sector ownership. The second general category is "pollution flows" and other environmental problems related to ongoing and future practice. These categories of issues, as well as this *Update*, are not only relevant to full privatization but also to cases where PEs become more autonomous without being completely privatized (e.g., by being given independent management and budget authority; through privatization of management or establishment of joint ventures).

Pre-existing problems

Many privatization candidates, particularly in certain industries, leave behind significant environmental risks or have already caused serious impacts from their production and waste-handling practices (*see* Box 1 for examples of activities and substances frequently associated with contamination). Past pollution may have caused damages to workers or local populations, or may be a potential future hazard if soil and groundwater are or could become contaminated due to improper past practices (e.g., storage and disposal of waste). Hence, there might be a need to clean up contaminated sites or in other ways mitigate, contain or abate damages and / or to compensate or provide medical assistance to victims.

Three questions need to be answered: (1) As a matter of overall law or policy or in individual privatization schemes, who will be responsible for known or contingent damages to public health and the environment: the state as previous owner, new private investors, or both? (2) To what extent do privatization candidates have pre-existing environmental problems? and (3) What can be done to ensure proper handling of these problems?

Box 1. Environmental "red flags" at industrial sites

- Chemical manufacturing, transfer or storage
- Petroleum refining
- Metal finishing
- Steel making and finishing
- Painting or coating of metal, concrete or wood components
- Water treatment of any kind
- Storage of liquid or solid wastes
- Hazardous or organic waste disposal or landfill site
- Manufacturing of electronics
- Use or storage of PCB-containing transformers or capacitors
- Areas subject to long-term exposure to pesticides
- Asbestos-containing materials (e.g., in insulation or floor tiles)
- Fuels or chemicals in aboveground or underground tanks
- Textile finishing

Issues related to ongoing and future operations

Environmental concerns related to current and future activities can be divided into two categories: impacts of ongoing operations, and incremental impacts following privatization.

Ongoing operations. A public enterprise scheduled for privatization may be the source of significant "pollution flow" problems or could be drawing down stocks of natural resources at an alarming rate. Concerns may include violation of emission standards, hazard to the health and safety of workers or local communities, diversion of scarce water resources, depletion of fisheries or excessive logging.

Incremental impacts. The most important potentially negative environmental impacts following privatization are:

- *Stronger incentive to pollute or exhaust natural resources.* Without an appropriate regulatory framework, privatization may increase a firm's *incentive* to pollute or extract depletable natural resources. Private firms are generally pushed by competition to maximize profits, and in the absence of appropriate and enforced government regulations, they might be unwilling to incur the additional costs of reducing pollution or be willing to exhaust natural resources quickly and invest profits in other and more lucrative activities. This may be countered somewhat by the importance private firms commonly place on making efficiency gains, avoiding adverse publicity, or by the tendency of some governments to impose tougher standards on private than public firms. Still, experience shows that appropriate safeguards should be put in place prior to privatization.

- *Regulatory "freeze" effect*. Privatization may tend to freeze environmental standards and enforcement at the current level, because new owners are certain to resist any later strengthening of the regulatory framework that was unanticipated at the time the firm was purchased. Unless clear and positive steps are taken to initiate regulatory reform as part of the privatization process, future roadblocks may develop. In this sense, privatization may in fact be a "golden opportunity" for strengthening the environmental regulatory framework.

- *Recapitalization effect*. Privatization may recapitalize and revive polluting firms that would otherwise go out of business. It may also lead to significant expansion of activities. The result may be intensified pollution loads and a heavier regulatory burden for environmental institutions.

Privatization may also produce *positive* environmental effects, such as increased efficiency in the use of natural resources and more rapid adoption of cleaner technologies. Naturally, opportunities for enhancing such positive synergies between privatization and environmental protection should be explored and maximized during the entire EA process and also as part of policy dialogue, rather than treating these goals as mutually exclusive.

Environmental screening of privatization projects

Screening (*see* also *EA Sourcebook Update* No. 2) is performed to identify the environmental issues associated with a project and the appropriate level and type of EA work. Category A, which requires full environmental assessment, is appropriate for privatization projects with identifiable components that may have significant impacts prior to or following privatization (e.g., from major expansion of production capacity or construction of new facilities). Full EA should also be considered where impacts from existing activities are particularly significant on human health and the environment.

However, Bank-financed privatization projects involving industrial enterprises, agriculture and public utilities are often classified in category B (limited potential impacts), especially if they are implemented through lines of credit. Issues that frequently need particular attention in these projects are (1) the policy, legal and institutional framework for privatization in terms of environmental management; and (2) existing environmental conditions on and off-site of PEs scheduled for privatization. These issues, which are also highly relevant for category A projects, are discussed in detail below.

Category C is normally appropriate for projects aimed solely at strengthening institutions involved in privatization or when privatization only affects activities with minimal or no environmental issues (e.g., financial services). This Update, while primarily rele-

vant for A and B projects, may also contain useful information for some C projects as well as other operations not formally requiring EA (adjustment loans).

Environmental analysis: Major areas of concern

To some extent the environmental issues in privatization require responses that are different from EA approaches in more conventional investment projects. This is particularly true for past contamination problems. However, OD 4.01 provides a flexible framework for conducting EA work appropriate for the specific circumstances of privatization.

Policy, legal and institutional aspects

The aspects of concern will depend on the nature of environmental problems associated with a privatization candidate. Again, it is efficient to separate between pre-existing and ongoing / future environmental issues.

Pre-existing issues

Privatization operations differ from most other types of projects in that pre-existing contamination will often be the main environmental concern. When this is the case, responsibility for problems created in the past becomes an important issue that requires attention in environmental analysis. In many countries, legislation is lacking or ambiguous about who is responsible (in legal terms, *liable*) for past damages. This uncertainty may not only hamper the process of privatization, but also slow down mitigation of hazards and compensation to victims. It is therefore important to examine the borrower country's relevant policies, laws and regulations and determine if they are sufficiently clear and, secondly, if they are appropriate from an environmental and economic perspective. Relevant legal codes will vary from country to country but may involve both civil and criminal, environmental and commercial law. The analysis should result in recommendations that rules be developed, clarified or changed, if needed.

In general, governments can choose among three main options: (1) hold new private owners fully responsible for past pollution problems to the extent that legislation requires any mitigative or compensatory measures; (2) assume responsibility, as a matter of law or policy during privatization, for most or all damages or hazards resulting from past practices, thus providing the new owner with a "clean slate"; or (3) adopt a "flexible" policy and negotiate a settlement in each case, with varying degrees of shared responsibility. Unless the government decides on one of these policy options, the outcome can to some extent be determined by the chosen mode of privatization. For example, sale of an operating enterprise (i.e. of an "ongoing concern") usually means that all liabilities are transferred to the new owner. Liquidation and sale of assets, however, normally result in no transfer of liabilities.

The implications of the three options for the particular country, sector and privatization candidate(s) in question should be analyzed in order to recommend an optimal and realistic strategy to the government. The best solution will depend on country economic conditions, legislative tradition and ability to follow-through in monitoring that the agreed actions have been taken. The World Bank currently advises many countries in Central and Eastern Europe to choose the second option, which is more likely to encourage foreign investment in unpredictable industries and may also increase the sales value of PEs with contingent liabilities, as it completely or partially protects investors, domestic as well as foreign, from sudden "surprises." In terms of privatization mode, a hybrid approach combining liquidation and sale of ongoing concern is frequently recommended by privatization lawyers, partly in order to ensure that environmental liabilities are not transferred to the new owner along with other liabilities. This approach is a practical application of the second option.

The Bank also recommends that a clean slate should only be given *under specified conditions and realistic standards* in order to avoid excessive costs to the state. Costs can be limited by setting realistic standards for "how clean is clean enough" and how soon the acceptable standards should be reached. Other ways to control public expenditures are caps on indemnification, time limits for how far into the future investors can apply for coverage, and limitation of the indemnification policy to certain sectors. Furthermore, the government may use industry taxes or levies to collect the needed funds from the industrial sector, or set aside a portion of the purchase price for remedial actions. External assistance for cleanup may also cover a share of the costs. Finally, governments may expect more from international than domestic investors in terms of improving environmental conditions at privatized enterprises, in return for partial or full indemnification.

Even if laws are clearly stated with respect to responsibility for past pollution problems, effectiveness of response in terms of cleanup and other measures to contain or compensate for damages depends on institutional capacity for establishing clear agreements and ensuring practical follow-up through monitoring and enforcement. These aspects, including the capacity of the administrative and judicial system to implement legislation on environmental liability, should be examined, particularly in the context of large privatization programs for a specific sector or across sectors (*see* also following section). In countries with little or no judicial experience, reliance on the courts to enforce liability rules may be unrealistic.

For some public enterprises, certain sites or facilities may have too serious contamination problems as to be attractive to new investors. In these cases only partial privatization may be realistic, leaving the state with full responsibility for the most problematic parts of the

PEs. Environmental investigations and proper action to reduce environmental hazards and risks associated with these parts should be done in the same way as for facilities scheduled for privatization (*see* below).

Ongoing and future concerns

Support for privatization implies support for a sufficient degree of private sector insulation from government intervention. At the same time, developing and maintaining a rigorous and balanced environmental regulatory regime is necessary in order to protect environmental health, ensure a clean environment and secure natural resource supplies for the future. A single privatization project may not be the most effective tool to directly further these goals, but environmental analysis should give special attention to how the privatization project might be linked to other operations (e.g., sectoral privatization programs, lending for environmental institution-building, policy-based lending) and policy dialogue in order that environmental safeguards are maintained.

Environmental policies, laws and regulations of relevance to the privatization candidate(s) operations should be analyzed. This is particularly important in overall country or sector strategies for privatization, or in conjunction with individual sectoral or large-scale privatization projects.

Laws and regulations regarding environmental assessment, air and water pollution, hazardous waste, occupational health and safety, disclosure of information, and public participation are relevant. Gaps in environmental laws in relation to environmental problems in sectors undergoing privatization should be identified. The review may also include contract law and corporate requirements such as disclosure to regulators and shareholders, and specific government programs (for example, deregulation programs and environmental legislative proposals).

Policy, legal and regulatory mechanisms can be effective only if there are adequate institutions for implementing and enforcing them. An analysis of these institutions will therefore be useful prior to privatization. Relevant public regulatory institutions include environmental protection, health, privatization, labor and industrial licensing agencies. Relevant developmental institutions may be development banks and financial intermediaries, investment promotion centers, and sector ministries.

In many borrower countries, the environmental institutions are too weak to ensure sound environmental performance of privatized firms. Enforcement tends to be selective or non-existent. When analyzing these situations, however, the overall social and environmental context should be taken into account. For instance, standards might be more flexibly enforced in areas where the effect on human welfare is known to be limited, but enforced more rigorously in densely populated or highly sensitive natural areas and sites with cultural properties (particularly legally protected areas and sites).

Institutional analysis should also identify major public and private institutions or stakeholders that are for and against stronger environmental regulation, as well as their capacity for inducing or resisting change. Where feasible, concrete ways to promote cooperation and reduce opposition to environmental protection should be described. Private institutions of relevance include chambers of commerce, industry associations, foundations, professional associations, financial institutions, and consumer-related organizations.

Even where there is adequate legislation, environmental performance will be affected by how well the judicial system works. For instance, weaknesses in judicial practice regarding property rights (ownership, transfer and bankruptcy), contractual rights, criminal law, and dispute settlement can undermine environmental performance, even where regulations appear strong on paper. Analysis of the judicial system can provide valuable inputs to design enforceable standards and targeted institution-building measures.

Site-specific issues: Environmental audits

Environmental audits have been developed as an instrument to analyze *existing conditions* at and around a specific site (e.g., an industrial enterprise), and should be the major form of environmental analysis in privatization operations. There are several types of environmental audits (*see* Box 2). A future *Update* will discuss the types and uses of environmental audits in more detail.

When a full EA is warranted due to the significance of environmental issues, the EA work and environmental auditing can either be conducted as separate or joint activities, depending on what is practical. For example, audits can provide important input to the EA's analysis of *baseline conditions*, consideration of *alternatives*, and development of a *mitigation plan* for one or several existing impacts.

Box 2. Types of environmental audits

Environmental audits are divided into several categories according to scope and objectives. The most relevant types of audits in our context are:

- *Compliance audits*, which measure environmental conditions against existing national or international standards to determine the need for remedial actions necessary to bring an enterprise into compliance; and
- *liability audits*, which measure environmental conditions against the risk of being held responsible for damages.

Pre-existing issues

Focus of audit. If problems or risks from pollution stocks are considered the only environmental issue for a privatization candidate, a liability or site audit is the most relevant type. In most cases, however, there will also be concerns about management and compliance aspects. Hence, an audit operation usually needs to use elements of more than one audit type (*see* Box 3).

For pre-existing problems, the audit should identify types of environmental problems; substance types, conditions, and / or concentrations of contaminants; exposure pathways and potential impacts of these contaminants to humans and the environment; cleanup objectives and criteria; remedial alternatives; and costs and time requirements for the recommended alternative. The intended use of the facility after privatization is an important consideration in establishing the level of cleanup required. For example, whether the site is to be used after privatization for a school or for a hazardous waste dump would obviously affect the cleanup goals. The audit should also, where appropriate, include an investigation into the extent of hazardous pollution exposure among workers and local residents in the past, to determine the need for, or risk from, financial compensation to victims. The economic and environmental cost-effectiveness of cleanup versus alternative remedial actions should be carefully assessed.

The audit's cost evaluation should include estimates of capital and operating expenses associated with the remedial actions, comparing them with the value of the firm's current assets. The preferred alternative should be recommended along with an implementation schedule. If a remedial plan is included, it should provide a detailed sequence of activities to achieve the remedial objectives.

Process of audit. For large industrial "red flag" sites where there is reason to expect past contamination problems, thorough and relatively expensive investigations might be required. However, countries undergoing massive privatization may not always be willing to spend time and resources on too many costly audits. In order to gain political acceptance for environmental audits governments should be encouraged to establish a flexible and programmatic process for environmental analysis and review that involves one, two or three stages: (1) *Initial screening* (in parallel and coordinated with Bank screening) of privatization candidates according to potential environmental and health risks; (2) a *limited* (and inexpensive) *compliance audit*; and (3) a *full-scale liability and/or compliance audit*. This will help ensure that resources are invested cost-efficiently and on real priorities. While all enterprises should be screened at an early stage, it is expected that not all would require the limited audit and only some the third, and more costly, investigation.

Screening of individual enterprises. The operations and environmental conditions on and off site of PEs should be screened to identify problems that may warrant further environmental investigations. If a determination cannot readily be made about environmental issues during screening, the facilities should be visited. The visits can then provide the data needed for efficient, site-specific terms of reference (TORs) if an environmental audit is recommended (*see* Box 4).

The borrower country's audit requirements, when they exist, should be reviewed following screening, as well as any auditing procedures of foreign investors. In-country capacity to conduct environmental audits should also be considered, covering both the private and the public sector, and a determination made of whether

Box 3. Argentina: Excerpts from TOR for environmental audit of a chemical enterprise (under *PERAL II*)

The contractor shall conduct an environmental characterization of the [...] site (including the interior of the buildings). The site characterization shall include at a minimum:

- An asbestos survey of suspected materials, using bulk sampling and analysis by polarized light microscopy.
- A PCB survey of such suspected materials as transformer oils.
- A survey of all the aboveground storage tanks for the presence / absence of chemicals. If a chemical is found in any tank, the contractor shall analyze for chemical identification.
- A survey of the site for the identification of any underground storage tank. If such tanks are found, the contractor shall determine the presence / absence of chemicals, and if present, shall analyze for their chemical identification and certain properties. In addition, the contractor shall determine if soil contamination has occurred from any aboveground or underground storage tank.
- An analysis of accumulated liquids in various plant areas including, but not limited to, the lagoon, truck weighing station.
- If soil and / or sediment contamination is identified and groundwater contamination is strongly suspected, the contractor shall submit a request for groundwater investigation to the Ministry of [...].
- Preparation of the survey report for all the items described above. In addition, the report shall include evaluation of remedial alternatives and associated costs, and a detailed site remediation plan and associated costs for the recommended alternative.

Box 4. Jamaica: Private sector development adjustment loan and environmental auditing in privatization

Jamaica has embarked on an ambitious privatization program covering several industrial and other sectors, with World Bank technical and financial support. At an early stage, environmental staff in the Latin America and Caribbean (LAC) Region screened a total of 67 Jamaican PEs considered for privatization and categorized them according to the anticipated environmental requirements. A mission was conducted to (1) review environmental information and performance of selected PEs considered for privatization; (2) identify and visit the selected PEs to determine if an environmental audit would be needed prior to privatization; and (3) visit the Natural Resources Conservation Authority to discuss institutional and regulatory issues related to the environmental aspects of the privatization process.

The mission established that environmental audits were warranted for 21 facilities, including petrochemical, steel and railway operations, while environmental site assessments would be needed for 2 closed facilities. In one case, a dairy operation, the mission recommended an EA rather than an audit, since the enterprise would be converted to other uses following privatization. In another case, privatization and expansion of an airport terminal, both environmental audit *and* assessment was recommended. The Bank helped prepare TORs for the consultants hired to do environmental audits and site assessments (e.g., by suggesting generic language), and also provided case-by-case advice. The project is currently supervised to ensure that appropriate environmental actions are taken prior to or following privatization.

external support is called for and how it should be supplied (for instance, through training and / or participation by international auditing firms). Where no local audit requirements exist, the Bank should propose a procedure along the lines described here and help prepare TORs, based on the needs of the specific project.

Limited compliance audit. This audit essentially combines a compliance evaluation with identification of potential and real contamination problems on the basis of the nature of the enterprise and its activities, environmental setting, books and records, and visual evidence. The evaluation of existing information (such as inspection reports, permits, discharge monitoring data) and interviews with government personnel who are familiar with the facility (for example, the previous operating staff and knowledgeable personnel from the relevant environmental protection agency) is the first step. A site inspection will normally follow, for collecting new information and verifying the data gathered in the preliminary review.

Full-scale audit. This involves activities such as taking soil and groundwater samples on and / or off site and analyzing them in a laboratory, or investigation of long-term health impacts on the local population.

Following the procedures of OD 4.01, the Bank should review the results of audit process and recommend additional actions at appraisal or negotiations, as needed.

Ongoing concerns

For enterprises with environmental issues related to ongoing operations (e.g., pollution flows) the appropriate form of environmental analysis is usually a *compliance audit* to determine the extent of the problems and steps needed to bring the enterprise into compliance with national or international standards acceptable to the Bank. Since some countries' environmental standards are either unrealistically stringent or too lax, they should be compared with an objective reference, such as internationally accepted standards or successfully working standards in a similar country.

The auditing process would focus on environmental impacts associated with ongoing air and water quality, solid and hazardous waste discharges, and occupational health and safety issues at the facility site. The audit should result in recommendations for actions needed to bring the firm into compliance either prior to or within a given time frame after privatization. It should also include a present worth analysis for these actions. Where there are particular concerns with an enterprise's consumption of natural resources such as clean water, wood or fish, the audit should examine the effects on the natural resource base and suggest ways to regulate extraction according to sustainable rates. As for full environmental assessments, audit findings should be reviewed and followed up by the Bank in accordance with OD 4.01.

Sectoral EA in privatization

Sectoral EA can be a valuable instrument in preparation of a privatization program within a sector. The sectoral EA would focus on the implications of privatization on environmental management in the sector as a whole, sector-wide environmental problems and potential solutions (*see* Box 5 and *Update* No. 4: *Sectoral Environmental Assessment*).

Public consultation

Disclosure of environmental information to, and consultation with, local communities and NGOs are EA requirements (*see* also *EA Sourcebook Update No. 5: Public Involvement in EA*). For category A projects, disclosure and consultation are required (1) as part of the scoping process at the earliest stage of project preparation; and (2) when a draft EA report has been prepared. With the Bank's new policy on information disclosure (OP 17.50), environmental reports on category B

projects prepared by the borrower (e.g., environmental audits commissioned by governments but excluding audits done by potential investors) should also be made publicly available prior to appraisal (the second stage). Confidential material (e.g., financial information that would compromise the bidding process) can be excluded from disclosure as a certain degree of confidentiality is an inherent part of ownership transactions in a market economy. However, this concern should be balanced against the local public's right to know about environment and health issues that affect them.

For privatization projects the first stage of consultation translates to the point when a decision has been made to privatize one or several PEs. Local communities and NGOs should be notified and consulted about the plans to privatize, existing environmental conditions and how they might be addressed before and after divestiture. This approach should be standard for category A projects but may also be useful for category B.

The second stage is when the borrower has completed draft environmental assessments or analyses (e.g., audits). Reports should be made locally available in a meaningful form, allowing for sufficient time to give feedback. In particular, local communities should—for both category A and B IBRD/IDA projects—be adequately informed of any past contamination, ongoing pollution loads that will affect them, as well as steps that are recommended to improve the situation.

In addition, information dissemination is recommended, as a third and final stage, when the privatization agreement is signed. Major relevant agreements between the state and the new owner—on, for example, installation of pollution control equipment and cleanup measures—should be disclosed at the time ownership is transferred.

Experience suggests that a public information campaign as part of the EA process may be particularly

Box 5. Applying a sectoral EA to privatization

Components of sectoral EA	Possible privatization inputs
Policy, legal and institutional framework	Description of current privatization policy, environmental liability rules, relevant environmental standards, enforcement capacity, and stability of existing regulatory regime.
Description of sectoral investment program	Description of privatization plan and the sector as a whole: enterprises, prospective investors (foreign/domestic), the planned use of environmental audits and other types of environmental analysis.
Description of baseline inter/intra-sectoral environmental issues	Baseline information on stocks and flows of pollution in the sector or among the privatization candidates, current impacts on environment and health, information gaps, results of previous relevant environmental studies.
Prediction of impacts	Impacts of planned privatization program, taking into account the regulatory regime and possible changes in this regime, market-based private sector behavior, and developments in other sectors of the economy.
Analysis of alternatives	Environmental costs and benefits of alternatives, including continued state ownership, liquidation, greenfield investments, privatization of other industries, etc.
Mitigation plan	Design of strategy and plan for cleanup and other mitigatory measures for the sectoral privatization process: may include standards for cleanup and other remedial measures, standards and regulations for ongoing pollution problems, or plan for developing and using in-country capacity for environmental auditing and cleanup actions.
Monitoring plan	Plan to monitor and enforce compliance with environmental regulations, including cleanup where relevant.
Environmental management and training	Plan to strengthen government and private capacity in environmental management, through training, upgrading of monitoring technology, etc. Could include plans to build legal and judiciary capacity to deal with environmental liability issues.

useful in privatization, especially when multiple enterprises are involved. Such a campaign may help explain the environmental issues associated with privatization candidates and the actions that the state and/or new investors are considering or committing themselves to. Lack of information and transparency, on the other hand, may fuel suspicion and resistance in affected communities and ultimately slow down or even stop privatization.

Ensuring appropriate implementation

The scope and nature of environmental actions following the environmental assessment process of privatization operations will depend on (1) the nature and extent of environmental problems identified in environmental assessments or audit(s); (2) the legal, regulatory and institutional framework; and (3) the firms' competitiveness in their industries. The third point is important to reemphasize: a privatization candidate should not be so unfairly burdened that it cannot survive economically.

Two main strategy options are available:

(1) Where the legal and institutional frameworks make it is feasible to regulate the relevant sector(s) but where there are significant environmental problems with the enterprise:

- include in the sales document an agreement to complete an environmental plan that will bring the firm into compliance with standards acceptable to the regulatory agency and the Bank (within a specified time frame);
- agree on a systematic regulatory process for the relevant sector(s); and
- identify indicators to show progress during supervision.

(2) Where it is not feasible to regulate the firm's industry due to weaknesses in the legal and institutional framework but where there are significant environmental problems with the enterprise:

- include in the sales document an agreement to comply with existing and any future environmental regulations, setting a timetable for achieving compliance with standards acceptable to the regulatory agency and the Bank where time is clearly needed (could range over several years);
- include in the sales document an agreement to complete an environmental plan that will bring the firm into compliance (within a specified time frame);
- agree with the government on the standards and timetable for implementing the environmental regulations for each firm to be privatized;
- agree with the government to design a program to strengthen environmental regulation of the relevant sector(s); and
- identify indicators to show progress during supervision.

It is essential that responsibilities for any past liabilities are allocated and agreed upon at the time of contract agreement between buyer and seller. Contract documents should specify where the responsibilities of the seller end and those of the buyer start, and whether cleanup measures are needed. Environmental audits provide the scientific and technical basis for these agreements.

Where means of financial security against future environmental liability (e.g., insurance, purchase price reduction, government-arranged low-cost loans for cleanup, representations, or warranties) are available and reliable, the first liability option (transfer of full liability to new owners) may not seem so threatening to new investors. However, a risk analysis might be necessary to determine the need for insurance or other security, and even the appropriate amount of insurance to purchase. If none of the security options against future environmental liability are available or credible and contingent liabilities are transferred to the private purchaser, the Bank must carefully consider the risk involved and the overall viability of the investment.

A schedule for compliance is needed where privatization candidates clearly need time to restructure their operations to meet official standards; but the new private owners as well as the regulatory agencies should then be closely supervised to ensure that agreements reached at the time of privatization are met. Environmental Bank supervision should be phased according to implementation of key agreed environmental activities such as auditing, implementation of environmental management and action plans and cleanup programs. Performance should be evaluated using indicators of progress developed prior to divestiture. As with Bank investment projects, failure to comply with agreed measures should be reported and discussed with the appropriate authorities.

This *Update* was prepared by Olav Kjørven with substantive input from Robert R. Schneider and Bekir Onursal (LATEN). The *EA Sourcebook Update* is designed to provide the most up-to-date information on the Bank's policy and procedures for conducting environmental assessments of proposed projects. This publication should be used as a supplement to the *Environmental Assessment Sourcebook*, which provides guidance on the subjects covered in Operational Directive 4.01. Please address comments and inquiries to Olav Kjørven, Managing Editor, EA Sourcebook Update, ENVLW, The World Bank, 1818 H St. NW, Washington, D.C., 20433, Room No. S-5123, (202) 473-1297.