

EXECUTIVE SUMMARY

Introduction

On May 17, 2002, the Inspection Panel received a Request for Inspection from communities in Paraguay alleging that the Bank had violated its own policies and procedures in relation to the design and implementation of the Yacyretá Hydroelectric Project in Argentina and Paraguay.

The Federación de Afectados por Yacyretá de Itapúa y Misiones (FEDAYIM), a Paraguayan non-governmental organization, submitted the Request on behalf of more than 4,000 families who believe their lives and environment to be seriously harmed by the Project. Six coordinators of affected people in the San Cosme y Damián, Distrito Cambyreta, Barrio Pacu Cúa, Barrio Santa Rosa Mboy Caé, Arroyo Potiy, and Barrio Santa Rosa areas of Paraguay also signed the Request.

The Requesters claim that the raising of the Yacyretá power plant's reservoir to 76 meters above sea level (masl) has had severe environmental impacts, such as constant flooding of urban creeks, a higher water table, and the spreading of disease, which has forced them to live in unbearable conditions. They allege that the proposed wastewater treatment plant, to be built under the Project, would further pollute the environment because its location and design are based on a defective environmental assessment and are in violation of national environmental laws. According to the Requesters, the resettlement and compensation programs are not being properly implemented. Families affected by the raising of the reservoir have not been properly identified. The resettlement and compensation program has left hundreds of affected families and businesses with no or inadequate compensation, poor resettlement housing and facilities, and prolonged economic hardship. The Requesters allege that employees of brick and ceramic factories have not been compensated for their loss of income.

The Inspection Panel registered the Request and, after receiving Management's Response to the Request and visiting the affected area, recommended to the Board of Executive Directors that an Inspection be conducted. The Board approved this on September 9, 2002.

The Yacyretá Hydroelectric Project is a joint venture between Argentina and Paraguay, which was in the planning stages many years before the Bank entered into its first loan agreement for the Project in 1979. In 1973, Argentina and Paraguay had already concluded a treaty for the Yacyretá Hydroelectric Dam, which set forth the terms of the joint undertaking and created a semi-autonomous bi-national entity, the Entidad Binacional Yacyretá (EBY), to implement the Project. The treaty granted EBY full juridical, financial and administrative capacity and assigned it the technical responsibility to study, plan, direct and execute the hydroelectric Project.

The Project's civil works consist of two 40 meters (m) high, five kilometers (km) long, concrete dams and 65 km of embankment dam. The works also include a 1.2 km long powerhouse containing 20 turbines, spillways and a navigation lock. The dam was designed to be maintained at a level of 83 meters above mean sea level (masl). At this height the reservoir is estimated to cover an area of about 1650 km² and inundate about 1,500 hectares (ha) of cultivated land and 500 ha of urban land in cities and towns. When the first Bank loan was made in 1979, it was anticipated that the inundation at the design level of 83masl would cause the involuntary resettlement of about 33,000 persons, mostly from the cities of Posadas and Encarnación. This number has increased very significantly over the years. By 1992, when the second Bank was made, the number had increased to 42,000. There has been a steady influx of people into the Project area.

Dam construction began in December 1983. By 1992, most civil works were complete. However, only about half of the resettlement and environmental activities had been completed. Because of persistent difficulties in obtaining the financing necessary to complete the project, Argentina and Paraguay sought further loans from the Bank. As a condition of the Bank loans the two countries agreed to a phased filling of the reservoir (*Cronograma de obras*) so as to allow the power plant to start operation. In 1994, the reservoir was filled to 76 masl, but filling of the reservoir to a higher level was subject to Bank approval, which was subject to the countries meeting their resettlement and environmental obligations. As of February 2004, the reservoir remained at 76 masl, and consequently the power plant was generating energy at only 60% of its capacity.

In 1996 the Panel received its first Request for Inspection concerning the Yacyretá Hydroelectric Project, which alleged that many activities that should have been completed prior to filling the reservoir were still pending. In February 1997, at the Board meeting held to discuss the Panel's recommendation to investigate the 1996 Request, Management presented two Action Plans (Plan A and Plan B) to address the Project's outstanding problems. Plan A provided for the completion of the resettlement and environmental actions that should have been, but were not, implemented before raising the reservoir's water level to 76 masl. Plan B aimed at dealing with several problems arising from the reservoir level being held at 76 masl.

Consequently, the Board did not approve the Panel's recommendation to carry out an investigation. Instead it requested that the Panel assess the proposed Action Plans and undertake a review of the existing Project's resettlement and environmental problems. The Panel issued its report on these matters on September 16, 1997.

The Yacyretá Project extends more than two decades and hence has had several sources of Bank financing. The social and environmental parts of the project are partly financed under the Argentina-SEGBA V Power Distribution Project (Loan 2854-AR) and the Paraguay-Reform Project for the Water and Telecommunications Sector (Loan 3842-PA). The World Bank also provided financial support for Yacyretá under three additional loans, closed at the time of the 2002 Request to the Panel: Loan 1761-AR financing the Yacyretá Hydroelectric Project, Loan 2998-AR financing the Electric Sector Power

Project and Loan 3520-AR financing the so-called Second Yacyretá Hydroelectric Project.

This report concludes the Panel's investigation into the matters alleged in the Request for Inspection submitted to the Panel in May 2002. The current Panel's chairperson, Ms. Edith Brown Weiss, led the investigation. Three expert consultants on environmental, hydrological and social issues assisted the Panel in its undertaking.

This report examines the merits of the claims presented in the Request. It also considers Management's response to the claims. During its investigation the Panel interviewed Bank staff in Washington, D.C., visited the project area on four occasions, met with the Requesters and other project affected people throughout the area, and met with local and national authorities in both Argentina and Paraguay as well as with EBY officials. The Panel also identified and carefully reviewed relevant project documents that the Requesters, Bank staff, Inter-American Development Bank (IDB) staff, EBY officials and other sources provided to the Panel.

Applicable Bank Policies and Procedures

The Panel finds that the following policies and procedures are relevant to the Request:

- Environmental Assessment OD 4.01** (October 1991)
- Involuntary Resettlement OD 4.30** (June 1990)
- Project Supervision OD/OP/BP 13.05** (March 1989 and July 2001)
- Monitoring and Evaluation OD 10.70** (November 1989)

The Second Yacyretá Hydroelectric Project, was financed by Loan 3520-AR, which was approved in 1992. This loan is thus subject to the Bank policies relating to Environmental Assessment, OD 4.01, to Involuntary Resettlement, OD 4.30, and to Project Supervision, OD/OP/BP 13.05 and to Monitoring and Evaluation, OD 10.70. Before the loan was approved, the Bank requested the preparation of an Environmental Assessment as part of the conditionality for the loan. The resettlement plan that the Borrower prepared and the Bank reviewed in 1992 remains the operative plan for resettlement.

In 1995, the Bank approved the Asunción Sewerage Project, Loan 3842-PA, which was later renamed the Reform Project for the Water and Telecommunications Sector. The resettlement component of the Yacyretá Project financed by this loan is also subject to the above Bank policies and procedures.

The SEGBA V project, financed under Loan 2854-AR, was initiated before the Bank's safeguard policies came into force. However, the policies were in effect in 1994 and 1997 when the Loan was changed to allow funds to be applied to the resettlement components of the Yacyretá Project. The Environmental Assessment and Involuntary Resettlement policies thus apply to the resettlement activities of the Yacyretá project funded by Loan 2854-AR.

In addition to the above sources of Bank financing, the IDB has approved loans for the Yacyretá Project. The Project is thus also subject to the IDB policies and procedures.

Environmental Compliance

The Panel addresses the following Bank environmental compliance issues raised by the Requesters complaint: the adequacy of environmental assessments, the relationship between the level of the reservoir and urban creek flooding and ground water levels, the water-related health problems, and the location and design of the sewage treatment plant.

Environmental Assessment.

The environmental safeguard policies of OD4.01 require environmental screening and proper environmental assessment

Environmental Screening

The Bank assigned the Second Yacyretá Project and the Asunción Sewerage Project (later renamed the Reform Project for the Water and Telecommunications Sectors) to category A, under OD 4.01. Category A projects require a full environmental impact assessment. **The Panel finds that the environmental screening process for phase two of the Yacyretá Project and for the Asunción Sewerage Project was appropriate.**

Preparation of Environmental Assessments

Before bringing the Second Yacyretá Project to the Board for approval in 1992, the Bank had a full environmental assessment prepared. An Environmental Management Master Plan (PMMA or EMP) as well as an Action Plan for Resettlement and Rehabilitation (PARR or RRAP) accompanied the assessment. **The Panel finds that the Bank thus met the requirement of OD 4.01 at that time.**

OD 4.01 requires that environmental assessments be prepared for the resettlement activities financed by the Bank. During most of its investigation, it appeared to the Panel that Management had not provided for the preparation of these environmental assessments. However, in November 2003 Management provided to the Panel environmental assessments that were prepared by EBY consultants as evidence that the proper environmental assessments had been undertaken. The Assessments relate to the resettlement sites of Itá Paso, Arroyo Porá, and Carmen del Paraná, and include a General Summary of a Resettlement and Rehabilitation Action Plan conducted in terms of the Urban Creeks Program. The Panel has reviewed the Assessments and finds that they are very inadequate. They do not comply with the requirements of OD 4.01. The range of environmental matters addressed is limited; alternative resettlement sites are not considered; few mitigation measures are suggested, and affected parties were not consulted. The safeguard envisioned to be in place through OD 4.01 has therefore failed.

Consideration of Alternatives

OD 4.01 requires that an Environmental Assessment analyze alternatives to those proposed in the project.

The EA for the Second Yacyretá Hydroelectric Project contains a section titled "Analysis of Alternatives." The Assessment analyzes alternative operational levels of the dam and the Aguapey barrage and the likely consequences of implementing the Yacyretá project. Given the history of the project before the Bank became involved, the Assessment understandably does not examine the full suite of possible project alternatives, such as the siting of the dam, but it does realistically consider alternatives for other aspects of the project. **With respect to the consideration of alternatives the Environmental Assessment for the Second Yacyretá Hydroelectric Project is in compliance with OD 4.01.**

Consideration of the Biophysical Environment

Consistent with OD 4.01, the Environmental Assessment discussed a number of biophysical parameters. The Panel observes that the biophysical environment affected by the Yacyretá dam and reservoir is being managed competently and that the initial environmental problems that arose when the reservoir was first filled have been satisfactorily resolved.

The Panel finds that the future environmental management of the Yacyretá Project is critically threatened, however, by the Project's financial position and that both the natural environment and project affected people will suffer additional harm if the project's environmental management practices deteriorate.

Consideration of Urban and Peri-urban Environments

The Panel finds that the EA for the Second Yacyretá Project was inadequate in several respects in its consideration of urban and peri-urban environments. The EA did not adequately consider the effects of population growth on Encarnación, or the effects of the resettlement developments on the city's infrastructure. The Panel finds that the safeguards to assess the implications for water supply, sewers, and urban drainage, which ought to have been in place via OD 4.01, were by-passed. Thus, Management is not in compliance with the requirements of OD 4.01.

More generally, the Panel finds that Management's failure to assess the impact of the resettlement sites on the overall urban system is not in compliance with OD 4.30 as well as OD 4.01. The Panel notes, however, that in the context of the PDA, Management has advised EBY to co-ordinate resettlement in urban development plans.

OD 4.01 calls for an EA to consider the environmental effects of "induced development." This includes effects on villages above the level of flooding associated with movements of population, including effects on their economies and livelihoods of their people. **The Panel finds that environmental and social assessments should have anticipated the induced effects associated with the Yacyretá Project.**

Implications of Non-compliance with Environmental Safeguard Policies

In part as a consequence of the Bank's failure to observe its safeguard policy on environmental assessment, affected persons are dissatisfied with the Bank's resettlement schemes, the resettlement schemes have given rise to problems of storm-water run-off and overloading of sewerage lines, and the limited resources of the local municipal authorities are being taxed. This is a situation which neither Bank staff, project proponents, or affected persons desire or with which they are satisfied. **This Project demonstrates that taking short-cuts with the Bank's safeguard policies is counterproductive for all concerned.**

Flooding of Urban Creeks

The Panel finds that the construction of the Yacyretá dam has a negligible effect on the water level of the Paraná river at Encarnación, especially in times of flood.

The Panel also finds that the Yacyretá reservoir is frequently operated under conditions that produce a water level in excess of 76 masl at Encarnación and that this is not consistent with both the loan agreement and the Third Owners Agreement, as amended.

The Panel found that Management has accepted an error in the calculation of water level at Encarnación. From its analysis the Panel finds that the contention of affected persons that the Yacyretá reservoir is frequently operated under conditions that produce a water level in excess of 76 masl at Encarnación is correct. The excess, however, is limited to one meter or less.

Although it is clear that the urban creeks of Encarnación are flooding and causing severe hardship, the Panel finds that the Requesters contention that this flooding is a consequence of the Yacyretá reservoir itself cannot be sustained. The hydrological assessments show that neither the Paraná River floods nor water backup in the M'boi Caé is sufficient to cause the levels of flooding experienced in the urban creeks.

The urban creek flood conditions are mainly due to local conditions, such as upstream urbanization, lack of urban storm water drainage, and waste accumulation impeding water flow in the creeks, in that order. The contribution of specific resettlement areas to flood peak downstream is estimated as low. But the sum of all urbanization done upstream during the last years has increased the frequency and the peak level of the floods.

Environmental Pollution and Water Quality

The Panel confirms the Requesters contention that flooding of the urban creeks makes the drinking water wells on the flood plain unsuitable for use. However, the Panel finds that the alleged causal relationship between the level of the Yacyretá reservoir and pollution of wells and flooding of latrines is not correct.

With respect to the claim that the Yacyretá reservoir has caused environmental pollution, the Panel finds that Bank Management has ensured that proper monitoring of water quality has been conducted in the reservoir. Water quality monitoring has been an ongoing activity since before the filling of the Yacyretá reservoir. The Panel verified the existence of the water quality monitoring data and the reasonableness of Management's claim that "the reservoir's water quality is constantly monitored, [and] falls within satisfactory parameters."

Health Problems

The Requesters allege that the reservoir has caused severe health problems. In response Management refers to the disease monitoring program undertaken by the Ministry of Health and Social Welfare of Paraguay. The bimonthly reports provided by this Ministry indicate no per capita increase in the diseases that have been monitored since the filling of the reservoir. The Panel verified the existence of the monitoring program, reviewed its findings, and found no evidence contradicting the findings.

A frequent complaint to the Panel during site visits was that women suffer constantly from itchy skin, particularly on their hands and arms. This is attributed to the use of polluted water for washing clothes. The Panel notes that the Yacyretá reservoir is not the cause of the polluted water used by the complainants for washing clothes and that there are potentially many different reasons why such skin irritations might occur.

The Panel notes that it is not disputed that disease vectors are present in the Paraná river system. The question is whether there has been an increase in their abundance since the Yacyretá reservoir was created. The Ministry of Health and Social Welfare of Paraguay has a long-term ongoing study that shows no increase in abundance or species composition of disease vectors. The Panel verified the existence and findings of this study and found no evidence to the contrary.

The Panel confirmed that the Ministry of Health and Social Welfare of Paraguay adequately monitors the incidence of both disease and disease vectors.

Wastewater Treatment Plant

The conditions for sewage discharge in Encarnación have been very poor for many years, with numerous discharges of wastewater directly into creeks and other water bodies. The Bank has required that a sewerage treatment system be provided for Encarnación before the reservoir is raised above 76 masl. The first step required

under Bank policy is a proper environmental assessment of the proposed wastewater treatment plant.

While the Requesters are opposed to the location selected for the planned wastewater treatment plant, **the Panel finds that the site selected is not inappropriate for the purpose and that the environmental assessment for the wastewater treatment plant is not defective either procedurally or substantively.**

The Panel finds that the environmental assessment of the design for the wastewater treatment plant complies with OD 4.01. The Panel notes its great concern, however, that although the sewerage system has been designed to cover the city of Encarnación, the works described in current bidding documents seem to cover only the southern part of the city (zona sur).

The Requesters claimed that the sewerage system will not cover some of the resettlement areas. The Panel finds that it is planned that the resettlement areas in question will be linked to the reticulated sewerage system. The Panel notes, however, that confusion may have arisen over the coverage of the wastewater treatment because the detailed drawings of the planned sewerage reticulation system for Encarnación were not publicly available in the EBY information office.

Importantly, the Panel finds that responsibility for the cost of connection to the sewer system may become a significant source of conflict in the not too distant future. If the matter is not resolved in a way that will enable the vast majority of households to be connected to the sewer lines, the entire exercise of providing a sewer network will be largely negated. The Panel finds that this issue needs the urgent attention of Bank Management and that an effective means for financing the connection of houses to the sewer network is required, especially for poor communities.

The Panel finds that Management must give urgent attention to the practicalities of transferring operation and maintenance of the sewage treatment system away from EBY and to ensuring that the new operators are provided with adequate staff, budget and training to be able to run the sewage system efficiently and effectively. This is especially urgent, because the sewage system includes a bypass at each pumping station that will dump raw sewage into neighboring urban creeks in cases of pump malfunction or overflow.

Social Compliance

Identification of affected people

To identify the families eligible for compensation or resettlement, EBY conducted two censuses: in 1980 and in 1990. The latter was done in response to population growth and change. OD 4.30 on Involuntary Resettlement requires that resettlement plans be based on recent information about the scale and impact on displaced populations and requires a

socio-economic survey that records the names of the affected families. The Requesters claim that thousands of eligible families are not included in the census and thus have been excluded from the compensation and mitigation programs provided under the project's resettlement programs. **The Panel finds persuasive evidence that a number of people who were present at the time of the 1990 census were erroneously omitted and that they fear they will be ineligible for the Project compensation and resettlement benefits.**

Population has increased very substantially since 1990 in the areas to be flooded. **The Panel finds that before the water level is raised further, the Bank must confirm that the existing census and survey data will be updated and verified, in a manner consistent with the requirements of OD 4.30.** The survey needs to pay special attention to the accuracy of the geographical and topographical boundaries of the affected areas to allow proper identification of the affected people.

The Requesters claim that there are errors in the census information because a person's eligibility for certain kinds of compensation for lost productive income is partly determined by the person's "primary occupation" listed in the 1990 census. This overlooks those who lost significant income but did not designate the source as a "primary occupation," which especially affects brick and tile-makers and fishermen. **The Panel finds that the restoration of income-earning capacity under OD 4.30 may not be achieved when compensation for income losses is based solely on the "principal occupation" of the affected persons, because a person could have several occupations that contribute substantially to their overall personal income. The Panel is aware, however, of the practical problems of restoring income for more than one principal occupation.**

The Panel finds that the sole reliance in the 1990 census on an individual's principal occupation as the basis for restoration of income does not satisfy OD 4.30's requirement for many affected people.

Grievance Procedures

A number of the concerns raised by the Requesters would normally be settled with an appropriate conflict resolution mechanism provided as part of a resettlement plan. OD 4.30 provides for such a mechanism.

Although the Panel was informed that there were some procedures to rectify any omissions in the 1990 census, **the Panel finds that at best these procedures were *ad hoc* arrangements that allowed some corrections to the census. Most people who felt excluded did not have a clear and objective procedure for bringing their concerns to EBY. The Panel further finds that procedures for correcting the census or other resettlement related omissions and errors are inadequate, and notes that a standard and transparent appeals procedure is not available to affected people. This does not comply with OD 4.30, paragraph 8 footnote 11 and paragraph 17).**

Other Categories of Affected People

The Panel finds evidence that host populations near resettlement sites are, in some cases, adversely affected by the design and construction of the resettlement sites, or by added burdens on local infrastructure due to the influx of resettled population. OD 4.30 and OD 4.01 require that such impacts be assessed and mitigated. The Panel has already noted its finding that new resettlement construction should have had adequate environmental and social impact assessments.

The Panel also finds that there was inadequate effort on the part of the Bank to ensure that the host population was informed and consulted with in planning and carrying out construction of the resettlement sites, as required by OD 4.30, paragraph 9.

Resettlement and Compensation

To analyze the claim that the Bank has not complied with OD 4.30, the Panel addresses separately the two major issues: compensation and resettlement. These issues are inter-related.

Compensation

OD 4.30 expressly requires that displaced persons should be compensated for losses at full replacement cost and prior to their actual move.

EBY has in the past employed a two stage process in the valuation of homes and property: a provisional or estimated appraisal and a final appraisal that should be done at time of expropriation. The estimated appraisals had no validity as a component of the final valuation procedure.

The Panel finds that the use of provisional appraisals is not inconsistent with Bank policies. However, because affected people did not receive adequate information about the procedure and did not participate in its implementation, there has been considerable confusion about the purpose and use of the provisional appraisals. OD 4.30 calls for the Bank to monitor the actual appraisal values that will be paid when these properties are involuntarily expropriated if the water level is raised.

Compensation for Customary Rights to Land and Loss of Access to Other Resources

Many of the displaced people do not hold title to the land upon which their houses or resources are located. OD 4.30 requires compensation for both property to which people hold title and property to which they do not. The 1992 resettlement plan provided for compensation to all displaced persons, regardless of whether they had title to their

properties. **The Panel finds this provision in the 1992 resettlement plan is in compliance with the requirement of OD 4.30 regarding usufruct or customary rights to land.**

The loss of access to natural resources that must be compensated in this Project include access to clay deposits. **The Panel finds that to the extent that the resettlement plan provides for compensation for loss of access to these resources, the Bank is in compliance with the requirements of OD 4.30. However, implementation procedures may have resulted in denying compensation to some affected people.**

Compensation Prior to Displacement

OD 4.30 requires that full compensation be paid to displaced people prior to their actual move. **Not all persons flooded out of their property in the 1994 flooding of the reservoir to the 76 meter level were properly compensated beforehand. In 1997, Management assisted EBY in developing the so-called "Plan A." The Panel views Plan A as a remedy for this violation of OD 4.30.**

The Panel, however, found many instances after Plan A was in effect, in which people whose homes were flooded when the water level was raised in 1994, still feel inadequately compensated. People had either to accept the amount offered by EBY and in doing so agree to forego any further claim to additional funds, or take the matter to court. If they took the matter to court, they would have no access to the funds until after a court decision. **Thus, the Panel finds that the grievance procedures in effect during and since the time when the reservoir was raised to the 76 meter level were not in compliance with OD 4.30's requirement for fair compensation.** The Panel notes, however, that Paraguay adopted a new law governing expropriations in January 2001. **The Panel finds that the provision of the new law granting access to funds during appeal is consistent with OD 4.30².**

The Sequencing of Places Selected for Compensation

The Requesters have expressed concern that while there are still many "pending debts" for people who had to move from below the 78 masl level, EBY is picking and choosing properties between 78 and 84 masl for relocating and compensating owners and that this is being done in a non-transparent process. The presumption of OD 4.30 is that compensation and resettlement will happen relatively quickly. **When the presumption that resettlement will happen relatively quickly fails, Bank Management must ensure, consistent with the purpose of OD 4.30, that there is a rationale for the sequencing of resettlement and that the sequencing process is transparent and fair.**

² There are a number of questionable aspects of the new law on which the Panel does not comment.

Resettlement

Alternative Sites

The Requesters claim that this Project has generally failed to examine adequately a range of alternative resettlement sites. The Panel finds that Management needed to ensure that alternative sites were considered in the Environmental Assessment for the resettlement areas. **The failure to consider acceptable resettlement alternatives is not in compliance with OD 4.30.**

Restoration of Income Earning Capacity

The Requesters claim that inadequate programs were developed for the economic and productive rehabilitation of the affected families. **While recognizing that there have been commendable efforts to develop productive projects, the Panel finds that the measures for restoring income earning capacity have been inadequate.** Some people were moved far from the market for their products and services, while others have found transportation to their place of work difficult and costly. Few who lost their livelihood have been offered adequate training to replace their lost source of income. The Panel recognizes that a severe economic crisis occurred in the area. However, this does not negate the importance of restoring income earning capacity through long term measures rather than temporary fixes.

Resettlement and Compensation of Specific Groups: Brick-makers and Tile-makers (ceramists)³

The Requesters complain that, while EBY provided compensation for several brick- and tile-making establishments, it relocated others to areas far away from the clay deposits. Moreover, when EBY paid compensation to the factories, it benefited only the factory owners and left a large number of workers without jobs or compensation. The Requesters urge the Bank to compel EBY to create a program of job retraining for these affected communities.

OD 4.30 requires that all affected people who lose their sources of income as a result of a Bank-financed project be compensated for their losses even in cases where they have not been physically displaced. The Panel notes that, as early as 1997, in the context of its Review and Assessment of Action Plans of the Yacyretá project, it urged the Bank to ensure that affected workers who lost their jobs as a result of the raising of the level of the reservoir be compensated as required by Bank policy.

³ The terms "tile-makers", tile and "ceramists" are used in this report interchangeably to refer to the same type of production unit.

Small Scale Brick-makers

The Project's Resettlement and Rehabilitation Action Plan (PARR) identified industries dedicated to brick and tile-making – commonly called *oleros* – as among those that would be affected by the raising of the reservoir.

One compensation option was to provide the *oleros* private plots which did not contain clay and to supply them with clay from other sources for five years. This option was adopted for the San Pedro resettlement site. **The Panel found in its visit to the San Pedro site that while families had reestablished their brick making activities, many complained about losses in their income level and about lack of continued access to raw material because the five-year clay supply had ended.**

Another compensation option for small artisan brick makers was to receive cash compensation based on their "production capacity" together with a house and plot. The Resettlement Plan did not recommend this option, and it was expected that few would opt for it. However, the number of families who elected cash compensation was substantial. The option encouraged more people to settle in the area and to begin small brickworks in the hope of additional cash compensation, since the raising of the water level was postponed.

Medium and Large-size Industries

The 1992 PARR considered that large-scale industries had the capacity to relocate on their own, if provided indemnification for the property lost, and thus did not consider resettlement as an option under the plan. In 1995 EBY approved an alternative compensation solution for roof-tile industries, the so-called "self relocation" option. If the establishment chose to self relocate, it would be paid for improvements it had made and for the cost of a five-year supply of clay in accordance with the establishment's customary production levels.

The Panel finds that the industry owners could be expected to make an informed decision as to the value and prospects of their clay deposits and to be able to choose freely whether to accept the compensation package offered. However, the Panel expresses concerns about the adequacy of providing only a five year supply of clay, as this appears to be a temporary mitigation measure rather than a solution that would allow the activity to continue in the long-term.

Compensation to the Workers of Brick and Tile-making Industries

The Request for Inspection claims that EBY compensated the owners of brick and tile-making industries, but the workers did not receive any compensation. Management's Response emphasized that the employer, not EBY, is responsible for compensating its workers and that industry owners who "*were compensated but did not continue*

production had to give workers severance pay” in accordance with the Paraguayan labor laws.⁴

To address the Panel’s requests for clarifications, Management requested a Paraguayan law firm, Estudio Mersan Abogados, to prepare a legal review and analysis of Paraguayan law. The legal opinion concluded that workers (formal and informal) have a right to severance payment if their contract is rescinded. The payment obligation binds the employer, not EBY.

The Panel repeatedly requested Bank information on EBY’s procedures to compensate the owners and received conflicting statements from Management and EBY. During the Panel’s visit in December 2003, EBY officials clearly described the reimbursement procedure. EBY calculates the value of severance payments to the workers based on the employer’s declaration regarding the number and status of employees in the firm. The owner is to pay the properly registered workers their severance payments, which EBY subsequently reimburses up to the predetermined amount. Such reimbursement is, however, conditional on the employer providing evidence that each employee had been properly registered and social security taxes paid.

Many brick and tile-maker workers who lost their source of income as a consequence of the Yacyretá project belong to the category of informal workers, for whom employers did not keep official employment records or pay social security taxes. **The Panel finds that the large number of informal workers who worked in large, mechanized industries as well as in small-scale brick-making facilities were in practice excluded from the compensation system that the Bank approved, even though they suffered the adverse impacts of the project.**

Based on the foregoing, **the Panel finds that the compensation program approved by the Bank was not consistent with OD 4.30 because it excluded in practice compensation for a specific category of economic losses that affected one of the poorest segments of the area population – that is, the informal workers of the brick and roof-tile industries.**

The Panel is very concerned that the Bank approved compensation methods whereby workers, especially informal workers, must go to court to enforce their rights if their employer does not follow the law.

The Panel is surprised to read in Management documents provided to the Panel that “[t]o the extent that we are aware, there has not been a single legally recognized claim by a terminated employee against his or her employer.” Many claims brought by terminated employees against their employer were brought to the attention of the Panel on its visits.

⁴ Management Response, ¶ 135.

The Panel notes that with respect to the employers, if EBY estimates an inadequate amount of compensation for the owner's workers, and the workers successfully obtain higher compensation through the courts, the amount EBY will eventually reimburse the employer who paid workers will only be the one included in the EBY worksheet.

Access to Clay Deposits

The Panel finds that the Bank-approved provision of five years access to clay has not fully met OD 4.30's requirement that project-affected people have their pre-resettlement income earning capacity improved or at least restored. In stating this, the Panel recognizes that a severe economic crisis has occurred in the area. While recognizing that there have been efforts to retrain the brick-makers for other vocations, the Panel finds that for many people their income earning capacity seems not to have been restored.

Adequacy of the Resettlement Plan

The Panel finds that there is a detailed resettlement plan, timetable, and budget for this project *"aimed at improving or at least restoring the economic base for those relocated,"* as required by OD 4.30, paragraph 4. Thus, the Bank is in formal compliance with this requirement of OD 4.30. However, the plan, budget, and particularly the timetable envisaged within that plan have not worked as originally intended, creating a compliance issue for other aspects of this OD.

Influx of People into the Project Area

OD 4.30 requires that after the area affected by the project and the displaced population have been identified, the host government ensure that persons ineligible for compensation do not come into the identified affected area. In the Yacyretá project, there has been a large influx of people into the area.

The Panel finds that the resettlement plan as designed could not prevent the influx of ineligible population, because the legal framework was inadequate for doing so. This does not comply with OD 4.30 paragraph 12.

Delays and Uncertainties

An issue of broad concern is that there has been an extraordinary amount of uncertainty and delay due to the long-term postponement in raising the reservoir's water level. These delays are themselves the source of severe hardship for many people. They do not know if and when they will be resettled; they are unable to sell or expand their properties; and in many ways they have to adjust the normal social organization of their households in order to remain eligible for compensation. This has occurred despite the requirement of OD 4.30 that any resettlement plan accepted by the Bank be "time bound."

The Panel finds that in the complex situation of this project, with its very long delays in implementation, the Bank should have recognized that its resettlement plan was potentially not time bound. It should have made adequate allowances in the 1992 plan and later modifications of it for the extreme hardships that have occurred as a result of uncertainties and delays in implementing the plan. Where a person can document a loss directly attributable to the very long delay in resettlement, such loss should be recognized under OD 4.30, but the Panel recognizes that in practice this will be very difficult to implement.

Programa Desborde de Arroyos (PDA) – the Urban Creeks Program

The Request raises a number of issues related to the design and implementation of the Urban Creeks Program (PDA), which provides for resettling families who live in serious unsanitary conditions along urban creeks in areas between 78 and 84 masl before they would otherwise be. The Requesters are concerned that the PDA will not benefit those for whom it was intended and that EBY did not adequately consult the affected people in preparing the PDA program.

The Panel notes that both Management Response and EBY officials confirm that alternative sites for relocating these families were not considered in the context of the PDA program, even as future possibilities. As indicated previously, **the Panel finds that the failure to consider acceptable resettlement alternatives does not comply with OD 4.30. The Panel further finds that the resettlement sites that they were offered did not ensure access to employment and services comparable to their old neighborhoods.**

The Panel also interviewed many people who were extremely confused about the PDA program, its purpose, who was included and when, and whether they were supposed to relocate. The Panel finds that under OD 4.30 Management must ensure that affected people are systematically informed and consulted about their options and rights during the preparation and implementation of the PDA program.

Project Supervision and Monitoring

OD 13.05 states that project supervision is one of the Bank's most important activities.

The Requesters claim that the Bank has violated its policies on project supervision and project monitoring and evaluation, in particular in the implementation of the resettlement activities. In the Requesters' view, this meant that the Bank allowed the power plant to begin its operations before completing, in the first place, the resettlement of the affected population, leaving thousands of people worse off than before the Project started.

Supervision of Environmental Operations

A distinction must be made between the supervision of the environmental aspects of the main civil works components of the project and that of the resettlement activities. The

Bank's participation in the design, execution and supervision of environmental mitigation activities of the main works was quite successful. The frequent supervision missions were most of the time adequately staffed and a rather stable team was in charge. A number of corrective measures were taken to avoid or mitigate harm during project execution. **The Panel therefore finds that the Bank met the requirements of OD 13.05 with regard to the environmental aspects of the main civil works components of the Project.**

Supervision of Resettlement Activities

The Request primarily addresses problems related to the location and design of the resettlement sites, the quality of workmanship, and the lack of consultations with, and options provided to, those who must be resettled.

After reviewing the evidence presented by Requesters, Management's Response and the Panel's independent observations, the Panel finds that supervision of resettlement by the Bank is inadequate in two important respects: a failure to ensure sound technical quality in the design, construction, and implementation of resettlement programs, and inadequate consultation with affected people.

Technical Quality Assurance: Standards of Design, Construction, and Implementation

The Panel found that supervision of the design and construction of infrastructure for the resettlements associated with the Yacyretá Project, including those financed under the Paraguay Reform Project for the Water and Telecommunications Sectors, the SEGBA V project, and the Programa Desborde de Arroyos (PDA) has been inadequate. Supervision missions appear to have given little attention to technical quality assurance. This does not comply with paragraph 29 of OD 13.05.

During the Panel's visits, the Panel saw numerous examples of poor quality construction of houses as well as poor drainage systems, extremely poor road construction leading to easily lifted cobblestones and major pothole damage even on new roads, with severe problems caused apparently by storm water drainage. In at least one case, the quality of site construction was so poor that a new class of affected people around the site has been created. **The Panel finds that if supervision had been stronger, Bank staff would have spotted the poor quality of construction within resettlement sites.**

The Panel finds that there is clear need for more effective supervision of technical design and construction in all facets of the Yacyretá resettlement scheme and notes the necessity for adequate supervision of technical design and supervision in resettlement schemes generally.

After many visits to the area by the Inspection Panel and follow-up interviews with Bank staff members, the supervision mission of October 2003 noted in its Aide Memoire that *"there is no integration of environmental management into the design and construction of urban civil works, mostly in the resettlement sites."* The Aide Memoire urged a number

of steps be taken to redress the situation. This contrasts with Management's statements in its memorandum to the Panel on January 13, 2004 that "Bank oversight has ensured that EBY's capacity to apply those criteria and procedures [appropriate environmental criteria and procedures] was sufficient" and that "the Task Team verified the success of their approach through regular visits to the resettlement locations during supervision." The memorandum also noted that "[t]he approach used throughout this period has been consistent with Bank policy and practice toward projects and their sub-projects that have minimal environmental impacts (such as the Ita Paso and Arroyo Pora resettlement sites, as well as other minor PDA-associated infrastructure.)"⁵

The Requesters claim that the resettlements built by the Project at Buena Vista and San Pedro have aggravated the environmental and health situation by directly discharging into the creeks. Management Response notes that the solution to this problem is the construction of the wastewater treatment plant, to which the resettlement sites at Buena Vista and San Pedro will in due course be connected. **The Panel finds that given the foreseeable delays in the construction of the wastewater treatment plant, Management should have anticipated the problem of delay and ensured that appropriate interim arrangements for discharge of the wastes were made until the plant was built and all house connections made.**

The Panel finds that Management's failure to ensure sound technical quality of work on the resettlement project and to encourage needed design changes as circumstances change is not in compliance with OD 13.05 on Project Supervision.

Consultation with Affected People

BP 13.05 makes explicit the principle that effective supervision necessarily includes consultation with project affected people. The Panel is concerned that the Bank's supervision missions have not interacted meaningfully with affected people or thoroughly monitored the resettlement sites

The Panel finds that there is a wide discrepancy between the recollections of affected people in the Project area, who insist there have been no meaningful consultation or thorough on site visits and the Bank's statements about its supervision missions. The Panel finds that Management must ensure that it consults with and interacts meaningfully with affected people and that consultations must be in settings where affected people feel able to convey effectively their concerns to Bank staff. Bank supervision missions should clearly state the places they visited during field inspections and the conditions under which they visited (e.g. with Project staff or accompanied by representatives of NGOs, etc.), in order to better document not only that supervision missions were present in the area, but that the supervision team members actually had contact with affected persons and investigated matters directly dealing with issues of social safeguard policies.

⁵ Memo, January 13, 2004 re: Yacyretá Inspection: follow up memo dated December 10, 2003.

Level of Supervision

The Panel observes that during field visits to the Project area many people affected by the project strongly expressed their own *perception* that corruption pervades the political life of the Project area and includes those responsible for, and benefiting from, resources provided by EBY.

The Panel is not in a position to comment on the accuracy of the perception of corruption. However, under these circumstances, the Panel finds that the Bank needs to expect a higher than usual level of supervision in order to ensure that corruption does not occur and to assure affected people that this is so. While a larger than average number of supervision missions, which included three High Level Supervision Meetings, demonstrates more intense supervision than is usual, it may not be an adequate response to alleviate the perceptions and suspicions of project-affected persons. The supervision missions appear to have been inadequate in meeting directly with affected persons in appropriate settings, and in focusing on social safeguard issues. This has contributed to the affected people's apparent hostility towards the Bank staff.

Expertise in Bank supervision

The Panel points to the need for Management to ensure that the missions have the requisite technical expertise to adequately review the design and construction of urban resettlements and the impact of the resettlement areas on neighboring areas and to the need to ensure that reviews are conducted in an integrated way.

As the Yacyretá Project proceeded, the resettlement issues became progressively more important and difficult to address. **The Panel notes that Bank supervision of the Yacyretá Project's resettlement and rehabilitation activities did not adapt effectively to this change by using more technical and social expertise to address these problems, as is required to carry out OD 13.05, paragraph 1 (b).**

According to the Aide Memoire, there has not been and there is not yet any clear strategy to counteract the negative perceptions that the population has of the project. **The absence of an effective communication strategy has significantly damaged relations between those concerned with implementing the project and the affected civilian population.**

The Panel notes that the October 2003 supervision mission's conclusions and recommendations regarding the social aspects of the project, as presented in the related Aide Memoire, reflect those that Bank policies require. The problem is that these detailed recommendations were given after 20 years into the project implementation, rather than before approving the projects' resettlement plan and related documents. Indeed, they seemed to have come only after the Panel had completed most of its investigation.

Linkages Between Supervisions Reports (Aide Memoires and Back-to-Office Reports), Progress Reports to the Board, and Management Response to Request for Inspection

Given the serious delays in implementing the resettlement programs and the social and environmental problems associated with resettlement, the Panel inquired into whether the supervision reports reflected these conditions and whether the Progress reports to the Board reflected the content of the supervision reports. The Panel is concerned that the progress reports to the Board are more optimistic than the supervision reports in certain respects.. It is also concerned that Management's response to the Requesters is more optimistic than the supervision reports.

There are at least three ways in which some of the reports Management prepared for the Board presented a more optimistic outlook than the Aide Memoires and the circumstances merited: by continued reference to virtual completion of Plan A, even though it is still not fully complete; by setting forth dates for the completion of the resettlement that were too reassuring, and by describing over a number of years the construction of the waste treatment plant "as soon to be started and completed", even though construction has yet to begin in 2004.

Based on the foregoing, the Panel finds that Management has in some respects been too optimistic in informing the Board on the future of project implementation. The Panel understands that it is difficult to accurately predict when certain aspects of the project will be completed. It believes some of the reporting has understated serious difficulties in project implementation. The Panel especially notes that only after it had conducted its own field research from January through December 2003 and conducted follow-up staff interviews did Management produce an Aide Memoire (October 23-30, 2003) that identified many of the problems the Panel had found and the remedial actions which need to be taken.

Factors Affecting Project Completion

The Panel understands that presently Argentina and Paraguay are trying to reach a final decision on the level of the reservoir. A decision to raise the reservoir to the design level of 83 masl or to any height between the current 76 masl and the design level will have significant social, economic, and environmental impacts on many of the Requesters as well as important financial implications. The taking of a final decision could provide an end to years of uncertainty regarding when and to what level the reservoir will be filled and operated.

According to evidence received by the Panel, the Bank maintains its position that the raising of the reservoir must be preceded by the mitigation and resettlement measures agreed upon between the Bank, the IDB, the governments of Argentina and Paraguay and the EBY. **The Panel notes that a number of essential social and environmental activities have yet to be completed in order to raise the water level beyond the current 76 masl.** Although up-to-date estimates of the investment cost required to

complete these activities are not available, the latest figures in the 2002 Strategic Plan prepared by EBY show that to raise the reservoir from its present level to 78 masl would cost about US\$282 million. To raise it to 80masl, an additional amount of about US\$298 million would be required, and to bring the reservoir to its design level of 83 masl, US\$134 million more would be required. To this US\$740million, an amount of about US\$200 million must be added to complete a number of additional investments provided under the Yacyretá treaty. All of these amounts are expressed in July 2002 prices and have not been independently verified by the Bank. EBY is preparing revised cost estimates that are expected to be lower than those in the 2002 Strategic Plan. Raising the reservoir to its design level would increase EBY generation capacity substantially but, given current and projected electricity market demand and prices, EBY's generation of revenue would be highly unlikely to cover these investments in the foreseeable future. The financial sources for the required investments have yet to be determined and remain a major constraint for any decision to raise the reservoir above its present level of operation.

The Panel finds that the long delays that have already occurred in implementing the resettlement and environmental mitigation activities have brought substantial costs and serious hardships to the affected populations. The Panel further notes the urgent need for a decision to define the final operating level of the reservoir. The Panel wishes to highlight the economic and social costs associated with any decision regarding the level of the reservoir if it is not politically or otherwise feasible to implement the decision fully and in a timely manner. The governments' decisions as to whether, how much, and when to raise the operating level of the reservoir will directly affect the ability of the Bank to bring this project into compliance with its operational policies and procedures.

