

# **The Inspection Panel**

## **Report and Recommendation on Request for Inspection**

### **PARAGUAY – Reform Project for the Water and Telecommunications Sectors (Loan No. 3842 –PA)<sup>1</sup>, ARGENTINA –SEGBA V Power Distribution Project (Loan No. 2854 – AR)**

1. On May 17, 2002, the Inspection Panel (the “Panel”) received a Request for Inspection (the “Request”) related to the above-referenced projects, which are related to the Yacyretá Hydroelectric Project (“Yacyretá”) (Annex 1). On May 30, 2002, the Panel notified the Executive Directors and the President of the International Bank for Reconstruction and Development (the “Bank”) of receipt of the Request (meaning “Registration” under the Panel’s *Operating Procedures*).<sup>2</sup>

#### **A. The Project**

2. The Yacyretá Hydroelectric Project is a joint venture established in a 1973 treaty between Argentina and Paraguay. The Project consists of a 65 km earth dam in the main channel of the Parana River about 80 km from the cities of Posadas, Argentina, and Encarnación, Paraguay. The project is a low-head hydroelectric facility with 20 Kaplan turbines of 155 MW each, for a total generating capacity of 3100 MW. The project also includes a navigation lock, fish-passage and other support facilities as well as a large program of infrastructure relocation, population resettlement, and mitigation of environmental impacts. The earth dam, with a uniform height of 86 meters above sea level (masl), creates a reservoir of 1065 square km, which, if filled to its design level of 83 masl, would flood over 107,000 hectares and affect over 13,000 families, including a major impact on the urban areas of Encarnación and Posadas. Currently, the dam operates at 60 percent of its capacity, with a reservoir level of 76 masl. To implement the project, a semi-autonomous bi-national entity, Entidad Binacional Yacyretá (EBY), was created in 1976, with equal representation of the two countries on its Board of Directors, as well as at all other administrative levels.

---

<sup>1</sup> The original name of the Project was “Asunción Sewerage Project” and was changed by an Amendment to the Loan Agreement dated January 27, 2000.

<sup>2</sup> See The Inspection Panel, *Operating Procedures* (August 1994) at ¶ 17.

## **B. Financing**

3. The Yacyretá Project is partially financed by a series of loans from both the Bank and the Inter-American Development Bank (IDB) to the Argentine Republic (the “Borrower”). The Bank’s latest direct financial support for the project came in the form of two loans to Argentina: Loan 3520-AR, approved in 1992 for US\$300 million equivalent, and Loan 2854-AR, restructured in 1994, to provide US\$135 million equivalent. Loan 3520-AR closed on December 31, 2000, while the closing date for Loan 2854-AR was extended until October 30, 2002.
4. The Request also refers to Loan 3842-PA, originally the Asuncion Sewerage Project, approved by the Board of Executive Directors in February 1995 for US\$46.5 million equivalent. This Loan was made to the Republic of Paraguay to finance, inter alia, complementary investments relating to the Yacyretá Project. In 2000, Loan 3842-PA was restructured significantly to respond to nation-wide infrastructure reforms in Paraguay unrelated to the Yacyretá Project. As part of this restructuring the Asuncion Sewerage Project was renamed the “Reform Project for the Water and Telecommunications Sectors.” The components supporting the Yacyretá Project, however, were not affected by this amendment.

### *The Loans*

5. **Loan 2854-AR**, for US\$276 million equivalent, was approved on June 30, 1988. In August 1994 it was restructured to allow for US\$135 million equivalent to be used for the Yacyretá Project. Loan 2854-AR was amended again in 1997 to provide increased financial support to resettlement and environmental activities under the Yacyretá Project in order to ensure the completion of Plan A (Plan A dealt with actions that should have been completed, but were not, before the reservoir was filled 76 masl level) and Plan B (Plan B proposed activities needed to operate the reservoir at 76 masl for a prolonged period). Through this amendment, Plans A and B were defined and related specific obligations of the Borrower, EBY and the Republic of Paraguay included in the legal documents. The closing date for Loan 2854-AR was extended until October 30, 2002, to enable the reallocation of the loan amounts among the already existing categories of disbursement. This reallocation of loan proceeds was designed to support additional development activities for the indigenous community of Pindo in Paraguay, resettlement and environmental activities, and the building and installation of new fish elevators and baffle plates in Yacyretá main spillway.
6. According to Management, Loan 2854-AR is currently rated as unsatisfactory for both development objectives and implementation. Management was considering a request for further extension of the Closing Date and a request for the reallocation of funds to support activities aimed primarily at overcoming EBY’s chronically weak institutional capacity; the creation of a mechanism to allow EBY to contribute to local development and economic rehabilitation of the resettled families and other groups living within the project area; and the creation of a mechanism to resolve environmental conflicts.

7. **Loan 3520-AR**, for US\$300 million equivalent, was approved by the Board on September 29, 1992, to help complete the physical works on the Yacyretá dam. This loan closed on December 31, 2000, and is now fully disbursed. The Panel, therefore, has no jurisdiction over it pursuant to paragraph 14 (c) of the Resolution.<sup>3</sup>
8. **Loan 3842-PA**, for US\$46.5 million equivalent was approved on February 14, 1995, to finance the then called Asuncion Sewerage Project. One of the Project's objectives was to improve the living conditions of 3,000 inhabitants of Encarnación, who were to be resettled under the Second Yacyretá Hydroelectric Project, by providing related infrastructure works. Specifically Part C of the project description, "Civil Works in Encarnación", reads as follows, "[c]onstruction of infrastructure works, including, inter alia, (a) a water supply and sewage disposal facilities, (b) roads; (c) storm water drainage and solid wastes disposal facilities; and (d) a power distribution system for the benefit of about 3,000 people to be resettled under the Second Yacyretá Hydroelectric Project." Due to major implementations problems, the project was restructured and renamed in January 2000.<sup>4</sup> This loan is scheduled to close on December 12, 2003.

### C. The Request

9. The Request was submitted by **Federación de Afectados por Yacyretá de Itapúa y Misiones (FEDAYIM)**<sup>5</sup>, a local nongovernmental organization on its behalf as well as of more than 4,000 families who believe their lives are being affected socially and environmentally, because of the impacts of the Yacyretá Hydroelectric Dam, and six coordinators of affected people in the following areas of Paraguay: San Cosme y Damián, Distrito Cambyreta, Barrio Pacu Cúa, Barrio Santa Rosa Mboy Caé, Arroyo Potiy, and Barrio Santa Rosa (the "Requesters"). The Request includes letters from the Mayors and Municipal Councils of the City of Encarnación and the District of Cambyreta as evidence of their support of the Request. There are also a number of other documents attached to

---

<sup>3</sup> Resolution No. IBRD 93-10, No.IDA-93-6 "The World Bank Inspection Panel", September 22, 1993, ¶ 14(c). ("Resolution").

<sup>4</sup>In its Response to the Request for Inspection, Management claims that this Loan, as restructured, is now "unrelated to Yacyretá" because the civil works associated with the Yacyretá project, funded by the original Loan, have been satisfactorily completed. In a further memorandum, dated July 31, 2002, providing clarifications requested by the Panel, Management restates this allegation considering that "the objectives of the related component had been met and the funds allocated for that component fully disbursed." The same memorandum, however, acknowledges that several of the sub-components of Part C have either not been financed ( roads) or "are to be financed by the Inter-American Development Bank through Loan 760 OC-RG." The Panel observes that the temporal limitation established in paragraph 14 (c) of the Resolution ("Requests filed after the Closing Date of the loan financing the project with respect to which the request is filed or after the loan financing the project has been substantially disbursed" i.e. "when at least ninety five percent of the loan proceeds have been disbursed") refers only to the percentage of disbursement of the loan proceeds, regardless of the status of the execution of the project. For this same reason, the Panel has no jurisdiction over projects yet to be completed when the related loan has been substantially disbursed. In any event, the facts alleged by Management, i.e. that the project has been completed and its objectives met (both as described in the relevant Loan Agreement), can only be determined through an investigation of all pertinent facts.

<sup>5</sup> The English translation of the NGO's name is "The Federation of People of Itapúa and Misiones Affected by Yacyretá."

the Request, including copies of several letters exchanged between the Requesters and Bank Management.

10. The Requesters claim to represent more than 4,000 families affected by the pending liabilities or “*deudas pendientes*” (an apparent reference to Yacyretá Base and Pending Actions Programs<sup>6</sup>) which have occurred because of the raising levels of the reservoir of the Yacyretá hydropower plant to 76 masl and possibly higher. According to the Request, these families were not appropriately identified and “*quantified in their real dimensions*” and, as a consequence, thousands of them were excluded from existing compensation and mitigation programs in spite of the fact that they have owned and occupied lands affected by the construction of the dam for more than 20 years. What follows is a summary description of their specific claims.
11. First, the Request cites, as an example, the case of 110 families represented by the Requesters who live in the district of Cambyreta on the banks of the Potiy Creek (Arroyo Potiy) who settled in the area around 1978 and “*are now affected by floods every time that it rains.*” The Request also cites similar cases of families living on the banks of the following creeks: Mboy Caé, Santa Maria, and Yacu Paso. Several photos are provided in the Request to support this claim. The Requesters state that “*this has continued, despite numerous efforts and reports (“denuncias”) submitted to the Banks, the Yacyretá Binational Authority (Entidad Binacional Yacyretá – EBY), the local and the national authorities.*”<sup>7</sup>
12. The Request claims that families for whom the Urban Creeks Program (Programa de Desborde de Arroyos or PDA) was established are being replaced by families from the neighborhoods of Pacu Cúa, Santa Rosa, Mboi Caé, Ita Paso and San Blas, who are in no way affected by the devastating situation being faced by those living on the creeks’ banks. The Request also states that these affected families are concerned that the program currently underway for 700 homes in Ita Paso and 400 in Arroyo Porá, will end with no solution for the many families afflicted by the situation described and exhibited in the photos provided. These families, according to the Requesters, are “*enduring extreme conditions that are truly life threatening.*”
13. The Request further points to the environmental contamination and adverse health impacts caused by the elevation of the reservoir, resulting in the rising of the water table, which affected the latrines and resulted in the contamination of the drinking water wells. According to the Request, this situation has been further exacerbated by the wastewater spills from the housing developments built by Entidad Binacional Yacyretá (EBY) in Buena Vista and San Pedro, into the Potiy, Santa María and Mboy Caé creeks. In addition the Request claims that the work planned to resolve the pollution problems will not meet its main objective, since, according to a document in the possession of the Requesters, the planned Wastewater Treatment Plant will neither benefit neighborhoods built by EBY

---

<sup>6</sup> These programs, known also as Plans A and B, were approved by EBY after the first Request for Inspection related to this project was filed. They are defined and referred to in the amendments to the legal documents for loans 2854-AR and 3520-AR, dated December 11, 1997.

<sup>7</sup> Request for Inspection, p.1.

under the project, nor others affected by the rise in the water table. As such, the Requesters believe that the chance to recover or clean up these streams will be lost for good, and that numerous families will be condemned to live in a polluted environment. The Requesters allege that the inhabitants of Barrio La Esperanza neighborhood are opposed to this component of the project as currently designed, because of these reasons, and of the fact that the construction of the proposed plant is based on a defective Environmental Assessment that is even in violation of national environmental laws.

14. The Request claims that the reservoir has caused severe health problems. The reservoir, filled with stagnant water, polluted with sewage waste, is an ideal habitat for microorganisms that are vectors of serious disease, such as malaria, leishmaniasis, schistosomiasis, dengue fever and other diseases. Statistical data from the Ministry of Public Health and Social Welfare of Paraguay (Sanitation Region Seven) for the years 1990, 1992 and 1994, mentioned in the Request show that diseases related to the reservoir's existence are among the main causes for doctor's visits, e.g., diarrhea, anemia, parasitic infection, ectoparasites, and skin diseases such as pyoderma. According to the Request, people living in the affected areas have complained of a high incidence of fevers since the reservoir was filled. The Requesters allege that there have been no programs for monitoring and controlling disease-causing microorganisms, and if this remains unresolved, it could lead to an alarming and catastrophic health situation.
15. The Requesters state that the Bank has failed in its obligation to ensure that EBY provide people with suitable compensation and resettlement packages. The assertion is based on the fact that the compensation approved for the requesting families living in the Santa Rosa, Arroyo Pora and Ita Paso neighborhoods "were negligible amounts that will in no way make it possible for the families to buy new land and rebuild their homes." Similarly, they state that the Bank and EBY have no plans to restore the families' productive infrastructure. Finally, the Request states that compensation and resettlement programs for brick-makers benefited only the owners of productive units and left their workers unemployed and in a very difficult economic situation.
16. The Requesters claim that the Bank's actions and omissions described in the Request constitute violations of various provisions of the following Bank Policies and Procedures:

- OD 4.00 Annex B on Environmental Policy for Dam and Reservoir Projects
- OD 4.01 on Environmental Assessment
- OD 4.30 on Involuntary Resettlement
- OD/OP/BP 13.05 on Project Supervision
- OD 10.70 on Project Monitoring and Evaluation
- OD 13.40 on Suspension of Disbursements.

#### **D. Management Response**

17. On July 10, 2002 the Panel received Management's Response to the Request for Inspection (Annex 2).

18. In its Response, Management specifically notes that many allegations made in the prior Request for Inspection<sup>8</sup> (Request I) are similar and, in certain instances, identical to those in the current Request (Request II). Management asks the Panel to consider “*only those allegation made in Request II that relate to developments since 1997*” as the ones that “*(...) fall within the Inspection Panel’s jurisdiction according to paragraph 14(d) of the Board Resolution.*”<sup>9</sup> Furthermore, Management submits that “*the only such new developments are those involving; (a) the PDA (...); designed in 1998; (b) the siting of the future wastewater treatment plan for the Paraguayan city of Encarnación; (c) resettlement progress since 1997; and (d) Management’s supervision efforts since 1997.*”<sup>10</sup> Furthermore and on the same issue of eligibility of the Request, Management submits that “*many of the matters raised by the Requesters are not attributable to the project but are related to situations which existed before the project began.*”<sup>11</sup> Hence, Management refers to paragraph 12 of the Resolution IBRD No.93-101, which “*requires a causal link between an alleged Bank action/omission and the harm suffered by those represented by the Requesters.*”<sup>12</sup>
19. In its Response, Management identifies three discreet sets or areas of complaint: resettlement and flooding; environmental and health impacts and compensation of resettled families and those of the brick makers. In summary, Management responds to each set of claims as follows.
20. **Resettlement and Flooding.** In its response to the Requester’s claim that 4, 000 families have not been properly identified, Management states that “*this claim is not supported by available evidence.*”<sup>13</sup> Specifically, Management refers to the two censuses conducted by EBY, in 1980 and 1990. The 1980 census would have identified all families needed to be resettled and/or compensated as a result of raising the level of the reservoir up to 83 masl. The 1990 census took into account demographic changes that had occurred since the previous census. Moreover, Management states that “*all families included in the updated census of 1990 who were living in areas below 78 masl have been compensated and/or relocated*”<sup>14</sup> under the Resettlement and Social Action Plan (applied until 1992), the Resettlement and Rehabilitation Action Plan (1992), and Plans A (1995) and B (1996). In addition, in accordance with the provision of the “Third Owners Agreement” between the Governments of Argentina and Paraguay, all post-census families living in the areas up to 84 masl would be resettled by their respective governments with their own funds.<sup>15</sup> Management concludes that “*in spite of delays and other problems related to EBY’s weak capacity and difficult environment in which resettlement takes place, supervision of the project has ensured compliance with the Bank’s OD 4.30 on Involuntary Resettlement.*”<sup>16</sup>

---

<sup>8</sup> Request for Inspection, dated September 30, 1996, registered by the Panel on October 1, 1996 (“Request I”).

<sup>9</sup> Management Response, p.62, ¶ 148.

<sup>10</sup> Ibid.

<sup>11</sup> Id., p.12, ¶ 35.

<sup>12</sup> Ibid.

<sup>13</sup> Id., p.19, ¶ 37.

<sup>14</sup> Id., p.19, ¶ 38.

<sup>15</sup> Id., p.20, ¶ 39.

<sup>16</sup> Id., p.23, ¶ 46.

21. In response to the claim about the frequent flooding of the people living on the banks of the Potiy, Mboy Caé, Santa Maria, and Yacu Paso creeks, Management denies any “causal relationship between urban creek flooding and raising the level of the reservoir to 76 masl.”<sup>17</sup> Management claims that these allegations “are based on partial and incorrect information, misunderstandings about the scope of the PDA and its relation to future resettlement before reaching 83 masl, and insufficient understanding of the hydrology of the reservoir and neighboring urban creeks.”<sup>18</sup> Management explains that the PDA was designed “for the families between 78 and 84 masl that were living along urban creeks and thus, were exposed to excessively high risks and could not wait until a plan to reach 84 masl was agreed and implemented.”<sup>19</sup> The PDA is comprised of two main elements: “a) construction of house and infrastructure for resettled families, and b) provision of assistance before, during and after the relocation of families to their new neighborhood.”<sup>20</sup> Although the Response alleges that the Bank is not financing the PDA Management states that “EBY is aware that the PDA, regardless of its sources of financing, needs to comply with the Bank’s Involuntary Resettlement Policy (OD 4.30),”<sup>21</sup> adding that “the Bank has advised EBY that the design and implementation of the Program should ensure: (a) increased participation and consultation with affected families; (b) development of resettlement plans within the context of municipal development plans; (c) implementation of socio-economic impact assessments prior to relocation; (d) exploration of more flexible options of relocation; (e) use of self construction and mutual help methods; and finally (f) promotion of community development activities.”<sup>22</sup>
22. Moreover, Management asserts that it is aware of “current complaints by the families dissatisfied with their exclusion from the Program and the priority given to others.”<sup>23</sup> With respect to specific claims by those families, Management maintains that the 68, instead of 110, Cambyreta families living in the San Francisco neighborhood were originally included in the PDA but they had rejected an option of moving to a new resettlement community in Arroyo Pora. Further, lands on the shores of Potiy creek in the District of Cambyreta are anticipated to be acquired by EBY if they are located below 84 masl. Management continues that neighborhoods of Pacu Cua, Santa Rosa and Barril Paso will be eligible if they are affected by high risk of flooding and unsanitary conditions. Finally, the “presumed ineligible families” living in the area of Ita Paso were included in the PDA with the understanding that the Government of Paraguay undertook to finance this component of the Program and provide for these families.<sup>24</sup> Therefore, Management concludes that “the Bank is aware that the PDA covers only a partial number of the people to be compensated and/or resettled before reaching 84 masl”<sup>25</sup> and that EBY “had to make difficult choices in establishing priorities and, on that basis, determining that

---

<sup>17</sup> Id., p.23, ¶ 48.

<sup>18</sup> Ibid.

<sup>19</sup> Id., p.25, ¶ 50.

<sup>20</sup> Id., p.25, ¶ 54.

<sup>21</sup> Id., p.27, ¶ 58.

<sup>22</sup> Ibid.

<sup>23</sup> Id., p.29, ¶ 59.

<sup>24</sup> Id., p.30, ¶ 60.

<sup>25</sup> Id., p.31-32, ¶ 62.

*some families would be relocated earlier than others. Those at higher risk were included for advanced relocation as part of the PDA, while the rest would have to wait for resettlement in the context of a future plan to raise the level of operation to its final design of 83 masl.”*<sup>26</sup>

23. In response to the claim that the houses have been destroyed by flooding and thus, the entitled owners have not received compensation, Management refers to the lack of causal link between the flooding and the current reservoir level. Management states that “*Parana River has historically caused periodic floods, affecting families in the cities of Posadas and Encarnación.*”<sup>27</sup> Furthermore, Management contends that “*the Yacyretá reservoir at current level does not increase the likelihood or incidence of flooding. Heavy flooding is the result of natural precipitation cycles and is exacerbated by “El Niño” and other weather phenomena.*”<sup>28</sup> Management sympathizes with the owners of the houses, especially since their properties are being reduced in value before the compensation is to be paid. Nevertheless, Management concludes that there is no violation of any Bank policies in this situation.
24. With regard to the Requesters’ claim of the lack of adequate supervision of the Projects by the Bank, Management “*believes that the Requesters are not fully aware of previous and ongoing Bank supervision efforts as well as the specific positive results these efforts have generated.*”<sup>29</sup> In particular, Management submits that it “*reiterated its commitment to stay the course and protect the well-being of the affected people, consistent with the Panel’s recommendation as endorsed by the Board.*”<sup>30</sup> Furthermore, Management states that “*as a result of Bank supervision, Plan A and B are almost fully implemented albeit with delays.*”<sup>31</sup> Management also refers to the frequency of the supervision missions during the period of 1997-2002, which included three High-Level Supervision Meetings.<sup>32</sup> As a result of adequate and intensive supervision, Management states that the Project was identified early in its implementation as being unsatisfactory and declared it to be non-compliant with the loan agreements. This triggered the suspension of all future loans to Paraguay until the outstanding issues were resolved. Subsequently, the Bank staff verified the progress of which and work on the Project has continued with the intensified supervision and management support.
25. **Environmental and health impacts.** In response to the claims on environmental pollution and negative impact on health conditions in the area, Management states that “*this claim is identical to the one presented in the Request I.*”<sup>33</sup> Management refers to the information provided in the previous Panel response as being relevant to this claim for the period up to 1997. In particular, Management states that “[t]he environmental and health situation remains comparable to that of 1997. The dam has neither caused nor increased

---

<sup>26</sup> Ibid.

<sup>27</sup> Id., p.32, ¶ 63.

<sup>28</sup> Ibid.

<sup>29</sup> Id., p.33, ¶ 66.

<sup>30</sup> Id., p.33, ¶ 67.

<sup>31</sup> Id., p.33, ¶ 68.

<sup>32</sup> A list of Supervision Activities since 1997 is provided in Annex B of Management Response.

<sup>33</sup> Management Response, p.37, ¶ 78.

*environmental pollution in the area of Encarnación-Posadas. Water quality monitoring programs before, during and after raising the reservoir level up to 76 masl have demonstrated that there are no significant water quality issues in the reservoir (...). There have been no significant changes in key physical and chemical parameters in the main water body of the reservoir at locations such as Encarnación or Posadas.”*<sup>34</sup>

26. With respect to the claim of formation of stagnant waters in the Parana River and creeks surrounding the city of Encarnación, Management states that “[t]he current water levels of the reservoir neither increase the presence of the stagnant waters in the creeks nor influence flooding in the creeks of Encarnación. Creeks are flowing at the same rate they would without a reservoir at 76 masl.”<sup>35</sup> Furthermore, in response to the claim that there is contamination of the drinking water wells and the flooding of the pit latrines, Management refers to a similar claim made in the prior Request and the fact that these effects have been addressed in the initial Environmental Impact Assessment (EIA) of 1992. However, Management maintains its earlier response to this claim stating that “*the floods in the areas... are not due to the current reservoir level, but rather are primarily due to rainfall in the catchments of the creeks...hence, pollution of shallow wells is caused by hydraulic conductivity, not by fluctuations in the reservoir level.*”<sup>36</sup>
27. In response to the allegation that the above-referred situation was further aggravated by the housing developments built by EBY in Buena Vista and San Pedro, where the wastewater spills into the Potiy, Santa María and Mboi Caé creeks, thus leaving them totally contaminated, Management claims that “*EBY financed the designs and will further finance and supervise construction of a new sewage collection system and wastewater treatment plan.*”<sup>37</sup> Management submits that “*this system includes waste discharges from Buena Vista and San Pedro areas, which are being discharged in to creeks until sewerage system is completed.*”<sup>38</sup> Moreover, “*the wastewater treatment plan has been designed to treat discharges of 100 percent of the urban population of Encarnación (the pollution loads from which are much more severe and are being discharged into the same creeks) and thus it will indeed treat the sewage from the neighborhoods built by EBY.*”<sup>39</sup> Management also states that the design and siting of the wastewater treatment plant is adequate, because the Environmental Impact Assessment and further independent consultant’s studies support it. Therefore it is in compliance with Paraguayan legislation, and endorsed by the Bank’s supervision missions and has been discussed during meaningful public consultations. Furthermore, “*the neighborhood where the plant is to be built will be connected to the sewer system along with other neighborhoods in Encarnación,*” thus “*the local community will receive long-term health benefits.*”<sup>40</sup> Management maintains that during the construction phase of the plant, measures to minimize visual impacts from the wastewater plant and to avoid pollution problems will be undertaken.

---

<sup>34</sup> Ibid.

<sup>35</sup> Id., p.38, ¶ 81.

<sup>36</sup> Id., p.42, ¶ 91-92.

<sup>37</sup> Id., p.43, ¶ 96.

<sup>38</sup> Id., p.44, ¶ 97.

<sup>39</sup> Id., p.44, ¶ 98.

<sup>40</sup> Id., p.46, ¶ 100, 102.

28. With regard to the claim that the Yacyretá reservoir is an ideal habitat for microorganisms that are vectors of serious disease, Management claims that there is “*no causal relationship with the raising of the reservoir and its operation at 76 masl.*”<sup>41</sup> Management states that all the vector species, referred to by the Requesters, “*have been present in the Yacyretá Project area since long before dam construction began.*”<sup>42</sup> Moreover, “[w]aterborne disease vectors and their incidence on the health condition of the population ... were identified and fully addressed in the 1992 EA report.”<sup>43</sup> Management also submits that systematic vector monitoring, supported by the Yacyretá Project, has been carried out on a regular basis by the Ministry of Public Health and Social Welfare of Paraguay, and that this monitoring has shown no significant increase in any of these vectors since the beginning of the filling of the reservoir. Management, therefore, concludes that “*the reservoir has not caused health problems, and since 1997 there is no evidence that the situation has changed.*”<sup>44</sup> In addition, Management notes that the Yacyretá Project not only is involved in a systematic monitoring of the vectors and diseases, but also provides a broad range of health services to the resettled families.

29. **Compensation and Resettlement.** With regard to the claims about the lack of proper compensation to the resettled people and the flaws in the resettlement process, Management states that “*proper compensation and resettlement has been provided to all families, both census as well post-census..., living in the area up to 78 masl.*”<sup>45</sup> Despite some challenges in implementing the resettlement process, “*5,378 families have resettled in new houses and farms, including 191 brick makers, in both countries.*”<sup>46</sup> Further, Management notes that “*urban families relocated close to workplaces have generally recovered their former levels of income following resettlement,*” although they have been subjected to the economic crises in both countries. On the other hand, “*there are unanticipated problems with respect to urban families resettled on sites relatively distant from the commercial center of Encarnación.*”<sup>47</sup> Management cites a series of short- and long-term measures to be implemented by EBY under the Bank’s supervision to mitigate adverse economic impacts on resettled families, to assess future resettlement alternatives in light of potential negative economic impacts, to design actions to support economic rehabilitation of resettled families and to provide support to the Governments of both countries to minimize crises’ effect on these communities.

30. On the issue of providing sufficient compensation to buy new land and rebuild the homes, Management submits that “*all families resettled as part of Plans A and B, as well as those families in Ita Paso, Santa Rosa and Arroyo Pora, have been compensated with properties and construction that were above the replacement cost of their former lots and homes.*”<sup>48</sup> Thus, Management concludes that despite the low property values of the affected houses

---

<sup>41</sup> Id., p.47, ¶ 104.

<sup>42</sup> Ibid.

<sup>43</sup> Ibid.

<sup>44</sup> Id., p. 48, ¶ 107.

<sup>45</sup> Id., p.49, ¶ 111.

<sup>46</sup> Id., p.50, ¶ 113.

<sup>47</sup> Id., p.51, ¶ 116.

<sup>48</sup> Id., p.54, ¶ 120.

and lack of formal ownership, affected families were compensated for the replacement value of their houses or given better value for their properties.

31. In its Response, Management also addresses the claim of the failure to restore productive infrastructure to relocated families. Management states that such claim “*is based on incomplete and outdated information about the (...) RRAP.*”<sup>49</sup> Thus, Management cites a series of activities that have been designed as a rehabilitation component for the economic support for rural people and particularly the brick makers.
32. In response to the claim of the lack of compensation to the individuals employed in the brick and tile industries, Management refers to the RRAP, which provided alternative compensation for the small brick and roof tiles makers. In accordance with the RRAP, “*EBY compensated brick factory owners, and the latter were bound by Paraguayan law to give their employees a severance payment.*”<sup>50</sup> Therefore, the responsibility for compensating brick and roof tile industry employees was that of the enterprises and not with the Borrower or the Bank. Nevertheless, Management states that it will advise EBY to address such claims through a set of actions, such as “*providing legal support to pursue their claims within the Paraguayan legal framework; providing technical assistance to unemployed brick makers in formulating projects and presenting them to the Pilot Local Productivity Fund (which will be set up by EBY and the Government of Paraguay as part of the economic rehabilitation of the resettled families), showing them how to apply for support from this Fund.*”<sup>51</sup>
33. Management also notes that the Requesters cite several policies as being violated by the Bank without providing a link to any particular action or claim. Management responds to this claim by observing that it has “*extensively elaborated on each particular claim*” in its Response and “*where relevant, links to policies were made.*”<sup>52</sup> Management also states that it has maintained its financing and engagement in the Yacyretá Project and has avoided exercising legal remedies against the Borrower because in Management’s judgment the Project is best served by such course of actions.
34. In its assessment, Management states that “*the Bank’s actions were in compliance with the relevant policies and procedures. This does not mean, however, that all issues in the project area are resolved. As detailed in Progress Reports to the Board since 1997 (Annex Q), the project has faced, and continues to face, many implementation issues and challenges. Those reports and this Response demonstrate that the Bank continues to follow the recommendations of the Inspection Panel*<sup>53</sup> *and the Bank’s Board issued in connection with the Request I, namely to remain engaged in addressing environmental and social concerns at the Yacyretá Project site.*”<sup>54</sup>

---

<sup>49</sup> Id., p.54, ¶ 122.

<sup>50</sup> Id., p.58, ¶ 137.

<sup>51</sup> Id., p.59, ¶ 137.

<sup>52</sup> Id., p.60, ¶ 141.

<sup>53</sup> Review of Present Project Problems and Assessment of Action Plans Report (the Review Report).

<sup>54</sup> Management Response, p.12, ¶ 36.

## E. Prior Request

35. On September 30, 1996, the Panel received a Request for Inspection from SOBREVIVENCIA-Friends of the Earth Paraguay, concerning the Yacyretá Hydroelectric Project. The Requesters alleged that adverse environmental, health and socio-economic impacts had occurred as a result of the filling of the Yacyretá reservoir to 76 masl, and of the Bank's failure to supervise adequately the environmental mitigation and the resettlement activities provided by the project. In December 1996, the Panel recommended the Board of the Executive Directors that an investigation be authorized.
36. At the Board meeting, on February 28, 1997, Management presented Action Plans (Plan A and Plan B) to address the Project's outstanding problems. Plan A was related to those actions that should have been completed before filling the reservoir to 76 masl. Plan B proposed the implementation of activities necessary to continue the operation of the reservoir at 76 masl in an environmentally sound manner. These plans were later incorporated by reference into the legal documents for both loans financing these projects through amendments dated December 11, 1997. In view of this, the Board did not the investigation recommended by the Panel but asked it *"to undertake a review of the existing problems of the Yacyretá Hydroelectric Project in the areas of environment and resettlement and provide an assessment of the adequacy of the Action Plans as agreed between the Bank and the two countries within the next four months."* The Board decided also that *"independent of the above decision the Inspection Panel [was] expected to look at the extent to which the Bank staff had followed Bank procedures with respect to this project."*<sup>55</sup>
37. Since the February 1997 Board decision referred only to "Bank procedures" (as opposed to Bank policies and procedures) and given the fact that the precise extent and scope of this decision was not subsequently determined by the Board, the Panel did not look into possible violations of Bank policies and procedures but limited itself *"to highlight the major areas where staff performance could or should have better followed"* the Bank's operational statements, and identified just *"three main areas of concern"*: a) participation of affected people, b) supervision and c) institutional strengthening, without conducting an investigation of these particular matters.<sup>56</sup>

## F. Eligibility

38. For purposes of determining the eligibility of the Request and the Requesters, the Panel reviewed the Request and Management's Response. Panel Chairman Mr. Edward S. Ayensu met in Washington with the Executive Director that represents the Governments of Paraguay and Argentina and his advisors, and with Bank officials and staff. He then visited both countries.<sup>57</sup> During the field visit to Paraguay Mr. Ayensu met with the representatives of the FEDAYIM, Government officials, local official and affected people

---

<sup>55</sup> Inspection Panel, Review of Present Project Problems and Assessment of Action Plans, Argentina/Paraguay Yacyretá Hydroelectric Project, September 16, 1997, ¶ 1 and 2.

<sup>56</sup> Id., ¶ 245, 248.

<sup>57</sup> The Panel's Executive Secretary Mr. Eduardo Abbott assisted the Panel's Chairman.

in the project area and with Government and EBY officials in Asuncion. In Argentina he met with Government and EBY officials and NGO representatives in Buenos Aires.<sup>58</sup>

39. The Panel's visit confirmed that FEDAYIM and other signatories of the Request are legitimate representatives of people that claim that they have or may be affected by the Yacyretá project, thus, meeting this eligibility criterion to submit a Request for Inspection under the Resolution.
40. Management refers to paragraph 12 of the Resolution IBRD No.93-101, which "*requires a causal link between an alleged Bank action/omission and the harm suffered by those represented by the Requesters.*"<sup>59</sup> The Response submits that "*many of the matters raised by the Requesters are not attributable to the project but are related to situations which existed before the project began.*"<sup>60</sup> In the Panel's view, however, this is a matter that can only be established as a result of an investigation of all relevant facts, as it is impossible to make such determination during the 21 day period allocated to the Panel to establish if the Request meets the eligibility criteria set forth in the Resolution.
41. The Panel is satisfied that the Request does assert in substance that the Bank has incurred in a serious violation of its policies and procedures that may have material adverse effects. The Panel is also satisfied that the subject matter of the Request is not related to procurement and has been brought to the Management's attention. In addition, the related loans have not been closed or substantially disbursed.
42. In reviewing the eligibility of the present Request (Request II), the Panel has also thoroughly examined the content and specific allegations in both Requests for Inspection, in view of Management's concerns and of the provisions of paragraph 14(d) of the Resolution, which provides that the following requests shall not be heard by the Panel: "*Requests related to a particular matter or matters over which the Panel has already made its recommendation upon having received a prior request, unless justified by new evidence or circumstances not known at the time of the prior request.*" Based on the foregoing and the findings of the Panel's visit to the project area to review the eligibility of the Request, it is the Panel's view that, although generally of a similar nature, most of the particular matters or claims on both Requests are substantially different. In addition, many apparently similar allegations in Request II seem to be based on new facts or circumstances. For example, the facts surrounding the establishment of the PDA program for people living on the banks of the flooding creeks and the specific allegations that the families living in Santa Rosa, Arroyo Pora and Ita Paso neighborhoods have not received suitable compensation and resettlement, while new people, not affected by the project, are receiving these benefits; that the new housing developments built by EBY in Buena Vista

---

<sup>58</sup> The Panel wishes to thank the office of the Executive Director representing Paraguay and Argentina and his Advisor Mr. Victor Vasquez for the assistance provided during the eligibility stage. It wishes to thank the Government's officials, NGO representatives, local people and representatives of EBY who took time to meet with the Panel's team. Finally, it would like to thank Bank staff in both countries and in Washington for their logistical support.

<sup>59</sup> Ibid.

<sup>60</sup> Id., p.12, ¶ 35.

and San Pedro have increased environmental pollution and that the environmental impact assessment of the wastewater treatment plant was inadequate.

43. Based on the foregoing the Panel concludes that the eligibility criteria set forth in the Resolution for the Request and the Requesters have been met.

## **G. Conclusions**

44. The Request and Management Response contain conflicting assertions and interpretations about the issues, the facts, compliance with Bank policies and procedures, and actual harm and potential harm. The Panel is neither able to address these conflicting statements in the period available to it to prepare and submit this report on eligibility, nor is it allowed to do so pursuant to the 1999 Clarifications of the Resolution.<sup>61</sup> The Panel can only address these issues during the course of an investigation.

## **H. Recommendation**

45. In the light of the foregoing, the Panel recommends an investigation into the matters alleged in the Request.

---

<sup>61</sup> According to the “1999 Clarifications” when the Panel makes a field visit to establish eligibility it “*will not report on the Bank’s failure to comply with its policies and procedures or its resulting material adverse effect (...).*” See ¶

ANNEX 1  
Request for Inspection  
English Translation

[Stamp:] Received, May 17, 2002, 4:45 p.m., The Inspection Panel UNOFFICIAL TRANSLATION

### **Request for Inspection**

The Federation of Persons Affected by Yacyreta in Itapua and Misiones (*Federación de Afectados por Yacyreta de Itapua y Misiones* – FEDAYIM), entered in the public Register under No. 262, hereby submits the following request for inspection by the World Bank and by the independent investigative mechanism of the Inter-American Development Bank, doing so on its own behalf and on behalf of the more than 4,000 families affected by the pending liabilities at what is referred to as 76 meters above sea level (76 masl), with the backing and a similar request from our authorities, the mayor of the city of Encarnación, the supervisor of the district of Cambyreta, and the chairmen of the councils of both communities.

### **Summary**

These liabilities are pending because the social and environmental impacts were neither fully identified, nor was their true extent quantified, and as a result, thousands of families have been unaccountably excluded from the compensation and mitigation plans, despite the fact that they have owned and occupied the lands for more than twenty years.

[FEDAYIM stamp]

**First Complaint: Take the example of the 110 petitioning families from the district of Cambyreta on the banks of the Potiy river,** whose municipality granted Mrs. Norma de Gutmann a permit for the subdivision of lands in 1978. Today, these lands suffer from flooding whenever there is rainfall in the community, making life impossible for these people, and this has continued, despite numerous efforts and reports submitted to the Banks, the Yacyreta Binational Authority (*Entidad Binacional Yacyreta – EBY*), the local and the national authorities. There are no proposed solutions. There are numerous families settled along the banks of the Mboy Cae, Santa Maria and Yacú Paso streams who find themselves in the same situation. Attached are photographs showing what these communities have had to endure.

This organization believes that the Banks have failed in overseeing the implementation of the resettlement projects. They are financing the project without even having undertaken the duty of finding out the true number of people to be compensated for the damage, both social and environmental.

Nevertheless, the organizations' endeavors, backed by the NGO Sobrevivencia (Friends of the Earth Paraguay), have managed to get various inspection panels to come that corroborated the complaints, and as a result, the Yacyreta company issued Resolution 3874/98 (Document No. 1), which clearly states, in the preambular clauses, that this program was approved to deal with those affected by the flooding of the streams.

Similarly, the Program Evaluation Mission on the river flooding, which took place September 27–29, 1999, recommended seven conditions that were to be taken into account by the heads of EBY to deal with these families (Document No. 2). Nonetheless, these were ignored or rejected.

Our first specific complaint that we would like the mission to verify is that the families for whom the stream flooding program was created are being replaced by families from the neighborhoods of Pacu Cúa, Santa Rosa, Mboi Caé, Ita Paso and San Blas, who are in no way affected by the devastating situation being borne by those living on the stream banks for whom this program was created.

We have been making this complaint ever since the program was initiated, as evidenced by the various memorandums we have attached, and to date, there has been no response, nor have they been addressed by the heads of EBY. We also denounce the housing situation of property owners included in the 1980 census, whose homes have now been destroyed by the continuing floods, yet to date, they have received no compensation. We also denounce the fact that the EBY claims it is not responsible for the ravaged lands located on the Cambyreta district side of the Potiy stream, which are now all unused because of the current elevation above sea level. The concern of the affected families making this request is that, with the program currently underway, for 700 homes in Ita Paso and 400 in Arroyo Porá, the program will end with no solutions having been found for the families afflicted by the situations shown in the photos, enduring extreme conditions that are truly life threatening.

This situation was reported years ago, on two different occasions, as evidenced by the memorandum delivered: a) to the representative of the World Bank in Paraguay, Mr. Peter Hansen, on July 25, 2000, b) to the President of the Republic of Paraguay on July 5, 2000, c) to Mr. Walter Reisser on July 5, 2000, d) to Mr. David de Ferranti in October 2001, e) another memo reiterating the complaint in October 2001, as noted in the response sent by David de Ferranti, and f) in the notarized instrument dated July 13, 2000.

[FEDAYIM stamp]

**Second Complaint: The environmental pollution caused by the dam and its impact on health.**

Before the dam elevated the Paraná River to the current height above sea level, the river and streams surrounding the city of Encarnación flowed at a rate that precluded the presence of stagnant waters. Neighborhoods got along through the use of borehole latrines and drinking water wells. The wealthiest families had modern baths and pit latrines. Drinking water was clean and healthy. When the financing banks let the resettlement programs proceed as a component disassociated from the civil works, and allowed the dam to begin operations before completing the transfer of all affected families, they ordained that the water table would pollute the drinking water wells and flood the pit latrines, a situation that forced numerous families to live in a totally contaminated and unhealthful environment. This situation was further aggravated by the housing developments built by EBY in Buena Vista and San Pedro, where the wastewater spills into the Potiy, Santa María and Mboi Caé streams, leaving them totally contaminated. This is still further aggravated by the fact that the work planned to resolve the pollution problems will not meet that objective, since, according to a document the organization holds, the planned Wastewater Treatment Plant will not benefit these neighborhoods built by EBY, nor others affected by the rise in the water table. As such, the chance to recover or clean up these streams will be lost for good, and numerous families will be condemned to live in a polluted environment. Attached, on disk, is a study done by the Catholic University, with photos and dates that relate to the degree of environmental pollution. A. Added to this is the fact that the inhabitants of the neighborhood where the plant is supposed to be built (Barrio La Esperanza) are opposed to the resolution for these very reasons. B. According to documentary evidence that we have attached, the above was decided in violation of the environmental laws (Document No. 1). Document No. 2 was issued by the Office of the Controller. C. There are no plans for connecting the neighborhood where the plant is supposed to be built to the sewer system, meaning that the neighborhood will become contaminated by the rise in the water table. D. The selected site needs to be filled in and will not allow for future expansion, meaning that future generations will have trouble benefiting from appropriate sanitation networks. E. The environmental impact report on the project was defective on various counts, including a lack of participation by the affected parties and by the NGOs, who were concerned about the consequences of the work. According to a note we have attached from the meeting held in Ituzaingó, EBY is supposed to build a wastewater treatment plant in the towns of San Juan del Paraná and Cambyreta, but these works are not included in the EBY's plans or projects, meaning that once again, it is committing a gross omission.

**Impact on Health.** The reservoir has caused severe health problems. The lake, filled with stagnant, polluted water with sewage waste, is an ideal habitat for microorganisms that are vectors of serious disease, such as malaria, leishmaniasis, schistosomiasis, dengue fever and other diseases. Statistical data from the Ministry of Public Health and Social Welfare (Sanitation Region Seven) for the years 1990, 1992 and 1994 show that diseases related to the reservoir's existence are among the main causes for doctor's visits, e.g., diarrhea, anemia, parasitic infection, skin diseases such as pyoderma and ectoparasites. Since the reservoir was filled, people living in the area of influence have complained of a high incidence of fevers. We denounce the fact that there were no programs for monitoring and controlling disease-causing microorganisms, and if this remains unresolved, it could lead to an alarming and catastrophic health situation.

**Third Complaint: The banks have failed in their duty to ensure that EBY provides people with suitable compensation and resettlement.**

**For example:** This includes the requesting families living in the Santa Rosa, Arroyo Pora and Ita Paso neighborhoods. A photocopy of the valuations is attached.

In the Santa Rosa neighborhood, EBY's appraisal department has approved negligible amounts that will in no way make it possible for the families to buy new land and rebuild their homes. Similarly, EBY has no plans to restore the families' productive infrastructure.

[Stamp:] Received May 17, 2002; The Inspection Panel  
Yacyreta Binational Authority

**RESOLUTION NO. 3874/98 – DOCUMENT NO. 5**

By which the Board of Directors is asked to approve the program for awarding compensation for flooding by urban streams on both banks.

HAVING REVIEWED:

File DOC-MD No. 556/98 and File POS No. 1370-P-1998 submitted with Memorandum No. 1.084/98 dated December 22, 1998 from the Department of Complementary Works, and:

WHEREAS:

In the high-level meeting that took place at the headquarters of the Inter-American Development Bank in Washington D.C., it was agreed that "Prior to December 31, 1998, the Yacyreta Binational Authority (EBY) shall submit to the Governments and to the Banks: (i) a list of the allocations that need to be met on a priority basis due to the prolonged operation of the reservoir at 76 masl (meters above sea level) and the flooding by urban streams, and (ii) the costs and potential financing methods for the plan of action needed to deal with this, including the use of mechanisms similar to the ones already in use in the Base Program."

Because of this, it is necessary to approve the Preliminary Program to be submitted with a view to awarding compensation for flooding by urban streams on both banks, consisting of a series of studies, actions and works that will enable resettlement of the families who have frequently been affected by the elevated level of the streams.

The aforementioned program was developed using similar criteria for each side of the stream, and the respective files were opened for individual consideration, with plans for the construction of 1,185 residences for the beneficiary families (right bank, 500 families and left bank, 685 families), in addition to 2,520 residences for additional families (right bank, 1,320 families and left bank, 1,200 families).

For this program, plans have been made to use US\$51.0 million from IDB loan 760/OC-RG; US\$16.059 million from IBRD loan 2854-AR, and US\$6.361 million from internal funds, for a total investment of US\$73.42 million.

The Financial and the Legal Departments have performed their assigned roles, and have submitted no comments.

Under Articles 4, 20 and 15, paragraph (s) of the Internal Regulations, the Executive Committee is responsible for submitting the respective draft resolution.

[Initials]

THIS IS A TRUE COPY ...//...  
OF THE ORIGINAL

## **COMPLAINTS FROM THE COORDINATOR FOR THE FAMILIES AFFECTED BY THE PENDING DEBTS AT 76 METERS ABOVE SEA LEVEL (76 MASL)**

1) There are families who have traditionally lived on the banks of the streams in Encarnación, who, in light of the current operating level of the dam—76 masl—are already suffering the effects of the secondary damming of these streams caused by the reservoir, and the EBY has neither recognized this situation nor considered it to be an affected area, nor has it been incorporated in its social and environmental impact mitigation plans, i.e., the Plan for Resettlement and Rehabilitation (PARR) and the Master Environmental Management Plan (PMMA).

After an extensive battle organized by civil society and environmental groups, along with requests for inspection by the banks involved in the project, with partial investigations, an onsite verification by the Vice President of the World Bank, and more, the problem, however obvious, was only recently acknowledged (in 1999) by the financing banks and EBY as being a consequence of the Yacyreta reservoir. Accordingly, EBY drew up the “Stream Flooding Program,” and once again, it did so unilaterally, without effective participation from the affected parties, and with the serious risk that many of the affected families would not be covered by the program, since even after multiple requests for a list of families considered by the program, the EBY officers continue to say they will provide it (as always), but to date, they have not done so.

There are families listed in the census arbitrarily (and others not included in the census, omitted through EBY’s negligence) whose homes will become flooded at 83 masl, who are being pressured to accept involuntary relocation, which they have objected to, in the Arroyo Porá and Ita Paso resettlement areas, at sites very distant from their places of origin, with plans and compensation not being drafted jointly (EBY and affected families), as provided by law. The EBY officers say that if their terms are not accepted, the families will not be compensated at all, losing all their rights.

With this, they are clearly trying to clear out or vacate lands that will be flooded at 83 masl, at the expense of or using the funds that should be used to settle the large socioenvironmental liability still pending at the reservoir’s current operating level (76 masl), leaving this problem unresolved, yet again. Furthermore, the true extent of this pending debt has yet to be evaluated on a participatory basis, much less quantified, as we have been requesting for two years now, and there is not even an Environmental Impact Report on this project, as required by our laws. For this reason, we are opposed to amending Expropriation Act 394/94, since its revision has not been participatory; it would allow the reservoir to be raised without resolving the severe pending problems faced by the affected families, and we would be mortgaging the elevation of the reservoir with our lives and our property, with no solution to our problems, with a serious increase in as yet unquantified irreparable damages, with no guarantees of compensation and with the experience of the current situation, in which six years after raising the level of the reservoir, the problems brought about by operating at that level have yet to be resolved.

- 2) The Wastewater Treatment Plant planned for the city of Encarnación:
  - a) Will not fix the pollution created by the EBY settlements, such as relocation of the Oleros (brick-makers) neighborhood.
  - b) Will leave many neighborhoods without sanitation facilities, there already being problems with six pit latrines at 76 masl, e.g., the Quiteria and La Esperanza communities.

3) The municipal slaughterhouse, whose relocation will cause problems for 19 workers who have been on the job for 30 years.

#### WE REQUEST

1) That a general and participatory census be taken

2) A participatory assessment and quantification, by working committees consisting of the affected parties, EBY, the authorities and NGOs, of the true magnitude and scope of the damages and socioenvironmental problems, and with the EBY's compliance with all the terms set by the World Bank in its November 29, 1999 memorandum to EBY director Patiño. And with the funds remaining from the loans to be used to start this process at once.

3) A participatory assessment and quantification of the true magnitude and scope of the socioenvironmental damages that will be caused if the reservoir is raised to 84 masl, to determine the viability and benefits for our country, or the lack thereof.

[Handwritten:] Received by David de Ferranti, Oct. 14, 2000.

### **Complaint Regarding the Situation of Brick-Makers and Ceramists**

The land on either side of the Paraná River, in both Itapúa and Misiones, holds rich deposits of clay that encouraged the installation of brick makers and a ceramics industry. EBY proceeded to compensate a large number of these establishments and relocated the productive units of others to an area located far from the clay deposits. When the compensation was paid, it went to the owners of these establishments, neglecting the personnel, leaving a large number of people without jobs. This forced many of them to come up with and set up their own brick-making businesses in order to continue subsisting along with their families, with which they are now surviving precariously, since EBY now owns the clay deposits. This has forced them to buy the raw material from some of the owners who still have their land and who have available clay. As such, it is urgent that the independent mission confirm the status of these families, so as to force EBY to undertake a serious program of job retraining for these affected communities.

#### **LIST OF POLICIES THAT HAVE BEEN VIOLATED**

It is our understanding that the World Bank has the following policies and/or procedures: Environmental Policy for Dam and Reservoir Projects (OD 4.00, Annex B), Environmental Assessment (OD 4.01), Involuntary Resettlement (OD 4.30), Supervision (OD 13.05), Project Monitoring and Evaluation (OD 10.70), and Supervision [sic] of Disbursements (OD 13.40). In addition, the Inter-American Development Bank has policies and procedures for classifying and evaluating the Environmental Impact of the Bank's operations, strategies and procedures on sociocultural matters relating to the environment. In the course of designing and building the Yacyreta Hydroelectric Project, each of these policies was violated.

This occurred because the financing banks were unwilling to carry out proper supervision and monitoring of the work. This led to nothing more than the dismantling of productive systems; community structures and social connections were weakened and families were dispersed.

No attention is being paid to the needs of the most disadvantaged groups, and at this time, the affected parties run a serious risk of ever increasing poverty if the heads of EBY are not pressured into correcting their policies. For this reason, we believe that the presence of an Independent Inspection Panel is urgent and necessary.

We hereby authorize any publication of this request for inspection.

**Please direct inquiries to:**

**Dr. Angela Vergara de Miranda**  
**Cerro Corá 269 c/o Juan Leon Mallorquín**  
**Fax: 071-207202/207203**  
**Phone: 071-207313/204512**  
**Mobile: 0975-606240**

/s/ Dr. Angela V. de Miranda  
Chairman

[FEDAYIM stamp]

/s/ Antonio Tapia  
Coordinator for San Cosme and Damian

/s/ Rodolfo Navarro  
Coordinator for Pacu Cua

/s/ Cresencia de Aranda  
Coordinator for Arroyo Potiy

/s/ Victorio Ortellado B.  
Secretary

/s/ Carlos Sanabria  
Coordinator for Cambyreta District

/s/ Dilma de Guerrero  
Coordinator for Santa Rosa Mboi Cae

/s/ Blas Cabral  
Coordinator for Ayolas

/s/ Elena Vera de Riberos  
Coordinator for Santa Rosa

[FEDAYIM stamp]

[Stamp:] Received, May 17, 2002, 4:46 p.m., The Inspection Panel  
Municipality of Encarnación  
Taxpayer ID No. MENI 846450 E  
Phone: 203942 – 204253

MEMORANDUM No. 0236/2002  
Encarnación, April 9, 2002

To the Members of the  
Independent Inspection Panel  
of the World Bank and IDB  
for the Yacyreta Project  
Hand delivered.

I am respectfully writing to inform you that, in view of the efforts made by the leaders of the parties affected by the flooding of the streams in the district of Encarnación and other neighboring towns, represented for these purposes by Dr. Angela V. de Miranda and Victorio Ortellado, it is my belief that in the interests of the people involved, it is important to attach the petition from the affected families, requesting the presence of the members of the Independent Inspection Panel from the World Bank and the IDB.

Likewise, I feel it would be appropriate to schedule a joint meeting in Encarnación, with the participation of the various affected sectors, to deal with matters related to the Yacyreta Binational Authority.

In my capacity as Mayor of the city of Encarnación, I concur with the concerns expressed by the leaders of the affected parties, who have been working continually to find appropriate solutions to submit to the international organizations.

I look forward to hearing from you at your earliest convenience.

Sincerely,

/s/ Rogelio R. Benítez Vargas, Esq.

City Mayor

[Stamp]

[Stamp:] Received, May 17, 2002, 4:46 p.m., The Inspection Panel  
City Council  
City of Encarnación  
Phone/Fax: (071) 204564  
Itapúa, Paraguay

MEMORANDUM No. 130/2002  
Encarnación, April 10, 2002

To the Members of the  
Independent Inspection Panel  
of the World Bank and IDB  
for the Yacyreta Hydroelectric Project  
Hand delivered.

On behalf of the City Council, we are writing to you in relation to a memorandum submitted by the Federation of Persons Affected by the Yacyreta Dam in Itapúa and Misiones (FEDAYIM), requesting the support of this Council in its request for a visit by representatives from the Independent Inspection Panel of the World Bank and IDB.

In this regard, the City Council, guided by the Opinion of the Special Task Force on Parties Affected by EBY, has decided to SUPPORT the request of the Federation of Persons Affected by the Yacyreta Dam in Itapúa and Misiones (FEDAYIM), in its request for a visit by representatives from the Independent Inspection Panel, for purposes of inspecting the area affected by the Yacyreta Hydroelectric Project.

Sincerely,

/s/ Juan Luis Regis González  
City Council Secretary  
[Municipal stamp]

/s/ Ricardo Omar Cabrera V., Esq.  
City Council Chairman

[Stamp:] Received, May 17, 2002, 4:46 p.m., The Inspection Panel  
Municipality of Cambyreta  
2001 – 2005 Term  
Phone: (071) 205087  
Itapúa, Paraguay

MEMORANDUM No. 53/02  
Cambyreta, March, 2002

Dr. Angela V. de Miranda  
Hand delivered.

We are writing to notify you that the information contained in the memorandum received by this office on March 18 of this year is accurate, and therefore, the Municipal Supervisor and the Supervisory Council for the District of Cambyreta hereby support the request contained therein.

Sincerely,

/s/ Martin Scheid  
District Council Chairman  
[Municipal stamp]

Luis Alberto Wieldel  
District Supervisor  
[Municipal stamp]

Ministry of Agriculture and Livestock  
Assistant Secretary of State for Natural Resources  
and the Environment  
Office of Environmental Regulation  
Coronel Bogado, February 15, 1999

Dr. Angela V. de Miranda  
Member of the Coordinating Committee

I am writing to notify you and others concerned, in answer to the memorandum dated 26 - 0 [sic]- 99.

In this regard, it is my duty to notify you that, to date, the Yacyreta Binational Authority has not submitted a new Environmental Impact Report to the Office of Environmental Regulation regarding the Master Plan for the Sewer System and Wastewater Treatment Project for the city of Encarnación.

Sincerely,

/s/ José Candia, Agric. Eng.

Regional Coordinator – D.O.A. – Coronel Bogado – Itapúa

ANNEX 2  
Management Response

International Bank for Reconstruction and Development

INSP/RQ02/1

**MANAGEMENT RESPONSE TO THE  
INSPECTION PANEL REQUEST**

**ARGENTINA/PARAGUAY:**

**YACYRETÁ HYDROELECTRIC PROJECT  
(currently supported by IBRD Loan 2854-AR)**

July 10, 2002

**BANK MANAGEMENT RESPONSE TO  
REQUEST FOR INSPECTION PANEL REVIEW OF THE  
IBRD – FINANCED PARAGUAY REFORM PROJECT FOR THE WATER AND  
TELECOMMUNICATIONS SECTORS (P0-3842-PA) AND ARGENTINA SEGBA  
V POWER DISTRIBUTION PROJECT (P0-2854)**

Management has reviewed the Request for Inspection of the IBRD-financed Paraguay Reform Project for the Water and Telecommunications Sectors (P0-3842-PA) and Argentina SEGBA V Power Distribution Project (P0-2854) (referred to in attached document as Yacyretá Hydroelectric Project) received by the Inspection Panel on May 17, 2002 and registered on May 30, 2002. Management has prepared the following response.



**MANAGEMENT RESPONSE TO THE  
INSPECTION PANEL REQUEST No. RQ02/1**

*Argentina/Paraguay: Yacyretá Hydroelectric Project  
(currently supported by IBRD Loan 2854-AR)*

**CONTENTS**

Acronyms, Abbreviations, and Glossary .....	vii
Executive Summary .....	ix
I. Introduction.....	1
II. Previous Inspection Panel Recommendations and Management Response .....	3
III. Description and Status of the Projects Involved in the Request for Inspection.....	7
IV. The 2002 Request .....	11
V. First Set of Claims .....	18
VI. Second Set of Claims .....	35
VII. Third Set of Claims.....	47
VIII. Policy Compliance and Continued Engagement.....	56
IX. Conclusion .....	58

Figures

**3.1 Yacyretá Project Diagram**

**5.1 Total Affected Population**

**5.2 Status of Resettlement**

**5.3 Population Resettled and To Be Resettled**

**5.4 Urban Creeks Program (PDA)**

**5.5 Resettlement under RRAP (up to 2000), PDA and Pending Actions up to 84 masl**

**6.1 Water Level in Encarnación at Different Flow Rates of the Paraná River**

**6.2 Interconnection of Wells and Latrines**

**6.3 Rate of Diarrhea in Encarnación, 1994-99**

Tables

**2.1 Supervision of Yacyretá Project, 2000-2002**

**4.1 Summary and Analysis of Inspection Panel Claims**

**5.1 Number of Families Resettled and To Be Resettled**

**5.2 Meetings and Communications Concerning the PDA**

**5.3 Number of Houses under Construction for PDA**

**6.1 Mean Water Quality Parameters in the Reservoir-River System**

**6.2 Return Period for Flood Levels in Encarnación–Posadas**

**6.3 Chronology of Events on the Location of Encarnación’s Wastewater**

**Treatment Plant and Issuance of Environmental License**

**7.1 Issues Related to the Resettlement of Families on Sites Removed from Encarnación City Center**

**7.2 Alternatives Included in the Resettlement Plan for Brick Makers and Ceramists**

**7.3 Alternatives Selected by Brick and Roof Tile Makers**

## Annexes

- A. Initial Phased Reservoir Filling Schedule
- B. Supervision Activities Since 1997
- C. Examples of Affected Houses, New Housing, and Community Facilities Provided by the Entidad Binacional Yacyretá
- D. Urban Creeks Program (PDA) Target Population
- E. Letters between the World Bank and Entidad Binacional Yacyretá
- F. Letters to and from Entidad Binacional Yacyretá concerning Cambyretá
- G. Resolution No. 959/86
- H. Urban Environmental Conditions of Encarnación
- I. Location and Design of Encarnación Wastewater Treatment Plant
- J. Resolution 10 of 1999, Environmental License for the Environmental Assessment on the

### Encarnación Wastewater Treatment Plant

- K. Resolution No. 1100/01 and Letter from Minister of Housing
  - L. Brick Making Facilities, Mboi Caé
  - M. Policy on Brick Makers
  - N. Resolution No 2824/95
  - O. San Pedro Industrial Park
  - P. Leg No. 213/93
  - Q. Progress Reports to the Board
  - R. Status of Plan A and Plan B of the Yacyretá Project
  - S. Summary of Bank Communications with Civil Society Groups
  - T. Sample of Responses from Bank to Affected People
  - U. Schematic of the Resettlement and Rehabilitation Action Plan V.
- V. Supervision Accomplishments and Remaining Challenges, 1997-2002

### Maps

#### **Map 1 Argentina and Paraguay Yacyretá Hydroelectric Project - IBRD 2022**

#### **Map 2 Paraguay Yacyretá Hydroelectric Project – City of Encarnación - IBRD 32023**

#### **Map 3 Reservoir Levels - IBRD 32040**



## ACRONYMS, ABBREVIATIONS, AND GLOSSARY

<b>A. Bank</b>	International Bank for Reconstruction and Development
<b>Census families</b>	Families living in Yacyretá area and included in the 1990 census
<b>CIET</b>	Argentine NGO
<b>CORPOSANA</b>	Paraguayan Corporation of Water and Sanitation (Corporación de Saneamiento y Agua de Asunción)
<b>EBY</b>	Entidad Binacional Yacyretá, formed in 1976, implementing agency for the Yacyretá Project
<b>EIA</b>	Environmental Impact Assessment
<b>El Niño</b>	Weather phenomenon that results from a disruption of the ocean-atmosphere system in the tropical Pacific. It has worldwide weather consequences, including increased rainfall in South America and droughts in Eastern Australia. La Niña, the sister effect, results from cooling of water in the East and Central Pacific, and produces droughts in South America and flooding in Australia. Together these two effects are what is known as the El Niño Southern Oscillation.
<b>EMP</b>	Yacyretá Environmental Management Plan
<b>Encarnación, Paraguay</b>	City in Paraguay bordering the Yacyretá Reservoir.
<b>FEDAYIM</b>	Federación de Afectados por Yacyretá de Itapúa y Misiones, the Requester NGO
<b>ICR</b>	Implementation Completion Report
<b>IDB</b>	Inter-American Development Bank
<b>Loan 2854-AR</b>	ARGENTINA: SEGBA V Power Distribution Project, amended in 1994 to provide financing for Yacyretá
<b>Loan 3842-PA</b>	PARAGUAY: Asunción Sewerage Project
<b>Loan 3520-AR</b>	ARGENTINA: Second Yacyretá Hydroelectric Project
<b>Project 69269-PA</b>	PARAGUAY: Pilot Community Development Project (not yet signed)
<b>Masl</b>	Meters above sea level, in Spanish, <i>cota</i>
<b>NGO</b>	Non-governmental organization
<b>OD 4.00 Annex B</b>	Environmental Policy for Dam and Reservoir Projects. World Bank Policy
<b>OD 4.01</b>	World Bank Operational Directive 4.01, Environmental Assessment
<b>OD 4.30</b>	World Bank Operational Directive 4.30, Involuntary Resettlement
<b>OD 13.05</b>	World Bank Operational Directive 13.05, Project Supervision
<b>OD 10.70</b>	Project Monitoring and Evaluation policy of the Bank

<b>OD 13.40</b>	World Bank Operational Directive, Suspension of Disbursements
<b>OED</b>	Operations Evaluation Department of the Bank
<b>PDA</b>	Programa de Desborde de Arroyos; in English, Urban Creeks Program; started 1998
<b>Plan A</b>	Additional program to complete some actions which should have been finished prior to raising of the Yacyretá Reservoir to 76 masl. Partially financed by Loans 2854-AR and 3520-AR.
<b>Plan B</b>	Additional program to address problems which surfaced because of the unexpectedly prolonged permanence of the Yacyretá Reservoir water level at 76 masl. Partially financed by Loans 2854-AR and 3520-AR.
<b>Posadas, Argentina</b>	City in Argentina bordering the Yacyretá Reservoir
<b>Post-census families</b>	Extracensales, people who came on site after the 1990 census
<b>Request I</b>	Inspection Panel Request INSP/R96-2, registered October 1, 1996
<b>Request II</b>	Inspection Panel Request IPN RQ02/1, registered May 30, 2002
<b>RRAP</b>	Resettlement and Rehabilitation Action Plan; with the support of the Bank in 1992 using updated data from the 1990 census
<b>SEAM</b>	Secretary of the Environment (of Paraguay)
<b>SENEPA</b>	SENEPA is in the Ministry of Public Health and Social Welfare, Paraguay
<b>Sobrevivencia</b>	Paraguayan NGO
<b>Yacyretá Dam</b>	65 km earth dam in the main channel of the Paraná River, 80 km downstream from Encarnación, Paraguay and Posadas, Argentina
<b>Yacyretá Reservoir</b>	The reservoir created upstream from the Yacyretá Dam
<b>Yacyretá Treaty</b>	1973 Treaty undersigned by Argentina and Paraguay for the construction of the Yacyretá Dam

**MANAGEMENT RESPONSE TO THE  
INSPECTION PANEL REQUEST No. RQ02/1**

***Argentina/Paraguay: Yacyretá Hydroelectric Project  
(currently supported by IBRD Loan 2854-AR)***

**EXECUTIVE SUMMARY**

1. Inspection Panel Request No. RQ02/1 (“Request II”) was brought by an NGO representing parties in Paraguay claiming to be affected by the Yacyretá Hydroelectric Project (“Yacyretá Project”). The International Bank for Reconstruction and Development (“Bank”) currently supports the Yacyretá Project exclusively through Loan 2854-AR to the Argentine Republic.

2. The Yacyretá Project is partially financed by a series of loans from both the International Bank for Reconstruction and Development (the Bank) and the Inter-American Development Bank (IDB) to the Argentine Republic. As part of the Yacyretá Project, a hydroelectric dam has been constructed on the Paraná River, which forms part of the border between Argentina and Paraguay. At full capacity, the water level in the reservoir would reach 83 meters above sea level (“masl”). Raising the reservoir to that level would require resettlement of all affected populations to sites above 84 masl. Since it was first filled in 1994, however, the reservoir level has been maintained at 76 masl and only the affected population previously residing between the river’s original 73 masl level and a “buffer zone” ending at 78 masl has been resettled at sites above 84 masl under the Yacyretá Project. Populations residing between 78 masl and 84 masl are currently awaiting (or in some cases are already undergoing or have undergone) resettlement in anticipation of a potential eventual raising of the reservoir to its 83 masl design level. Those populations have been augmented by the arrival on site of new residents after the 1990 census that established the baseline of those requiring eventual resettlement as a result of the Yacyretá Project.

3. Request II is in many respects similar to a previous request (Request I) brought before the Inspection Panel in 1996 by another Paraguayan NGO, and thus only those claims made in Request II that reflect new evidence or circumstances may be considered by the Inspection Panel under the rules governing its activities (see Management Response paragraph 30 below). Request II primarily alleges that the Bank has violated its policies pertaining to Environmental Assessment, Involuntary Resettlement and Supervision regarding the Yacyretá Project.

4. The environmental assessment claims relate to the quality of water in the reservoir and to health conditions in the reservoir’s area of influence. In its Response to Request II, Management notes that the reservoir’s water quality is constantly monitored, falls within satisfactory parameters, poses no significant health risks to people living in the vicinity of the reservoir and thus presents no harm attributable to the claim of violation of the Bank’s policy on Environmental Assessment. Furthermore, although unrelated to the Yacyretá Project, to address concern about issues of sanitation, the Bank is assisting with the construction of a wastewater treatment plant to serve the Paraguayan city of

Encarnación. The design and siting of this plant have been subject to appropriate analysis under the requirements of the Bank's policy on Environmental Assessment (OD 4.01).

5. The resettlement claims are essentially fourfold: (a) the reservoir causes flooding of urban creeks that flow into it, and results in stagnant and unhealthy pooling of water detrimental to those living along such creeks and thus requiring their compensation and resettlement; (b) the resettlement program carried out under the Urban Creeks Program (Programa de Desborde de Arroyos; PDA) by the Yacyretá Project's implementing agency, Entidad Binacional Yacyretá (EBY), is flawed; (c) EBY's resettlement programs, other than the PDA, are likewise flawed; and (d) some employees of brick making enterprises, which shut down as a result of the Yacyretá Project's flooding or prospective flooding of clay deposits used for brick making, did not benefit from compensation provided by EBY to the owners of those enterprises.

6. Management points out in its Response to Request II that no harm attributable to any violation of Bank resettlement policy exists because: (a) the flooding of urban creeks is due to hydrological conditions predating the Yacyretá Project (that is, the affected area consists of a floodplain that has regularly flooded to levels well above 76 masl since long before the reservoir was formed); floods are caused by rainfall and stagnant pooling is further aggravated by local residents dumping solid waste, which obstructs creek drainage; (b) given the above, EBY is not responsible for the living conditions of those residing along the creeks and thus need not resettle them until and if a raising of the reservoir level beyond 76 masl makes such resettlement imperative; the PDA offers reasonable resettlement solutions that improve the living conditions of those whom it covers and is consistent with the requirements of the Bank's policy on Involuntary Resettlement (OD 4.30); (c) other EBY resettlement programs are compensating and otherwise treating affected parties appropriately and consistent with Bank policy; and (d) once EBY compensated the brick making enterprises, such enterprises (and not EBY) were responsible under Paraguayan law for compensating their employees.

7. The pre-existing hydrological conditions were taken into account by the 1992 Environmental Impact Assessment of the Yacyretá Project (at which time the affected population was much less than it is now). The only possible mitigatory actions in response to those conditions would be to keep people from settling on the floodplain and to resettle to higher ground those who already lived there. If implemented as planned, the Yacyretá Project would have achieved these ends as a side benefit of the dam: the floodplain would have been permanently flooded to 83 masl and the affected people resettled to safer sites. What could not have been reasonably anticipated at the time of the Environmental Impact Assessment (EIA) was that the reservoir would only be raised to 76 masl and remain at that level for a long time, and that there would be an influx of new people – uncontrolled by local authorities – into areas between 76 masl and 84 masl. When the combined impact of the hydrological conditions, the influx of new people and the permanence of the reservoir at 76 masl became apparent after the *El Niño* floods that began in 1997, EBY responded by implementing the PDA to advance the resettlement of some of the highest risk populations.

8. As for the claim that the Bank is violating its policy on Supervision (OD 13.05), Management notes that its supervision of the Yacyretá Project since 1997 has been thorough, with particular attention paid to the social and environmental concerns of parties affected by the operation. Argentine, Paraguayan and EBY compliance with their obligations in this regard has at times been slow and uneven (largely because of the significant financial and institutional constraints they face), but Management submits that its supervision efforts have helped keep the Yacyretá Project moving in a positive direction that would have been jeopardized had the Bank chosen to exercise its formal legal remedies as part of such supervision. This position is in line with Bank supervision policy and with the Inspection Panel's recommendation on Request I, endorsed by the Bank's Board, that the Bank maintain its active engagement in the Yacyretá Project.

9. As a result of the above, Management believes it has carried out its obligations in accordance with its relevant policies and procedures and therefore submits that an Inspection Panel investigation based on Request II is not warranted.

**MANAGEMENT RESPONSE TO THE  
INSPECTION PANEL REQUEST No. RQ02/1**

***Argentina/Paraguay: Yacyretá Hydroelectric Project  
(currently supported by IBRD Loan 2854-AR)***

**I. INTRODUCTION**

1. On May 30, 2002 the Inspection Panel registered a request for Inspection, IPN Request RQ02/1 (hereafter referred to as Request II) concerning the Yacyretá Hydroelectric Project. This is the second time the Yacyretá Project has been the subject of a Request for Inspection before the Inspection Panel. The first time was in September 1996 and the Request then (INSP/R96-2, hereafter referred to as Request I) raised issues similar, often even identical, to those raised now in Request II.

**YACYRETÁ PROJECT BACKGROUND**

2. Yacyretá is a multi-billion US dollar hydroelectric facility constructed on the Paraná River, along the border between Argentina and Paraguay (See Map 1). At full capacity (with a reservoir level of 83 masl), Yacyretá will generate 3,100 megawatts of electricity. Currently, it operates at 60 percent of its capacity, with a reservoir level of 76 masl. The project is the result of a joint venture established in a 1973 treaty between the countries. To implement the project, a semi-autonomous bi-national entity, Entidad Binacional Yacyretá (EBY), was created in 1976, with equal representation of the two countries on its Board of Directors, as well as at all other administrative levels.

3. The Yacyretá Project<sup>62</sup> is partially financed by a series of loans from both the International Bank for Reconstruction and Development (the Bank) and the Inter-American Development Bank (IDB) to the Argentine Republic (see Figure 3.1)<sup>63</sup>. The Government of Paraguay, while participating in the management of the project and sharing in its benefits, was not to contribute directly to any project costs. The Bank's latest support for the project came in the form of two loans to Argentina, one approved in 1992 for US\$300 million (Loan 3520-AR) and the other (Loan 2854-AR) restructured in 1994 to provide US\$135 million for the operation. In addition to the commissioning of the first six power generating units, these latest loans were also to be used for financing resettlement and environmental programs, as well as to support studies related to the possible eventual privatization of the facility. Loan 3520-AR closed on December 31, 2000 while the closing date for Loan 2854-AR was extended until October 30, 2002.<sup>64</sup>

---

<sup>62</sup> The "Yacyretá Project" refers to construction of the hydroelectric dam, installation of turbines, expropriation of land, resettlement of families, and environmental mitigation and compensation covered by loans from the Bank, IDB, supplier credits, and Government of Argentina budget resources.

<sup>63</sup> In 1979, the total cost of the project including debt service was estimated at US\$5.3 billion over the ten year period of anticipated construction and associated environmental and resettlement actions. As of December 31, 1999, the total cost had increased to US\$13 billion dollars.

<sup>64</sup> On May 30, 2002 EBY presented a request for extension of the closing date for an additional two years. The request is currently being considered by Management.

4. In its Notice of Registration for Request II, the Inspection Panel also cites the Bank's February 1995 Loan 3842-PA to Paraguay as relevant for purposes of Request II. The Asunción Sewerage Project, Loan 3842-PA, approved in February 1995 for US\$46.5 million, financed minor components relating to the Yacyretá Project. The objectives of this project in its original form were to: (a) assist the Government to improve the provision of urban water and sewerage services in the country; (b) improve health and quality of life of about 250,000 lower-income residents of the capital, Asunción, by increasing coverage of sewerage services and mitigating the environmental impact of sewage disposal in the Paraguay River, and (c) provide infrastructure works for 3,000 inhabitants in Encarnación to improve their living conditions. The works were completed satisfactorily, as reported by a Bank mission that visited the site in November 1997. The loan was significantly restructured in January 2000 to address Paraguayan nation-wide infrastructure reforms unrelated to Yacyretá and renamed Reform Project for the Water and Telecommunications Sectors. Consequently, Management considers that Loan 3842-PA is no longer relevant to the Yacyretá Project.

5. A great deal has transpired in the nearly thirty years since the launching of the project, including much that is positive. First, despite lengthy delays, the hydroelectric facility itself is well-constructed and has been operated relatively efficiently, though only at two-thirds of capacity due to resettlement driven financial constraints to raising the reservoir to the final design level of 83 masl. From a technological perspective, the accomplishments of the partnership between Argentina and Paraguay are impressive. Second, despite the problems outlined in this Response, the power facility has provided the foundation for increased commercial activity and improved living conditions for thousands of people in the surrounding area. The Yacyretá Project has also contributed positively by improving services and municipal infrastructure, as well as housing, especially for low-income families.

6. At the same time, however, there have been serious problems in implementation, with many difficult issues attributable to EBY's management structure. It is now clear, for example, that as a public entity with responsibility to two separate governments with different and sometimes divergent interests, EBY was not ideally suited to implement the important but difficult aspects of the Yacyretá Project outside the technical sphere. Although EBY was able to put in place and retain highly qualified and experienced technical staff, it does not have the necessary management expertise and skills to implement the environmental mitigation and social protection measures which are an integral part of the project. Related to this is the profound political and financial instability which has affected both countries for many years. Consequently, to a significant extent the social problems in the project area stem from the economic, political, and structural problems of the two countries involved rather than from the Yacyretá Project itself.

7. To understand the complaints registered in Request I (largely repeated in Request II) and Management's Response to these Requests, it is useful to review the key events in the project's chronology, particularly in the 1990s. In 1992, after much delay, the Bank and EBY, in order to move the dam toward operation, agreed on a strategy to flood the reservoir incrementally over three phases, beginning at 76 masl in 1994, increasing to 78

masl in 1995, and ending at its full planned height of 83 masl in 1998 (Annex A). An important element of this agreement, spelled out by the Bank in the legal documents for Loans 2854-AR and 3520-AR, is that a series of resettlement and environmental measures to protect affected peoples and areas would be carried out by EBY before Phase I (raising the water level to 76 masl).

8. As has been documented by the Bank and other parties, the social and environmental components of the project were not adequately completed. There are many reasons for this. The 1995 financial crisis in Argentina and the constraints it placed on EBY's resources were central to the problem. At the same time, management failures by EBY, and inadequate pressure by the Bank on EBY to meet deadlines, also played a role. As noted by an independent internal Bank evaluation conducted in 1999, the patience with which the Bank's project team accepted EBY's continual deferment of resettlement and environment programs contributed to slow progress.

9. At the time of Request I, the dam had already been built and the reservoir had recently been raised (in 1994) to its current level of 76 masl. This was short of the reservoir's intended design level of 83 masl because a number of resettlement and environmental actions required under the project as conditions for attaining 83 masl had yet to be completed.<sup>65</sup> Although 76 masl was supposed to be a short-term transitional situation, it has lasted nearly a decade, up to the present.

10. Following discussions begun in 1995, before Request I, Management agreed with EBY and the Argentine and Paraguayan authorities on two action plans (Plan A and Plan B) designed to address the outstanding resettlement and environmental issues affecting the project. Plan A aimed at completing some actions which should have been finished even prior to the raising of the reservoir to 76 masl. Plan B aimed at addressing problems which surfaced because of the unexpectedly prolonged permanence of the reservoir water level at 76 masl (for status of Plans A and B, see Annex R). Both these Plans were incorporated into the project's legal documentation by amendment in 1997 to Loan 2854-AR and Loan 3520-AR Loan Agreements and related instruments.

## **II. PREVIOUS INSPECTION PANEL RECOMMENDATIONS AND MANAGEMENT RESPONSE**

11. In September 1997, the Panel issued its Review of Present Project Problems and Assessment of Action Plans (the Panel Review) regarding Request I. While sharing the Bank's own view that mistakes had been made by EBY in failing to meet project schedules, and by the Bank for being insufficiently rigorous in its insistence on the timely completion of the environmental and resettlement measures, the Panel firmly endorsed the Bank's continued participation in the project. It also affirmed the measures identified by the Bank and EBY to ensure proper implementation of all aspects of the project.

---

<sup>65</sup> A two meter protective buffer zone above 76 masl, i.e., up to 78 masl, has been cleared of inhabitants since 1999, and a one meter buffer zone, i.e., up to 84 masl, would be in place if the water level of the reservoir is ever raised to the 83 masl design height.

12. Specifically, the Panel analyzed both Plans A and B, found them to be necessary, and urged the Bank to maintain its financing of the Plans and its engagement with the project. The Panel recommended that:

the Bank “should continue providing financing and technical assistance to correct the harms that have been identified and **must remain committed to implementation ...**” (Panel Review, para. 14; emphasis added); and “[t]he Panel has identified ... a set of criteria essential to a successful completion of the Project in terms of Bank policies and procedures:

- continuing all pending environmental and resettlement actions;
- involving the affected population to a greater extent in planning and execution of complementary works;
- guaranteeing that [Bank] policies have to be respected ...; and
- continuing [Bank] supervision of current and future actions.

... These actions cannot occur too soon, and **[Bank] assistance will be vital to sustainable outcomes.**” (Panel Review, para. 291; emphasis added).

The Bank’s Board endorsed the Panel’s recommendations and advised Management “to continue its follow-up on the implementation of Action Plans A and B and to report to the Board on progress made.”<sup>66</sup>

#### THE BANK’S RESPONSE TO THE PANEL RECOMMENDATIONS

13. Consistent with the Board’s advice, Management has since supervised the project intensively and frequently reported to the Board on project status (see Annex Q).<sup>67</sup> The Bank has maintained its engagement with EBY and has continued its financing through Loans 3520-AR and 2854-AR, all in an effort to promote compliance by the Governments of Argentina and Paraguay, as well as by EBY, with their environmental and social obligations.

14. Indeed, the main reason why the reservoir level has yet to be raised beyond 76 masl has been the Bank’s as well as the IDB’s insistence that before such a step is taken, all requisite environmental and social obligations be complied with, as required by the pertinent legal documents. The Bank has been steadfast in using its influence to prevent EBY from moving forward with the project until appropriate measures are taken, most substantially by withholding its “no objection” to further elevation of the reservoir level.

<sup>66</sup> Chairman’s Conclusion in para. 37 of Summary of Discussion at the Meeting of the Executive Directors of the Bank and IDA, December 9, 1997 (SD97-71/1), on the Inspection Panel Report – Argentina/Paraguay: Yacyretá Hydroelectric Project.

<sup>67</sup> See Progress Reports dated February 3, 1997 (SecM97-74), April 21, 1998 (SecM98-293), May 14, 1999 (SecM99-333), and January 20, 2000 (INSP/SecM2000-1). The Board has also been given a copy of the June 28, 2001 Implementation Completion Report for Loan 3520-AR. In addition, a progress report was recently prepared which the Region is planning to submit to the Board. The above-cited Progress Reports are contained in Annex Q.

The Bank could on many occasions have opted to exercise different leverage by suspending loan disbursements. But in light of the Board's endorsement of the Panel's recommendations, the fact that a suspension would impact Argentina as borrower even though the bulk of project problems occurs on the Paraguayan side of the river and – most importantly – based upon a determination to make a positive difference in the long-term outcomes of the project, the Bank chose not to exercise the remedies of suspension. The positive results of this approach are set out in Annex V.

15. Management has maintained its position that the reservoir be kept at 76 masl despite numerous requests from EBY to allow the project to go forward to its ultimate height to generate more hydroelectric power and greater revenues. In frank and public disagreement with the positions of the Governments of Argentina and Paraguay,<sup>68</sup> Management has refused to agree to this step being taken. The Regional Vice President affirmed Management's position in a January 1999 press release: "We believe that there should be no change from the 76-meter level, unless and until further study is undertaken to assess the social and environmental impacts, as well as extensive participatory consultation with the affected communities." The release went on to state that no action should be contemplated to raise the water level without guarantees that necessary measures are in place to protect affected communities—both those already settled, as well as those who would be displaced by a raising of the water reservoir level—and the environment.

16. The Bank has supervised the project intensively,<sup>69</sup> maintained its engagement, and continued its financing, all in an effort to promote compliance by the relevant local authorities—even if slow—with pending environmental and social obligations, as set forth in the legal agreements. A thorough review of the Bank's performance over the past ten years reveals a clear evolution, with a marked increase in supervision intensity beginning at the time of Request I in 1996, and developing into a comprehensive and systematic approach over the past four years (see Table 2.1). This supervision process has been driven by senior management; the Regional Vice President of the Latin America and Caribbean Region has visited the project for field based review and consultation three times since 1999. These efforts have been repeatedly reinforced by the Country and Sector Directors through four missions to the site since 1997. Annex B provides a detailed presentation of the main issues discussed and key mission recommendations.

---

<sup>68</sup> The Bank organized an international (Blue Ribbon) panel of independent experts in September 1998. The panel was composed of five experts from Chile, Colombia, Brazil, Canada and the United Kingdom, specializing in the areas of economics, hydroelectric dams, hydrology, environment and resettlement. The panel was specifically asked to provide advice and contribute to defining a strategy that could ensure a viable future for the project, and to review the options for completing the project to its design level, taking into account changed economic, financial, environmental and social conditions in the area of influence of the project over the past ten or so years. The panel delivered its final report in November 1999. The panel pointed out a number of risks in going ahead to Level 83 masl but, on balance, recommended raising the level as long as the project was restructured under private management. The panel recommended against going to Level 83 masl under the present institutional and management structure.

<sup>69</sup> A detailed review of the Bank's supervision of the Yacyretá Project since the time of Request I is detailed in Annex B.

**Table 2.1: Supervision of Yacyretá Project 2000-2002**  
*Loans 2854-AR and 3520-AR*

<b>Year</b>	<b>Supervision Missions</b>	<b>Supervision Visits*</b>	<b>VP and Senior Management Visits**</b>	<b>High Level Meetings</b>	<b>Total For Year</b>
2000	2	1	1	2	6
2001	3	17	2	1	23
2002	2	13	2	1	18
Total During Period	7	31	5	4	47

\* Visits during 2002 include visits organized with support of local consultants.

\*\* Includes visits by LCC7C and LCC6C Directors and also LCSES Director.

17. Management also improved supervision by shifting significant resources, including the Task Manager, to the field. This was done as part of the decentralized Country Management Unit, covering Argentina, Chile, Paraguay, and Uruguay, and has allowed frequent visits to the area and more accurate and timely reporting back to headquarters on developments. In keeping with this, steps were taken to substantially increase and strengthen the supervisory capacity of the Bank's office in Paraguay, including the hiring of a social development specialist with specific responsibilities for Yacyretá. This specialist, functioning as a key liaison for the communities, carried out more than twenty missions to the project area to help oversee resettlement and social reintegration.

18. In strengthening the supervision of the project, the Bank placed emphasis on broadening its dialogue with civil society, particularly the people most affected by Yacyretá. Management believes that it is important for affected people to express their views and concerns. To support this effort, the Bank has offered financial and technical assistance for the creation of a single office of affected people, contributing in this way to an organization which could more effectively represent the interests of different parties, and individual families, and through which they could more effectively communicate their needs and opinions to EBY, local and provincial governments, and the Bank. The Bank has also sought assistance directly from important NGOs, and has hired a number of organizations, including some who submitted Request I, to provide guidance on various critical issues. Finally, the Bank has used its influence and prompted EBY to adopt this same approach, which has facilitated dialogue between EBY and NGOs.

19. Management has also been seeking to identify ways in which existing non-Yacyretá Bank loans to Argentina and Paraguay can be used to help address problems in the project area, whether the problems relate to the project or not.

20. As noted in many places throughout this Response, the Yacyretá Project faces innumerable challenges. The most important relates to raising the level of the reservoir. Management recognizes that this challenge is a complex one that requires finding solutions to three sets of issues dealing with: (a) how to mobilize the needed financial resources to cover the cost of complementary resettlement and environmental works, estimated to be close to US\$800 million; (b) how to find an institutional scheme that overcomes chronic weaknesses in EBY; and (c) how to change the system of incentives

that currently prevents effectiveness and efficiency from being a common institutional objective of both countries. If these issues are not handled adequately, the project, as well as the governments and the Banks, will remain trapped in a vicious circle of growing complaints, inability to find effective responses, and increasing frustration. Management will continue to supervise the project, working to contribute positively to the resolution of these interrelated problems, and at the same time continue to ensure compliance with Bank safeguards.

### III. DESCRIPTION AND STATUS OF THE PROJECTS INVOLVED IN THE REQUEST FOR INSPECTION

21. The Request for Inspection concerns the Yacyretá Project, the implementation of which is currently financed by Loan 2854-AR. In addition, the project prior to 1997 benefited from small amounts of financing under the Asunción Sewerage Project (Loan 3842-PA, as discussed in para. 4 above).

#### WORLD BANK SUPPORT FOR YACYRETÁ

22. As mentioned previously, Yacyretá is a joint venture between Argentina and Paraguay on the Paraná River, implemented by an autonomous agency, EBY. During its long period of construction, the project went through many stops and starts because of the economic crises facing Argentina and the social conflict and political crises in Paraguay. The project includes construction of an earth dam about 65 kilometers long with ancillary hydraulic works, a powerhouse with twenty turbines with the capacity to generate 3,100 MW of electricity, a navigation lock, and a fish passage facility. The corresponding program of resettlement and environmental mitigation and management, mainly affecting the cities of Posadas, Argentina, and Encarnación, Paraguay, never kept pace with the hydroelectric works.

23. The Bank has channeled support for Yacyretá through four different loans (see Figure 3.1), the latest of which are Loans 3520-AR and 2854-AR.

24. **Loan 3520-AR.** This US\$300 million loan was approved by the Board on September 29, 1992 to help complete the physical works for the dam.<sup>70</sup> Loan 3520-AR is now fully disbursed and closed on December 31, 2000. The Implementation Completion Report (ICR) for Loan 3520-AR has been completed, reviewed by the Operations Evaluations Department, and distributed to the Board on June 28, 2001. Loan 3520-AR was designed to: (a) help provide an efficient supply of energy by ensuring operation of Yacyretá's first units with an adequate transmission system; (b) bring about improved environmental management and appropriate handling of social aspects of Yacyretá; and (c) encourage private capital participation in EBY. On the whole, the project met its objectives only partially and with considerable delays. All permanent structures were

---

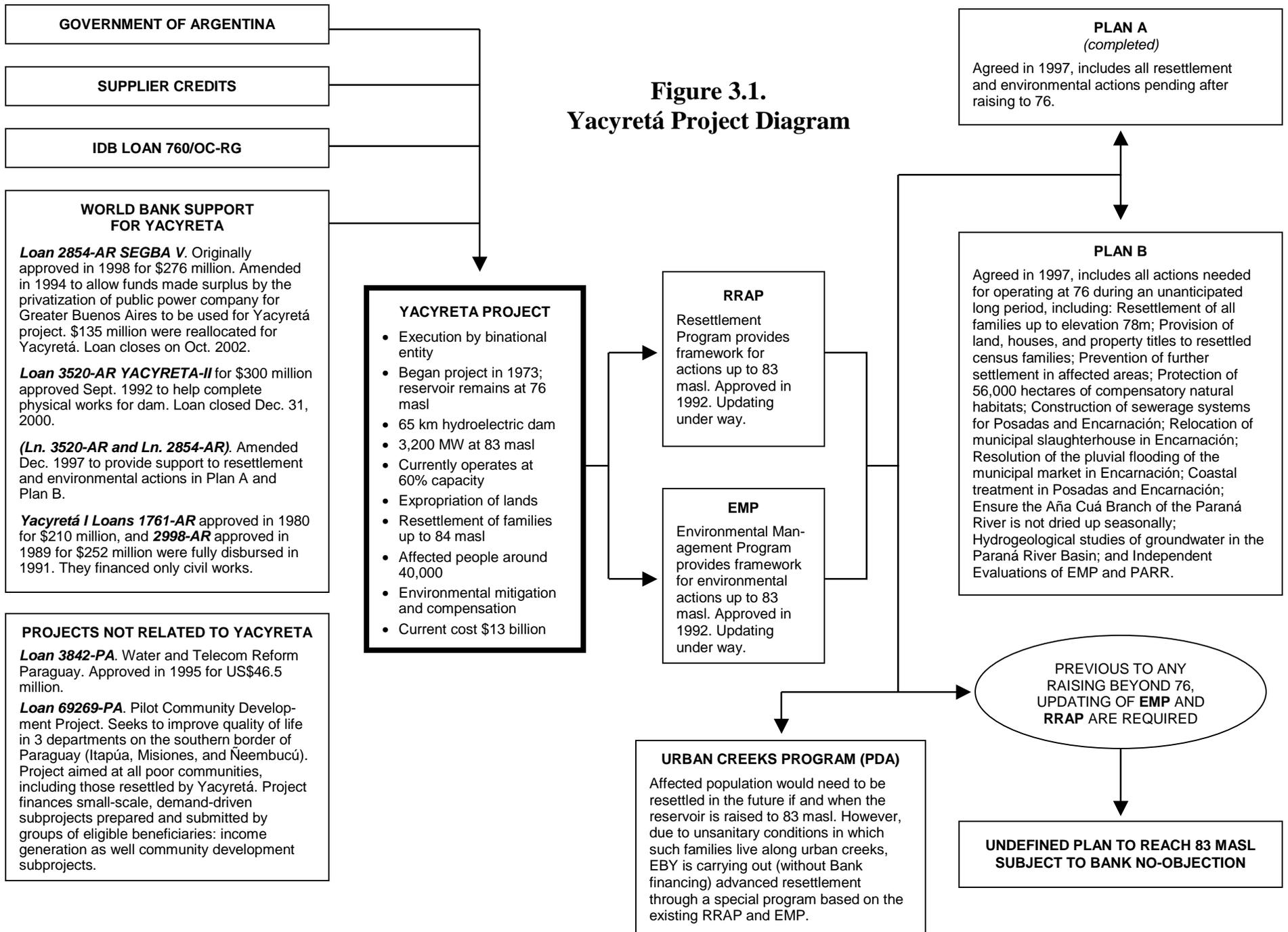
<sup>70</sup> In total the Bank has provided almost US\$900 million in financing to the project since the late 1970s to support the civil works; IDB has provided an equivalent amount; export credit agencies have financed most of the electro-mechanical equipment; and the Government of Argentina has provided most of the resettlement and environment costs.

completed; however, because the reservoir has remained at the 76 masl first stage, the turbine generating units are delivering only two-thirds of their rated capacity. The consequent loss of earnings is estimated between US\$563 million and US\$1.629 billion per year. In addition, there is no clear roadmap for carrying the project forward to the stage where all units can operate at full capacity. The objective of bringing about improved environmental management and appropriate handling of social aspects of Yacyretá was partly achieved, though with significant delay. In the same way, the objective of encouraging private capital participation was partly achieved through the privatization of the 500kV lines linking Yacyretá with the national interconnected system, and the implementation of some studies assessing options for privatizing other aspects of the operation.

25. The ICR for Loan 3520-AR arrived at important conclusions in terms of assessing past performance as well as the future of Yacyretá, including the following: (a) the Government of Argentina was unable to give the project the priority it deserved because of the financial crisis of 1995; (b) frequent changes of Yacyretá's Executive Director adversely affected EBY's performance; (c) poor oversight of the areas to be flooded resulted in invasion by families seeking resettlement compensation; (d) EBY was slow in performing land acquisitions and housing construction, adding to pressures that slowed down project implementation; (e) the Government of Argentina was unable to reconcile its political interest in expediting the main civil works with existing concerns about the project's resettlement and environmental impacts; (f) in making decisions, the Bank failed to take note of the lessons of previous loans made for the Yacyretá Project, where lack of counterpart funds was an important factor for poor performance; (g) the borrower was ineffective in obtaining political support to reach key project objectives; (h) delay in passing an Expropriation Law in Paraguay slowed land acquisition and resettlement; and (i) the Resettlement and Rehabilitation Action Plan (RRAP) and the Environmental Management Plan (EMP) were only partly implemented, with major issues remaining outstanding.

26. ***Loan 2854-AR (as amended in 1994 in support of Yacyretá).*** At present, only Loan 2854-AR is still under implementation. Loan 2854-AR was originally approved on June 30, 1988, for US\$276 million. On August 1994, it was restructured to allow US\$135 million, made surplus by the privatization of SEGBA (the public power company for Greater Buenos Aires), to be used for the Yacyretá Project. Loan 2854-AR was amended again, effective December 11, 1997, to provide increased financial support to the resettlement and environmental operations in order to ensure the completion of Plan A (activities still pending for 76 masl level) and Plan B (activities needed to operate for a prolonged period at 76 masl). The closing date for Loan 2854-AR was extended selectively on December 31, 2000 until October 30, 2002, reallocating loan amounts among already existing categories within the project description. Reallocated resources support additional development activities for the indigenous community of Pindó in Paraguay, extension of consulting services contracts for the resettlement and environmental plans, and the building and installation of new fish elevators and baffle plates in the main spillway.

27. Loan 2854-AR is currently rated as unsatisfactory for both development objectives and implementation and, as of June 13, 2002, had an undisbursed balance of US\$17.196 million, and a closing date planned for October 30, 2002. Management is considering a request for a further extension of the closing date that also contemplates reallocation of funds to activities aimed primarily at overcoming EBY's chronically weak institutional capacity; creation of a mechanism to allow EBY to contribute to local development and economic rehabilitation of resettled families and other groups living within the project's area of impact; and creation of a mechanism for resolution of environmental conflicts.



#### IV. THE 2002 REQUEST

28. Request II concerns the Yacyretá Project, the implementation of which is currently financed exclusively by Loan 2854-AR. In Table 4.1 below, Management presents a summary of the claims and the corresponding actions taken in accordance with the EMP and the RRAP, approved by the Bank in 1992.<sup>71</sup> The claims and the corresponding actions are discussed in detail in Sections V through VII.

29. Request II was submitted by FEDAYIM, an association of people claiming they have been adversely affected by the Yacyretá Project, as well as by six coordinators of people living in the following districts in or near Encarnación: San Cosme y Damian, Distrito Cambyretá, Barrio Pacú Cua, Barrio Santa Rosa, Mboi Caé, Arroyo Poti'y, Ayolas, and Barrio Santa Rosa (see Map 2). FEDAYIM reports that it is acting on its own behalf and on behalf of more than 4,000 families in the area (the Requesters).

30. Request II is grouped around three basic claims. The **first group** of claims relates to **resettlement and compensation as well as Bank supervision** of the Project. According to Request II, several thousand families were not appropriately identified and were excluded from existing compensation and mitigation programs. Other families also claimed to have not received their due entitlements. In some cases, especially in the case of post-census families, the Requesters claim that benefits were improperly awarded. Request II also refers to families living along creeks who are affected by frequent flooding which they claim is caused by the reservoir. Potentially relevant to this first group of claims is compliance with RRAP and the Bank's OD 13.05 on Project Supervision. Similar claims were raised in Request I.

31. The **second group** covers **environmental and health issues** claimed by the Requesters to be caused by the elevation and operation of the Yacyretá Reservoir. Some of these claims are a verbatim reproduction of claims raised in Request I. To this extent, the Response updates the information previously provided to the Inspection Panel for those specific claims. The Response also addresses the claim that the reservoir is not adequately maintained. This particular claim appears to be referring to OD 4.00 Annex B, on Environmental Policy for Dam and Reservoir Projects. There is also a new claim raised here, specifically that the design and Environmental Impact Assessment of the planned Encarnación wastewater treatment plant are inadequate, thereby raising the possibility of a violation of OD 4.01 on Environmental Assessment. The Requesters add that the plant is located in their neighborhood and that they will not benefit from the plant's operation, although they do not specify why they consider themselves to be excluded from the benefits of the wastewater treatment plant. As the Response notes, this neighborhood is indeed slated to be fully connected to the new sewerage system.

32. The **third group of claims** is the most concise. These claims allege that **compensation provided through EBY to local brick making operations** did not flow from owners to

---

<sup>71</sup> The EMP is a coordinated set of activities intended to mitigate, compensate, monitor and control the project's adverse environmental impacts. The RRAP (Resettlement and Rehabilitation Plan) identifies the population adversely impacted by the formation of the reservoir, and proposes a set of principles, guidelines, and activities to mitigate, compensate and control such impacts. The EMP and RRAP were both approved by the Bank and meet the requirements of OD 4.01 and OD 4.30.

workers. The claims appear to raise issues of the obligation between employers and employees under national labor law. If so, this would be an issue outside of the Bank's control, but the Response will seek to address the claims to the extent possible. The claims also appear to relate to compliance with the RRAP required under OD 4.30 on Involuntary Resettlement. This issue was also examined by the Inspection Panel pursuant to Request I.

33. Apart from listing the policies mentioned above, the Request further states that the Bank is in violation of its policies on Project Monitoring and Evaluation (OD 10.70) and Suspension of Disbursements (OD 13.40). The Request does not specifically tie the Bank's alleged failures with the specific policies and procedures enumerated in Request II. As a result, in preparing this Response Management has sought to draw the most logical inference between the claimed actions and the policies and procedures mentioned above. In addition, Management has endeavored to interpret Request II in as broad a light as possible.

34. None of the three main claims in the Request refer to any specific activity of the Bank pertaining to monitoring and evaluation, nor do they refer to any action by the Bank pertaining to suspension of disbursements. Management will nevertheless also seek to address these issues.

35. A key issue relevant to Request II is the fact that many of the matters raised by the Requesters are not attributable to the project, but are related to situations which existed before the project began. Resolution IBRD No. 93-10, para. 12, requires a causal link between an alleged Bank action/omission and the harm suffered by those represented by the Requesters. Para. 14 of the Board's April 1999 "Conclusions of the Board's Second Review of the Inspection Panel" indicates that "the without-project situation should be used as the base case for comparison" in assessing the presence of such causation.

36. In Management's view, the Bank's actions were in compliance with the relevant policies and procedures. This does not mean, however, that all issues in the project area are resolved. As detailed in Progress Reports to the Board since 1997 (Annex Q), the project has faced, and continues to face, many implementation issues and challenges. Those reports and this Response demonstrate that the Bank continues to follow the recommendations of the Inspection Panel and the Bank's Board issued in connection with Request I, namely to remain engaged in addressing environmental and social concerns at the Yacyretá Project site. The Bank has taken all actions necessary to assist the implementing agency to ensure compliance with its obligations under the relevant legal documents.

TABLE 4.1. SUMMARY AND ANALYSIS OF INSPECTION PANEL CLAIMS		
Claims	Comments	Actions
<b>First Set of Claims - Resettlement and Flooding</b>		
<p><b>Claim 1.1</b> 4000 families affected by pending debts have not been properly identified and quantified and have been excluded from existing compensation and mitigation programs.</p> <p><b>Relevant Policy:</b> OD 4.30</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• The 1990 census identified all people affected up to 83 masl, and census families living up to 78 masl have been resettled and/or compensated. Post-census families are compensated and/or relocated by the Government of Paraguay.</li> <li>• Families between 78 and 84 masl along urban creeks with high flood risk are being resettled early under the PDA, and existing information indicates that an additional 6,380 families in Paraguay need resettlement and/or compensation. Pending resettlements in Paraguay are complicated due to lack of controls over area, and a continuous influx of people.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Continue supervision of PDA</li> <li>• Continue use of influence with Government of Paraguay to stop additional migrations into area</li> <li>• Continue process of updating RRAP and EMP before any future raising of the level</li> <li>• Conclude study of socio-economic impacts of resettlement and design mitigation actions</li> <li>• Continue to advise and supervise the search for options to complete Yacyretá Project</li> </ul>
<p><b>Claim 1.2.</b> Creeks Poti'y, Mboi Caé, Santa María, Yacú Paso have been affected by Yacyretá. There are no solutions for these families. PDA was designed to assist people affected by creek flooding. PDA is not fulfilling its objectives. Families for whom the PDA was created are being replaced by those who are not affected.</p> <p><b>Relevant Policy:</b> OD 4.01, OD 4.30</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• Flooding of urban creeks is not related to the 76 masl operating level of the reservoir, but rather due to heavy rainfall and garbage-clogged creeks. Nevertheless, families between 78 and 84 masl living along creeks will be resettled in advance of the original schedule under the PDA. The PDA is fulfilling its objectives and addressing the needs of families at highest risk along creeks.</li> <li>• Bank not financing PDA but actively supervising to ensure compliance with safeguards</li> <li>• Bank provided with adequate information about PDA</li> <li>• Participants in PDA objectively selected by field surveys, and proper listing of affected families</li> <li>• All neighborhoods in PDA, except Itá Paso, exposed to high flood and environmental risk</li> <li>• Inclusion of post-census families in Itá Paso decided and financed by Government of Paraguay to comply with Bank conditions</li> <li>• Bank aware that other families not included in PDA waiting for resettlements are unsatisfied</li> <li>• Remaining families will be resettled when and if Yacyretá is completed.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Continue involvement and supervision of PDA</li> <li>• If affected people have not been included in PDA, Bank could verify cases and follow up with EBY.</li> <li>• Continue to use influence with Paraguay to stop further migration into high risk areas</li> <li>• Continue to advise and supervise the search for options to complete Yacyretá Project</li> </ul>
<p><b>Claim 1.3</b> Owners of houses included in EBY's census have had their houses destroyed by floods without compensation.</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• Claim of relationship between floods and the raising and/or operation of reservoir is against hydrological evidence and analysis.</li> <li>• Property owners between 78 and 84 masl are subject to expropriation if and when the reservoir is raised to 83 masl</li> <li>• Expropriation delayed by lack of adequate Expropriation Law in Paraguay</li> <li>• However, EBY has defined procedures for anticipated expropriation if owners request it</li> <li>• Situation does not violate any policies</li> <li>• Bank recognizes frustration of owners unable to sell, devalued properties, and uncertainty about future.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Continue to advise EBY in finding option that allows completion of project at 83 masl or any other feasible level, thus reducing uncertainty for affected people</li> <li>• Continue efforts to encourage Paraguay to approve Expropriation Law.</li> </ul>

<b>TABLE 4.1. SUMMARY AND ANALYSIS OF INSPECTION PANEL CLAIMS</b>		
<b>Claims</b>	<b>Comments</b>	<b>Actions</b>
<p><b>Claim 1.4.</b> Bank has failed in overseeing resettlement projects.</p> <p><b>Relevant Policy:</b> OD 13.05</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• <i>Due diligence has been exercised in supervision of Yacyretá</i></li> <li>• <i>Following Inspection Panel Report in 1997 important measures adopted</i></li> <li>• <i>Supervision intensified based on number of visits</i></li> <li>• <i>Diversified supervision strategy adopted with strong involvement of Bank Regional Vice President as well as that of Directors of Country Management and Sector Management Units</i></li> <li>• <i>Increased reporting and contacts with a broader group of stakeholders (civil society, affected people and local governments)</i></li> <li>• <i>Supervision shifted to field, social expert based in Paraguay hired</i></li> <li>• <i>Change in supervision has produced important positive results for project, Bank, and affected people.</i></li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• <i>Maintain intensive supervision until closing date of Loan 2854-AR</i></li> <li>• <i>Maintain Bank involvement regardless of Loan balances and closing dates</i></li> <li>• <i>Increase contacts and communication with civil society, local governments, and affected people</i></li> <li>• <i>Supervision should continue to assign high priority to issues most important for affected people: participation, consultations, avoiding delays in PDA, and searching for acceptable options to complete the project and reduce uncertainty over Yacyretá's future.</i></li> </ul>
<p><b>Claim 1.5</b> Complaints have been made without proper response.</p> <p><b>Relevant Policy:</b> OD 13.05</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• <i>All communications and/or complaints addressed to Management and project team have been properly responded to</i></li> <li>• <i>Project team has been proactive, maintaining periodic contacts with affected people, including those presenting the Request for Inspection, to learn of their concerns</i></li> <li>• <i>Views and demands of affected people and other stakeholders have been used as input to supervision and dialogue with EBYP and governments</i></li> <li>• <i>NGOs have been contracted by Bank to advise on key issues</i></li> <li>• <i>Bank has advised and used influence with EBYP and both governments to adopt a more participatory management style</i></li> <li>• <i>Management is aware that Yacyretá will remain a controversial project that will continue to generate complaints and conflicts.</i></li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• <i>Maintain course consistent with 1997 Inspection Panel Report endorsed by the Board</i></li> <li>• <i>Maintain dialogue and use influence with governments and EBYP for increased participation</i></li> <li>• <i>Continue efforts to persuade EBYP and governments about need to create independent conflict resolution mechanism</i></li> </ul>
<b>Second Set of Claims - Environmental and Health Issues</b>		
<p><b>Claim 2.1</b> The dam has caused environmental pollution and negatively impacted health conditions in the area.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• <i>At current level (76 masl) reservoir and operation do not cause environmental pollution</i></li> <li>• <i>Water quality monitoring indicates no changes or deterioration</i></li> <li>• <i>No significant changes in chemical and physical parameters in reservoir</i></li> <li>• <i>In fact, filling the reservoir by stages has allowed flushing effect and washing away of organic solids</i></li> <li>• <i>Some of EBYP's actions have allowed improvements in public health.</i></li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• <i>Maintain monitoring and improve dissemination of results</i></li> <li>• <i>Continue to advise EBYP to be more proactive with information and allowing public scrutiny of its operation and related impacts.</i></li> <li>• <i>Continue to closely monitor EBYP-IDB bidding process for the sewer and wastewater treatment plant in Encarnación.</i></li> <li>• <i>Ensure public consultation of any plan to complete Yacyretá (83 masl) to listen to concerns and ideas about protecting the environment and public health</i></li> <li>• <i>Continue with process of updating the EMP</i></li> </ul>

TABLE 4.1. SUMMARY AND ANALYSIS OF INSPECTION PANEL CLAIMS		
Claims	Comments	Actions
<p><b>Claim 2.2</b> Before the dam elevated the Paraná River to 76 masl, the river and the surrounding creeks flowed at a rate that precluded the presence of stagnant waters.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• Creeks are flowing at same rate as they would without reservoir at 76 masl</li> <li>• Project team supervises flows, levels and the application of agreed rules of operation</li> <li>• However, greatest environmental risk of going to 83 masl is the possible formation of lateral bays around the city of Encarnación</li> <li>• Process of updating EMP is taking into account the risk of lateral urban bays</li> <li>• Water quality of urban creeks is degraded by disposal of solid waste and discharges of untreated sewage</li> <li>• EBY has supported and continues supporting cleaning of urban creeks as part of shoreline treatment actions, partly financed by Loan 2854-AR</li> <li>• Municipalities need to do more with the support of EBY to prevent improper solid waste disposal in urban creeks</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Continue to advise EBY to make information on flows, levels, and dam operations more accessible and subject to public analysis</li> <li>• Bank supervision will continue to monitor proper and periodic shoreline treatment activities</li> <li>• Continue to advise EBY as to the need for working closely with municipalities in solid waste management</li> <li>• Continue to discuss with EBY ways to ensure that resources from Loan 2854-AR allocated to strengthen capacity of local governments are used before closing date.</li> </ul>
<p><b>Claim 2.3</b> Before raising level to 76 masl, drinking water was clean and healthy. Raising the level has caused the water table to pollute the drinking water wells and flood the pit latrines, a situation that forces numerous families to live in a totally contaminated and unhealthful environment.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• The reservoir does not affect water quality.</li> <li>• Bank has always been concerned about quality of drinking water and related health risks</li> <li>• Shallow wells used for drinking water in the low lying areas of Encarnación share the same water table as latrines</li> <li>• Increased rain water infiltration into the ground water table has led to the continued intermixing of latrine wastes with drinking water wells</li> <li>• Contained aquifer has not been impacted by the dam/reservoir</li> <li>• Conditions and problems related to quality of drinking water were identified and described in the EIA of 1992</li> <li>• Bank has supported different studies analyzing interrelationship between water levels and the reservoir.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Bank supervision team will continue to advise EBY and local governments to monitor water quality in shallow wells</li> <li>• Continue to advise EBY to promote campaign for relocating shallow wells properly with respect to latrines.</li> <li>• Continue working with EBY to ensure a broader dissemination of reports.</li> </ul>

TABLE 4.1. SUMMARY AND ANALYSIS OF INSPECTION PANEL CLAIMS		
Claims	Comments	Actions
<p><b>Claim 2.4.</b> Resettlements built by project (Buena Vista and San Pedro) have aggravated the situation by directly discharging into creeks. Work planned to resolve the pollution problems will not meet that objective, since wastewater treatment plant to be built by EBY will not benefit these neighborhoods, nor others affected by the rise in the water table.</p> <p><b>Relevant Policy:</b> OD 4.01 and OD 4.30</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• The wastewater discharge of these two communities is insignificant with respect to the reservoir, which is flushed every five days on average by the Paraná River flows</li> <li>• The solution to the problem is related to construction of the wastewater treatment plant for Encarnación</li> <li>• Bank has monitored EBY's support to CORPOSANA and the Municipality of Encarnación for installing a sewerage system with full coverage and the treatment plant</li> <li>• Process has been slow due to EBY's limited capacity and opposition of a small group of individuals</li> <li>• Bank supervision has been diligent by requiring EBY to conduct shoreline treatment actions in Encarnación.</li> <li>• Bank has also indicated that finding a solution to sewage collection and treatment for the entire city is a precondition for any plan to raise the level above 76 masl.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Maintain supervision of the wastewater treatment plant situation, exploring ways to facilitate the process</li> <li>• Maintain close monitoring of bidding and implementation of this project</li> <li>• Support for shoreline treatment actions will be continued.</li> <li>• A global and full solution to Encarnación sanitation problems will be maintained as a condition for any future raising of the reservoir level.</li> </ul>
<p><b>Claim 2.5.</b> Inhabitants of La Esperanza are opposed to the location of the wastewater treatment plant. Decision in violation of the environmental laws of Paraguay. There are no plans for connecting the neighborhood where the plant is supposed to be built to the sewer system. Environmental impact report on the project was defective.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• The Bank is aware that some people in La Esperanza are opposed to location of wastewater treatment plant. International consultants were hired by EBY, IDB, and the Bank to look at different options for its location, and all endorsed the selected site. The Bank made additional recommendations to eliminate possible adverse effects by creating a buffer zone and other measures.</li> <li>• The plant's EIA was reviewed and found acceptable by the Bank and the plant was granted a license by relevant Paraguayan authorities. Additionally, meaningful public consultations took place, as required by Bank policy. Delays in plant construction have occurred due to opposition of the small group of people in La Esperanza, who, contrary to the claim, would be connected to the sewerage system.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Supervision will be maintained to ensure compliance with recommendations</li> <li>• Coordination with IDB will be maintained</li> <li>• Bank will continue advising EBY on campaigns to disseminate results of studies and plans.</li> </ul>
<p><b>Claim 2.6.</b> EBY is supposed to build a wastewater treatment plant in the towns of San Juan del Paraná and Cambyretá, but these works are not included in EBY's plans.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• The Bank will continue working with EBY and the plant will cover Cambyretá. Discharges from San Juan del Paraná, a small town, will go directly to the reservoir. A full scale treatment plant for San Juan del Paraná is not justified technically or financially.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Continued supervision and dissemination of plans.</li> </ul>
<p><b>Claim 2.71:</b> The Yacyretá Reservoir is an ideal habitat for the vectors of malaria, leishmaniasis, schistosomiasis, dengue fever, and other serious diseases.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p><b>Comments:</b></p> <ul style="list-style-type: none"> <li>• Studies and experience show otherwise. Vector and health monitoring efforts have demonstrated that there have been no changes in vector populations in the area of Yacyretá.</li> </ul>	<p><b>Actions:</b></p> <ul style="list-style-type: none"> <li>• Maintain monitoring efforts</li> <li>• Continue working with EBY to ensure a much broader dissemination of the results of these monitoring efforts.</li> </ul>

TABLE 4.1. SUMMARY AND ANALYSIS OF INSPECTION PANEL CLAIMS		
Claims	Comments	Actions
<p><b>Claim 2.72.</b> The Yacyretá Reservoir has caused severe health problems, including diarrhea, anemia, parasitic infections, skin diseases, ectoparasites, and fevers.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p>Comments:</p> <ul style="list-style-type: none"> <li>• <i>Claim is similar to one formulated in the Request for Inspection of 1996</i></li> <li>• <i>No increase in vector borne diseases attributable to Yacyretá has been detected</i></li> <li>• <i>Water related diseases are related to the preexisting lack of potable water and poor sanitation, and none of the diseases mentioned in claim have increased on per capita terms</i></li> <li>• <i>Monitoring has been supported by EBY and supervised by the Bank</i></li> <li>• <i>EBY has also supported a broad range of health services to resettled families.</i></li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>• <i>Maintain monitoring</i></li> <li>• <i>Advise EBY on making more aggressive dissemination of results</i></li> <li>• <i>Continue to advise EBY on the need to maintain support for health services for resettled families, monitoring conditions and disseminating results.</i></li> </ul>
<p><b>Claim 2.8:</b> There have been no programs for monitoring and controlling disease-causing microorganisms.</p> <p><b>Relevant Policy:</b> OD 4.01</p>	<p>Comments:</p> <ul style="list-style-type: none"> <li>• <i>Monitoring of diseases and microorganisms has been done for the past 8 years</i></li> <li>• <i>No evidence of major outbreaks</i></li> <li>• <i>However, heavy flood events (which are not a consequence of the dam) are normally accompanied by increased incidence of certain diseases.</i></li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>• <i>Continue monitoring</i></li> <li>• <i>Continue to work with EBY to ensure a much broader dissemination of the results of these monitoring efforts.</i></li> </ul>
<b>Third Set of Claims Compensation to Resettled Families and Brick Makers</b>		
<p><b>Claim 3.1.</b> The Bank has failed to ensure proper compensation and resettlement to affected people.</p> <p><b>Relevant Policy:</b> OD 4.30</p>	<p>Comments:</p> <ul style="list-style-type: none"> <li>• <i>The Bank has made significant efforts to ensure proper compensation to affected people. The RRAP approved by the Bank in 1992 includes provision of land, housing, support for relocation, and a program for social and economic rehabilitation at no cost to the families. Since there has been a continual, relatively unmonitored influx of people into areas that had been evacuated, there are more people who have claimed to be affected. Within the scope of the project, not everyone is entitled to compensation.</i></li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>• <i>Where claims are legitimate, Bank has encouraged EBY to take measures to address them. Whereas previously only census families were included, the PDA expanded the number of people to be resettled and included post-census families along creeks.</i></li> <li>• <i>Continue to maintain supervision, monitoring, and external evaluation.</i></li> </ul>
<p><b>Claim 3.2.</b> Compensation approved for Itá Paso, Santa Rosa, and Arroyo Porá is insufficient to allow families to buy new land and rebuild their homes.</p> <p><b>Relevant Policy:</b> OD 4.30</p>	<p>Comments:</p> <ul style="list-style-type: none"> <li>• <i>Home appraisal of affected houses is low because 87% of the people are occupants without titles that have small lots and shanty houses. This is why the RRAP provides land, housing, and support at no cost to the families.</i></li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>• <i>Continue to maintain supervision, monitoring, and external evaluation.</i></li> </ul>
<p><b>Claim 3.3.</b> There are no plans to restore productive infrastructure of relocated families.</p> <p><b>Relevant Policy:</b> OD 4.30</p>	<p>Comments:</p> <ul style="list-style-type: none"> <li>• <i>EBY's resettlement plan includes a rehabilitation program. The PDA Social and Productive Rehabilitation Plan includes communication, training, support for development of micro-enterprises and technical assistance. The Bank endorsed the plan and required a detailed formulation of programs.</i></li> <li>• <i>EBY and the Paraguayan Government created a Productive Fund (US\$6 million) as a safety net and to support productive projects proposed by families and communities.</i></li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>• <i>Continue to maintain supervision, monitoring, and external evaluation</i></li> <li>• <i>Encourage EBY to improve its rehabilitation programs</i></li> <li>• <i>Continue to advise EBY to strengthen its coordination with governmental institutions and NGOs.</i></li> </ul>

TABLE 4.1. SUMMARY AND ANALYSIS OF INSPECTION PANEL CLAIMS		
Claims	Comments	Actions
<p><b>Claim 3.4.</b> Compensation to brick makers only benefited owners but did not compensate workers and their situation has deteriorated.</p> <p><b>Relevant Policy:</b> OD 4.30</p>	<p>Comments:</p> <ul style="list-style-type: none"> <li>• <i>Brick-making companies were compensated by EBY and were legally bound to compensate their workers (EBY does not deal directly with the individual employees). Under pressure from the Bank, EBY made major efforts to compensate those affected, not just the enterprises and self-employed brick-makers, but those who relied on clay deposits that would no longer be available.</i></li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>• <i>Encourage EBY to investigate these brick maker claims and offer technical assistance to help brick makers find ways to access the Productive Fund or apply for rehabilitation through other programs</i></li> <li>• <i>EBY may also take other corrective measures where feasible and warranted.</i></li> </ul>

## V. FIRST SET OF CLAIMS

### Claim 1.1.

**4000 families affected by “pending debts” have not been properly identified and quantified and have been excluded from existing compensation and mitigation programs.**

37. Management believes that this claim is not supported by available evidence. Families affected by the raising of the level and/or operation at 76 masl<sup>72</sup> have been properly identified and compensated, even though some families remain dissatisfied with the solutions provided. In 1980, EBY conducted a first census of all families that needed to be resettled and/or compensated as a result of raising the level of the reservoir up to 83 masl. In 1990, a second census was organized taking into account demographic changes that had occurred since the previous census.

38. All families included in the updated census of 1990 who were living in areas below 78 masl have been compensated and/or relocated through actions included in: (a) the Resettlement and Social Action Plan that was applied until 1992; (b) the RRAP, prepared with support from the Bank and adopted in the same year;<sup>73</sup> and (c) Plans A and B, agreed with the Bank in 1995 and 1996 respectively.

39. Moreover, the “Third Owners Agreement” between Argentina, Paraguay, and the Bank, as amended in 1997 when the legal agreements for Loans 2854-AR and 3520-AR were updated, established that any family not included in the above 1990 census and living in areas up to 84 masl (post-census families) would be resettled and/or compensated by Governments of the respective countries with their own funds.

40. The implementation of the Resettlement Plans, as well as Plans A and B carried out by EBY, and the Third Owners Agreement, have allowed resettlement of approximately 5,378 families (approximately 26,800 people). Out of this total, 79 percent are census families and the remaining 21 percent are post-census families. Resettlement has taken place in seven new urban settlements located in the cities of Posadas and Encarnación, eight rural settlements, and two

<sup>72</sup> “Deudas pendientes” are understood as recognized pending claims.

<sup>73</sup> This Plan continues to provide the framework for all current and ongoing resettlement actions.

settlements for brick makers on both sides of the river. This has made relocation possible for all families in the area up to 78 masl and allowed for clearing of the 76-78 masl buffer area of all construction, in accordance with obligations under the legal agreements.

41. On average, urban housing provided by EBY since 1994 has had a cost of US\$14,500 per unit,<sup>74</sup> including land and services. New settlements are equipped with schools, kindergartens, churches, police offices, health clinics, community centers, and sports facilities (Annex C). However, municipalities and other public agencies in Paraguay lack the management and/or the financial capacity to assume responsibility for the long-term operation and maintenance for the new infrastructure. Bank supervision has maintained since 1997 a permanent dialogue with EBY, the local authorities and national governments to find a solution to this problem. In addition, IDB and the Bank have used their leverage to ensure that services to the new resettlements are not discontinued and do not deteriorate in their quality. As a result, EBY has assumed these responsibilities and continued financing maintenance and operation of different infrastructure and services. Also, Bank supervision has tried to involve affected people, NGOs, and other civil society groups in order for them to effectively communicate their desire for local governments to assume the responsibility for services and infrastructure.

42. Given the time elapsed since the last census, identification and quantification of affected people is being updated, focusing on those families who would be affected if and when the level of the reservoir is raised to 83 masl. According to EBY's current estimates, raising the level of the reservoir to its original design level of 83 masl will require resettlement of an additional 5,454 families in Argentina and 6,380 families in Paraguay. In addition, in Paraguay relocation of 360 commercial properties, which house approximately 700 businesses as well as several small industries and businesses, will be required. It is important to mention that the number of families to be resettled and/or compensated up to 83 masl has increased significantly over time, because the Government of Paraguay has been unable to control new migrations into the area. Since 1997, this issue has been the subject of much attention by the Bank, as can be seen in Annex B, which summarizes conclusions and recommendations of all supervision missions since that date.

43. Resettlement of the additional 11,834 families that would be required prior to EBY's operation of the reservoir at 83 masl will depend on EBY and the Governments of Argentina and Paraguay finding the necessary financing and meeting conditions established in the loan agreements signed with IDB as well as with the Bank. This challenge becomes more difficult as new families arrive expecting to be resettled. For low income families, the possibility of obtaining the status of "affected people" and getting legal title to new and free housing is a powerful incentive for illegally migrating to areas below 84 masl. Management and the supervision team have always maintained that, in compliance with OD 4.30, EBY's resettlement and/or compensation obligations established in the RRAP and in Plans A and B are limited to the 1990 census families. However, Management has repeatedly expressed to EBY and the Governments of Argentina and Paraguay that, in light of the delays in implementing the agreed

---

<sup>74</sup> With the exception of houses in Buena Vista which cost approximately US\$25,000.

strategy for flooding the reservoir incrementally over three phases,<sup>75</sup> any future raising will require updating the resettlement and environmental plans, as specified in the legal agreements.

44. As part of the effort to improve the identification and quantification of impacts at higher levels of operation, EBY, with support and advice from the Bank and in compliance with the provisions of the legal agreements, is: (a) updating the RRAP, (b) implementing a study aimed at identifying socio-economic impacts associated with the relocation of families, and (c) preparing a geo-referenced map of housing between the 78 and 84 masl levels.

45. To summarize the current situation, Table 5.1 provides detailed information about resettlements conducted to date, as part of the first phase of implementation of the RRAP, plus those included in Plans A and B. Figure 5.1 shows the total number of families affected by displacement according to 1980, 1990, and 2000 estimates. Of the total population, Figure 5.2 shows the percentage of families resettled and yet to be resettled. Figure 5.3 shows the resettlement status of census and post-census families. The table and figures include estimates about future resettlements which would be part of any plan to raise the level of the reservoir to 83 masl.<sup>76</sup> These figures would need to be revised after the updating of the RRAP.

**TABLE 5.1 YACYRETÁ HYDROELECTRIC PROJECT  
NUMBER OF FAMILIES RESETTLED AND TO BE RESETTLED**

Country	No. of families resettled 1983 - 1999 to reach 76 masl and 2 additional meters (78 masl) as a buffer zone			No. of families to be resettled if water level is raised to 83 masl and one meter buffer zone cleared (84masl)			Total		
	Families included in 1990 Census	Post-Census Families	Total Families	Families included in 1990 Census	Post-Census Families	Total Families	Families included in 1990 Census	Post-Census Families	Total Families
Argentina	2,903	397	3,300	2,733	2,721	5,454	5,636	3,118	8,754
Paraguay	1,363	715	2,078	3,379	3,001	6,380	4,742	3,716	8,458
<b>Total Resettlement</b>	4,266	1,112	5,378	6,112	5,722	11,834	10,378	6,834	17,212

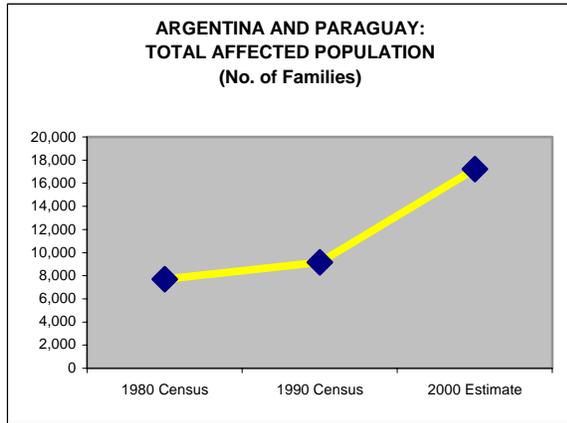
Source: EBY, Verificación de Familias Afectadas Noviembre 2000.

NOTE: This table does not include businesses or small industries in Paraguay.

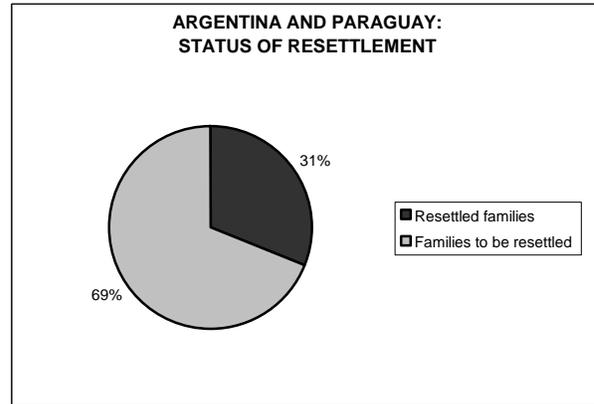
<sup>75</sup> In 1992, the Bank and EBY, in order to move the dam toward operation, agreed to raise the level to 76 masl in 1994, 78 masl in 1995, ending at its full planned height of 83 masl in 1998.

<sup>76</sup> This Plan is under preparation by EBY, subject to no objection by IDB and the Bank. This Plan includes resettlement of all families up to 84 masl, for the 1 meter buffer zone.

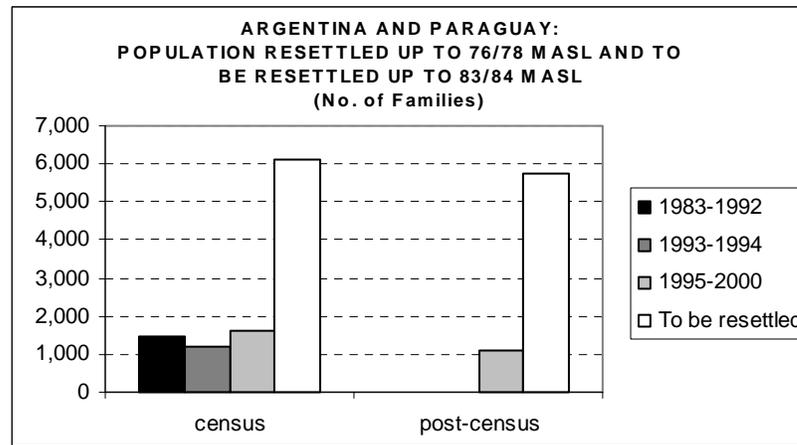
A. Figure 5.1



B. Figure 5.2



C. Figure 5.3



46. In accordance with legal agreements and relevant operational policies, the Bank has ensured through proper supervision that EBY’s resettlement plans included all 1990 census families up to 78 masl. In accordance with the provision of the “Third Owners Agreement” the Governments of Argentina and Paraguay have resettled all post-census families living up to that same level. Management believes that, in spite of delays and other problems related to EBY’s weak capacity and the difficult environment in which resettlement takes place, supervision of the project has ensured compliance with the Bank’s OD 4.30 on Involuntary Resettlement.

47. Bank supervision has included special actions promoting several important steps to ensure that all families affected are properly identified, resettled and/or compensated. Most important among these actions are:

- Repeatedly reminding the Governments of Argentina and Paraguay of the need to resettle post-census families in compliance with the “Third Owners Agreement;”
- Providing advice to EBY for the creation of a conflict resolution mechanism;
- Supporting the updating of the EMP and RRAP; and,

- Supporting different studies and actions to ensure proper mitigation of any economic dislocation resulting from resettlement.

### **Claim 1.2.**

**Creeks Poti’y, Mboi Caé, Santa María, Yacú Paso have been affected by Yacyretá. They flood with any rain because of Yacyretá. Families living on their shores are affected by frequent flooding. There are no solutions for these families. Examples: 110 families in Arroyo Poti’y, Cambyretá District; landowners of Poti’y shores in Cambyretá. Bank is financing the PDA without determining the real number of people to be compensated. PDA was designed to assist people affected by creek flooding. PDA is not fulfilling its objectives. Recommendations of Supervision Mission (September 1999) have been ignored or rejected. Families for whom the PDA was created are being replaced by others (from Pacú Cua, Santa Rosa, Mboi Caé, Itá Paso and San Blas) who are not affected. Families (400 Arroyo Porá and 700 Itá Paso) concerned that the PDA will conclude without proper solutions for all those affected.**

48. Management believes that there is no causal relationship between urban creek flooding and raising the level of the reservoir to 76 masl. The information provided in response to this claim shows that these claims are based on partial and incorrect information, misunderstandings about the scope of the PDA (Figure 5.5) and its relation to future resettlement before reaching 83 masl, and insufficient understanding of the hydrology of the reservoir and neighboring urban creeks, as discussed in detail in paras. 81 to 92.

49. The EA prepared in 1992 identified that most people to be resettled by the Yacyretá Project lived in the floodplain of the Paraná River, which includes the floodplains of the urban creeks in Encarnación and Posadas. The resettlement of populations affected by Yacyretá would in itself constitute an effective way to eliminate the risk to groups located in risk-prone areas. The continuing social and human costs experienced by the population living along urban creeks are exacerbated by (a) the prolonged stay at Level 76masl, and hence the delay in implementation of the RRAP, (b) the poorly controlled influx of population into the floodplain, which has placed more people at risk, (c) the clogging of creeks by dumping of garbage; and (d) the more frequent occurrence of phenomena such as El Niño, which has increased flood events in urban creeks from exceptional rainfall in their watersheds. Management recognizes that families living along the different urban creeks, including those mentioned in the Request for Inspection, are exposed to high risk, deteriorating living conditions and an unsanitary environment.<sup>77</sup>

50. The concern for the families affected by flooding was among the issues noted by the Bank and IDB supervision mission in September 1998, as reflected in its Aide Memoire, which states, “the Banks recognize the necessity to attend to the families resettled along the rivers and sewage drains and the necessity to improve the poor sanitary conditions of thousands living in both cities” (Annex B). In addition, in the first of the high level meetings on the project held in Washington in 1998, both the Bank and IDB requested from EBY “a detailed account of the pending impacts resulting from operating the project at 76 masl that should be a priority to

<sup>77</sup> See Progress Report dated May 14, 1999 (Sec. M99-333), pg. 11, para. 37.

address due to the prolonged presence of the reservoir at 76 masl and due to overflowing of urban creeks.” In these meetings it was agreed that EBY should present a plan to assist the affected people (albeit not as a recognition of a causal relationship between the reservoir and the flooding of the creeks). The argument for requesting and implementing the PDA was that all families up to level 84 masl had to be resettled. However, those families between 78 and 84 masl that were living along urban creeks were exposed to excessively high risks and thus could not wait until a plan to reach 84 masl was agreed and implemented. This led to the formulation and implementation of the PDA, a program of anticipated resettlement designed to respond precisely to the problems referred to the claim.<sup>78</sup>

51. Subsequently, the Bank has been actively involved in the supervision of the PDA in order to ensure that it is implemented in compliance with OD 4.30 on Involuntary Resettlement. Although the Bank is not financing the PDA, its interest and commitment to the program is reflected in Table 5.2 and results from the fact that it constitutes a subset of the resettlement contemplated by the Yacyretá Project’s legal agreements.<sup>79</sup>

52. Immediately after the 1997-1998 flood, EBY, with the advice of IDB and the Bank, organized visits to areas affected by the heavy rains and flooding in order to assess the damages and risks. On this basis, EBY defined high risk areas below 84 masl as: (a) those neighborhoods along the main urban creeks most affected by the great flood of 1997-1998, and (b) other areas not necessarily affected by natural urban creeks, but exposed to similar high environmental risks, located near open rain water and sewage channels.<sup>80</sup> Annex D illustrates the two types of situations that the PDA was designed to resolve.

---

<sup>78</sup> See Progress Report dated May 14, 1999. (Sec. M99-333), pg 11, para 37.

<sup>79</sup> The pertinent legal agreements foresee the need to resettle all people affected by a possible raising of the reservoir beyond 76 masl. That need would be triggered in stages. In particular, Section 9 of the Loan 3520-AR Third Owners’ Agreement (also applicable to Loan 2854-AR through cross-reference) requires resettlement for “any of a number of possible raisings short of 78 [masl],” for “a raising up to 78 [masl]” and for a raising “beyond 78 [masl].” Thus, resettlement of the people affected by the PDA is contemplated in the legal agreements, although the reservoir will not be raised under the PDA. Section 9 further stipulates that resettlements not contemplated in the pre-PDA RRAP are carried out “in accordance with standards consistent with those included in the [RRAP] ... [and] to the satisfaction of the Bank” (without limitation to when the resettlement occurs). Hence, all resettlement under PDA is subject to the Bank’s resettlement policy (OD 4.30).

<sup>80</sup> Families living in the Pacú Cua and Barril Paso neighbourhoods, both mentioned in Request II, are examples of communities included in the PDA as a result of their exposure to environmental risk.

**TABLE 5.2. MEETINGS AND COMMUNICATIONS CONCERNING THE PDA**

<b>Date</b>	<b>Meetings and Communications concerning PDA</b>
12/3-4/98	First High Level Meeting in Washington DC. Attendees: representatives of IBRD, IDB, EBY, Governments of Paraguay and Argentina. Agreement was reached that EBY would present a program to assist communities living in the most polluted zones—Posadas and Encarnación creeks' areas (in accordance with the activities already being developed by EBY).
09/08/99	Bank sends letter to EBY regarding a workshop that would take place to discuss the PDA proposal.
09/26/99 to 10/01/99	Participatory evaluation workshop takes place on PDA. Attendees: representatives from EBY (Argentina and Paraguay), four experts hired by the Bank, the Project's manager, social expert.
11/26/99	Joint meeting takes place on conceptual analysis of PDA.
11/29/99	Bank sends EBY Final Report on the participatory evaluation workshop and the conditions under which the PDA would be financed.
03/30/00	EBY sends comments to the Bank on the conditions under which the PDA would be financed.
08/08/00	Bank informs EBY of the need to amend the loan agreements in order to make financing feasible.
08/24/00	EBY notifies the Bank that it will not use the resources coming from the loans to finance PDA.
09/08/00	Bank responds to EBY regarding its decision to not use the discussed resources and informs about its willingness to support the program.
09/08/00 up to present	Supervision mission assesses progress and problems, meeting regularly with affected people in the PDA and makes recommendations. (See Annex 4.1).

53. Based on the situation described in para. 52, EBY carried out an assessment in 1999, identifying a total of 1,101<sup>81</sup> families in Encarnación below 84 masl, including families living on the shores of the Poti'y (308), Mboi Caé (589), and Mboi Tesá (204) Creeks. The relocation of these families had already been planned as part of resettlements included in the plan to reach 84 masl. The PDA, based on IDB and Bank advice, assigned a higher priority to their relocation to minimize the impact of future floods.

54. The PDA has two main components: (a) construction of houses and infrastructure for resettled families, and (b) provision of assistance before, during and after the relocation of families to their new neighborhood. The construction of 674 houses for Itá Paso was included in the first component even though they were not affected by the urban creek flooding, for reasons explained below. As a result, under the first component EBY invited bids for construction of 1,970 houses and corresponding infrastructure works for the new resettlement in Arroyo Porá and Itá Paso, and it is repairing 40 houses that were already built in the Buena Vista neighborhood. EBY's resettlement team has completed all of the pre-moving activities and is preparing for the phase of moving the families, which will begin in July 2002 upon completion of the first group of houses.

55. Details of the progress made in the construction of these homes are presented in Table 5.3. The information was compiled during the supervision mission of May 2002.

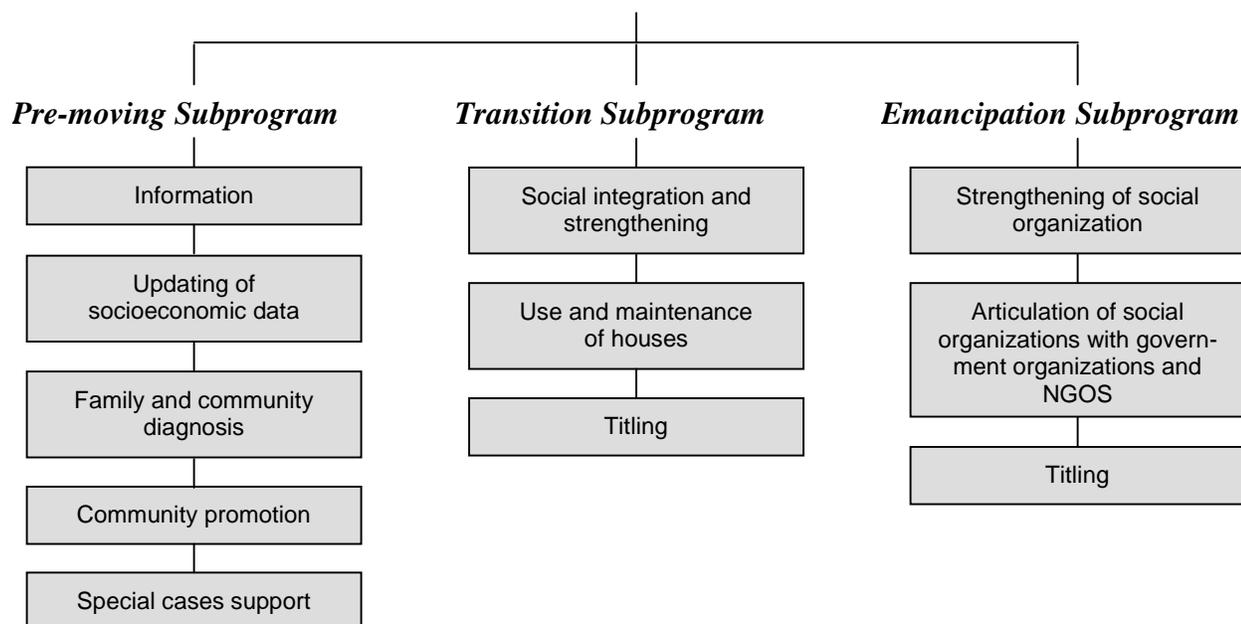
<sup>81</sup> The original number of families that require resettlement as a part of the PDA was 1,101 but additional work done by EBY increased this to 2,010.

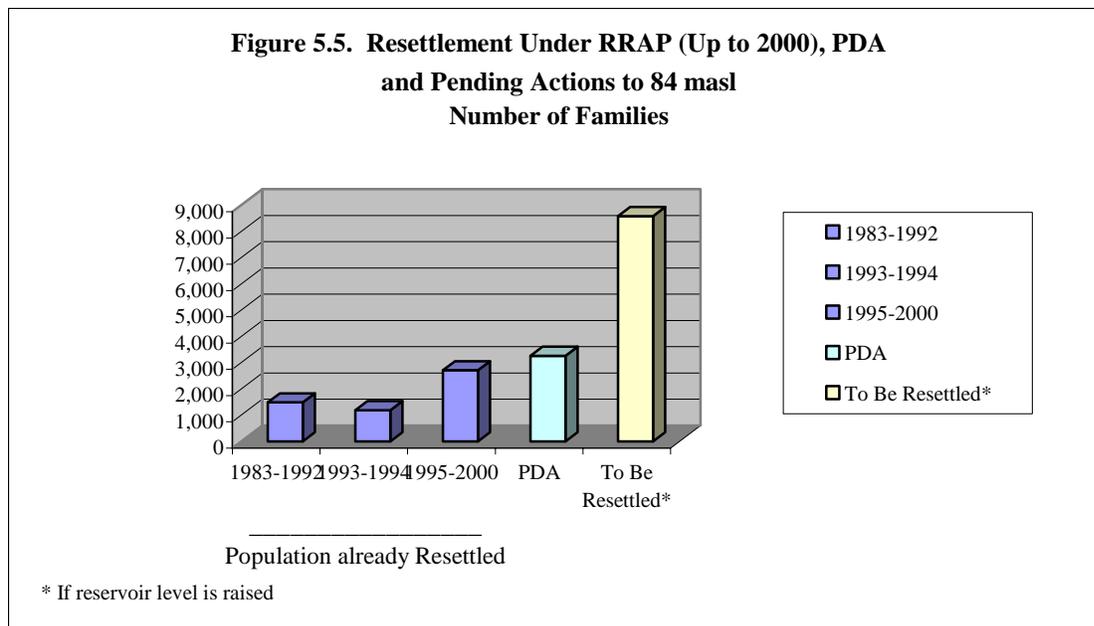
**TABLE 5.3. NO. OF HOUSES UNDER CONSTRUCTION FOR PDA**

<b>Neighborhood</b>	<b>No. of Houses</b>	<b>PROGRESS ACCORDING TO PLANS</b>
Arroyo Porá	453	86% of construction completed
Arroyo Porá II	601	In bidding
Arroyo Porá III	150	Bidding documents under preparation
Itá Paso	674	97% of construction completed
San Pedro	92	97% of construction completed
Buena Vista	40	Information not available.
<b>Total</b>	<b>2,010</b>	

56. The second component of the PDA includes support for families before, during, and after relocation as shown in Figure 5.4. Resettlement under the PDA complements the resettlement activities carried out by EBY under the RRAP and represents advanced resettlement of families that would have to be relocated if and when the reservoir level is raised to 83 masl. Figure 5.5 presents information about the PDA and past and future resettlement of the affected population.

Figure 5.4. URBAN CREEKS PROGRAM





57. **Bank involvement in the PDA.** Table 5.2 summarizes the discussions held between EBY and the Bank regarding the PDA. On August 8, 2000, the Bank expressed to EBY its willingness to amend Loan 2854-AR to allow use of resources from this loan in support of the PDA. However, EBY did not pursue this avenue. As a result, the Bank cancelled US\$10.4 million from Loan 2854-AR on December 31, 2000.

58. EBY is aware that the PDA, regardless of its sources of financing, needs to comply with the Bank's Involuntary Resettlement Policy (OD 4.30). In addition, the Bank has advised EBY that the design and implementation of the Program should ensure: (a) increased participation and consultation with affected families; (b) development of resettlement plans within the context of municipal development plans; (c) implementation of socio-economic impact assessments prior to relocation; (d) exploration of more flexible options of relocation; (e) use of self construction and mutual help methods; and finally (f) promotion of community development activities. Even though the Bank is not providing financing for the resettlement activities to be undertaken as part of the PDA, Bank supervision of the PDA has been intensive, in order to ensure compliance with OD 4.30 and the specific recommendations made by the Bank on November 29, 1999. (See Annex E). Bank supervision has made the following important verifications with respect to PDA:

- **Increased participation.** EBY has modified its methodologies allowing for increased participation of families to be resettled by the PDA. Since 1999, EBY has conducted information and consultation meetings with provincial and municipal authorities as well as with representatives from affected neighborhoods. In these meetings, EBY has explained the PDA, its objectives, criteria for inclusion, solutions, and methodology. To promote better understanding of the PDA, EBY has organized visits of affected families to the new resettlement site. Families have also been incorporated into the process of managing and planning some resettlement activities. Affected families are sharing responsibilities for the allocation of new homes, assisting in identification of potential impacts resulting from the relocation, and helping design compensatory programs.

- ***Inclusion of resettlement in urban development plans.*** The Bank has advised EBY on numerous occasions about the need to improve coordination with local governments, ensuring that new neighborhoods created as a result of resettlement actions are compatible with urban development plans. Local authorities have to assume responsibilities in providing services, and operating and maintaining the new infrastructure included in EBY's resettlement programs. The Bank advised EBY to implement a component aimed at strengthening the capacity of local governments, as a complement to the PDA, and approved the allocation of US\$1.0 million from Loan 2854-AR for this purpose.<sup>82</sup> However, EBY has been slow in channeling this support, in spite of repeated requests from the Bank. According to plans, the first support will be granted to the Municipality of Encarnación in order to enable it to manage efficiently the new municipal slaughterhouse and the market built as part of Plan B.<sup>83</sup>
- ***Socioeconomic impact assessment.*** The PDA commissioned Catholic University of Encarnación to conduct a socioeconomic impact assessment of all families and communities to be resettled.
- ***Support for relocation in Itá Paso and Arroyo Porá instead of purchasing new land.*** EBY modified its original plans of purchasing two new sites, distant from the commercial center of Encarnación and instead accepted the Bank's recommendations of resettling more families in Arroyo Porá and Itá Paso, increasing the size of these neighborhoods and making them economically more viable.
- ***Diversification of resettlement alternatives.*** The Bank recommended to EBY that the PDA provide a more flexible menu of resettlement options, allowing affected people to choose the alternative most compatible with their socioeconomic and demographic conditions. EBY agreed that this was an important objective but considered that it was not feasible to do it in the context of the PDA. EBY pointed out that introducing more flexibility into the PDA would lead to delays and additional frustration of people exposed to the risk of flooding. However, EBY has offered that any future resettlement program will be designed with more flexibility. Nevertheless, the PDA does offer a range of options (i.e., to relocate either in Itá Paso or Arroyo Porá; to pick the lot within the closer community; or, to opt for cash compensation instead of resettlement).
- ***Review of the resettlement proposal for Itá Paso in order to avoid destruction of houses built by families.*** EBY accepted the Bank's advice concerning Itá Paso, avoiding the destruction of existing homes that had been constructed by the resettled families. The new homes built as part of the PDA were integrated with existing homes, providing increased living spaces and allowing for productive activities to be organized within the home.
- ***Focused attention on mitigation of economic impact caused by displacement.*** The Bank required and EBY accepted preparation of a detailed and individual analysis of the potential

---

<sup>82</sup> This reallocation was approved on December 31, 2000 as a part of the extension of the loan's closing date.

<sup>83</sup> Construction of the municipal market was planned to be financed with resources of Loan 2854-AR but after long delays and non compliance with agreed timetables, financing was withdrawn. EBY is financing the market, a component of Plan B, with its own resources, subject to Bank supervision.

economic impacts associated with relocation of families from their neighborhoods along the urban creeks to the new sites. To respond to the potential negative impacts, EBY presented, during the supervision mission of May 13-17, 2002, a Social and Economic Rehabilitation Program. The Bank endorsed this Program and required a detailed formulation of projects and definition of target population according to the results of the impact assessment.

59. **Current complaints.** Management is aware that some families not included in the PDA might be dissatisfied with their exclusion and the priority given to others. Conflicts have developed between EBY and some excluded groups, including the following main cases:

- First, families living between levels 78 and 84 masl at relatively close distances from urban creeks, but not exposed to high risk, questioned the priorities as defined by EBY and expressed unwillingness to wait for the final resettlement phase slated to occur when and if the reservoir is raised to 83 masl. However, these families will be resettled as part of any plan to raise the level to 83 masl and establish a buffer zone (84 masl).
- A second group of families living along urban creeks but above 84 masl have also demanded inclusion in the PDA in spite of the fact that they are not within the actual or potential area of impact of Yacyretá. These families will not be resettled by PDA or any other EBY sponsored resettlement program as they would not be affected in any way by the operation at 83 masl and, as explained above, there is no causal link between the reservoir and urban creek flooding.
- Third, there are conflicts with families, such as the 110 families living in Arroyo Poti'y mentioned in the Request for Inspection, that were included in the PDA but did not agree with the proposed resettlement site. If these families maintain their rejection of the proposed site, they will be resettled as part of any plan acceptable to the Bank to raise the level to 83 masl and establish a buffer zone (84 masl).
- A fourth type of conflict has developed with families living in areas of high risk near major urban creeks, but who are not included in the Program due to their post-1998 arrival in the neighborhood. These families will also be resettled as part of any plan acceptable to the Bank to raise the level to 83 masl and establish a buffer zone (84 masl).

60. In reference to the specific cases cited in this claim, Management holds the following views:

- ***The Cambyretá families living in the San Francisco neighborhood:*** According to EBY November 2000 census verification, 68 families live in the affected blocks, and not 110 as mentioned in Request II. The 68 families were originally included in the PDA, but during the process of negotiating with the community, they rejected the option of being moved to a new resettlement community in Arroyo Porá (located in the same municipality, but at the extreme opposite of the San Francisco neighborhood) and proposed another area that would have required land purchase (Annex F).<sup>1</sup> Taking into account that the PDA was designed under clear budget and land restrictions, the request presented was considered as an option to be analyzed as part of the resettlements planned in regard to the raising of the level of the reservoir to 83 masl. EBY responded to the San Francisco proposal, as can be seen in Annex

F. It is important to mention that EBY has included, as part of the draft plan to raise the level of operation to 83 masl, some relocation sites in the area that the Cambyretá community is demanding.

- ***Lands on the shores of Poti'y Creek in the District de Cambyretá.*** EBY anticipates acquiring all of the affected lands below 84 masl. Additionally, the Expropriation Law in Paraguay guarantees that all the lands and physical improvements (houses, fences, etc.) within the expropriation boundaries are subject to just compensation. The project team has discussed with EBY that, in order to comply with the RRAP, families are to be compensated according to replacement cost.
- ***The neighborhoods of Pacú Cua, Santa Rosa, and Barril Paso.*** These neighborhoods are eligible as they are affected by high risk of flooding and unsanitary conditions, since they are located along sewage and rain water discharges areas (see Annex D). The Mboi Caé neighborhood, in particular, is one of the areas most severely affected by floods.
- ***Presumed ineligible families.*** The only families included in the PDA that were not affected by the periodic overflow of urban creeks are the 674 families relocated to Itá Paso in 1997-1998. Families in Itá Paso belong to the post-census group, those not included in the 1990 census, to whom the Government of Paraguay had provided an undeveloped lot with no housing, inadequate services, and poor infrastructure. Including Itá Paso families in the PDA allowed for significant improvements: new houses were provided free of charge, water services have been improved, sewerage connections are being constructed; a new school, health post and church have been built, and a local NGO (Kuña Roga) has been contracted by EBY to promote community development and improve the quality of life, especially for women and youth (see photos of Itá Paso, Annex C). The inclusion of the Itá Paso families in the PDA will be financed by the Government of Paraguay to comply with the requirements established by the Bank regarding improved living conditions for post-census families.

61. Finally, the PDA does not deny the rights of other families with legitimate resettlement claims to relocation under similar conditions. All families living between 78 and 84 masl, including those mentioned in Request II, would be resettled in the context of the plans to raise the level of operation to 83 masl. However, the situation in the affected areas is deteriorating and the demand for resettlement is actually much greater than EBY's ability to address it. The number of new families in the affected areas is another situation that changes the planning horizon, as families continue to settle in highly vulnerable areas, undoing the progress made. The Bank has insisted on the need for the Government of Paraguay to improve controls of the areas between 78 and 83 masl. Even though improvements have occurred in controlling new migrations into the 76-78 masl region, the situation continues to be unsatisfactory for the areas between 78 and 83 masl.

62. **Summary.** As stated at the beginning of this section, Management considers that the claims related to the PDA are based on partial and/or incorrect information, misunderstandings about the scope of the PDA and its relation to future resettlements that would take place before the reservoir reaches 83 masl, and incorrect understanding of the hydrology of the reservoir and neighboring urban creeks. With respect to this claim, Management has made the following conclusions:

- Contrary to the claims included in the Request, EBY has provided both the Bank and IDB with precise and sufficient information about the nature and scope of the PDA, the proposed solutions and the way that the PDA relates to future resettlements to be organized in the context of a plan to raise the level to 83 masl. This is as should be expected given that the Bank's resettlement policy is applicable to the PDA (see footnote 18 above).
- The Bank has been provided with what it believes to be accurate information about the number of people to be resettled as part of the PDA, and the criteria used for their selection.
- The Bank is aware that the PDA covers only a partial number of the people to be compensated and/or resettled before reaching 84 masl. The number of people to be compensated and/or resettled on the Paraguayan side—in the context of the Yacyretá Project—is far larger than the number of families included in the PDA.
- The Bank is aware that EBY had to make difficult choices in establishing priorities and, on that basis, determining that some families would be relocated earlier than others. Those at higher risk were included for advanced relocation as part of the PDA, while the rest would have to wait for resettlement in the context of a future plan to raise the level of operation to its final design level of 83 masl.
- Management has discussed with EBY the need to find solutions to all of the conflicts that have arisen as a result of such priority setting.
- The Bank has diligently supervised the implementation of the PDA to ensure that solutions and resettlements take place according to principles and procedures developed in the RRAP approved by the Bank, and that plans and agreements reached with affected families and their representative organizations are honored.
- Management considers that the decisions adopted by EBY are consistent with applicable safeguard policies.

### **Claim 1.3.**

#### **Owners of houses, who were included in EBY census have had their houses destroyed by flooding.**

63. Management considers that the claim of a causal link between the current reservoir level and the flooding cannot be substantiated. First, floods are not caused or exacerbated by the reservoir at 76 masl (Figure 6.1). The Paraná River has historically caused periodic floods, affecting families in the cities of Posadas and Encarnación. The frequency of floods and the levels that the river reaches periodically are shown in Table 6.2. The Yacyretá Reservoir at current levels does not increase the likelihood or incidence of flooding. Heavy flooding is the result of natural precipitation cycles and is exacerbated by “El Niño” and other weather phenomena.

64. Moreover, EBY has adopted Resolution No. 959/86 (Annex G) that allows for anticipated or early expropriation of legally titled home owners. This resolution allows early compensation

of any home owner whose property is located below 84 masl, provided that he/she makes a formal request to EBY. Under Resolution 959/86, once EBY has received a request for early expropriation, it proceeds with the assessment of the property and its improvements, and then compensates the owner for the expropriation according to replacement cost, as required by the RRAP and OD 4.30 on Involuntary Resettlement. The Bank, however, is aware that this procedure is subject to the limitations imposed by EBY's finances.

65. Finally, Management believes that this situation is not in violation of any Bank policies, even though it recognizes the frustration of home owners who have seen the value of their properties reduced and had to wait for many years to be expropriated and compensated, without an end in sight. Management has frequently advised EBY of the need to put an end to the uncertainty by either raising the level to 83 masl, operating indefinitely at an intermediate level, or staying at the current 76 masl as a final solution, ensuring in all cases not only compliance with Bank policies but also compensating home owners and other affected people for the damages and negative impacts originated by the relevant scenario.

#### **Claim 1.4.**

##### **Bank has failed in overseeing resettlement projects.**

66. Management believes that the Requesters are not fully aware of previous and ongoing Bank supervision efforts as well as the specific positive results these efforts have generated. Due diligence has been exercised in supervising resettlement, environmental, and other issues related to project implementation in accordance with the requirements of OD 13.05.

67. Following the Board's endorsement of the Panel's recommendations of 1997, Management took several actions aimed at strengthening project supervision.<sup>84</sup> Management reiterated its commitment to stay the course and protect the well-being of the affected people, consistent with the Panel's recommendations as endorsed by the Board, namely that "Bank assistance will be vital to sustainable outcomes". The Bank, the Borrower and EBY have moved to address the concerns reflected in the Panel's Review. Nevertheless, while some aspects have gone well, others are subject to the frequent changes in EBY's management and political climate, and restricted by the chronic institutional weaknesses of EBY, and its insufficient commitment to consultation and participation.

68. As a result of Bank supervision, Plan A and Plan B are almost fully implemented, albeit with delays. Annex R presents a summary implementation status on Plans A and B, based on information provided to the last Bank supervision mission on May 13-17, 2002. The 1997 restructuring of Loan 3520-AR (Yacyretá II) and Loan 2854-AR (SEGBA V) significantly increased Bank financing for resettlement and environmental mitigation, together with establishment of a trust account, to ensure full availability of funds needed for complete implementation. In addition, Bank supervision was intensified and shifted to the field, to the decentralized Country Management Unit, covering Argentina, Chile, Paraguay, and Uruguay. A new social development specialist has been in place since February 1999 with special

---

<sup>84</sup> See The Inspection Panel, *Review of Problems and Assessment of Action Plans: Argentina/Paraguay: Yacyretá Hydroelectric Project*, September 16, 1997.

responsibilities for the Yacyretá Project, as part of the supervision team, and for dealing with civil society.

69. Annex B presents information of the number of supervision missions conducted during the period 1999-2001, and a summary of recommendations and conclusions related to the claims included in the Request for Inspection. Management believes that this provides a clear summary of supervision activities and an overview of the key messages relating to supervision of the Yacyretá Project, following the Panel's 1997 Report, including:

- Bank supervision has intensified based on the number of missions and field visits conducted during the period;
- The Bank has also supported implementation to increase the effectiveness of the PDA; and,
- Management has advised and pressured EBY for the creation of a conflict resolution mechanism to deal with the growing number of conflicts that surround Yacyretá.
- In order to assess the adequacy of the supervision effort, the Regional Vice President for Latin America and the Caribbean called for an independent internal Bank evaluation of Bank oversight. The resulting report was completed in June 1999 and looked into the adequacy and effectiveness of the past and present management decision-making processes, supervision, and mechanisms in place to exercise available legal remedies in the case of non-compliance of the Borrower. The report voices some of the same concerns as did the Panel Report about the prevalence of engineering considerations over environmental and resettlement in the early years of the project and the Bank's acceptance of continuous deferment and delays in meeting obligations which seem to have weakened the Borrower's accountability for results. It also cited deficiencies in past supervision practices, despite the fact that supervision was five times the average level. The biggest lesson was that senior regional management needed to be involved and be proactive in addressing issues, many of which were political, not technical.

70. In 1998, the project received an unsatisfactory rating, after a series of Bank missions closely supervising resettlement, environmental and project management issues concluded that EBY was failing to reduce delays in implementing key activities of the RRAP and Yacyretá EMP financed by Loans 2854-AR and 3520-AR. The Borrower and EBY were informed in 2001 that reclassification would require, among other things, meeting the following conditions: (a) approval of the Expropriation Law in Paraguay; (b) progress in construction of the municipal market, the slaughterhouse, and the wastewater treatment plant of Encarnación; (c) progress in construction of baffle plates in the main spillway; and (d) starting of the sedimentation study. During the supervision mission of November 1999, an action plan was agreed with EBY to ensure progress and facilitate follow-up.

71. Also in 1998, after several Bank missions verified no progress and a lack of action in implementing agreed upon actions, the Bank declared the project in non-compliance with loan agreements as a result of the Government of Paraguay failing to establish: (a) adequate administrative or operational capacity to carry out the resettlement of post-census families; (b) the means and mechanisms to prevent further migration into the affected area of new post-census

families; and (c) a trust fund account in a commercial bank to finance the two foregoing commitments. The Bank decided to suspend all future loans to Paraguay until these issues were resolved. Subsequently, progress was verified by Bank staff with respect to the first two issues mentioned above. In addition, the Government of Paraguay opened a fiduciary account, and deposited US\$1.1 million to improve living conditions of post-census families in Itá Paso.

72. Supervision and management support was strengthened in line with the independent internal Bank report previously mentioned, including (a) close field supervision since 1999 by assigning the Task Manager to Buenos Aires and contracting a social expert based in Asunción, and (b) intensified supervision through the use of a more diversified supervision strategy. In addition to standard supervision missions, supervision visits to Posadas and Encarnación were conducted regularly by the Task Manager based in Buenos Aires and the social expert in Asunción. During the period 1998-2002, a total of forty-seven such visits were conducted. With the support of a local consultant financed by Loan 2854-AR, a monthly follow-up report has been produced since 2000. The agenda for these supervision visits has been to follow up on agreements reached during the previous standard supervision mission, contact affected people, NGOs and local governments, and discuss specific issues with the local EBY office in Encarnación.

73. Following recommendations of the report, another supervision instrument was designed jointly with IDB to allow for senior Management to review problems and progress in project implementation, including resettlement and the PDA. A total of three High Level Supervision Meetings during the period 1999-2002 were organized. During these meetings, the Regional Vice President, Country Management Unit Director, and Sector Management Unit Directors have engaged in dialogue with ministers and other high level officials from the Governments of Argentina and Paraguay. Finally, the Regional Vice Presidency and the Country Management Unit Director have also maintained close contacts with affected people, NGOs and other civil society groups including through three visits to the project sites by the Bank's Regional Vice President, during which meetings were organized with affected people, NGOs and other civil society groups. In short, supervision has been intensive and in compliance with OD 13.05.

### **Claim 1.5.**

#### **Complaints have been made without proper response.**

74. Since 1999, Management and the supervision team have received numerous letters of complaint, and other types of communication from affected people in Paraguay, including some from the groups presenting Request II. Annex S summarizes some of the complaints received and the responses made by the Bank, and Annex T includes a sample of these letters. EBY has also received communications from groups and/or individuals sponsoring Request II, demanding solutions to different problems and, in some cases, indicating that if their demands are not met they will take action against the project entity. The Bank has been responsive to all complaints and communications received from civil society groups. The views and/or demands of these groups have been used by the Bank as inputs for the dialogue with EBY and for project supervision. In addition to written communications, additional complaints, requests and suggestions have been channeled directly to the project Task Manager, the supervision team, and senior Management during visits to the project site, including the city of Encarnación.

75. Following the Board's endorsement in 1997 of the Panel's Review, supervision missions have met regularly with affected people and other groups with claims, NGOs, civil society groups, and local and provincial governments to learn about their perspective on the project and certain key issues such as the PDA and EBY's proposal to raise the level of the reservoir to 83 masl. Additional steps have been taken by the Bank to ensure proper understanding of complaints and affected people. For example, two NGOs (Sobrevivencia in Paraguay and CIET in Argentina), were contracted during the first half of 2000 to: (a) conduct an opinion survey of affected people and project stakeholders on the issue of raising the level of the reservoir and (b) advise the Bank on the conditions that would be required under different scenarios.

76. To the extent that decisions are made by EBY and the Governments of Argentina and Paraguay, the Bank has encouraged affected people and civil society to also channel their complaints directly to EBY and/or the respective Governments. In addition, the Bank has advised and promoted, in different ways, EBY's consultation with affected families and other groups. The Bank's advice to and dialogue with EBY and Governments has led to some success insofar as EBY has responded to specific complaints of affected people and civil society groups. The most important cases include:

- Complaints from affected families in Itá Paso have led to significant improvements in the community;
- Improved coordination between EBY and local governments has begun to develop;
- Merchants located in Encarnación's municipal market (to be relocated) were incorporated into the process of design of the market under construction;
- EBY reconsidered the original solution of resettlement project sites for relocation under the PDA to minimize adverse socio-economic impacts from relocation to distant and isolated places;
- EBY has agreed to conduct socio-economic assessments of populations to be resettled as part of the PDA and possible impacts from the relocation;
- EBY has become more receptive to participation and consultation,<sup>85</sup> and
- EBY has begun to conduct business in a more transparent fashion.<sup>86</sup>

77. In sum, comments received by the Bank have been responded to and brought to the attention of EBY and other the relevant authorities in a timely manner, in writing, through direct contacts, and in the context of supervision missions.

---

<sup>85</sup> Annual Consultations have been organized (Jornadas Participativas) since 1998, and specific consultations have been organized focusing on specific issues such as the Blue Ribbon Panel Report.

<sup>86</sup> Information Centres are operating in Posadas and Encarnación, a web-site is facilitating access to information, and Transparency International (Argentina Chapter) was contracted to advise on public monitoring.

## VI. SECOND SET OF CLAIMS

### Claim 2.1.

#### **The Dam has caused environmental pollution and negatively impacted health conditions in the area.**

78. This claim is identical to the one presented in Request I.<sup>87</sup> Thus, for the period up to 1997, information provided in the previous Panel response is still relevant to this claim. The environmental and health situation remains comparable to that in 1997. The dam has neither caused nor increased environmental pollution in the area of Encarnación-Posadas. Water quality monitoring programs before, during, and after raising the reservoir level up to 76 masl have demonstrated that there are no significant water quality issues in the reservoir. Intensive environmental monitoring efforts showed that after filling the reservoir to 76 masl, water quality in or near urban areas maintained levels similar to those prior to filling the reservoir.<sup>88</sup> There have been no significant changes in key physical and chemical parameters in the main water body of the reservoir at locations such as Encarnación or Posadas. Table 6.1 provides data on the water quality in the main body of the reservoir and in the Paraná River upstream of Encarnación-Posadas for the sampling period 1993 – 2002.

**TABLE 6.1**  
**MEAN WATER QUALITY IN THE RESERVOIR – RIVER SYSTEM**

<b>Water Quality Parameter</b>	<b>Main Body of Reservoir</b>	<b>Upstream Encarnación-Posadas</b>
Dissolved Oxygen, mg/l	8.4	8.60
Nitrogen as Nitrate, mg/l	0.376	0.3640
Nitrogen as NH <sub>3</sub> , mg/l	0.038	0.035
Phosphorous as total P, mg/l	0.053	0.042
Orthophosphates, mg/l	0.021	0.015
Total coliforms, coliforms/100 ml	508	547

79. The filling of the reservoir by stages and the operation of the reservoir at 76 masl for almost eight years, together with the high water renovation rates in the reservoir (the water is renewed in less than five days) have allowed an important flushing effect, washing away most organic solids and nutrients.<sup>89</sup> Table 6.1 demonstrates that the reservoir's water quality is oligotrophic (very low in nutrient/organic materials). The water quality data time series shows that no eutrophication (excess nutrient availability) problems have occurred, nor are they forecast for the short, medium or long term. One of the major reasons why the reservoir is oligotrophic is the low hydraulic retention time of less than five days.<sup>90</sup>

<sup>87</sup> See para. 4 of Request I (“The rise in reservoir has introduced stagnant polluted water.”) and para. 3.46 of Management’s Response to Request I, which concluded that “There have been no significant changes in key physical and chemical parameters in the main water body of the reservoir.”

<sup>88</sup> Bimonthly Report – Plan de Manejo de Medio Ambiente; EB Y; May-June 2001, p. 6. All reports have concluded the same.

<sup>89</sup> Theoretically, from its partial initial filling in September 1994 until June 2002, the reservoir has been fully renewed more than 1000 times.

<sup>90</sup> If retention time is significantly longer, i.e. one year, the risk of eutrophication problems increases in reservoirs.

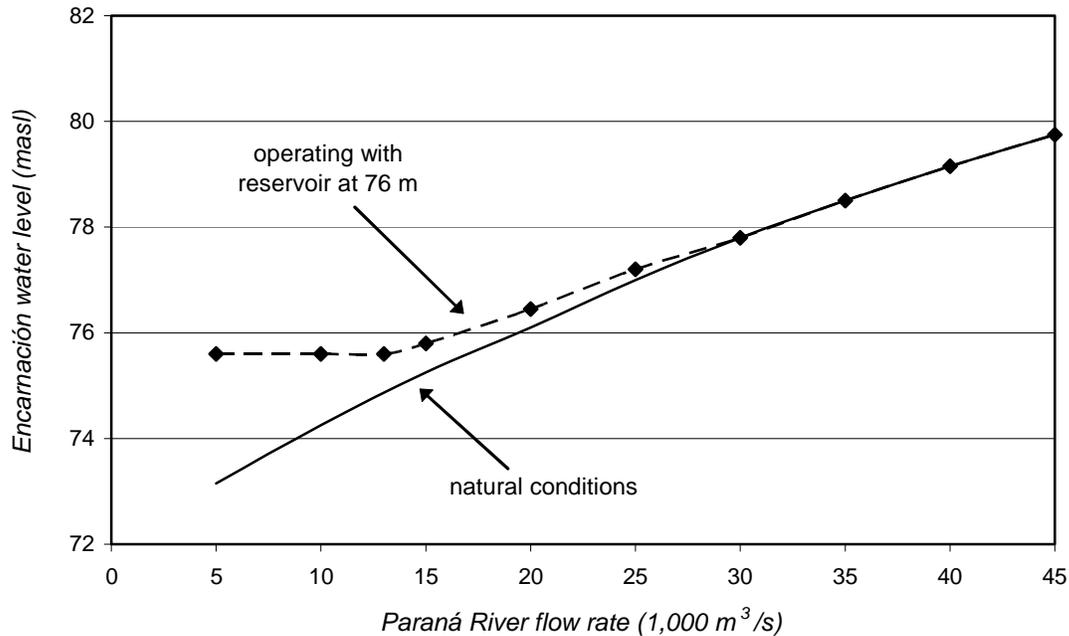
80. EBY financed the wastewater treatment plant and major sewage interceptors for the city of Posadas, greatly improving the environmental conditions of neighborhoods located along urban creeks. However, the Encarnación wastewater treatment plant has not yet been built due to delays in the siting process, which has involved intensive public consultation. As explained further in Claim 2.7, the reservoir has not had a negative effect on human health.

**Claim 2.2.**

**Before the dam elevated the Paraná River to the current height above sea level, the river and creeks surrounding the city of Encarnación flowed at a rate that precluded the presence of stagnant waters.**

81. The current water levels of the reservoir neither increase the presence of stagnant waters in the creeks nor influence flooding in the creeks in Encarnación. Creeks are flowing at the same rate they would without a reservoir at 76 masl. The Yacyretá Project is a run-of-the river plant. Thus, since the reservoir is constantly being flushed by river run-off, it behaves less like a lake and more like a river. The reservoir operating rules establish that to keep an average flow rate of 13,000 m<sup>3</sup>/second passing through the dam, the water level at Encarnación – Posadas should be 76 masl. This means that for flows less than or equal to 13,000 m<sup>3</sup>/s the water level at Encarnación – Posadas will remain at or below 76 masl. As the flows increase closer to 13,000 m<sup>3</sup>/s, water levels in Encarnación – Posadas will essentially be those corresponding to natural river conditions (without the presence of the Yacyretá Dam). For flows above 13,000 m<sup>3</sup>/s water levels at Encarnación – Posadas will be practically identical to those reached under natural conditions for the Paraná River. Figure 6.1 shows the water levels at Encarnación – Posadas for different flow rates and the influence of reservoir operation at 76 masl.

**Figure 6.1.**  
**Water Level in Encarnación at Different Flow Rates of the Paraná River**



82. The above described situation also means that floods in Encarnación, as well as in Posadas, will continue to happen with the same frequency as the frequency of flows greater than 13,000 m<sup>3</sup>/s and that these floods will reach the same levels that they would have reached even in the absence of the Yacyretá Dam. The study of floods in the Paraná River<sup>91</sup> carried out within the Argentina Flood Emergency Project financed by the World Bank estimated the following flood recurrence periods for Encarnación – Posadas (Table 6.2).

**TABLE 6.2**

**RETURN PERIOD FOR FLOOD LEVELS IN ENCARNACIÓN-POSADAS**

<b>Recurrence Period (Years)</b>	<b>Level in Encarnación-Posadas (masl)</b>
2	77
5	78
10	79
20	80
50	81
100	81.6
200	82.5

83. As can be observed, reservoir operation at 76 masl will not absorb any type of flood event (even those of a lower recurrence such as biannual floods). Therefore, the social and

<sup>91</sup> Sir William Halcrow & Partners. September 1994. "Estudio de Regulación del valle Aluvial de los Ríos Paraná, Paraguay y Uruguay para el Control de Inundaciones;" Ministerio del Interior, Sub Unidad Central de Coordinación de la Emergencia, Argentina.

economic impacts of floods on Encarnación and Posadas will continue as long as the reservoir remains at this level. Even in the absence of Yacyretá, the relocation of poor people living in the floodplain between 78 and 83 masl would have been justified on social grounds.

84. Even in the absence of Yacyretá, the relocation of poor people living in the floodplain of the creeks between 78 and 83 masl would be justified on social grounds. As can be observed, reservoir operation at 76 masl cannot absorb and neutralize any type of flood event (even those of a lower recurrence such as biannual floods). Therefore, the social and economic impacts of floods on Encarnación will continue as long as the reservoir remains at this level. The EA for the project identified that most people to be resettled by the Yacyretá Project lived in the floodplain of the Paraná River, which includes the floodplains of the urban creeks in Encarnación and Posadas. Thus, resettlement of populations affected by Yacyretá would in itself constitute an effective way to eliminate the risk to groups located in risk-prone areas. If the original filling schedule had been achieved, all population below 84 masl (including those at highest risk along urban creeks) would have been relocated above flood levels by now.

85. Increasing the level of the reservoir could potentially modify the hydraulics of the urban creeks, thus limiting their capacity to carry wastewater to the main river channel, which in turn has a great assimilation capacity. At 83 masl, the formation of lateral bays in the urban areas will represent the greatest environmental risk of the project unless the sanitary conditions (wastewater collection, treatment and disposal) are greatly improved in Encarnación and Posadas. The long-term management plan for water quality problems in lateral urban bays is mainly based on the construction and operation of systems for the collection, treatment and disposal of wastewater, and interception of the discharge of polluting substances to such bays. The strategy is based on a joint effort between EBY and the agency that provides the service in each city. EBY builds the main infrastructure (main collectors and interceptors, pumping stations and treatment plant) and the service provider is in charge of building the secondary networks and the house connections. Although this scheme has been successfully implemented in Posadas, the implementation on the Encarnación side has proven to be more difficult.

86. At 76 masl, the main bodies of the creeks are not affected and their hydraulic characteristics and flushing capacity are maintained. Historical records show that prior to reservoir filling, 50 percent of the time in a given year, the Paraná would be at 76 masl or above.

87. The water quality of the urban creeks, especially in Encarnación, continues to be degraded by the disposal of solid waste and the discharge of untreated domestic sewage (Annex H). Thus, potential problems in the urban creeks are exacerbated by domestic garbage dumping, wastes from marketplaces and slaughterhouses, and urban garbage in general, both along creeks and in the drainage system of the cities of Encarnación and Posadas. Disposal of solid waste and garbage exacerbates the clogging of the creeks and impedes the smooth flow of excess water down the creeks and into the reservoir, thus leading to the formation of stagnant and unhealthy pools (above the current 76 masl reservoir level) that take a long time to finally drain.

88. At 76 masl, reservoir shore treatment works financed by EBY have been implemented in both Encarnación and Posadas. These works have included closure and disinfection of all known pit latrines and septic tanks, removal of vegetation, removal of construction and fences and more importantly, clean-up and dredging of urban creeks (thus improving their flow conditions) up to

84 masl (Annex H). These works have proven to be very effective in improving environmental conditions in the 76-78 masl stretch and in the urban area as a whole. EBY is committed to maintaining such conditions (maintenance operations have been carried out biannually), but more needs to be done by the municipalities, especially the control of illegal waste dumping along creeks. The updated EMP for Yacyretá includes technical assistance to municipalities to help them find solutions to urban environmental problems.

### **Claim 2.3.**

**Neighborhoods got along through the use of borehole latrines and drinking water wells. The wealthiest families had modern baths and pit latrines. Drinking water was clean and healthy. When the financing Banks let the resettlement programs proceed as a component disassociated from the civil works, and allowed the dam to begin operations before completing the transfer of all affected families, they caused the water table to pollute the drinking water wells and flood the pit latrines, a situation that forced numerous families to live in a totally contaminated and unhealthful environment. Contaminated aquifer (water table) has polluted drinking water wells and flooded pit latrines.**

89. As addressed in Request I,<sup>92</sup> drinking water quality in or near urban areas and its related potential health risks have been regarded as concerns of the highest importance since the preparation of the initial Environmental Impact Assessment (EIA) report for the project in 1992. Persisting deficits in sanitation services, especially in Encarnación (where sewage collection covers less than 20 percent of the population) have created unhealthy conditions throughout the city – open sewers crisscross the city of Encarnación (Annex H).

90. Shallow wells, used for drinking water in the low lying areas of Encarnación, are located in and share the same groundwater table as the pit latrines. Shallow wells and latrines are interconnected by infiltration water after any rainfall event. All these conditions – the dire sanitary conditions of poor people drinking contaminated waters, the pollution of shallow wells by latrines, and the unhealthy conditions of urban creeks – were fully described in the baseline conditions section of the 1992 EIA report.<sup>93</sup> The report noted that: “the deficit in sanitation services poses the highest health risk in the region, especially in the urban areas ... [a] situation exacerbated by latrines which discharge their content into the superficial groundwater table, the principal source of drinking water for a large percentage of the population. This situation is corroborated by the incidence of diarrhea in the area and further aggravated by children swimming in polluted canals in periods of intense heat.”<sup>94</sup>

91. The Yacyretá Reservoir at 76 masl does not cause flooding in the creeks of Poti’y, Mboi Tesá, Pacú Cua, Santa Rosa, Mboi Caé, Itá Paso and San Blas (Map 2). According to the Lotti

<sup>92</sup> See paras. 3.36 and 3.37 of Management’s Response to Request I.”

<sup>93</sup> Quintero, J.D. and R. Roderos. July 1992. “Informe de Evaluación Ambiental – Proyecto Hidroeléctrico de Yacyretá.” Entidad Binacional Yacyretá.

<sup>94</sup> Informe de Evaluación Ambiental - Proyecto Hidroeléctrico de Yacyretá, 1992, page 92.

and Associates study<sup>95</sup>, the floods in the areas of influence of those creeks are not due to the current reservoir level, but rather are primarily due to rainfall in the catchment area of the creeks.

92. As is shown in Figure 6.2, groundwater in those neighborhoods is always above the reservoir level, and is therefore not related to increases in the river/reservoir levels. The variations in the water table are a function of rainfall infiltration and runoff. Therefore, it follows that the interconnection of latrines and the sub-surface groundwater table, and hence, the pollution of shallow wells, is caused by hydraulic conductivity, not by the fluctuations in the reservoir level. The hydrogeological study referenced above includes water quality data for wells in the area of Encarnación.<sup>96</sup> These data indicate the presence of fecal pollution in most wells.

**FIGURE 6.2. INTERCONNECTION OF WELLS AND LATRINES**



93. Under Loan 3842-PA Asunción Sewerage Project, subsequently renamed Reform Project for the Water and Telecommunications Sectors, the Bank financed infrastructure works for 3,000 inhabitants in Encarnación. This loan benefited 600 families in Itá Paso and consisted of: (a) supply and installation of 600 water house connections with their corresponding water meters and meter boxes; (b) supply and installation of 6400 meters of distribution pipes of 50, 100 and 150 mm diameter and the corresponding valves and appurtenances; (c) construction of a reinforced concrete water storage tank and a pump station to house mechanical and electrical equipment for a deep groundwater well plus a chlorinator shed; (d) construction of 600 residential septic tanks and corresponding inspection chambers; and (e) construction of a mid

<sup>95</sup> C. Lotti & Associati. March 1999. "Estudio Hidrogeológico, Topográfico y Geotécnico del Area de Posadas, Garupa (Misiones-Argentina) y Encarnación (Itapua-Paraguay)." Entidad Binacional Yacyretá.

<sup>96</sup> Lotti, 1999, Annex 2, Table 3, page 37.

voltage power transmission line including posts and other appurtenances. The works were satisfactorily carried out, as reported by a Bank mission that visited the site in November 1997.

94. In addition to these actions in Itá Paso, the Bank has showed due diligence by insisting on the provision of water supply to populations in the floodplains through standpipes. In 1997 CORPOSANA designed and built around fourteen temporary facilities through standpipes (EBY later on built seven additional standpipes) intended to provide relief to several communities in the low lying areas of Encarnación.

95. Bank supervision and dialogue with EBY has led to organizing and financing the shoreline treatment works already described above, which have included: removal of vegetation, clean-up of creeks and drains, removal of open solid waste dumps, closure of latrines and open pits, and closure of shallow “wells.”

#### **Claim 2.4.**

**This situation was further aggravated by the housing developments built by EBY in Buena Vista and San Pedro, where the wastewater spills into the Poti’y, Santa María and Mboi Caé creeks, leaving them totally contaminated. This is still further aggravated by the fact that the work planned to resolve the pollution problems will not meet that objective, since, according to a document the organization holds, the planned Wastewater Treatment Plant (WTP) will not benefit these neighborhoods built by EBY, nor others affected by the rise in the water table. As such, the chance to recover or clean up these creeks will be lost for good, and numerous families will be condemned to live in a polluted environment. Attached, on disk, is a study done by the Catholic University, with photos and dates that relate to the degree of environmental pollution.**

96. The recent study carried out by the Catholic University corroborates the situation concerning the poor conditions of the current management of sewage discharges in Encarnación and the numerous discharges of wastewater to creeks and other water bodies. To overcome the very serious sanitation problems posed by this situation, EBY financed the designs and will finance and supervise construction of a new sewage collection system and wastewater treatment plant.

97. CORPOSANA and the Municipality of Encarnación designed and will undertake construction of the sewerage system and wastewater treatment plant. The sewerage system designs are intended to cover 100 percent of all urban areas in Encarnación, including housing developments not built by EBY. The system designed includes waste discharges from Buena Vista and San Pedro areas, which are being discharged into creeks until the sewerage system is completed. However, the pollution loads from Buena Vista and San Pedro are minor when compared to the overall loads from the total population in Encarnación, which also discharge to the same water bodies, and when compared to the assimilation capacity of the Paraná River (less than 0.03 percent of the Paraná River flow rate). Sewerage sub-system networks will be constructed according to priorities (“inner” urban watersheds first, specifically meaning those that drain into the creeks instead of those that drain directly into the Paraná River), and all EBY settlements will be connected.

98. Since the wastewater treatment plant has been designed to treat the discharges of 100 percent of the urban population of Encarnación, it will indeed treat the sewage from the neighborhoods built by EBY in Encarnación. The urban area of Cambyretá will also be connected to this sewerage network. Opposition to the proposed site of the treatment plant in Encarnación delayed the implementation of this system and the project was on the verge of being withdrawn from IDB financing. This opposition occurred in spite of the fact that international experts (contacted by EBY, the Municipality, and the Banks) all agreed that the site was adequate and would not cause the impacts claimed by opponents. The IDB as well as the Bank brought international specialists to study the location and design of the wastewater treatment plant. Both agreed on the adequacy of the location (Annex I) and of the technical specifications of the wastewater treatment plant.<sup>97</sup> A well known international consulting company designed the plant as one utilizing extended aeration lagoons.

99. The Bank has shown diligence in requiring EBY to carry out a program to clean up creeks from garbage and other wastes, and shut down latrines and wells in the area between 76 and 78 masl. The IDB (through Loan 760) will finance the wastewater treatment plant, interceptors, pumping stations, and sewerage network. The construction of the sewerage system will facilitate a full recovery of urban creeks (particularly when coupled with appropriate waste disposal) and is a condition for increasing water levels in the reservoir.

#### **Claim 2.5.**

**Inhabitants of the neighborhood where the plant is supposed to be built (Barrio La Esperanza) are opposed to the resolution for these very reasons. According to documentary evidence that we have attached, the above was decided in violation of the environmental laws (Document No. 1). Document No. 2 was issued by the Office of the Controller. There are no plans for connecting the neighborhood where the plant is supposed to be built to the sewer system, meaning that the neighborhood will become contaminated by the rise in the water table. The selected site needs to be filled in and will not allow for future expansion, meaning that future generations will have trouble benefiting from appropriate sanitation networks. The environmental impact report on the project was defective on various counts, including a lack of participation by the affected parties and by the NGOs, who were concerned about the consequences of the work.**

100. The Bank is aware of the opposition of a small group of inhabitants (mainly from the La Esperanza neighborhood) to the siting of the wastewater treatment plant. The wastewater treatment plant has been sited 300 to 500 meters from the closest urban developments. Neighborhood concerns are based on presumed impacts such as aesthetic concerns, odors, or property values. Despite these concerns, the plant is important and the Bank supports it, because the local community will receive long-term health benefits as it will also be connected to the projected sewer network. As explained above, both the IDB and Bank have contracted international consultants to assist EBY, CORPOSANA, and the Municipality in the location of the plant. These consultants have concurred that the proposed site is adequate and that the plant will not pose any risks to the surrounding communities and the environment (see Annex I).

---

<sup>97</sup> The studies were done by Pacheco Jordao in 1997 and 1998 and by Gustavo Gonzalez in 1998.

101. The Bank reviewed the Environmental Impact Assessment for the wastewater treatment plant, which included analysis of alternative sites and alternative treatment options. The Bank hired a consultant to look more closely at the selected site, and he also found it to be acceptable. Bank staff visited all sites and made recommendations to EBY on buffer zones and other measures. The Environmental Impact Assessment report of Encarnación's wastewater treatment plant was approved by the Secretary of Environment of Paraguay (SEAM). On that basis, SEAM issued the environmental license by Resolution 10 of 1999 (Annex J), confirming the project's compliance with existing Paraguayan legislation. In addition, at the Bank's insistence, meaningful public consultation was carried out regarding the site and design for the wastewater treatment plant early on in the process. Table 6.3 lists the chronology of events and the public meeting held to discuss the siting and design of the wastewater treatment plant.

TABLE 6.3. CHRONOLOGY OF EVENTS ON THE LOCATION OF ENCARNACIÓN'S WASTEWATER TREATMENT PLANT AND ISSUANCE OF ENVIRONMENTAL LICENSE

1995	IDB financed the EIA and issued no objection of EIA study.
11/1995	EBY submitted the EIA of the wastewater treatment plant for approval of Paraguayan Environmental Protection Secretary. The Bank reviewed the EIA and provided comments.
11/1996	La Esperanza neighbors opposed the location of the plant.
05/1997	The Bank's supervision mission requested that EBY conduct public consultations on the location and design of wastewater treatment plant.
10/1997	The IDB in agreement with the Encarnación Municipality contracted independent international consultants to assess the siting and design of the wastewater treatment plant, as well as a review of the adequacy of the EIA.
12/15/1997	One of said international consultants attended a public meeting to discuss the location of the wastewater treatment plant. The public meeting involved more than 110 people from Encarnación and other cities. A group of people organized a public meeting to protest the location of the wastewater treatment plant.
1998	Bank contracted another independent consultant to conduct an additional review of location and design of the wastewater treatment plant.
10/1999	The SEAM issued the environmental license (Annex J).
2001	The bidding documents and proposed selection of contractors were sent to IDB for "no objection."
2001	For reasons unrelated to this issue, IDB did not provide a "no objection" to the process for selecting the contractors.
05/2002	The bidding documents were re-sent to IDB for "no objection."

102. The neighborhood where the plant is supposed to be built will be connected to the sewer system along with all the other neighborhoods in Encarnación. In order to ensure further minimization of visual impacts (aerated lagoons do not produce odors) from the wastewater treatment plant, a vegetation buffer area of 24 hectares around the plant facilities will be established. Construction of the wastewater treatment plant is expected to take about 24 months. To avoid pollution problems during the construction period, the Bank suggested that EBY design and build a primary treatment unit and a submerged outfall that would discharge into the reservoir (Aide Memoire, Supervision Mission of May, 2002). This temporary outfall (which would be decommissioned after the treatment plant is in place) would ensure that wastewater discharges would not impact on the urban population during the construction period and should alleviate the existing pollution problems in creeks close to the population. The plant has been designed for a population of 118,000 inhabitants and a flow rate of 0.43 m<sup>3</sup>/sec and will ultimately discharge into the Paraná River. It also has been designed to accommodate population

growth in Encarnación up until at least 2016, after which the facilities could be expanded to meet future needs.

**Claim 2.6.**

**According to a note we have attached from the meeting held in Ituzaingó, EBY is supposed to build a wastewater treatment plant in the towns of San Juan del Paraná and Cambyretá, but these works are not included in the EBY's plans or projects, meaning that once again, it is committing a gross omission.**

103. The design of the Encarnación sewerage system includes collection of wastewater discharges from Cambyretá, particularly discharges coming from Arroyo Porá (the largest population area of Cambyretá). The discharges from San Juan del Paraná are being discharged directly to the reservoir, since the flow (estimated at 0.001 m<sup>3</sup>/s) and pollution load are insignificant when compared with the assimilative capacity of the Paraná (which flows at an average rate of 13,000 m<sup>3</sup>/s). The sewage from Encarnación and Cambyretá is expected to be treated in extended aerated lagoons at Encarnación's proposed wastewater treatment plant.

**Claim 2.71.**

**The Yacyretá Reservoir is an ideal habitat for the vectors of malaria, leishmaniasis, schistosomiasis, dengue fever, and other serious diseases.**

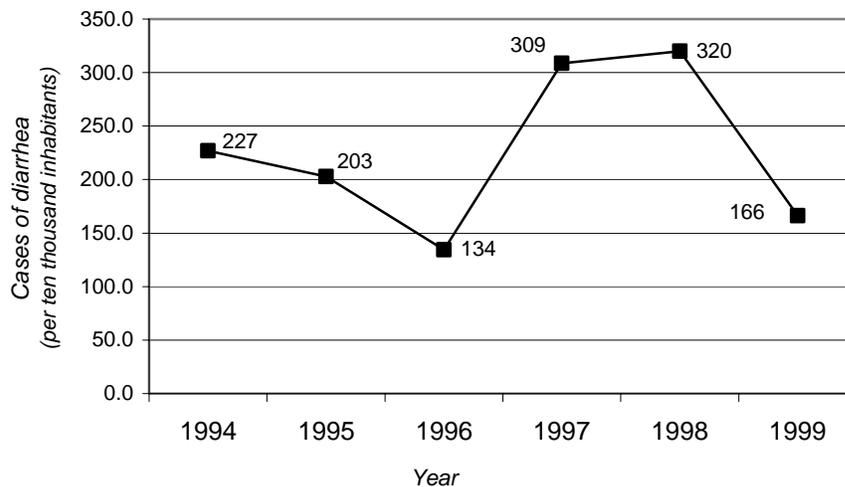
104. This claim refers to issues that have no causal relationship with the raising of the reservoir and its operation at 76 masl. It is true that the mosquito vectors of malaria (*Anopheles darlingi* and *A. albipennis*), dengue fever (*Aedes aegyptii*), and yellow fever are endemic to the Paraná River basin, as are the *Biomphalaria* aquatic snail vectors of schistosomiasis. All these vector species have been present in the Yacyretá Project area (both countries) since long before dam construction began. Waterborne disease vectors and their incidence on the health conditions of the population living in the area of influence of the future reservoir were identified and fully addressed in the 1992 EA report. The EA's EMP proposes sanitation programs for the urban centers, as well as intensive monitoring programs of vector and health conditions in the area.

105. Systematic vector monitoring, supported by the Yacyretá Project, is carried out on a regular basis by the Ministry of Public Health and Social Welfare of Paraguay. It shows no significant increase (beyond normal annual fluctuations) in the populations of any of these vectors, nor changes in species composition, since 1993 (before reservoir filling began). The *Aedes* mosquito vector of dengue fever breeds in small urban water bodies and containers, not in the Yacyretá Reservoir. The fly vector of leishmaniasis occurs in forests and adjacent cleared areas in Paraguay's Alto Paraná Department, but does not breed in or otherwise utilize any part of the Yacyretá Reservoir.

106. Through an agreement with the Ministry of Public Health and Social Welfare of Paraguay, the Yacyretá Project also supports systematic monitoring of vector-borne diseases with a possible link to aquatic habitats potentially associated with the reservoir (schistosomiasis, malaria, and yellow fever). To date, this monitoring has shown that: (a) although the *Biomphalaria* snail vectors are common in the Yacyretá Reservoir and elsewhere in the Paraná River, schistosomiasis is not established within the project area; (b) there have been relatively

few cases of mosquito-borne diseases within the Yacyretá Project area; and (c) none of these disease cases are attributable to environmental changes in the Paraná River since the Yacyretá Reservoir was filled in 1994.<sup>98</sup> The Yacyretá Project has also provided substantial assistance to the Ministry of Public Health and Social Welfare (Paraguay) and the Ministry of Public Health (Misiones, Argentina), to improve their capacity for disease vector monitoring.

**Figure 6.3. Rate of Diarrhea in Encarnación, 1994-99**



Source: Bimonthly Report – Plan de Manejo de Medio Ambiente; No. 22, Entidad Binacional Yacyretá (EBY); May-June 2001, p. 17.

### **Claim 2.72.**

**The Yacyretá Reservoir has caused severe health problems, including diarrhea, anemia, parasitic infections, skin diseases, ectoparasites, and fevers.**

107. This claim was already addressed as part of the Management Response to Request I.<sup>99</sup> However, herein Management will provide additional updated information. As mentioned in the Management Response to Request I, the reservoir has not caused health problems, and since 1997 there is no evidence that the situation has changed. As noted in the response to Claim 2.71, there has been no increase in vector-borne diseases attributable to the Yacyretá Reservoir. In the case of water-related diseases, including diarrheal diseases (Figure 6.3), these are attributable to the pre-existing lack of potable water supply and sanitation services, not to the reservoir. None of

<sup>98</sup> As an example, Paraguay's National Malaria Eradication Service (SENEPA) reports that nine people had been diagnosed with malaria in the Yacyretá Project area between January 1 and June 13, 2002, but that all these patients were recent migrants from areas further north, where malaria is more prevalent. All these malaria cases received timely, appropriate medical treatment. It is worth noting that EBY has made available additional contingency funds (up to US\$160,000 per year in Paraguay and the same amount for Argentina) which can be accessed to address: (a) vector-borne disease outbreaks; and (b) any important increases in mosquitoes or other vectors; to date, these contingency funds have remained unused because of the lack of major disease or vector outbreaks.

<sup>99</sup> See paras. 3.22 and 3.24 of the Management Response.

the diseases mentioned in the claim have increased on a per capita basis within the project area since reservoir filling, and this is despite improved reporting procedures and substantial migration of relatively poor people into Encarnación and nearby urban areas.

108. It is worth noting that, in addition to its continued monitoring of vectors and diseases, the Yacyretá Project is providing a broad range of health services to the families who have been resettled by the project. The urban families resettled by the Yacyretá Project also have access to potable water and adequate sanitation, which substantially reduces diarrheal diseases. This finding is confirmed by recent data from the Ministry of Public Health of Misiones Province (Argentina), indicating that the urban families resettled by Yacyretá (in Settlement A-1) have a much lower incidence of diarrheal diseases than those families still awaiting resettlement (in the neighborhoods of El Zaiman and Villa Flor). Although comparable data (disaggregated by neighborhood) are not available from Paraguay, the same outcome should be expected.

### **Claim 2.8.**

#### **There have been no programs for monitoring and controlling disease-causing microorganisms.**

109. There has been systematic and continuous monitoring in both Paraguay (since 1992) and Argentina (since 1995) of the mosquito vectors of malaria and yellow fever, the snail vectors of schistosomiasis, and the outbreaks of these diseases. This monitoring is funded by EBY and carried out in Paraguay by SENEPA in the Ministry of Public Health and Social Welfare, and in Argentina by the National Universities of Misiones and La Plata, and the Ministry of Public Health of Misiones Province. The terms of all these monitoring arrangements are recorded in operating agreements (*convenios*) between EBY and these other entities. The amounts provided annually by EBY (not counting the above-mentioned contingency funds) include: (a) for vector monitoring, about US\$32,000 in Paraguay and US\$28,000 in Argentina, (b) for disease monitoring and (as needed) treatment, about US\$270,000 in Paraguay and US\$250,000 in Argentina.

110. EBY's continued financial support to this public health monitoring is part of the Yacyretá EMP, which supports the recurrent costs of monitoring public health (vectors and diseases), water quality, aquatic vegetation, and fish populations and migrations, along with the conservation of protected areas, fisheries, and endangered species. The combined recurrent costs of all these environmental monitoring and management activities (for both Paraguay and Argentina) are now about US\$3.7 million annually; this amount would be increased proportionately (taking into account exchange rate fluctuations) if and when the reservoir's operating level is raised above its current 76 masl. It is expected that the entity responsible for operating the Yacyretá Dam will continue to support these recurrent environmental activities (including public health monitoring) for as long as the project continues to generate electricity.

## VII. THIRD SET OF CLAIMS

### Claim 3.1.

#### **The Bank has failed to ensure proper compensation and resettlement to affected people.**

111. Management believes that proper compensation and resettlement has been provided to all families, both census as well as post-census families, living in areas up to 78 masl. The Bank has ensured that families affected by the Yacyretá Project have been properly identified, and those that were living in areas up to 78 masl have been properly compensated, in accordance with OD 4.30<sup>100</sup>. As was mentioned earlier, families included in the updated census of 1990 that were living in areas below 78 masl have been properly identified and compensated and/or relocated through actions included in: (a) the Resettlement and Social Action Plan that was applied until 1992; and (b) the RRAP after 1992 (Annex U).<sup>101</sup>

112. Management assumes that Request II is not referring to proper compensation for lands expropriated as part of the process of implementing the Yacyretá Project, since this was already explained as part of the Management Response to Request I and the arguments presented at the time continue to be relevant.<sup>102</sup>

113. The RRAP prepared in 1992, approved by the Bank, establishes that all families registered in the 1989-1990 census are eligible for resettlement, and the Third Owners Agreement between the Governments of Argentina and Paraguay and the Bank, signed in 1992 and as amended in 1997, establishes that any family not included in the above 1990 census and living in areas up to 84 masl (post-census families) will be resettled and/or compensated by Governments of the respective countries with their own funds. The RRAP includes the provision of land and housing, support for relocation, and a program for social and economic rehabilitation. All the affected people in the project area, whether or not they formally own the affected property, are entitled to a new house and a lot with utilities at no cost. So far, EBY has resettled 5,378 families in new houses or farms (for those in rural areas), including 191 brick makers, in both countries. The rehabilitation programs include adaptation to new homes and neighborhoods, productive projects in rural areas, health, education and community organization.

114. The RRAP continues to be independently monitored and evaluated every year. Sixteen independent international evaluations of the outcome of the resettlement program have been conducted since 1994, and in most recent evaluations, resettled families express a high degree of satisfaction with the physical solutions provided by EBY.

115. The results show that urban families relocated close to workplaces have generally recovered their former levels of income following resettlement. However these resettled families, as the rest of the urban population in Encarnación and Posadas, have been subject to the effects

---

<sup>100</sup> The reservoir is currently operating at 76 masl but resettlement has covered areas up to 78 masl to allow for a buffer zone up to two meters.

<sup>101</sup> This Plan continues to provide the framework for all current and ongoing resettlement actions.

<sup>102</sup> See paras. 3.19 and 3.20 of Management Response, October 30, 1996.

of the economic crises in Paraguay and Argentina.<sup>103</sup> Peri-urban brick makers relocated by EBY are achieving levels of productivity similar to or higher than those prior to resettlement. These brick makers have organized themselves into cooperatives, which were furnished with public services and technical assistance from EBY. The majority of rural families, all of whom lived below poverty level prior to resettlement, has significantly improved living conditions and increased assets. The vast majority of urban, peri-urban, and rural resettled families that were landless and inhabited high flood risk areas prior to resettlement today possess titles to land and houses located above flood levels. Comparisons made in independent evaluations between resettled and non-resettled families in the same region show that the former have dramatically improved their livelihoods and standards of living.<sup>104</sup>

116. However, independent evaluations have also made it clear that there are unanticipated problems with respect to urban families resettled on sites relatively distant from the commercial center of Encarnación. Some of the families in Itá Paso and Arroyo Porá are experiencing difficulties in restoring their pre-resettlement levels of income and maintaining their linkages to the local economy, partly because of distance from the urban center. Most affected families are those: (a) working in informal sector activities; (b) headed by women; (c) consisting of senior citizens; and (d) with less education and work skills. Difficulties are related to the extra cost and availability of transport, and the loss of competitiveness relative to other low-income families living in closer proximity to the commercial center.

117. Following the Inspection Panel Review as endorsed by the Board in 1997, EBY and the Bank began to recognize the issues and EBY is implementing a series of short- and long-term measures to:

- Mitigate adverse economic impacts to families already resettled in Itá Paso and Arroyo Porá;
- Assess future resettlement alternatives in light of potential negative economic impacts. As part of this effort, the Bank recommended conducting, prior to any resettlement organized as part of the PDA, an assessment of potential socioeconomic impacts, including baseline information on the community and each of the families. In addition, the Bank approved financing from Loan 2854-AR to organize a macro study of past and potential future economic impacts associated with the relocation programs;
- Design actions to support the economic rehabilitation of resettled families in sustainable ways. The Government of Paraguay with the support of EBY has created a fund of US\$6.0 million dollars for activities to support the economic rehabilitation of families resettled by EBY or that have otherwise experienced negative economic impacts as a result of Yacyretá. The Bank expressed to EBY that these are steps in the right direction but it also pointed out that more systematic and transparent mechanisms need to be created.
- To the extent that resettled families were and continue to be affected by general poverty conditions and the economic crisis in Paraguay and Argentina, the Bank has also provided support to the Government of Paraguay through a Pilot Community Development Project

<sup>103</sup> Scombatti, Marilia and de Carvalho, Raul. 2000, 2001. Evaluaciones Independientes del PARR, vols. 2-13.

<sup>104</sup> Scombatti and de Carvalho. vols. 5 and 10.

which targets communities within the Yacyretá area of influence. As previously mentioned, families resettled and/or compensated to date are only a fraction of the total number of people that would need to be resettled and or compensated in order for the Yacyretá Reservoir to be raised to 83 masl.<sup>105</sup> So far those resettled and/or compensated are those census and post-census families that were living in areas up to 78 masl. The PDA in addition will resettle and/or compensate a small subset of families living between 78 and 84 masl who face high flood or environmental risk. Families to be resettled as part of the PDA will also be resettled and/or compensated according to the guidelines and standards of the RRAP, which has been approved by the Bank and is in compliance with Bank policies and procedures.

118. Bank supervision has been proactive in dealing with the situation, searching for solutions when they are feasible. The most important factors forcing relocation to sites removed from the Encarnación commercial center are: (a) the lack of an appropriate Expropriation Law in Paraguay that allows acquisition of lands at reasonable prices; (b) the increased number of post-census families that have had to be relocated as part of Plan B and the PDA; and finally (c) the growing budget limitations of the Government of Paraguay and the resulting difficulties in buying lands near the city center and along urban expansion axes for resettlement of post-census families. Table 7.1 summarizes the problems or elements that have forced resettlements at distant locations such as Itá Paso and Arroyo Porá, and most importantly the actions taken by the Bank.

TABLE 7.1. ISSUES RELATED TO RESETTLEMENT OF FAMILIES TO SITES REMOVED FROM ENCARNACIÓN CITY CENTER

Element	Impact on Resettlement Program	Bank's actions
Lack of Expropriation Law in Paraguay.	<ul style="list-style-type: none"> <li>• Because of the lack of this law, EBY was not able to acquire additional land for urban resettlement.</li> </ul>	<ul style="list-style-type: none"> <li>• Bank supervision repeatedly noted to EBY the need for such a law.</li> <li>• Eventually, Bank rated project as unsatisfactory.</li> <li>• New lending operations to Paraguay were put on hold until, among other things, the law was approved.</li> <li>• An Expropriation Law was passed in 2001 by Congress; however, because it contained a number of unsatisfactory articles, the Bank expressed its concern about their implications for the future of the project. The Government is currently reviewing the Law to address these concerns.</li> </ul>

<sup>105</sup> If and when the reservoir reaches an operating level of 83 masl, there will be an additional area of one meter (up to 84 masl) that will be cleared of all construction.

Element	Impact on Resettlement Program	Bank's actions
New arrivals of families in the affected area between 78 and 84 masl. Despite improved controls in areas between 76 and 78 masl problems persist.	<ul style="list-style-type: none"> <li>• Increased number of families claiming resettlement.</li> <li>• Increased cost of the Project.</li> <li>• Difficulty in finding suitable land to accommodate increasing number of families.</li> <li>• Difficulties to complete the Resettlement Plan, especially with respect to post-census families that have to be relocated with government funds.</li> </ul>	<ul style="list-style-type: none"> <li>• As can be seen in Annex B, Bank supervision missions have repeatedly touched on the issue and made recommendations.</li> <li>• Eventually, Bank rated the project as unsatisfactory because of lack of control in the affected area.</li> <li>• The situation improved in the area up to 78 masl but between this level and 84 masl the situation needs further improvements.</li> <li>• Bank supervision continues to discuss existing problem with EBY.</li> </ul>
Inadequate resettlement of post-census families carried out by the government (case of Itá Paso).	<ul style="list-style-type: none"> <li>• Lack of adequate houses and services for resettled families.</li> <li>• Lack of assistance programs to restore the socioeconomic networks.</li> <li>• Increased cost of transportation for resettled families to access their sources of income.</li> </ul>	<ul style="list-style-type: none"> <li>• Bank requested Government of Paraguay to take measures in order to improve the conditions of these families.</li> <li>• As a result of Bank requirements, EBY took the responsibility of improving the resettlement conditions of Itá Paso on behalf of the Government of Paraguay.</li> <li>• New houses, service infrastructure and public buildings were built.</li> <li>• Socioeconomic programs have been developed. The Bank has required a more systematic design and implementation of these programs.</li> </ul>

### Claim 3.2.

#### **Compensation approved for Itá Paso, Santa Rosa, and Arroyo Porá are insufficient to allow families to buy new land and rebuild the homes.**

119. Of the total affected population of the Yacyretá Project, 92 percent are urban. Of this affected urban population, 87 percent are occupants without titles that have small lots with precarious houses located in areas without running water, sewerage lines, or garbage collection. This, coupled with run-down living conditions, contributed to the poor environment and health conditions in the area. A high percentage of the affected families have very low incomes and are linked to the informal sector with no social security or benefits. The socioeconomic impact study financed by Loan 2854-AR, scheduled to be completed in July 2002, has found a situation of extreme poverty within the project area, with 50 percent of the population living below the poverty line and per capita incomes of less than US\$2 per day; 20 percent of those living in extreme poverty earn less than US\$1 dollar per day.<sup>106</sup>

120. All families resettled as part of Plans A and B, as well as those families in Itá Paso, Santa Rosa and Arroyo Porá, have been compensated with properties and constructions that were

<sup>106</sup> Diagonal Urbana. Evaluación de Impactos Socioeconómicos.

above the replacement cost of their former lots and homes. Levels of poverty of the people resettled, in general, were high and as a result the values of the properties they occupied were extremely low. For example, 55 percent of the houses included in Plan B in Encarnación had a value less than US\$3,000. For these reasons and with Bank advice, EBY designed the RRAP to compensate poor families according to replacement value or better.

121. Despite the low property values of the affected houses and lack of formal ownership, EBY resettled each of these families on a 360m<sup>2</sup> lot, with public service infrastructure and a 45 m<sup>2</sup> brick house in new resettlement housing developments (Annex C) equipped with community resources (schools, health clinics, sports complexes, churches and police stations, etc.). However, in any situation where replacement values were higher than the cost of the home provided by EBY, families were compensated for the difference.

### **Claim 3.3.**

#### **There are no plans to restore productive infrastructure of relocated families.**

122. Management believes that this claim is based on incomplete and outdated information about the way the RRAP is structured and is currently operating. As previously mentioned, the RRAP includes the provision of land, housing, support for relocation, and a program for social and economic rehabilitation. All the affected people in the project area, whether or not they formally own the affected property, are entitled to a new house and a lot that provides access to infrastructure and services at no cost. Services are installed and house connections are in place free of charge. As previously mentioned, replacement housing cost equals or exceeds that of the original lost houses (low income families whose homes have low replacement cost are provided with homes with a value that surpasses replacement cost). It is important to mention that families are required to pay for any monthly service charges (water and electricity consumption). So far, EBY has resettled 5,378 families in new houses or farms (for those in rural areas), including 191 brick makers in both countries. The RRAP is being carried out by a Social Team in each country and some of the rehabilitation programs have been implemented through agreements with Government ministries, universities and NGOs. The rehabilitation programs include adaptation to new homes and neighborhoods, productive projects in rural areas, health, education and community organization.

123. The rehabilitation component considers economic support for rural people and brick makers. The RRAP did not include economic reestablishment for urban people, because in 1992 there was no evidence of loss of income in urban resettlements carried out by EBY. Up until 1996, resettled urban families encountered no major alterations in their economic activities, because their new neighborhoods were located in close proximity to the urban areas of Encarnación and Posadas. As mentioned above, the problems presented by relocation sites further from the city center were not anticipated by EBY. The Bank's supervision team also did not identify this as an issue that needed further study and/or actions at that time. It was not until after 1997 that preventive and compensatory actions were adopted by EBY and the Bank for the more peripheral resettlement housing developments.

124. To address this situation, EBY and/or the Government of Paraguay have designed and, in some cases implemented, a series of activities including:

- Creation of a Productive Fund (US\$6 million dollars) to support productive projects proposed by the families and communities. The Secretary of Social Action of Paraguay trains and supports interested families in the preparation of proposals to access this fund (see Annex K);
- Promotion of private employment of resettled families. EBY is working with private construction contractors, promoting hiring of resettled families from Itá Paso and Arroyo Porá as construction workers. As an incentive, EBY provides the contractor a subsidy equivalent to the employer's contribution to the social security system and other labor taxes;
- Subsidized transport for families for the first six months after relocation;
- Free school transportation to all families up until the time that the new school built in the neighborhood is completed;
- Design and development of family gardens, for which EBY offers technical assistance and facilitates the inputs;
- Creation of a nine-hectare community plantation in Arroyo Porá in which families plant a range of produce for domestic consumption, with the assistance and support of EBY;
- Design of milk production projects, a plant nursery, and investigation of ways to effectively market and sell vegetables; and
- Training and capacity-building workshops for various trades (hair dressing, carpentry, electrician, etc.).

125. In order to systematize and reinforce the activities described above, EBY prepared under the PDA a Plan of Rehabilitation and Social Support that includes community-based programs for re-establishment of economic activities, including identifying interests and skills and providing assistance in the formation of micro-enterprises. During the last Supervision Mission (May 2002) EBY expressed interest in receiving advice from the Bank to design a "local development fund" that could operate independently and on the basis of objective criteria. The fund could incorporate NGOs and other civil society groups in the process of analyzing requests, making decisions, and monitoring its operations. A request for extending the closing date for Loan 2854-AR has been presented, including a proposal to reallocate resources to support the creation of this fund. Management is currently considering the request.

126. Despite the ongoing efforts, the greatest challenge for the RRAP in the urban sectors is to re-establish and improve the linkages of these populations to the local economy, ensuring that they maintain their sources of income or develop new ones, and helping them become more productive and competitive. An important lesson learned is that sites located along urban expansion paths facilitate the integration of the newly created communities into the urban fabric and thus assist reinsertion of displaced people into urban labor markets.

127. Those seeking greater “restoration of productive infrastructure” can potentially be assisted through the recently approved Pilot Community Development Project (P0-69269)<sup>107</sup> referred to previously. This project “seeks to improve the quality of life and social inclusion of poor rural and marginal urban communities in three departments on the southern border of Paraguay (Itapúa, Misiones, and Ñeembucú).”

#### Claim 3.4.

#### Compensation to brick makers only benefited owners but did not compensate workers and their situation has deteriorated.

128. The RRAP, approved by the Bank in 1992, included the following alternatives for small brick makers and roof tile makers (see also Annexes M and N):

**TABLE 7.2. ALTERNATIVES INCLUDED IN THE RESETTLEMENT PLAN FOR BRICK AND ROOF TILE MAKERS**

Brick makers (mostly small family owned business)	<ul style="list-style-type: none"> <li>• <b>Option 1:</b> House and a plot for production unit</li> <li>• <b>Option 2:</b> Rural relocation (plot of 7.5 hectares and a house in a new rural resettlement. Technical agricultural assistance, inputs for production, social assistance, food supply for 6 months)</li> <li>• <b>Option 3:</b> Urban house and compensation for change of economic activity</li> <li>• <b>Option 4:</b> Cash compensation</li> </ul>
Roof tile makers (mostly medium and large size business)	<ul style="list-style-type: none"> <li>• <b>Option 1:</b> Compensation for self resettlement due to their managerial capacity</li> </ul>

<sup>107</sup> The Pilot Community Development Project in Paraguay will finance small scale demand-driven sub-projects prepared and submitted by groups of eligible beneficiaries. These would include *income generation sub-projects* including agricultural diversification (such as raising of pigs, chickens, flowers), small enterprises, artisan workshops, eco-tourism, services such as laundries, processing facilities, community markets, and the like, as well as *community development sub-projects* for activities that would complement productive investments such as child care facilities, community centers, child/youth development, among others.

*While the Project is demand-based and all eligible populations can access the project, geographic targeting of eligible communities will be used to identify priority areas for further institutional and organizational development assistance to ensure that vulnerable non-organized groups and municipalities with scarce resources have a fair opportunity to access project resources. Potential beneficiaries will be screened to ensure that they meet eligibility criteria based on easily observable indicators that reflect unsatisfied basic needs (housing, water and sanitation), productive assets, and household vulnerability (gender, ethnicity, age), according to the targeting and eligibility criteria set forth in the Operational Manual.*

To facilitate project implementation, the project will finance support services, including technical assistance (pre-investment for non-organized groups), training and organizational development, and the implementation of a participatory monitoring and evaluation system. The project is expected to assist at least 3,700 poor and vulnerable families, comprising approximately 18,500 direct beneficiaries. While the project is not targeted to Yacyretá-affected populations, those meeting the targeting and eligibility criteria set forth by the project (poverty and vulnerability) could prepare and submit proposals as other potential beneficiaries and would receive technical and financial assistance for sub-project design and implementation.

129. The RRAP also highlighted the need to develop specific studies to identify the areas for relocation of brick makers (Annexes L and O). EBY contracted a study in 1993 to ensure compliance with OD 4.30, and results were available in 1994.

130. In the meantime, brick and roof tile makers living and operating above 84 masl began demanding anticipated compensation, based on the argument that they would lose access to their traditional sources of clay as a result of the filling of the reservoir to 83 masl (Annex M).

131. After all the studies, a large number of brick and tile makers, including those operating at levels above 84 masl, engaged in a long and complex process of negotiation with EBY and selected cash compensation as the preferred option. Table 7.3 presents a summary of the number of brick and tile makers that were compensated and/or resettled during the period 1994 to 1996.

**TABLE 7.3. ALTERNATIVES SELECTED BY BRICK AND ROOF TILE MAKERS**

Alternative	No. of productive units	Total Compensation Paid by EBY (US\$)
<b>Brick makers</b>		
Relocation	97	2,785,650
Compensation	334	3,607,760
Compensation for loss of clay deposit (paid to brick makers above 84 masl)	94	611,000
<b>Sub Total</b>	<b>525</b>	<b>7,004,410</b>
<b>Roof Tile Makers</b>		
Cash compensation for self relocation	54	4,545,981
Compensation for loss of clay deposit (paid to ceramists above 84 masl)	48	3,000,000
Compensation	2	2,752,400
<b>Sub -Total</b>	<b>104</b>	<b>10,298,381</b>
<b>TOTAL</b>	<b>629</b>	<b>17,302,791</b>

Source: EBY

132. The relocation option included a 0.5 hectare plot for production unit, five years of clay trucked into plot (this service is still being provided by EBY), house plot and house with water, electricity, drainage and sewerage, community buildings, schools, health center, food supply for six months, social and technical assistance, grant of US\$2,500 in compensation of lost time. This package was used to ensure reestablishment of production for the 97 family-business brick making enterprises that were resettled (92 now constitute the San Pedro Industrial Park in Encarnación [Annex O], and 5 were re-established in the Coronel Bogado Municipality).

133. The great majority of those compensated were family owned businesses with some temporary or seasonal laborers. A firm contracted by EBY in 1993 produced a report evaluating alternative solutions for the brick makers and found 2.2 workers per brick making enterprise (the owner and a relative were the most common situation). For those who selected cash compensation, EBY began in 1994 to offer training courses to the brick makers through the Servicio Nacional de Promoción Profesional. These courses on various marketable skills were very well attended, but the impact on employment has not been very significant due to the recession in the country and region.

134. Regarding the roof tile makers, an independent evaluation done from 1997 to 1998 found that 13 of the industries had relocated and 11 of those had continued producing, 16 did not move and continued production in the same spot in which they had been, and 25 had been discontinued.

135. The industries that relocated or continued producing in the same place did not have to fire employees and those that were compensated but did not continue production had to give workers severance pay as stipulated in Articles 78, 79, 80 and 91 of Law 213 (Work Code of the Paraguayan Republic, 1993, Annex P). During the period 1994 to 1996, when discussion about compensation to brick and roof tile makers was under way, the Bank as well as EBY worked under the assumption that Paraguayan labor laws would be applied effectively. As a result, analysis and discussion were focused on compensating owners of brick and tile making businesses and it was assumed that employers would proceed according to the law and properly compensate their employees. At the time, the assumption appeared justified by: (a) the prevalence of small businesses using fundamentally family labor; and (b) the existence of clear laws and regulations establishing the employers' responsibility. In addition, this treatment of the situation was in line with the RRAP approved by the Bank in 1992.

136. Looked at with the benefit of hindsight, this assumption was optimistic, because the Bank supervision team assumed effective application of the law. However, there are limits to how far EBY (and thus indirectly the Bank) can and should be required to monitor the ultimate use of the compensation paid.

137. While EBY has fulfilled its legal obligation in compensating the brick factory owners (who were bound by Paraguayan law<sup>108</sup> to give their employees a severance payment), Management will advise EBY to support claimants through the three following actions: (a) provide legal support for the claimants to pursue solutions through the Paraguayan legal system; (b) provide technical assistance to unemployed brick makers in formulating projects and presenting them for consideration to the Pilot Local Development Fund; and (c) show brick makers how to apply for support through the Productive Fund, which was set up by EBY and the Government of Paraguay to support economic rehabilitation of resettled families or anyone who may have experienced negative economic impacts as a result of Yacyretá.

138. The actions taken until 1996 resolved all of the cases of brick factories below 84 masl (recorded in 1993), and included compensation to all those at higher levels who would be affected by subsequent lack of access to clay deposits, in accordance with OD 4.30 on Involuntary Resettlement.

139. In the years following the compensations of 1994-1996, there has been a mushrooming of claims from people claiming to have been involved in tile and brick making, who want to receive the same benefits as those granted to tile and brick makers included in the census of 1990. As of today, there are 840 new brick makers expecting compensation. The Governments of Argentina and Paraguay as well as EBY are assessing whether payment is to be made to these new brick makers. This is part of the ongoing process of preparing a plan to raise the level to 83 masl.

---

<sup>108</sup> Brick factories were bound by the project (Annex N) and Paraguayan Labor Law to compensate their employees and give them severance pay.

Management considers that this issue needs to be studied further and a solution should be found before any plan to raise to 83 masl is approved by the Bank. The Bank has been and will continue working with EBY and the Governments to ensure that any plans for the future elevation of the reservoir are compatible with relevant policies.

## VIII. POLICY COMPLIANCE AND CONTINUED ENGAGEMENT

140. In a final section of the Request, the Requesters claimed that the Bank had violated six of its policies. However, it did not link the policies to any particular action nor to any of the previous claims. The six policies in question are listed below with their titles and core objectives.

<b>D. OD 4.00 Annex B</b>	<b>E. Environmental Policy for Dam and Reservoir Projects</b> • To minimize or mitigate adverse effects and enhance beneficial ones.
<b>OD 4.01</b>	<b>F. Environmental Assessment</b> • To improve decision making and ensure that project options under consideration are environmentally sound and sustainable; • To recognize environmental consequences early in the project cycle and take them into account in project selection, siting, planning, and design; • To prevent, minimize, mitigate, or compensate for adverse impacts.
<b>OD 4.30</b>	<b>G. Involuntary Resettlement</b> • To address resettlement early in the project cycle to: (a) avoid and minimize involuntary resettlement; (b) undertake involuntary resettlement as development program; (c) encourage community participation in planning and implementing resettlement; (d) help resettlers to become socially and economically integrated into the host community; and (e) compensate resettlers appropriately.
<b>OD 13.05</b>	<b>H. Project Supervision</b> • To ensure borrower implements project with due diligence to achieve the agreed development objectives; • To identify problems as they arise; • To cancel a project if its continuation is no longer justified; • To disseminate significant lessons learned; • To use experience gained to improve design of future projects; • To prepare Project Completion Reports.
<b>OD 10.70</b>	<b>I. Project Monitoring and Evaluation</b> • To improve overall management practice within borrower agencies; • To identify project design problems; • To measure changes attributable to the project.
<b>OD 13.40</b>	<b>J. Suspension of Disbursements</b> • To establish procedures for suspending disbursements.

141. Claims relating to the Environmental Policy for Dam and Reservoir Projects, Environmental Assessment, Involuntary Resettlement, Project Supervision, and Project Monitoring and Evaluation have all been extensively elaborated in the preceding sections of the Response. Where relevant, links to policies were made. For example, public consultations and siting studies were undertaken for the wastewater treatment plant EIA, as required under OD 4.01, as were resettlement activities, consistent with the objectives of OD 4.30, which included

avoiding and minimizing involuntary resettlement, and aiding resettlers to become socially and economically integrated into their new communities.<sup>109</sup>

142. Operational Directive 13.05 on Project Supervision requires that the Bank supervise the projects it helps finance. However, the supervision responsibility of the Bank extends to all project components, including those components for which the borrower and others provide the financing.

143. Sound Bank supervision is evidenced, for example, by frequent contact with borrower and implementing entity personnel, by repeated field visits to the project site and, most importantly, by sustained analysis of project issues and response thereto (Annex B). This response can take many forms, one of which involves the exercise of legal remedies (such as suspension of loan disbursements because of borrower or implementing entity failure to comply with legal obligations pertaining to the project).

144. The exercise of such remedies is by no means mandatory. Consequently, the fact that remedies are not exercised is not an indication that sound supervision has not taken place and that Bank management has therefore failed to apply the Bank's supervision policy. The Board Resolution establishing the Panel (IBRD 93-10; IDA 93-6) confers on the Panel the power to investigate situations where the Bank has "failed to follow up on the borrower's obligations under loan agreements" (para 12).

145. As indicated in paras. 11 and 12, the Board endorsed the Inspection Panel's proposal that the Bank maintain its financing of, and engagement in, the Yacyretá Project as an indispensable contribution towards protecting the legitimate interests of parties affected by the consequences of the dam. It is Management's position that, fully consistent with this Inspection Panel recommendation endorsed by the Board, engagement in (and, obviously, financing of) the project would under current circumstances not be best served by exercising legal remedies. As reported to the Bank's Board through various Progress Reports (Annex Q), Plan B is behind schedule; the Encarnación wastewater treatment plant has yet to be built; and delays in project implementation are evident. Nevertheless, despite the constraints and complexity of the situation, EBY is not a recalcitrant project implementing entity but one that tries to find solutions to difficult issues as they arise, is engaged with the Bank and is receptive to Bank suggestions. In this context, it is Management's judgement that exercising legal remedies could well prove to be counterproductive.

146. In fact, the most important leverage exercised by the Bank in supervising the Yacyretá Project is not directly related to remedies, but instead to the legal requirement that the Bank give its no-objection to raising of the reservoir beyond 76 masl. Making sure that all social and environmental commitments are met if and when the reservoir is raised has been the keystone of the Bank's supervision efforts. Given that EBY, Argentina and Paraguay are all committed to raise the reservoir so as to generate more hydroelectric power and revenues, this leverage, reinforced by constant Bank supervision, has been vital in keeping the social and environmental agenda of the project moving, albeit slowly, in the right direction.

---

<sup>109</sup> See Annex C photographs showing newly resettled communities equipped with infrastructure such as schools, health clinics, sports complexes, and community centers. The PDA and other options are available for restoring productive infrastructure and learning skills for economic integration.

## IX. CONCLUSION

147. Management believes that this Response will provide the Inspection Panel sufficient and adequate information concerning Request INS/RQ02/1. The Request primarily centers on claims that the Bank has violated its policies with respect to Environmental Assessment, Involuntary Resettlement and Supervision regarding the Yacyretá Project. In this respect, there are three clear conclusions directly related to the claims:

- The reservoir's water quality is constantly monitored, falls within satisfactory parameters, poses no significant health risks to people living in the vicinity of the reservoir and thus represents no harm attributable to the claim of violation of Bank policy on Environmental Assessment. Although unrelated to the Yacyretá Project, to address concern about issues of sanitation, the Bank is assisting with the construction of a wastewater treatment plant to serve the Paraguayan city of Encarnación. The design and location of this plant have been subject to appropriate analysis under the Bank's policy on Environmental Assessment, and found satisfactory.
- With respect to the claims related to resettlement, the conclusion is that no harm attributable to violation of the Bank's policy on Involuntary Resettlement exists because: (a) the flooding of urban creeks is due to hydrological conditions predating the Yacyretá Project (that is, the affected area consists of a floodplain that has regularly flooded to levels well above 76 masl since long before the reservoir was formed); floods are caused by rainfall, and stagnant pooling is further aggravated by the dumping of solid waste that obstruct creek drainage; (b) given the above, EBY is not responsible for the living conditions of those residing along the creeks and thus need not resettle them until and if a raising of the reservoir level beyond 76 masl makes such resettlement imperative; the PDA offers reasonable resettlement solutions that improve the living conditions of those whom it covers and is consistent with the requirements of the Bank's policy on Involuntary Resettlement; (c) other EBY resettlement programs are compensating and otherwise treating affected parties appropriately and consistently with Bank policy; and (d) once EBY compensated the brick making enterprises, such enterprises (and not EBY) were responsible under Paraguayan law for compensating their employees.
- With respect to the claim related to the Bank's policy on Supervision, Management believes that it has thoroughly supervised the Yacyretá Project following the Panel's 1997 report, paying particular attention to the social and environmental concerns of parties affected by the operation.

148. Given that Request I and its subsequent analysis by the Inspection Panel thoroughly covered practically the entire reality of the Yacyretá situation as it stood around mid-1997, that reality and the decisions and circumstances leading up to it should not be re-examined now. Only those allegations made in Request II that relate to developments since 1997 should therefore fall within the Inspection Panel's jurisdiction according to paragraph 14 (d) of the Board Resolution. Management submits that the only such new developments are those involving: (a) the PDA designed in 1998; (b) the siting of the future wastewater treatment plant for the Paraguayan city of Encarnación; (c) resettlement progress since 1997; and (d) Management's supervision efforts since 1997.

149. This Response makes clear that Argentine, Paraguayan and EBY compliance with their obligations has at times been slow and uneven (largely because of the significant financial and institutional constraints they face), but Management submits that its supervision efforts have helped keep the Yacyretá Project moving in a positive direction that would have been jeopardized had the Bank chosen to exercise legal remedies as part of such supervision. Moreover, Management has periodically informed the Board about the evolution of and challenges confronted during project implementation.<sup>110</sup> Since 1997, the Bank has been careful and diligent in requiring mitigation of adverse impacts and provision of benefits for affected peoples in the project area, in what are very challenging and complex circumstances environmentally, politically, socially and economically. This position is in line with the Bank's policy on Supervision and with the Board-endorsed recommendations of the Inspection Panel, stemming from Request I.

150. The remainder of the Loan 2854-AR disbursements is designed to strengthen local institutional capacity, thereby consolidating the advances made through the project, including those shown in the Annexes. The Bank will continue to actively supervise project implementation until the closing of Loan 2854-AR. It will also continue to make its best efforts to resolve pending issues until the repayment of the loan.

151. In conclusion, based upon the duplication of some claims in both Request I and Request II, the absence of causal links between Bank action and the harm claimed by the Requester, the solutions in place for eligible families and families at high risk, the Bank's close supervision,<sup>111</sup> and emphasis on compliance with the 1997 Panel and Board recommendations, Management believes that Request II should be denied by the Inspection Panel.

---

<sup>110</sup> See Progress Reports dated February 3, 1997 (SecM97-74), April 21, 1998 (SecM98-293), May 14, 1999 (SecM99-333), and January 20, 2000 (INSP/SecM2000-1). The Board has also been given a copy of the June 28, 2001 Implementation Completion Report for Loan 3520-AR. In addition, a progress report was recently prepared which the Region is planning to submit to the Board. The above-cited Progress Reports are contained in Annex Q.

<sup>111</sup> Supervision Table, Annex B.