BANK MANAGEMENT RESPONSE TO REQUEST FOR INSPECTION PANEL REVIEW OF THE ROMANIA MINE CLOSURE AND SOCIAL MITIGATION PROJECT (IBRD LOAN NO. 4509-RO)

Management has reviewed the Request for Inspection of the Romania Mine Closure and Social Mitigation Project (IBRD Loan No. 4509-RO), received by the Inspection Panel on January 6, 2006 and registered on January 17, 2006 (RQ06/2). Management has prepared the following response.

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ABBREVIATIONS AND ACRONYMS

BP Bank Procedures
BTOR Back to Office Report

CGMC Central Group for Mine Closure

DfID Department for International Development (United

Kingdom)

ECSSD Environmental and Socially Sustainable Development,

Europe and Central Asia Region

EMP Environmental Management Plan

EU European Union

IBRD International Bank for Reconstruction and Development

ICB International Competitive Bidding

IPN Inspection Panel

MCSMP Mine Closure and Social Mitigation Project

NAD National Agency for Development and Implementation of

Reconstruction Programs for Mining Regions

NAMR National Agency for Mineral Resources

OD Operational Directive
OP Operational Policy

PAD Project Appraisal Document
PID Project Information Document
PIU Project Implementation Unit
PMU Project Management Unit

SEA Sector Environmental Assessment

Currency Unit

USD 1.00 = 2.99887 RON RON 1.00 = 0.3345

As of February 10, 2006

I. INTRODUCTION

- 1. On January 17, 2006, the Inspection Panel registered a Request for Inspection, IPN Request RQ06/2 (hereafter referred to as "the Request"), concerning the Romania Mine Closure and Social Mitigation Project (Loan No. 4509-RO) financed by the International Bank for Reconstruction and Development (the Bank).
- 2. Structure of the Text. The document contains the following sections: Section II presents information regarding the Request and Section III provides background to the Project. A summary of Management's esponse is provided in Section IV. Annex 1 presents the Requesters' claims, together with Management's detailed responses, in table format. Additional annexes include: a chronology of the Vermesti mine site in Annex 2; a more detailed discussion of water management at the site in Annex 3; information on flooding in the Trotus River watershed in Annex 4; and a table listing World Bank missions during Project preparation and supervision in Annex 5. Maps of the region and of the mine site follow the Annexes (Map 1, IBRD No. 34493; Map 2, IBRD No. 34494; and Map 3, IBRD No. 34542).

II. THE REQUEST

- 3. The Request for Inspection was submitted by the Company SC Ergio Prod SRL (hereafter referred to as "Ergio Prod") on its own behalf and on behalf of 30 inhabitants who live in the area known as Vermesti, Comanesti City in Bacau County in Romania. Ergio Prod is a company specialized in wood processing and is situated at the Vermesti Mines road in Vermesti. (hereafter referred to as the "Requesters").
- 4. Attached to the Request are:
 - Copies of communications sent to, inter alia, the Ministry of Economy and Commerce and the Investigation Hot-Line of the Bank since November, 2003;
 - Photographs of the company property, the Vermesti Mine Road and surrounding agricultural land;
 - A copy of 30 signatures of inhabitants from the area, authorizing SC Ergio Prod SRL to represent them and act on their behalf.

No further materials were received by Management in support of the Request.

5. The issues raised by the Requesters are of a local nature and limited to one mine site. The Requesters express concern that the mine access road (about 2 km) has deteriorated as a result of Project-related transportation by heavy vehicles and that a portion (800 m) of a small ephemeral channel (Vrânceanu brook) that evacuates runoff from the mine site and the neighboring hills, has filled with sediment from the mine, thereby contributing to flooding of their property. They further state that they have tried

to contact both the Ministry of Economy and Commerce and the World Bank, who did not respond adequately.

6. The Panel has noted that the Requesters' claim may constitute a failure of the Bank to comply with various provisions of OD. 4.01 (Environmental Assessment), OD/OP/BP 13.05 (Project Supervision) and the World Bank Policy on Disclosure of Information.

PROJECT DESCRIPTION

- 7. **Project Funding and Responsibilities.** The Mine Closure and Social Mitigation Project (MCSMP) was approved by the Board of Executive Directors on August 31, 1999 and became effective on January 27, 2000. The Project is financed by an IBRD Specific Investment Loan for USD44.5 million, with parallel co-financing from the UK Department for International Development (DfID) of approximately USD4.2 million and Romanian counterpart funding of USD12.8 million for a total Project cost of USD61.5 million. The Project closing date was originally June 30, 2005 and was extended until June 30, 2006. As of February 6, 2006 USD36.13 million, or 81 percent of the loan, had been disbursed.
- 8. A follow-on project, the Mine Closure, Environment and Socio-Economic Regeneration Project (MCESERPP) was approved by the Board of Executive Directors on December 16, 2004 and became effective on June 27, 2005. This second Project is also financed by an IBRD Specific Investment Loan, in the amount of USD120 million, with Romanian counterpart funding of USD29.5 million, for a total Project cost of USD149.5 million. As stated in the Notice of Registration, in their request, the Requesters refer only to this follow-on project and not to the MCSMP. In a footnote to the Notice of Registration, however, the Panel itself noted that

In the Request, the Requesters refer to the more recent World Bank-financed "Mine Closure, Environmental and Socio-Economic Regeneration Project," which was approved on December 16, 2004 and went into effect on June 27, 2005. According to the PAD, this Project constitutes one of several interrelated elements of the World Bank supported reform process of the Romanian mining sector. After an initial review, the Panel understands that the Request also concerns another Project named the "Mine Closure and Social Mitigation Project," which covers the area in which the Requesters are situated and which, according to the PAD, is another of the interrelated elements of the World Bank-financed reform process (PAD for a Mine Closure, Environmental and Socio-Economic Regeneration Project, November 18, 2004, p. 1)."

Although the two projects share a joint management structure, the mine closure activities at the Vermesti mine site referred to in the Request are exclusively under the first project (MCSMP). Therefore, while the Inspection Panel was correct to determine that the Request actually concerns the MCSMP, Management would wish to clarify that the matters raised in the Request are not related, in any way, to the activities financed under the follow-on project.

9. The Borrower's representative is the Ministry of Finance and the principal ministry responsible for the Project implementation is the Ministry of Economy and Commerce (at signing of the Loan Agreement, the Ministry of Industry and Commerce).

- 10. **Project Background.** Romania had a large and active state owned mining sector which had become a drain on the state budget with subsidies in 1999 of about USD100 million. In 1998 the Government commenced major restructuring of the sector and around 83,000 workers left the industry that year (out of 173,000)¹ resulting in a sharp decline in economic activity in the mining regions. By March 1999, 160 mines had stopped production and of the remaining 118, only 35 were expected to remain viable. The 1998 Government mine sector restructuring strategy aimed to: (i) put the mining industry on a sound commercial footing; (ii) phase out the Government's direct involvement in the sector and seek private sector investment; (iii) ensure mining activities are carried out in an environmentally sustainable manner; and (iv) provide comprehensive support to mitigate the social hardships caused by the closure of uneconomic mines and revitalize the economies of the mining regions.
- 11. **Project Objectives and Components.** The development objective of the MCSMP is to assist the Government efforts in: (i) reducing the burden on the national budget by permanently closing uneconomic mines in a socially and environmentally sustainable way; (ii) revitalizing and diversifying the economy in mining regions; and (iii) providing support for modernization of the administrative framework of the mining sector. To achieve these objectives the Project contains three components:
 - (i) *Mining Closure:* Closure of 29 (extended to 31) mines and the environmental remediation of mine sites serving as a model for additional mine closures by government. Activities include in particular the demolition of mine buildings, safe closure of mine shafts and openings, safe management of mine gases (e.g., methane), stabilization of mine waste dumps, reprofiling and revegetation of mine areas and ultimately the handing over of the sites for alternative economic activities. The Project is closing coal, brown coal, lignite, copper, iron and polymetalic mines.
 - (ii) Social Mitigation: Financing of measures to mitigate the adverse social impacts of the restructuring and to revitalize economic activities in mining regions. Activities included in particular micro credit, an employment incentive scheme, workspace centers for new businesses, enterprise support, social impact monitoring and a social development scheme.
 - (iii) Institutional Strengthening: Technical and institutional assistance for modernizing the National Agency for Mineral Resources (NAMR). Activities included in particular the establishment of a computerized cadastral system, the preparation of a sector environmental assessment, institutional strengthening in mining sector environmental management, mining law reform and a subsidies study.
- 12. **Project Implementation** A separate government agency was responsible for each of the respective components, namely: (i) the Central Group for Mine Closure

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¹ Of these approximately 70,000 accepted voluntary redundancy packages and an additional 13,000 either retired or continued to work for enterprises spun off from the mining companies.

(CGMC) for mine closure; (ii) the National Agency for Development and Implementation of Reconstruction Programs for Mining Regions (NAD) for social mitigation; and (iii) the NAMR for institutional strengthening. Each agency had a Project Implementation Unit (PIU) responsible for the implementation of its Project component. A Project Management Unit (PMU) established within the Ministry of Economy and Commerce provided overall coordination and ensured the Bank and Government were regularly appraised of the Project.

THE VERMESTI MINE

- 13. Vermesti mine is one of several brown coal mines near the town of Comanesti. Production commenced in the 1920s and ended in 1997 when the mine was no longer economically viable.
- 14. The mine was included in the MCSMP (1999) as part of a package of three mines for closure in the Comanesti area and was considered the simplest in the group. The mine is located on a hillside with flat areas predominantly of farmland below (see Annex 6, Photos 3, 4 and 5)., approximately 4km equidistant from the towns of Comanesti and Darmanesti. The mine had reasonably good road access, two shafts to be closed and ten mine buildings to be demolished. The site contained an old waste dump on the slope above the mine buildings, as well as a newer waste dump in the flat area towards the river. The old waste dump had some stability issues (see Annex 3).
- 15. The closure plans were prepared in 2000 and included demolition of the downstream buildings. Later, the Bacau County Council requested that most of the mine buildings be retained to establish a mental hospital. While considered a good example of positive use of former mine infrastructure, this complicated the closure plans, which had to be revised accordingly. Stabilization of the old waste dump and protection of the hospital became an important focus of the Project (see Annex 3). Other issues during the closure process included the collapse of one of the shafts and a gas leak from a corroded natural gas pipe passing through the property. At this time the neighboring Ergio Prod plant consisted of only a small wood cutting facility; the factory producing garden buildings that now exists at that site (see Annex 6, Photo 4) was built subsequently
- 16. The closure process involves several actors. The mine closure component of the Project was managed overall by the CGMC PIU for mine closure, staffed with experienced engineers. The mine closure plan was prepared by the Designer contracted by the Ministry of Economy and Commerce. The mine closure contractor was hired by the CGMC PIU to implement the works, and an independent engineer was hired by the Ministry to supervise the work of the contractor. All closure works are approved by the local authorities, in particular the Romanian Water Authority, the Bacau County Environmental Protection Agency, and the City Council (see, e.g., Annex 7, Attachment 2). The CGMC PIU was supported by an international mining consultancy (international experts) through technical assistance financed by DfID, which provided technical audits and support to the PIU. The DfID financed work was further supervised by an independent international environmental specialist.

17. The Bacau County Environmental Protection Agency reviewed the mine closure plans. Public comments were solicited in an announcement in a local newspaper on May 10, 2001 and again through a public hearing held on August 10, 2001. As no negative comments were received, the Agency approved the closure plans without further modification (see Annex 7, Attachment 3). The Environmental Guard (i.e., the Romanian environmental inspection body) has supervised the site annually and noted no breaches of the environmental license for this site.

III. MANAGEMENT'S RESPONSE

- 18. Fundamentally the issues raised by the Requesters are local and limited to one mine site. The Requesters express concern that the mine access road (about 2 km) has deteriorated and that a portion (800 m) of a small ephemeral channel (Vrânceanu brook) that evacuates runoff from the mine site and the neighboring hills, has filled with sediment, thereby contributing to flooding of their property. They further allege that both the Ministry of Economy and Commerce and the World Bank have inadequately responded to their concerns. The Requesters' claims, accompanied by Management's detailed esponses, are provided in Annex 1. The following text provides additional detail.
- Management's Investigation of the Complaint. Upon being informed of the 19. Request, a Bank team was immediately sent to Romania. The team was comprised of the Task Team Leader, a lead environmental specialist, senior specialists in agriculture and mining, an operations officer and a groundwater hydrologist. After interviewing Project staff and collecting documents in Bucharest, the team proceeded to Bacau County. There the team toured the mine closure site and adjacent properties, interviewed and collected documents from the water, environmental, and municipal authorities, and participated as observers in a meeting at the site with representatives from the Romanian Project management (hereafter "the Project management"), mine closure contractor, the Designer, the Municipality, the County Water Authority, the County Environmental Protection Agency, and Ergio Prod at which a course of action was agreed upon by all parties (see Annex 7, Attachment 15). None of the people on who se behalf whom Ergio Prod submitted the Request were present. Ergio Prod was asked to mobilize them for a follow up meeting the next day but was unable to do so. The team therefore returned to the field the following week to meet with 9 neighbors of the site (5 of whose signatures are included in the Request), who were mobilized with the help of the Mayor's office.
- 20. **Response to Allegations**. The mine site's **access road** was built by the mining company and had already deteriorated to a level considered merely satisfactory in 2002 (see Annex 7, Attachment 4, item 47). The Request claimed that further deterioration is due to traffic by heavy vehicles related to the mine closure activities. Management concludes that:

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² In this text the term "Management" refers to World Bank Management and "Project management" refers to the management of the PIU and/or PMU of the Project.

- The road is currently in a reasonable condition for a mine and forest access road, readily passable by passenger car (see Annex 6, Photo 11);
- Any deterioration of the road cannot be attributed solely to mine closure traffic as
 the road also bears heavy logging traffic (the team witnessed both the passage of
 large logging trucks and dragging of timber along the road), including trucks
 going to and from the Ergio Prod factory; and
- The Project management and its contractors have been responsive to local concerns about the state of the road the mine closure contractor has performed maintenance on the road on at least three occasions including at least once when the company collaborated with Ergio Prod (Ergio Prod provided gravel and the mine closure contractor did the works interview with the site engineer at Vermesti, February 2, 2006; see also Annex 7, Attachment 11).
- 21. By law the contractor is required, when the works are completed, to return the road to at least the condition in which it was found at the start of the works after which maintenance will be the responsibility of the municipality. This work is to be completed by April 2006 and stakeholders have expressed their agreement with this course of action (see Annex 7, Attachment 15).
- 22. The Request alleges that the mine closure activities caused or contributed to *flood related property damage* at the Ergio Prod factory adjacent to the mine closure site as well as to neighboring fields. It further alleges that flooding in this area did not occur prior to 2004. Management concludes that:
 - While there is no question that mining activities have changed the hydrology of the area, the mine closure activities have not aggravated the situation.
 - The Ergio Prod factory has been built in a low area with restricted drainage that appears to have a history of flooding not related to mine closure activity. The factory lies in a slightly depressed area approximately one meter lower than adjacent property. This area has almost certainly been subject to flooding since the construction, some decades ago, of both the adjacent mine access road as well as a railroad downstream from these properties which impedes the escape of runoff to the Trotus River. Neighbors confirmed that flooding occurs in the general area two to three times per year (see Annex 7, Attachment 17). International experts assigned to supervise the closure activities on a quarterly basis noted that this area tends to flood in the winter (see Annex 7, Attachment 9, p. 54).
 - In 2004 and 2005, rainfall in the Trotus River watershed occurred on an unprecedented scale, resulting in flood events with approximate return rates of

150 and 500 years respectively – see Annex 4). Drainage channels between the mine site and the river were not designed to accommodate such events.

- While runoff from the mine site certainly entered the flood waters, the runoff came primarily from above the site in the watershed of Hagiu brook and from the watershed of the upper reaches of Vrânceanu brook, which lies outside the site. 4
- There is no evidence of significant transport of waste from the waste dumps to the flooded area. While some limited sloughing of material occurred, the waste remained on the margins of the waste dumps (observation and interview with mine closure contractor on February 2, 2006; see also Annex 6, Photo 9). Furthermore, sediment noted in excavations from the channel below the mine site appears to be primarily topsoil and not material transported from the waste dumps (see Annex 6, Photos 6 and 7). The drainage channels erected around the waste dump above the property worked as intended, preventing failure of this waste dump.
- Most likely some sediment (as opposed to significant waste) was transported from the waste dumps (particularly the upper old waste dump) into the flood waters. However, the size of the watershed is estimated to be approximately 5 km² while the surface area of the waste dumps is an estimated 7.9 ha (79,000 m² or 0.079 km²), or 1.6% of the total surface area. Even taking into account that the waste dump is not yet fully stabilized, its contribution to sediment in the flood waters (and therefore to possible decreases in the arability of farmland) is believed to have been minor. Rather, the suspended material that decanted out of the floodwater would have come primarily either from soil washed down from the slopes above or from sediment remobilized from the flooded fields in the flood waters.
- 23. These conclusions are corroborated by the technical memorandum of April 8, 2005 from the Design Institute Prominfo SA Ploiesti (see Annex 7, Attachment 10). For further details regarding water management at the site see Annex 3.
- 24. The Request alleges that the *Ministry of Economy and Commerce* has been unresponsive to complaints. Management notes that there has been substantial contact between Ergio Prod and Project staff from at least 2003 and concluded that the Project staff and mine closure contractor have been responsive in engaging the Requester as a landowner in the mine closure process. As examples one may cite the following:

³ Flooding in Romania in 2005 was so bad that the Bank has reallocated funds under a transport project to help with some of the reconstruction and future mitigation.

⁴ Vrânceanu and Hagiu brooks are ephemeral natural watercourses that originally flowed separately into the Trotus River. Vrânceanu brook originates to the north of and flows outside the mine site. Hagiu brook originates to the southeast of the site and flows through the site. When a "new" waste dump was constructed in 1958 blocking the course of Hagiu brook, its waters were diverted into Vrânceanu brook. Thus the lower reaches of Vrânceanu brook, including a relatively straight channel running across the Ergio Prod property down to the railroad, are fed by the watersheds of both brooks as well as other runoff from the mine site.

- The negotiations between Ergio Prod and the Project staff and mine closure contractor regarding the possibility of depositing waste material on the former's property in the second half of 2003 and first half of 2004 (see Annex 7, Attachments 6 and 7); and
- The collaboration cited above between the mine closure contractor and Ergio Prod in performing maintenance on the access road (interview with mine closure company at Vermesti, February 2, 2006);
- The willingness of the Project management to clean out the channel of Vrânceanu brook where it passes by Ergio Prod property following a request from the Deputy Mayor of Comanesti on November 17, 2005, as a community support measure.
- 25. Finally, the Request alleges that the *World Bank* did not provide an adequate response to complaints. Management concludes that:
 - The World Bank's Task Team first learned about this complaint on January 17, 2006, when the Inspection Panel registered the complaint.
 - As far as can be ascertained, the first direct contact with the World Bank occurred
 when an External Affairs staff person in the Bucharest office fielded a telephone
 inquiry from a secretary at Ergio Prod on December 8, 2005. The staff person
 referred the caller to the Ministry of Economy and Commerce, without informing
 colleagues, because that person did not realize that a complaint against the Bank
 was involved.
 - The Department of Institutional Integrity never brought the complaints sent to the hotline (in November and December 2004 as well as December 2005) to the attention of either the Country Unit or the Task Team, although it informed the Requester that this was not an issue of integrity and that the issue was being referred to the concerned department.
- 26. Agreed Actions. Prior to the presentation of the Request to the Inspection Panel, on November 17, 2005 the Deputy Mayor of Comanesti approached the Technical Coordinator under the Project to request assistance in removing sediment from Vrânceanu brook between the mine site and the railroad. Under Romanian law maintenance of such watercourses is the responsibility of the landholder through whose property they flow. Nonetheless, recognizing the importance for the community and in order to bring the drainage works up to a standard consistent with European Union (EU) regulations (requiring that such works be designed to withstand 100 year, as opposed to 20 year, floods), the Project management decided to remove sediment from and reprofile the channel. Therefore, the contract with the mine closure contractor was amended so that the removal of sediment could be done immediately. This work was done between December 1 and December 17, 2005. On December 2, 2005 Ergio Prod filed a complaint

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⁵ It should be noted that this measure was already envisaged in the contract; only the timing was changed to do the work immediately rather than waiting until the other closure works were completed.

with several governmental authorities, including the office of the Prime Minister. As a result the Project staff convened a meeting of stakeholders at Vermesti on December 21, 2005 at which agreement was noted on the course of action already under implementation and agreed by all parties (including Ergio Prod). This agreement notes that the sediment had already been removed from this stretch of Vrânceanu brook. It further envisages additional work to remove the sediment from where it has been deposited on the banks of the channel and, before the end of the closure activities (expected in April 2006), to complete upstream drainage works.⁶

27. Following the submission of the complaint to the Inspection Panel (on December 22, 2005), a subsequent stakeholder meeting was held on January 26, 2006. At this meeting the previously agreed course of action (described above) was modified at the request of the Deputy Mayor to envisage extending the removal of sediment from the remaining course of Vrânceanu brook to its confluence with the Trotus River and to reprofile the channel. This revised course of action was also agreed to in writing by all parties (including Ergio Prod). This course of action was then formalized in an action plan approved by the Secretary of State in the Ministry of Economy and Commerce on February 1, 2006. These documents may be found in Annex 7 (Attachments 12, 15 and 16). It should be noted that the Project management agreed to this course of action as a service to the community and not as an assumption of liability. Future maintenance of the channel will remain the responsibility of the Municipality. Furthermore, the responsibility assumed by the Project management in reprofiling the channel will be limited to what is necessary to ensure evacuation of runoff from the mine site; works to ensure the ability to carry additional runoff also remain the responsibility of the landholders and/or Municipality. This agreed course of action is summarized in the following table:

TABLE 1. ACTION PLAN

Action	Responsible Party	Date
Redo the hydrological study of the mine	CONVERSMIN/Designer/	February 10, 2006
closure area and adjacent watershed8	Local Water Authority	
Design alternatives for reprofiling of channels and brook based on the new hydrological study.	Designer/PMU	February 15, 2006
Obtain approval from Water Authority for the new design.	Designer	February 22, 2006
Obtain approval from the Municipality.	Designer	February 28, 2006
Hold consultation to discuss preferred design with community.	Designer/PMU	February 28, 2006

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⁶ This was the day before the Request was sent to the Inspection Panel.

⁷ The Project does not assume liability because: (a) legally maintenance of this channel is the responsibility of the adjacent landholders (see Annex 7, Attachment 13); and (b) as demonstrated above, the mine closure activities have neither significantly increased runoff from the mine site nor contributed significantly to sedimentation of the channel.

⁸ In order to determine the respective amounts of runoff from the mine site and other parts of the watershed, a new hydrological study was commissioned in January 2006.

Amend contract with mine closure contractor	PMU / World Bank/ Mine	March 15, 2006
to reprofile channels and brook	closure contractor	
(Addendum3).		
Move sediment removed from channels and	Mine closure contractor/	April 30, 2006
brook to new waste dump.	Engineer	
Reposition and reprofile drainage channels;	Mine closure contractor/	April 30, 2006
install water settling tank in channel, if	Engineer	
needed.		
Remove sediment from Vranceanu brook to	Mine closure contractor and	April 30, 2006
its confluence with the Trotus River.	Comanesti Municipality	
	Engineer	
Complete works to stabilize old waste dump.	Engineer/Mine closure	April 30, 2006
	contractor	
Restore road to a condition consistent with	Mine closure	April 30, 2006
the norms and standards for this class of road.	contractor/Engineer	
Continuous monitoring of mine closure site.	CONVERSMIN SA /	Long-Term
	Engineer	
Regular maintenance of channels at mine site.	Comanesti Municipality	Long-Term

- 28. Response Concerning Compliance with World Bank Policies. The Inspection Panel states that the claims may constitute a failure of the Bank to comply with provisions of: OD 4.01 (Environmental Assessment); OD/OP/BP 13.05 (Project Supervision); and the World Bank Policy on Disclosure of Information. Management's response is framed under OD 4.01 (Environmental Assessment), OD/OP/BP 13.05 (Project Supervision), and BP 17.50 on Disclosure of Operational Information (issued September 1, 1993) and the World Bank Policy on Disclosure of Information (March 1994). The Project's first PID was issued before March 1, 1999, and the Project was approved on August 31, 1999. In August 2001 the Executive Directors approved a number of revisions to the Bank's Policy on Disclosure of Information, the implementation of which was phased in, beginning in January 2002.
- 29. With respect to *Environmental Assessment*, the Project was given a Category B rating and an environmental analysis (but no full environmental assessment) was required. The environmental analysis was carried out by the Bank's Task Team as part of the appraisal process. It found that the main environmental issues under the Project related to the closure and environmental remediation of mine sites and included groundwater and surface land pollution in the mine area as well as the physical impact of the mine closure activities on the environment and the adjacent communities (Environmental Data Sheet, April 15, 1999). The Project was expected to have a positive impact on the environment by physically improving the mine sites through environmental rehabilitation and also by building expertise in the country for environmental management.
- 30. The Environmental Data Sheet notes that: (i) the environmental remediation would be performed by experienced international contractors who would ensure the work was done in line with good industry practice; (ii) an internationally known environmental auditor/firm would be selected to assist in mine closure activities under the Project and provide technical audits confirming that the remediation was done satisfactorily; and (iii) a Sector Environmental Assessment (SEA) would be undertaken simultaneously to

establish the environmental standards and guidelines to be followed for future mine closure activities.

- 31. The negotiations package for the Project was cleared by ECSSD regarding environmental aspects on June 1, 1999 subject to specific modifications to be consistent with the Environmental Data Sheet. As a result a dated coverant was included in the Loan Agreement requiring that the Sector Environmental Assessment of the mining sector, together with an action plan for implementing its recommendations, be prepared, discussed with the World Bank, and subsequently implemented.⁹
- 32. DfID cofinanced the services of experienced international experts with expertise in mine closure and environment and hired an environmental specialist to provide oversight to the work of the international experts. In addition, the SEA was prepared as agreed in the Loan Agreement. The mine closure packages were bid using International Competitive Bidding (ICB); all contracts were won by qualified local Romanian contractors, who have been supervised by the international experts. In addition to these actions CGMC prepared a Mine Closure Manual with detailed procedures covering environmental and social aspects of mine closure for Romanian state owned mines, which is now being implemented throughout the country.
- 33. An environmental assessment and plans for the "rehabilitation of the environmental quality" were included in the Mine Closure and Environmental Remediation Plan for the Vermesti mine site sent to the Bank in May 2001. As required by the Loan Agreement (Schedule 5, B.1), this plan was approved by the Bank. ¹⁰ In view of the additional works being contracted in 2004, a stand alone Environmental Management Plan (EMP) for the Vermesti Mine site was also prepared by the PMU in 2005 (see Annex 7, Attachment 8). This is in Romanian and is displayed on the Project's website at the Ministry of Economy and Commerce.
- 34. The mine closure documents were reviewed and approved by the Romanian Environmental Agency in August 2001. Annual inspections were performed by the Environmental Guard and no issues of non-compliance were noted by them. The Environmental Guard approved the completed works conducted at the other two sites in the mine closure package and the works at Vermesti, with the exception of the old waste dump for which it was agreed that further stabilization works were necessary (Annex 7, Attachment 5).
- 35. The international experts provided intensive supervision of the mine closures. From October 2002 to October 2004 the experts made 8 supervision mission trips to the Vermesti mine site, including a risk assessment of remediation methods for the old waste dump in October 2003.

⁹ Namely: "The Borrower shall cause NAMR, in cooperation with relevant entities:... (b) to complete under terms of reference satisfactory to the Bank and to and review [sic] with the Bank, by March 31, 2000, an environmental assessment of the mining sector, together with an action plan for implementing the recommendations thereof, and to carry out thereafter said action plan" (Schedule 5, B.5).

¹⁰ The final clearance, i.e., of the contract with the mine closure contractor, is dated August 6, 2002.

- 36. Management considers that the implementation of the environmental aspects of the Project has been carried out in a manner consistent with OD 4.01 and the Project design as approved, and has been well supervised from an environmental perspective by international and Romanian experts.
- 37. With respect to *supervision*, the Project Appraisal Document (PAD) states that the Bank's supervision team will provide oversight and quality control, a review of the progress of the Project will be conducted at the end of each year, a mid-term review will be conducted and an ICR prepared within 6 months of final disbursement of the loan.
- 38. The Bank has conducted regular supervision missions on the Project. A full list of Bank (42) missions related to the Project is attached as Annex 5, which shows an average of approximately 4 missions per year. Records indicate a total of 205 staff weeks of Project supervision over the life of the Project to date. The Project Task Team has included mining specialists, social development specialists, and environmental specialists from Bank headquarters as well as local Project officers and a financial specialist.
- 39. Throughout Project implementation there has been good continuity within the Bank's Task Team, despite some changes of staff. The Project was prepared in 1997 and 1998 under the task management of first one and then a second Principal Economist, until it was transferred to a Mining Advisor in May of 1999. The Mining Advisor remained Task Manager until June 2005 when the Project (along with the follow-up project) was transferred to ECSSD with a Senior Social Development Specialist as Task Manager since July 1, 2005. The Mining Advisor continues to act in an advisory role as needed. A Social Advisor was part of the original Project preparation team in 1998, remained on the core Project team until 2005 and also continues to act in a advisory role as needed. To ensure a smooth handover of the Project, both the incoming and outgoing Task Managers participated in the May 2005 supervision mission. To help with Project continuity the local Romanian staff, including two Project Officers and a Financial Management Specialist, remained unchanged on the handover of the Project. Likewise a Senior Mining Specialist, who was involved in Project supervision in 2000 – 2001 and 2004 to the present, was retained as part of the core Project team.
- 40. Specifically related to Vermesti mine, the Bank was aware of problems with the implementation of the mine closure plan arising from the waste dump instability, a collapsed shaft, and a gas leak. The Back to Office Report (BTOR) of December 2003 notes the delay in completing the closure of Vermesti due to unforeseen problems including sewage disposal, the gas leak and the unstable old waste dump. The BTOR notes that the first two problems had been resolved and that the design and plan for the stabilization of the waste dump were presented to the PMU and CGMC for review during the mission. The Task Team concluded that the design appeared reasonable and cost effective. The aide-memoire of February 2004 noted the contract extension for the additional works at Vermesti and those of June 2004 and September 2005 make reference to the progress of implementation of the works. The Bank has also promptly approved addendums 1 and 2 to the mine closure contract for Vermesti mine to address these issues.

- 41. Management concludes that supervision by the Bank has been consistent with the Bank policy on Supervision, OD/OP/BP 13.05. Specifically, Bank supervision has been able to: verify the Borrower's due diligence in Project implementation; assist the Borrower in promptly addressing issues as they arise; and work with the Borrower to modify the Project's design as appropriate throughout the implementation process.
- 42. Finally, with respect to **disclosure of information**, given that: (i) Project information, including the environmental management plan for Vermesti in Romanian, is posted on the Project's website; (ii) the PAD, Project Information Document (PID), and contact information are posted on the Bank's external website through the Romania country page; (iii) the PAD and PID are also available through the Infoshop; (iv) contact information for the Project and the mine closure contractor was prominently posted at the Project site (see Annex 6, Photo 8); and (v) consultations were held in August 2001 (public hearing on the closure plan), October 2002 (consultations on the Sector Environmental Assessment), and November-December 2005 (on removal of sediment from Vrânceanu brook), Management concludes that the requirements for disclosure of information have been met. ¹¹ Furthermore, it is unfortunate, given that the Requesters have access to the internet (as verified by the Bank's Task Team in the field on January 26, 2006) that they have been unable to access Project documents, which are readily available as noted above.
- 43. Management recommends that, to the extent possible, the actions agreed to in the Action Plan described in paras. 27–28 above, be implemented and that the Bank continue to supervise this as part of its ongoing supervision.
- 44. *Conclusion*. After careful review of the Request and Project files, as well as field supervision work, Management believes that the Request does not show that there has been non-compliance with applicable Bank policies and procedures in the design, appraisal, and/or implementation of the Project. In Management's view the Bank has applied its policies and procedures and pursued concretely its mission statement in the context of the Project. Management further believes that the Requesters' rights or interests have not been, nor are they likely to be, directly and adversely affected by the Bank's implementation of its policies and procedures.

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¹¹ URLs for these websites may be found in the matrix.

ANNEX 1. CLAIMS AND RESPONSES

No	Claim/Issue	Response
	Environmental Assessment – OD 4.01	
1.	The Requesters state that the mine closure operations—in particular massive ground transportation by heavy cars and trucks used for Project works—greatly damaged the Vermesti Mines road on the stretch between the former Comprel company and the former Vermesti mine (approximately 2,000 meters), which is used by the Requesters. This required them to make rearrangements and to repair the road at their own cost using stones and ballast and their own machines (excavator and compactor). These repairs were necessary beginning in 2000 and continuing in 2002, 2003, and 2004. They add that their own cars have suffered damages from the deteriorated condition of the road.	The road in question was built by the mining company and had already suffered damage while the mine was operating. At the time the mine was handed over from the Ministry to the mine closure contractor the condition of the road was considered as "satisfactory" (see Annex 7, Attachment 4). Since then there has been heavy traffic on the road due to the closure works as well as logging. Heavy equipment was brought in and out (on trailers) on three occasions: when the work commenced in 2002, when the bulk of the work was completed in 2003, and when works began to stabilize the old waste dump in 2004 after slippage had been found there. In addition, there was heavy traffic for a three month period when waste from a neighboring mine site was deposited in the new waste dump. Heavy trucks were also used when rocks were brought in to build gabion walls to stabilize the dump. Unlike many mine access roads, this road is shared with the local community, which (in particular the Requesters) makes fairly extensive use of the road. Throughout the period of works the road also has been subject to heavy traffic from logging trucks (the Bank team witnessed logs being dragged along the road and passage of heavily loaded logging trucks). At present the road is in reasonable condition for a mine and forest access road, readily passable by passenger car (see Annex 6, Photo 11). Furthermore, the mine closure contractor has performed maintenance on the road on several occasions (see Annex 7, Attachment 11) including at least once when the company collaborated with Ergio Prod (Ergio Prod provided gravel and the mine closure contractor did the works – interview with the site engineer at Vermesti, February 2, 2006; see also Annex 7, Attachment 11). By law the mine closure contractor is only required to return the road for the local community, the Project management has committed to returning the road to a condition consistent with the norms and standards for this class of road (see Annex 7, Attachments 14 and 15).
2.	The Requesters assert that the works related to the environmental reconstruction of the Vermesti Mine area failed to protect adequately the land surrounding the mine area. They claim that their land has been filled with water because of insufficient provisions for water drainage channels.	Drainage channels which existed in the area prior to the closure works experienced periodic blockages by sediment prior to the works (see Annex 7, Attachment 1, which shows the elevation of the channel surface increasing downstream of the road – an indication of sedimentation – and Photos 1 and 2). As part of the stabilization works the channels protecting the old waste dump were repaired and supplemented in 2003 in a manner consistent with the norms in force at that time. These works functioned as intended and prevented the old waste dump from sliding (putting at risk the mental hospital below) during the massive floods of 2004 and 2005. Runoff from the mine closure area is a minor contributor to the overall level of flooding in the sub-watershed which includes the property of Ergio Prod. This property lies in a flat area, one meter below the surface of adjacent land at virtually the same level as the channel. Drainage from this area is restricted by downgradient

No	Claim/Issue	Response
		railway embankments and limited flow through the drainage. While technically not in the floodplain of a river, unprotected structures located here would logically be prone to damage from heavy rainfall and an overall increase in watershed discharge. The international mining experts noted that this area was prone to winter flooding and neighbors report flooding in the area typically two to three times each year (see Annex 7, Attachment 17). In any case, no reasonable drainage works could have protected this property from the flooding of 2004 and 2005 (estimated to be 150 and 500 year floods respectively). Channel flow downstream from the mine closure site (on Ergio Prod property and below) was blocked by sedimentation that predated the mine closure works. Under Romanian law maintenance of such watercourses is the responsibility of the landholder through whose property they flow (Annex 7, Attachment 13). Nonetheless, recognizing the importance for the community and in order to bring the drainage works up to a standard consistent with EU regulations (requiring that such works be designed to withstand 100 year, as opposed to 20 year, floods), in November 2005 the Project agreed to remove sediment and decided to reprofile the cross section of the channels. Subsequently, at the request of the local authorities, the Project further agreed to remove sediment from and redesign the cross section of the channel all the way to its confluence with the Trotus River (see Annex 7, Attachment 13). This work is expected to be completed by April 2006.
3.	The Requesters state that, as a consequence of the activities related to the closure of the Vermesti Mine, massive rains in 2004 and 2005 flooded their area and negatively affected them, causing damages with a value of USD 20,540 in 2004 and USD 21,286.44 in 2005. According to the Request, sterile material from the waste dump was carried by rainwater onto the Requesters' area and clogged the Vrânceanu brook, thus reducing the brook's capacity to absorb the rainwater.	Sediment derived from excessive rainfall and flooding in 2004 and 2005 did contribute to clogging of drainage ways and siltation of adjoining lands. However, visual evidence suggests that it is highly unlikely that a significant amount of sediment originated from the waste dumps: there is no evidence of sufficient erosion on the dumps to explain the quantity of sediment subsequently removed from the brook, there is no build up of waste beyond the gabion walls and erosion fences below the dumps, and the sediment removed from the channel appears to be primarily top soil rather than materials consistent with those present at the dumps (see Annex 6, Photos 6 and 7). Rather the sediment appears to have washed down from the catchment basin above and /or is the result of remobilization of soil /sediment in the field. Sedimentation of the brook and channels that feed into the brook is a problem that predates the mine closure works (see Item 1). On November 17, 2005 the Deputy Mayor of Comanesti asked the Technical Coordinator under the Project if this issue could be addressed by the Project. As a gesture to the community the Project management then issued instructions to the mine closure contractor to clean out the sediment from the channel below the mine site. Work began on December 1, 2005 (the day before the Requesters contacted the Ministry by telephone). On December 12, 2005, following reception of a written complaint to the office of the Prime Minister, dated December 2, 2005, representatives of the Project management, the Prefecture, the Water Authority, the mine closure contractor, and the Requesters met and discussed the ongoing and planned works to address this problem. The Requesters agreed to the planned works by signing the minutes (see Annex 7, Attachment 12, pp. 80-81). The water course has now been cleaned out by the mine closure contractor down to the railroad, which lies approximately 0.5 km beyond the Ergio Prod factory.

No	Claim/Issue	Response
4.	The Requesters also assert that as a consequence of the above-mentioned problems and risk of future flooding, the Romanian Water Authority's Bacau office decided not to renew the permit for water management which was issued to the company in 2003. The Requesters now fear that if they carry on their activities without the necessary permit they might be subject to legal actions under law 310/2004, art. 93, which stipulates that: "continuing the activity after losing the right obtained by the law, respectively working without the authorization of carefully management of waters it is punished with jail from I year to 3 years or with penalty from 300,000,000 lei to 500,000,000 lei (USD 10,000 - 16,666).	Ergio Prod was unable to renew its permit to operate from the Water Authority following a hydrographic survey of the Vrânceanu brook watershed, which concluded that the company's property lies in an area prone to flooding. According to Romanian law these properties cannot be issued such permits unless either: (i) the proprietor agrees to assume all risks of flooding; or (ii) works are carried out to prevent flooding (see Annex 7, Attachment 13). The Water Authority further asserts that under Romanian law it is the responsibility of the holder of the land through which such a watercourse flows to maintain the watercourse in appropriate conditions to prevent flooding (see Annex 7, Attachment 13). The mine closure contractor has cleared out the sediment to approximately 0.5 km. below the factory and the PMU has agreed that the Project would contribute to clearing out the remaining 1.2 km. of streambed to the confluence with the Trotus River. The Water Authority has indicated that once this work is completed it would be prepared to issue the requested permit.
5.	The Requesters claim that the water from the waste dump of the Vermesti Mine has reached their area and damaged the timber and machinery of SC Ergio Prod SRL, which processes wood and produces houses, sheds and playhouses, primarily for export to the European Community market. They fear that the company, which has been at that location since 2000, will have to close and dismiss its 105 employees. The Requesters believe that the situation caused by the mine closure operations has put them under a great risk of being flooded again.	Rainwater flowing off the old and new waste dumps mixed with the floodwaters affecting the Requesters' property. However, given that the catchment basin is on the order of 5 kms², while the area of the waste dumps is approximately 79,000m² (or 0.079 km²), or 1.6% of the total surface area, runoff from the waste dump itself is believed to have contributed only a fraction of the total flow. The bulk of the flood water appears to have come from the adjacent and upstream mountain slopes, some of which flowed through the mine site before accumulating in the flat areas below. Such flooding was to be expected given the topography and the magnitude of rainfall that affected the area in 2004 and 2005 (see Annex 4). While the Requesters claim to have suffered significant damage from these floods, this is likely attributable to an act of nature and not to the mine closure activities (see Annex 7, Attachments 10 and 13).
6.	The Requesters also claim that the flooding has made it impossible to cultivate the land. According to them, many of the affected landowners are poor.	Flooding did prevent cultivation of adjacent land but cannot be attributed to the mine closure activities. A related issue raised by stakeholders at the site is whether the flooding caused damaging material from the waste dumps to collect on adjacent fields. This is unlikely. As noted under Item 3 above, visual evidence suggests that what sloughing has occurred on the waste dumps has not been transported away from the margins of the dump. Furthermore, suspended material that decanted out of the floodwater would have come either, as noted in Item 5 above, from soil washed down from the slopes above or from sediment remobilized from the flooded fields in the flood waters.
	Supervision	
7.	The Requesters contacted national and local authorities without satisfaction (see Annexes to Request). They state that, when they tried to bring their concerns to the attention of the Bank, they faced difficulties in receiving information about whom to contact in the Bank. They contacted the Bank's country office but claim that they did not receive an adequate response.	See details below:
	7a. Letter of November 25, 2003 to the mine closure contractor.	Although the Request indicates that this letter is a request for careful management of water flows, Management notes that this is not the case. Rather the letter in question signals agreement that the mine closure contractor may deposit material from the waste

No	Claim/Issue	Response
		dump (this refers to material that was to be removed from the old waste dump to address instability) on the Requesters' property provided that the topsoil be first removed and subsequently replaced (see Annex 7, Attachment 6).
	7b. Letters of May 5 and April 21, 2004 to Ministry.	The Project management has no recollection of receiving these letters and no trace of them could be found in the Ministry's correspondence logs. However, the then PIU Director recalls conversations with Ergio Prod around this time revolving around Ergio Prod's desire to have material from the old waste dump deposited in the form of a horseshoe around its wood processing plant to divert future flood waters. Agreement was never reached because Ergio Prod required as a condition for allowing the property to be used to deposit this material that the mine closure contractor build two concrete pools on the property, which were to be used in the wood processing process (see Annex 7, Attachment 7). According to the former PIU Director, this alternative was not pursued because: (i) it was outside the scope of works of the mine closure contractor and (ii) such pools would be structurally unsound in the uncompacted earth at the site and compacting the earth would have required the acquisition of gravel in addition to the material from the waste dump. A more suitable alternative for disposal of the waste was found.
	7c. Letter of November 8, 2004 to the office of the Mayor of Comanesti.	No information. This letter was included in the dossier submitted to the office of the Prime Minister on December 2, 2005.
	7d. Communications November 23, December 3, and December 7, 2004 with the Bank's Hot Line.	The Department of Institutional Integrity never brought the complaints sent to the hotline to the attention of either the Country Unit or the Task Team, although it informed the Requester that this was not an issue of integrity and that the issue was being referred to the concerned department.
	7e. Summons of May 21, 2005 addressed to the Ministry.	The Project management prepared a response (see Annex 7, Attachment 10). The Ministry's lawyer advised that Ministry staff should not attend the proposed meeting.
	7e. Letter of December 2, 2005 to Bacau Prefecture.	This same complaint was forwarded to the Ministry of Economy and Commerce by the Prime Minister's Office on January 5, 2006. The Ministry responded on January 19, 2006 including evidence of agreement on measures to be taken to address the complaint (see Annex 7, Attachment 12, notably minutes dated December 21, 2005 signed by the Requesters on pp. 80-81).
	7f. Phone discussion, December 8, 2005 with External Affairs Officer at the World Bank Field Office in Bucharest.	The External Affairs Officer referred the caller (a secretary at Ergio Prod) to the Ministry of Economy and Commerce, without informing colleagues, because that person did not realize that a complaint against the Bank was involved.
	7g. Phone discussion, December 8, 2005 with PMU.	Contrary to the assertion in the Request, the call in question was received by the Project's Technical Coordinator (Mr. Turdean being at home on sick leave). He fielded the call and indicated that the problem was being addressed. This led to the meeting of December 21, 2005 at which the Requesters agreed to the measures already under implementation (see Annex 7, Attachment 12, pp. 80-81).
	Disclosure of Information	
8.	9. Disclosure of Information.	Project information, including the environmental management plan for Vermesti, is posted on the Project's website (http://www.minind.ro/Pagina noua UMP/Pagina noua eng/pag princ e modif.html). The PAD, PID, and contact information are posted on the Bank's external website through the Romania

Romania

No	Claim/Issue	Response
		country page (http://www.worldbank.org.ro/external/default/main?pagePK=6402 7221andpiPK=64027220andtheSitePK=275154andmenuPK=2873 26andProjectid=P056337). The PAD and PID are also available through the Infoshop (http://www-wds.worldbank.org/servlet/WDS_IBank_Servlet?all=andstype=All_Wordsanddname=andctitle=andsrcCitation=andauth=andrc=82513 andss=anddt=andlang=anddr=range andbdt=andedt=andrno=andl_no=andcno=andpid=P056337andtno=andsortby=Dandsortcat=Da_ndpsz=20andptype=advSrchandpcont=resultsandx=26andy=12). Contact information for the Project and the mine closure company was posted at the Project site (see Annex 6, Photo 8). Consultations were held in August 2001 (public hearing on the closure plan), October 2002 (consultations on the Sector Environmental Assessment), and November-December 2005 (on removal of sediment from Vrânceanu brook).

ANNEX 2. CHRONOLOGY

Milestone	Start Date	End Date	Notes/Comments
Start Mining Activity	January 1920	November 1997	
Cessation of Mining Activities	December 1997	December 1997	
Drafting of Initial Mine Closure	November 1998	November 1998	
Plans			
Approval of Mine Closure	November 1998	November 1998	
Project Appraisal	May 1999	May 1999	
Project Board Approval	August 1999		
Establishment of Mental Hospital	June 1999	July 2000	
Drafting of Technical Mine Closure	February 2000	May 2000	
Plan	-		
Dâmânesti (Local Govt.) supports	June 14, 2000		
Mine Closure Plan.	·		
Public Hearing Advertised	May 10, 2001		
Public Hearing Conducted	August 10, 2001		
Environmental Approval	August 10, 2001		
Revision of Closure Plans with	June 2001	January 2002	
DfID experts and preparation of		-	
Bidding Documents			
Ministry of Economy and	March 2002	March 2002	
Commerce approval of Technical			
Mine Closure Plan			
Commencement of Works for	September 2002		
Mine Closure and Environmental			
Rehabilitation			
Risk Assessment of options to	October 2003		
Stabilize Old Waste Dump			
Road works by Contractor	2003		
Partial Takeover Certificate	November 2003	November 2003	
Discussions with Requester	December 2003 and		
concerning depositing waste dump	June 2004		
material on Ergio Prod property			
Redesign of Closure Plans			
Approval of Redesigned Works	March 2004	March 2004	
(primarily for Stabilization of Old			
Waste Dump) Addendum 1			
Flood at Ergio Prod	April 14, 2004		
Addendum 1 Commenced Works	June 2004		
Work to Fill Swale-	July 2004	October 2004	
Agreement from Ministry of	December 19, 2004		
Economy and Commerce for			
additional works including clearing			
of main drainage channel	14 1 04 222		
Convocation to Ministry of	March 21, 2005		
Economy and Commerce from			
Ergio Prod	A "I 7 000 -		
Technical response to	April 7, 2005		
Convocation claims prepared by			
Designer Annual of Parks in and Works	Lake 000F		
Approval of Redesigned Works	July 2005		
(Additional for Stabilization of Old			
Waste Dump) Addendum 2	Contombo - 0005		
Flood (1 in 500 year event)	September 2005		
Addendum 2 Works Commenced	September 2005		
Road works by Contractor	2005		

Milestone	Start Date	End Date	Notes/Comments
Meeting at Vermesti regarding handover of works. Vice Mayor requested cleaning of drainage channel earlier than scheduled; agreed to by Technical Coordinator	November 17, 2005		Technical Coordinator, Designer, Vice Mayor office, local councilors
Works commenced for clean out drainage channel. Temporary measure awaiting full design	December 1, 2005. (Excavation from December 13)	December 21, 2005	Excavated 800m channel. Reprofiling and removal of excavated material planned
Complaint to Prime Minister's Office from Ergio Prod	December 2, 2005		
Telephone call Requester to PMU	December 8, 2005		Advised what work was approved and that excavation works will commence
Acceptance of channel clearing Works by local authorities	December 21, 2005		Minutes signed by Requester (see Annex 7, Attachment 12, pp. 80-81)
Meeting with Requester by PMU Director	January 19, 2006		Discussed additional design modification and work to be done. Confirmed road will be repaired at end of Project
Meeting with stakeholders including Requester, Vice Mayor, Water and Environmental Authorities, Designer, Contractor and Engineer	January 26, 2006		Confirmed previously agreed measures. Additional agreement reached on cleaning out remaining portion of brook. Minutes signed by Requester (see Annex 7, Attachment 15)
Meeting scheduled with other landowners. Meeting to be organized by Requester, who claims to represent these landowners	Scheduled January 27, 2005.		Meeting not held because Requester failed to mobilize other landowners
Action plan for design revision and additional works signed by Secretary of State of Ministry of Economy and Commerce	January 30, 2006		Provided formal ministerial approval of the agreements reached (see Annex 7, Attachment 16)

ANNEX 3. WATER MANAGEMENT – VERMESTI MINE CLOSURE

- 1. The mine closure design includes management of surface and ground waters that are affected by mine closure elements or that may affect mine closure elements. While the design primarily deals with the formal mine closure area, it should also consider the effects of water management practices on adjacent lands. Key water management issues for Vermesti Mine include:
 - (i) Routing surface water runoff around the old waste dump;
 - (ii) Capturing water that infiltrates through the old waste dump;
 - (iii) Collecting ground water that discharges into the bottom of the old waste dump;
 - (iv) Managing surface runoff that, prior to mine closure, collected in the subsidence swale immediately below the access road; and
 - (v) Monitoring the effectiveness of the water management facilities with regard to handling the floodwater in 2004 and 2005.
- 2. **Background.** The mine closure area is contained within a small sub-catchment (5 km² ⁻ the Vrânceanu and Hagiu brooks hydrographic sub-basin) of the Trotus River watershed. The mine closure area is adjacent (upslope) to the floodplain of the Trotus River which is immediately southwest of the access road. Vrânceanu brook was a 2.1 km natural, shallow, drainage channel flowing through some agricultural fields, crossing the railway and discharging to Trotus River. It was deepened by excavation during the period when the Vermesti mine was operating, to improve drainage across the floodplain and discharge to Trotus River. Since the cessation of mining, this channel has slowly filled with sediment. Pre-closure photos (see Annex 6, Photos 1 and 2) indicate that by 2003 the channel depth had decreased significantly.
- 3. As noted above, land use adjacent to the old waste dump and on the floodplain has changed since mine closure activities began. Drainage across the floodplain is also affected by the access road and the railroad, which are aligned perpendicular to the direction of drainage. This required that cement culverts be constructed to convey drainage under these road beds. Two small perennial streams from adjacent subcatchments enter the drainage channel at the railroad tracks.
- 4. According to applicable Romanian water law, land owners are responsible for insuring adequate drainage across their lands (see Annex 7, Attachment 13). The mine closure design should also assure adequate drainage across lands included within the perimeter of the Vermesti mine closure area. The mine closure design was considered sufficient to manage the water requirements existing at the time of design and had approval of the Romanian Water Authority. Following the 2004 floods the Project management agreed in December 2004 to improve drainage from the site including the

removal of sediment from the Vrânceanu brook. This work is included in Addendum 1 to the contract with the mine closure contractor. Following the 2005 floods the Romanian water authority revised its requirements for the size of the brook. The Project management agreed to expedite the cleaning of this channel in November and commenced the removal of sediment in December 2005. The Project management also agreed to redesign the water drainage to meet the revised requirements and this design is in progress.

- **Old Waste Dump.** The old waste dump at Vermesti Mine was operated between 1959 and 1980. Waste material consisted mainly of spoil cleared from the roadways in underground workings and was in a wet condition when delivered to the dumps. The waste material was hauled up an incline located to the south west of the dump and was then end tipped from the head of a small valley feature. The dump is situated on the lower slopes of a range of hills bordering the mine site. Material was tipped without any preparation of the formation. Slippages occurred during the operational life of the spoil mound as fresh material was repeatedly placed on top of weak fills and buried weak topsoil horizons. 12 The waste dump occupies about 4.4 ha of land.
- In early 2003, after closure activities began on this dump, about 1.5 ha of material 6. slipped. The length of the slipped area was about 250m and the height about 55m. This was reportedly due to discharge from two seeps into the bottom of the dump material, though some inspection reports speculate that this may have been due to residual saturation. The existence of these seeps (or residual saturation) was unknown to the mine closure contractor until the slippage. As a result, a modification to the waste dump closure design was required. A series of options was considered and a risk assessment was conducted by international experts in 2003. The designer prepared a new design and submitted it to the CGMC for review and approval in December 2003. The modification included a requirement to move at least 43,000m³ of material from the dump, re-profiling of the upper flanks of the waste dump, and construction of a gabion wall 13 to prevent movement of material towards the adjacent mental hospital.
- 7. Cement lined channels have been installed around the perimeter of the old waste dump. The channels were installed to route runoff around the waste dump. The channels join at the southwest corner of the dump and from this point a single channel extends straight to the access road. (The original design called for the channel to be routed above the parcel of land owned by the Requester. This was not done because of issues related to land ownership). After reaching the access road the channel extends parallel to the road until it connects with an 800 meter section of channel that extends southwestward to the railroad tracks (this reach of channel, which is aligned along the natural, ephemeral channel, has been deepened and widened in response to the flood of 2005). The channels around the dump were successful in transporting 2005 flood waters around the dump preventing water from running on to the dump.

¹² This refers to the boundaries between the existing soil horizons (pre-dump) - 2 dimensional surfaces that can fail when they are loaded (by putting dump material on top). ¹³ A stone wall that is permeable to allow water to pass through.

- 8. Properly constructed drainage has been put into the dump to drain water from infiltration, seepage discharge and/or residual saturation. These have been directed from the source to the perimeter cement channel. Further French drains have been installed to dewater areas on the dump. Three boreholes were drilled at various locations on the dump and core samples taken for analysis. Piezometers were installed into the boreholes for water monitoring purposes. Additional monitoring holes were drilled in the same locations with piezometers at different depths to monitor saturation conditions in the pile.
- 9. **Swale from Subsidence.** This swale (see Annex 6, Photo 10), which was located across the access road (on the river side of the road) from a small parcel of land owned by the Requester) was created by subsidence associated with the underground workings. The swale was filled as required by mine closure. Prior to mine closure activities this swale captured water from the slopes above and some of the water infiltrated into the subsurface and discharged into the underground workings. It is unknown how much water was diverted this way. The water that once infiltrated into the bottom of the swale now runs off as surface water. It should be noted however, that the swale would not have served as a flood control device and that it was filled in the period June-July 2004 (i.e., after the floods of April 2004).
- 10. **Drainage Channel from Access Road to Railroad Tracks.** As stated above, this reach of the channel (800 meters long), aligned along the old, natural ephemeral channel, extends from the access road to the railroad tracks. The channel was filled by sediment over the period since the mine closed. Photos show that the channel was still there, but quite shallow. In response to the 2005 flood, the channel has been dug out by the mine closure contractor.
- 11. **Drainage Channel from Railroad Tracks to Trotus River.** This reach of the channel, which is approximately 1.2 km long, is located on private land. The condition of the channel is reported to be poor. It has not been deepened or widened as a result of the flood. This reach of channel was not included in mine closure plan because it is outside the area of responsibility for mine closure activities. Maintenance of this channel is the legal responsibility of adjacent land holders.
- 12. **Transport of Sediment from Old and New Waste Dumps.** There is concern by local residents that a significant amount of sediment had been transported from the two primary waste dumps by flood waters in 2004 and 2005. There was clearly some sloughing on the lower dump and there was some movement of exposed material (from construction activities) on the "old" dump, although visual observations indicate that not much sediment was transported beyond the perimeter of the dumps. The international experts noted that the work to stabilize the dump was being done to a good standard and that the drains were working. The success of this work is evidenced by the lack of major failure of the dumps after the extraordinarily heavy rains in 2004 and 2005.

ANNEX 4. FLOODING IN THE TROTUS RIVER WATERSHED

Flooding in the Trotus River watershed in 2004 and in the entire country in 2005 was on an unprecedented scale.

2004 Flood

In 2004, the peak rainfall (24 hours) recorded in **Comanesti** area was similar to 2005:

Location	Rainfall (mm)
Goioasa	88.4
Comanesti	96.4
Dâmânesti	104.0
Tg. Ocna	62.5

However, the general pattern of rainfalls showed high intensity on the hills in the median to upper watershed but little rain in the lower watershed. Therefore, the floods had the aspect of flush floods in the small catchments which resulted in significant increase of the flow rate on the Trotus River in the upper watershed but not in the lower basin. Although no records exist for Vrânceanu brook, for reference, the flow rates recorded on larger streams were as follows:

River / Stream	Section	Flow rate (m ³ /s)	Return period (Years)
Trotus	Goioasa	358	20
	Târgu Ocna	682	20
	Onesti	869	8
	Vrânceni	1,136	5
Ciobanus	Ciobanus	120	34
Asau	Asau	136	12
Dofteana	Dofteana	116	10

It is the view of the Water Authority that in 2004 and 2005, the flow rates which occurred on a number of small streams, not monitored, were so big that they cannot be included in the return periods currently used (between 500 and 1000 years). It is interesting to note also the wide variability of values of run-off per unit area, ranging from 4,000 l/sec, km² to 29,000 l/sec, km². For example, on streams with small catchment areas, similar to Vrânceanu brook (5 km²), flow rate reached values of 65 m³ to 127 m³/s, as shown in the table below:

Stream	Section	Length (km)	Catchment area (km²)	Max. Flow rate (m ³ /s)
Sugura	Cotumba	7.0	12	47.0
Agas	Agas	9	16	195.0
Seaca	Agas	6.3	6.6	27.0
Beleghet	Beleghet	1.4	2.2	65.0
Tiganilor	Goioasa	3.6	4.5	80.0
Iedera	Goioasa	4.9	5.2	127

2005 Flood

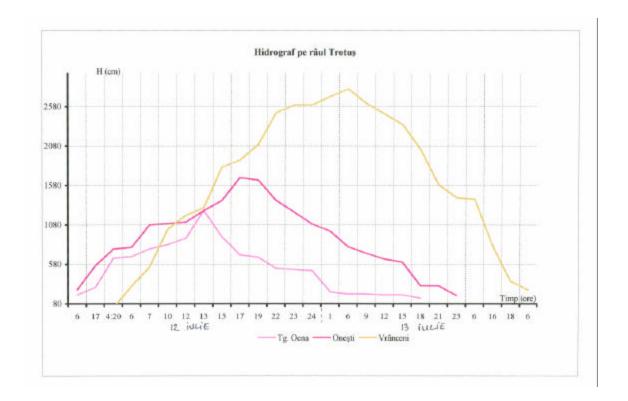
The flood that occurred in the Trotus River watershed in July 2005 was an extreme event. Flow in the Trotus River at the Târgu Ocna hydrometric station increased from 35.8 m³/s at 5 PM on July 11 to 1481 m³/s (peak flow) at 11 PM on July 12 (Table 1). This is an increase of 1445.2 m³/s or more than 4000%. The flow receded from peak flow to 65 m³/s between July 12 at 11 PM and August 1 at 5 AM. It was reported that more than 200 mm of rain fell in a period of 36 hours on July 12-13 in the upstream catchment and in the area surrounding Comanesti. The flood was reported by the Water Authority to be a one in 400 year flood (calculated by extrapolation of existing records).

Table 1 - Flow at hydrometric station Târgu Ocna (downstream of Comanesti)

Date /time		Flow (m ³ /s)	Date /time		Flow (m ³ /s)
July 11	5 PM	35.8 (base flow)	July 17	5 AM	174
July12	5 AM	194	July 17	6 PM	158
July 12	12 PM	775	July 18	5 AM	154
July 12	5 PM	910	July18	6 PM	162
July 12	11 PM	1481 (peak flow)	July 19	5 AM	151
July 13	5 AM	897	July 20	5 AM	110
July13	12 PM	700	July 21	5 AM	107
July 13	7PM	556	July 22	5 AM	113
July 13	11PM	515	July 23	5 AM	90.9
July 14	5 AM	230	July 24	5 AM	90.9
July14	12 PM	205	July 25	5 AM	88.4
July14	9 PM	194	July 26	5 AM	83.2
July 15	5AM	154	July 27	5 AM	80.9
July 15	12PM	151	July 28	5 AM	79.7
July 15	6 PM	151	July 29	5 AM	75
July16	5 AM	151	July 30	5 AM	71.5
July16	6 PM	158	August 1	5 AM	65.0

The figure below shows hydrographs for the Trotus River at three locations; Târgu Ocna, Onesti and Vrânceni. Onesti and Vrânceni are downriver from Târgu Ocna. The hydrographs show stage height in centimeters at each of the locations for the period. Damage from flooding in Bacau County in 2005 was estimated to be 3370 million Romanian new lei (approximately USD112 million). Damage within the Trotus watershed was extensive.

It is important to note that flood control and drainage features/facilities cannot be expected to accommodate a flood of this size. Design and construction of flood control/drainage facilities that can handle a one in four hundred year flood is rarely if ever required within the European Union or the United States.



ANNEX 5. WORLD BANK MISSIONS

Dates of Visits	Mission Members	Purpose
October 12, 1998	Principal Economist (2), Principal	Preparation Mission
,	Mining Specialist, Sr. Social	·
	Development Specialist, Project	
	Officer (2), Mining Consultant, D.	
	Merrick	
March 1, 1999	Principal Economist (2),	Preparation Mission
	Procurment Specialist, Sr. Social	
	Development Specialist, Project	
N 0 40 4000	Officer (2)	
May 3 - 12, 1999	Mining Advisor, Mining Specialist,	Appraisal Mission
	Sr. Social Development Specialist, Project Officer (2), Procurment	
	Specialist, Sector Manager	
June 28, 1999	Mining Advisor	Follow up on the status of Gov't efforts
Julie 20, 1999	Willing Advisor	to meet the Board Presentation
		condition.
July 28, 1999	Mining Advisor	Same as above
October 21 – 29, 1999	Sr. Social Development Specialist,	Supervision Mission
,	Project Officer, Social Specialist	,
January 18 – 21, 2000	Procurement Specialist	Procurement
February 20 – 25, 2000	Sr. Social Development Specialist,	Supervision Mission
	Project Officer (2)	
March 7 – 10, 2000	Sr. Environmental Specialist	SEA Review
April 2 – 8, 2000	Sr. Social Specialist	Social Support
May 24 - 26, 2000	Mining Advisor, Mining Specialist,	Supervision and Project Launch Mission
	Sr. Social Development Specialist	
	(2), Project Officer	
August 14, 2000	Mining Advisor, Project Officer,	Supervision Mission
August 21 - 26, 2000	Sr. Environmental Specialist	SEA Progress
October 9 – 13, 2000	Mining Advisor	Romania Mining Field Visit in Apuseni
		Mountains
October 25 – 31, 2000	Sr. Social Development Specialist,	Supervision Mission
D 1 0 0000	Project Officer (2), Sector Manager	
December 3, 2000	Mining Advisor, Mining Specialist, Project Officer	Supervision Mission
December 10 – 14, 2000	Sr. Environmental Specialist	Supervision – Environment
April 30 – May 4, 2001	Sr. Environmental Specialist	Supervision – Environment
May 6 – 12, 2001	Sr. Social Development Specialist,	Supervision Mission
	Project Officer	
May 26 - 30, 2001	Mining Specialist	Supervision Mission
June 25 – 29, 2001	Sr. Social Development Specialist,	Joint DFID-Bank Mission
	Project Officer, DFID (2)	
October 14, 2001	Mining Advisor, Sr. Mining	Mid-Term Review
	Specialist, Sr. Environmental	
	Specialist, Sr. Social Development	
	Specialist, Project Officer	B. I
October 15 – 26, 2001	Sr. Economist	Public Expenditure Review
October 14 – 18, 2001	Mining Advisor, Sr. Social	Mid-Term Review Mission
	Development Specialist, Sr.	
	Environmental Specialist, Sr. Mining Specialist, Project Officer	
November 14 – 17, 2001	Same Aide Memoire as above	Mid-Term Review Mission
February 4 - 6, 2002	Mining Advisor, Project Officer	Supervision Mission
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Dates of Visits	Mission Members	Purpose
April 24 – 26, 2002	Sector Manager, Director	To discuss w/Govt officials policy
		related issues in the context of the
		Bank's ongoing policy dialogue on
		mining sector development.
May 10 – 18, 2002	Sr. Mining Specialist, Project Officer, DFID	Joint WB-DFID Supervision Mission
October 21 - 25, 2002	Sr. Social Development Specialist, Sr. Mining Specialist, Project Officer, DFID (5)	Joint WB-DFID Supervision Mission
February 13 – 18, 2003	Sr. Social Development Specialist, Project Officer, DFID (2)	Joint WB-DFID Supervision Mission
March 30 – April 2, 2003	Sr. Mining Specialist, Project Officer and DFID	Supervision Mission
June 5 – 6, 2003	Financial Management Specialist	FM Supervision Mission
July 4 – 10, 2003	Sr. Social Development Specialist, DFID, Project Officer	Supervision Mission
December 8 – 13, 2003	Sr. Mining Specialist, Project Officer	
February 4 – 11, 2004	Sr. Social Development Specialist, Mining Specialist, Sr. Mining Specialist, Project Officer	Supervision Mission and Identification /Preparation Mission for MCESER Project
March 29 – April 8, 2004	Sr. Social Development Specialist, Mining Specialist, Project Officer, Project Assistant	Preparation Mission for MCESER Project
June 8 – 18, 2004	Sr. Social Development Specialist, Mining Specialist, JPA, Project Officer (2), Project Assistant,	Supervision Mission and Project Preparation Mission of MCESER Project
July 27 – August 4, 2004	Senior Environmental Specialist	Supervision - Environment
August 15 – 20, 2004	Mining Specialist, Project Officer (2), Project Assistant	Preparation Mission of MCESER Project
September 12 - 14, 2004	Mining Advisor, Sr. Social Development Specialist	Pre-Appraisal Mission of MCESER Project
October 3 – 9, 2004	Mining Advisor, Sr. Social Development Specialist, Mining Specialist, JPA, Project Officer, Project Assistant, Financial Management Specialist,	Pre-Appraisal /Appraisal Mission of MCESER Project
May 2 – 8, 2005	Mining Advisor, Sr. Social Development Specialist, Sr. Social Specialist, Sector Manager, Social Specialist, Project Officer (2), Project Assistant	Implementation Review Visit of MCSMP and MCESER
Sept. 20 – Oct. 3, 2005	Sr. Social Specialist (2), Project Officer (2), Mining Specialist, Environmental Expert	Supervision Mission of MCSMP and MCESER
December 6 – 9, 2005	Sr. Social Specialist (2), Sr. Social Development Specialist, Project Officer	Workshop to disseminate the findings of "Poverty and Social Impact Analysis of Mining Sector Reform in Romania".and workshop with NAD staff.
January 24 – Feb. 3, 2006	Sr. Social Specialist, Safeguard Specialist, Agricultural Specialist, Mining Specialist, Environmental Expert, Project Officer	Preparation of Management Response to Inspection Panel