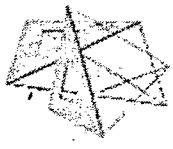


Roger Cohen
06/12/2003 12:13 PM

To: peter.saba@exim.gov, David Chavern
cc: Clara Ohr/GC/EXIMBANK@EXIMBANK
Subject: Camisea: Letter from "Environmental Defense" (NGO) to Chairman Merrill

FYI, just in case you have not seen this.

----- Forwarded by Roger Cohen/GC/EXIMBANK on 06/12/2003 12:07 PM -----



James Mahoney
06/10/2003 08:42 AM

To: John A McAdams/EVP/EXIMBANK@EXIMBANK, Popi Artavanis/STFG/EXIMBANK@EXIMBANK, Karl Kendall/STFG/EXIMBANK@EXIMBANK, Roger Cohen/GC/EXIMBANK@EXIMBANK, Clara Ohr/GC/EXIMBANK@EXIMBANK, Vasilios Giannopoulos/STFG/EXIMBANK@EXIMBANK, Barbara OBoyle/STFG/EXIMBANK@EXIMBANK

cc:
Subject: Letter sent to Mr. Merrill....

----- Forwarded by James Mahoney/POLICY/EXIMBANK on 06/10/2003 08:40 AM -----



**agoldzimer@environm
entaldefense.org**
06/09/2003 06:41 PM

To: James.Mahoney@exim.gov
cc:
Subject: Here you go....

(See attached file: merrill letter.doc) (See attached file: merrilcamisea7.doc) (See attached file: EnvDefense-Final.pdf) (See attached



file: EnvDefenseAppendix-Final.pdf) merrill letter.doc merrilcamisea7.do EnvDefense-Final.pd



EnvDefenseAppendix-Final.p

August 5, 2003

Chairman Philip Merrill
Export-Import Bank of the United States
811 Vermont Avenue, N.W.
Washington, D.C. 20571

Dear Chairman Merrill:

Under both the current and past Administrations, our organization has had a constructive relationship with the Export-Import Bank of the United States. We have commented on its environmental policies, and we have supported the U.S. Government's bipartisan effort to achieve a strong multilateral agreement on common environmental standards for Export Credit Agencies in the Organization for Economic Cooperation and Development (OECD). It is in this spirit that we wish to discuss the application for Ex-Im Bank support for the Camisea project and point out what we believe are this project's clear violations of the letter and spirit of Ex-Im Bank's Environmental Objectives and Guidelines.

We have prepared a detailed memorandum (attached) on these issues. We have also commissioned a separate analysis (also attached) from Global Village Engineers, an independent organization of professional engineers with extensive experience in environmental analysis of large infrastructure and extractive projects. Our comments address what we believe are violations of Exim's sector guideline on Oil and Gas Development (Table 5) and violations of two of Exim's seven Environmental Objectives: Number 5 on Ecology ("Protection of ecological resources, encouragement of conservation, and promotion of practices that result in reduction of greenhouse gases") and Number 6, Ecological and Sociocultural Framework ("Development of the project to avoid or mitigate significant adverse impacts"). We also believe that the project applicants have not provided sufficient environmental information to credibly fulfill Exim's requirements.

With respect to sector guideline on Oil and Gas Development (Table 5), the Environmental Impact Assessment (EIA), the Environmental Management Plan (EMP) and the project do not adequately address and articulate one of Table 5's major requirements: "positive measures to control population influx to remote areas due to increased access created by the pipeline right-of-way, and to prevent associated secondary impacts (e.g., encroachment on traditional indigenous population lands or preserves; uncontrolled exploitation of natural resources)." The measures discussed in the EIA and EMP are either simply hortatory, or of little direct relevance to mitigate access, or lack substance and detail. They do not constitute a substantive, detailed, credible, implementable action plan to address the greatest long-term environmental threats posed by the operation.

In its current form there is a great likelihood that the project will lead to *significantly increased access and population influxes* into the Lower Urubamba, the Nahua-Kugapakori Reserve and very possibly into adjoining reserve zones. The project has woefully *inadequate mitigation*

measures to control this access and prevent its associated secondary impacts. Several independent field missions and assessments over the past year have documented the beginning of these impacts.

The Global Village Engineers (GVE) analysis concludes that “The EIA reports contain no findings or data that support a conclusion that the project is achieving the requirements of the Export-Import Bank’s Environmental Guidelines—Table 5.” According to GVE, fundamental data on potential environmental impacts and risks to human health are lacking, as well as operational analyses and specific plans and precautions to address critical impacts and risks.

With respect to Ex-Im’s Environmental Objective No. 5, Ecology, the project itself and its indirect impacts will lead to *significant conversion and/or degradation of critical forest and marine habitats of international importance*. There is a high possibility of impacts from land clearing (for heliports and paths during 3D seismic testing, pipeline ROWs, etc.), of increased invasions of forest areas by illegal loggers as well as cultivators clearing land for crops; pollution and erosion in pristine waterways (erosion not only from cleared land but also riverbanks from which gravel and sand are extracted for construction); etc. Several independent assessments agree on the risk of significant conversion. The NGL fractionation plant and loading facility proposed for Ex-Im support are located on Loberia Beach, just adjacent to the Paracas National Reserve. Paracas is Peru’s only marine reserve, a UN RAMSAR site, and a Western Hemisphere Shorebird Reserve Network site. It is home to several rare or endangered species, including four sea turtles on the CITES Appendix 1 ‘Endangered’ list.

The GVE report notes that “the environmental baseline data on biological resources in the EIAs may not be sufficient to predict the impacts that the proposed activities will have on these resources.”

With respect to Exim Bank’s Environmental Objective No. 6, Socioeconomic and Sociocultural Framework, two-thirds or more of the upstream concession and three of its four drilling platforms are located within the Nahua-Kugapakori Reserve for the protection of nomadic indigenous peoples. Outside the Reserve, the vast majority of project-affected peoples are indigenous. There are already reports of unprecedented outbreaks of previously unknown disease and resulting fatalities within neighboring indigenous peoples within the last nine months. The *project’s direct adverse impactson indigenous peoples* include introduced disease; forced contact; pollution; erosion; noise; reductions in fish, game, and other resources; disruptions and drownings due to river traffic and barge/boat wakes; etc. The *project’s indirect adverse impactson indigenous peoples* are likely to include population influxes and ensuing conflicts; loss of land and resources that groups depend upon for habitat and food due to logging, poaching, ranching, etc.; introduction of disease and consequent dispersal of isolated indigenous groups; etc.

The measures to address these impacts are either woefully inadequate, or more often, non-existent. There is no indigenous peoples development plan, and there are no provisions resembling such a plan that would be consistent with basic international norms.

The GVE report concludes that for both the Loberia Beach and Camisea EIAs, “both EIAs, with regard to impacts upon human or social resources and upon natural resources, do not appear to

provide analysis of impacts. The analysis of impacts provided is vague, inconclusive, and may not be appropriate as input to a financial, social, and environmental decision.”

With respect to Ex-Im’s requirement that applicants “provide environmental information satisfactory to Ex-Im Bank in support of their applications,” both this and previous independent assessments have come to the conclusion that the EIA lacks critical environmental information in key respects, including in its baseline studies and especially in its inadequate and unspecific treatment of important mitigation measures and plans. The GVE report notes that for the Loberia Beach and Camisea Environmental Management Plans “there are no fewer than 25 plans, programs and studies that are yet to be developed” with “neither... specifics of the regulations nor... compliance. It is difficult to see how the Ex-Im Bank will make a decision without having this information.”

Given the above, we strongly urge the Export-Import Bank of the United States *not to approve support* for the Camisea Gas Field Development and NGL Fractionation Plant & Loading Facility until the project is changed in ways that resolve the above issues and until more and credible information is provided, engendering confidence that the project will not violate Ex-Im Bank’s Environmental Guidelines and Objectives.

Sincerely,

Aaron Goldzimer
Social Scientist

Bruce Rich
Director, International Program

Cc:

Eduardo Aguirre, Vice Chairman and First Vice President, Export-Import Bank of the United States

Dorian Vanessa Weaver, Member of the Board of Directors, Export-Import Bank of the United States

J. Joseph Grandmaison, Member of the Board of Directors, Export-Import Bank of the United States

April H. Foley, Member of the Board of Directors, Export-Import Bank of the United States

Donald L. Evans, Secretary of Commerce, Department of Commerce

Ambassador Robert B. Zoellick, U.S. Trade Representative

The Honorable Mitch McConnell, Chairman, Senate Committee on Appropriations,
Subcommittee on Foreign Operations Export Financing and Related Programs

The Honorable Patrick J. Leahy, Ranking Member, Senate Committee on Appropriations,

Subcommittee on Foreign Operations Export Financing and Related Programs

The Honorable Chuck Hagel, Chairman, Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on International Trade and Finance

The Honorable Evan Bayh, Ranking Member, Senate Committee on Banking, Housing, and Urban Affairs, Subcommittee on International Trade and Finance

The Honorable Jim Kolbe, Chairman, House Committee on Appropriations, Subcommittee on Foreign Operations Export Financing and Related Programs

The Honorable Nita M. Lowey, Ranking Member, House Committee on Appropriations, Subcommittee on Foreign Operations Export Financing and Related Programs

The Honorable Peter T. King, Chairman, House Committee on Financial Services, Subcommittee on International Monetary Policy Trade and Technology

The Honorable Carolyn B. Maloney, Ranking Member, House Committee on Financial Services, Subcommittee on International Monetary Policy Trade and Technology

MEMORANDUM

Violations of Ex-Im Bank Environmental Guidelines with Respect to the Camisea Gas Project

Environmental Defense believes that the evidence is overwhelming that this project in its current form clearly and directly violates the letter and spirit of Exim Bank's Environmental Guidelines.

Violations of Environmental Guidelines – Table 5: Oil and Gas Development

Violations of Table 5: Population influx and secondary impacts.

Table 5, among other measures, requires:

- **Positive measures to control population influx to remote areas due to increased access created by the pipeline right-of-way, and to prevent associated secondary impacts (e.g., encroachment on traditional indigenous population lands or preserves; uncontrolled exploitation of natural resources)**

Population influx to remote areas and associated secondary impacts. The Camisea gas field Environmental Impact Assessment (EIA) states:

“If effective measures are not undertaken to control immigration, the potential increase of the settler population...can be foreseen.... In the case of immigrations to the area, the traditional lifestyle of the communities, their use of land and the manner in which they use the natural resources could be severely affected. With the presence of foreign populations interacting with the communities there could be cultural changes in the daily lives and modifications in the use and occupation of lands because uninhabited or scarcely populated areas could be the object of immigration, generating social conflicts with the indigenous populations.... This impact is very important and is the most difficult one to control, taking into account the sensibility of the environment of study. It is also intimately related to the increase in furtive hunting [poaching] and the introduction of diseases”¹

Thus, the EIA acknowledges the importance of “**population influx to remote areas**” and its “**associated secondary impacts**” (to use Ex-Im Bank's language from Table 5) and says that these impacts are “the most difficult...to control”--particularly in such a sensitive region inhabited by indigenous peoples relying on natural resources for their survival and possibly lacking immunity to disease.

Mitigation measures inadequate. But the few measures indicated in the upstream EIA and its Environmental Management Plan (EMP) to mitigate undesired access/immigration are utterly inadequate. They are either purely hortatory, or of little direct relevance to

mitigating access, or lacking in substance and detail. They do not constitute a substantive, detailed, credible, implementable action plan to address possibly the greatest long-term environmental and social threat posed by the operation. In an EIA document that is hundreds of pages long, the mitigation section on migration and undesired access is less than a page.² The EMP lists only three mitigation measures with relation to the flow lines and seven with relation to the gas plant, one of which, for example, is the insubstantial “Measures should be taken to discourage and control the flow of immigrants.” Another is “Guarantee that the workforce is conveniently selected and qualified.” Of the total of nine measures (one is the same under the gas plant and the flow lines), five have to do with hiring and personnel policies. So putting aside personnel policies and purely hortatory, uninformative statements like “Measures should be taken...”, there are only three remaining mitigation measures listed:

EIA migration and access mitigation measure (a):

- “Comply strictly with isolation policy. (Off-shore in-land operation)”

Although it sounds impressive to suggest that transportation to and from the project will take place only via water and air transport (as if it was an off-shore operation) and thus presumably no new access routes will be opened into the area, there is a lack of recognition in the EIA that there will be a pipeline right of way (ROW) connecting to the upstream Las Malvinas plant.³ Just because Ex-Im is not considering financial support for the downstream pipeline consortium does not allow Ex-Im to assume away this opening of access into the upstream project area, from which outsiders will also be able to take advantage of internal access routes opened up by the upstream consortium – for example, the upstream consortium’s construction and clearing of roads, bridges, and 20-meter rights of way between and among the multiple well locations and the Malvinas Plant.⁴ (Obviously, a truly “off-shore” system would not benefit from roads, bridges, etc., between and among drilling platforms and gas plants.) These ROWs and roads will extend into the Nahua-Kugapakori Indigenous Reserve for isolated and nomadic peoples (within which lie two thirds of the concession and three of the four drilling platforms).

This lack of analysis of the likely pressures and impacts of the downstream pipeline component on the upstream component underscores another critical deficiency in the environmental assessments conducted for the entire Camisea operation: the fragmentation of environmental impact analysis into compartmentalized components examining project segments, resulting in a lack of environmental assessment of the cumulative, associated and secondary impacts of the project as a whole.

Moreover, the upstream EIA notes the distinct possibility that provincial and municipal authorities would use their gas royalty payments to build highways into the region. As the EIA states, “If a road is built there will be considerable movement of settlers towards the region, which will accelerate activities such as cattle breeding and commercial tree felling.”⁵ In a pristine, geographically isolated rainforest region that has received few migrant settlers to date, currently has only trails and footpaths, and is home to

uncontacted, semi-contacted, and settled indigenous communities, the ecological and social implications of this would be immense. Though the EIA states that "it is vitally important ... to avoid this impact [roads] on the region", there is no mention of this issue in either the EIA's mitigation section or in the EMP and, indeed, it is difficult to see how use of Camisea royalties for this purpose could be prevented. Even if attempts were made to ensure that royalties were not used for roads into the region, the fungibility of money would make it impossible to prevent this outcome, and any loan conditions attempting to prevent road-building would likely not be enforced over the entire life of this project.

There is also the question that is so glaring in much of the upstream EIA: neglect of issues related to isolated indigenous groups, who are the most vulnerable to increased access and incursions within the Reserve. What specific measures will ensure that isolated indigenous groups are effectively protected from invasions of their territories? Such groups, lacking significant contact with the outside world, would have no idea that they can or should request help, nor how or from whom.

EIA migration and access mitigation measure (b):

- "The access to the gas lines in the field must be monitor[ed] jointly by the communities and Pluspetrol"

There is no indication of what this means or how it would be implemented. Does this involve guard posts? How many, and where? Aerial surveillance or satellite imagery? Of what nature? What financial, personnel and technical resources are needed and will be provided? What organizational and managerial framework will be established for the monitoring—or is recommended? Or will the burden simply be placed on the local communities, as implied by the mitigation section of the EIA: "The communities must organize themselves, creating a control system for their territories. Pluspetrol must support with training and communication to inform quickly the presence of settlers, forest extractors and people foreign to the area and give support and help with legal advice in case of invasions"⁶ Placing the burden on local communities and merely assisting them with information and "legal advice" is not credible, as there is virtually no effective law enforcement in the region, the affected communities do not have the resources for effective monitoring or the means to seek redress, settlers and forest extractors can be violent and heavily armed, etc.

It is our understanding that the company is now paying certain community members to participate in monitoring teams, but these reports never become public and are a clearly inadequate response to the risks of increased access for immigrants and loggers. A more adequate monitoring system would have involved much closer collaboration and joint development with local indigenous federations and would have involved significant support for communities' own, truly independent monitoring systems, with identified mechanisms for reporting information to the Peruvian government, independent observers, and the public. Such an independent monitoring system should be supplemented by much more robust systems of monitoring by the company itself and/or contractors, again with

public release of monitoring reports, as agreed upon with local indigenous federations.

EIA migration and access mitigation measure (c):

- “Pluspetrol will attend to all the requests for help from the communities in the case that colonials enter their lands.”

Once again, what does this mean? Can and will Pluspetrol forcibly remove settlers? Do they or do even local authorities—of whom there is almost no presence in the region—have the capacity to do so? If not, what can Pluspetrol do to respond adequately to influxes of settlers, loggers, etc.?

Furthermore, Pluspetrol’s track record so far in attending to requests for help from local communities does not inspire confidence. Reflecting local communities’ complaints about Pluspetrol filing away their written complaints on project impacts and never responding, one Kirigueti man said, “It’s like talking to a deaf man.”⁷ See also the following examples: “Pluspetrol only complied with Kirigueti’s request for an investigation to identify the boatmen responsible for the girl’s death after the entire community blockaded the river for two days preventing passage of company traffic”; “In May the President of the community of Nuevo Mundo reported to Pluspetrol that heavy boards (tablas) fell from a helicopter into a community agricultural plot. The materials have yet to be removed and helicopters carrying external loads continue to fly over the community”; “At the IDB consultation on August 10, 2002, [Pluspetrol’s] Jose Luis Carbajal noted that the company receives frequent letters from communities about project impacts, however there is no clear system for managing and responding to community complaints and evaluations.”⁸

No specific mitigation measures to control access. Moreover, glaringly absent from all the EIA’s mitigation discussion are any specific measures at all to actually control access along the 20-meter pipeline ROWs, roads, and bridges between and among, for example, the Malvinas Plant and the four Platforms. These lead directly into the Indigenous Reserve and offer routes for encroachment and natural resource extraction. As the EIA states,

“There will be a temporary access between Malvinas and the four Platforms during the construction phase of the flow-lines or pipelines in the field, that will have to be controlled until reforestation has concluded and the forest has regenerated. This access can be used as a means to enter the forest for the purpose of cutting wood and exploiting other natural resources.... If this produces higher levels of exploitation of natural resources, it would cause a significant impact in the ecological integrity of the communities territories and of traditional use”⁹

“A possible ill use of the accesses created by the installation of the pipelines in the field is the access to extract wood.... This could cause land conflicts in the event that the timber dealers invade privately owned lands and protected areas such as

No control measures (remote sensing, fences, trenches, gates, guards?) are indicated in the EIA or the EMP. There is also no mention of this "reforesting" in the EMP, nor any mention anywhere in the EIA of how it would be implemented, how long it would take, whether any of the ROWs will remain cleared (and thereby serve as permanent immigration/access routes) in order to protect the lines or in order to maintain access in case of emergency, etc. (It is our understanding that, even after "reforesting", operators usually maintain a corridor of at least 10-15 meters of low vegetation for maintenance access, which may be why the EIA does not commit to "closing off" the ROW, but rather just to "reforesting". This corridor of low vegetation can provide access, with all of its associated secondary impacts.) There have been few ROWs in the world that have been reforested to actually close them off to human access.¹¹ Indeed, there are suggestions that, rather than being "reforested", the road from Malvinas to the first drilling platform will be upgraded and graveled.¹² Also, reports indicate that one or possibly two substantial bridges have been constructed (one over the Camisea River between Segakiato and Cashiari and the other nearby) about which local peoples had not been informed and which are not detectable in the EIA.¹³

Mitigation measures unlikely to be implemented or effective. Lastly, even if adequate measures were indicated to control, monitor, and respond to population influxes into these remote areas and to prevent their associated secondary impacts, history indicates that successful implementation is nearly impossible over the decades-long lifetime of a project like this in such a sensitive region. In recent instances where pipeline projects have had substantially better-developed plans for ROW deactivation and control of access (including the Cuiaba pipeline in Bolivia, where the U.S. Overseas Private Investment Corporation insisted on strict measures but later cancelled its support), there has been near-immediate and near-total failure to control access. Uncontrolled population influxes, exploitation of natural resources, and encroachment on native territories proliferated. Years after construction, the ROWs have become in effect roads, with no revegetation and with barriers destroyed or circumvented.¹⁴ Ex-Im Bank has a responsibility, as part of its due diligence, not to rely on promises of mitigation measures that experience shows are not likely to be effectively carried out or are based on unrealistic assumptions of likelihood of implementation.

Already indications of population influx and negative secondary impacts. In this regard, we also note the distressing reports of increased numbers of outsiders in the region and resulting negative impacts that are reportedly already occurring, such as those mentioned in the January 2003 memo from Amazon Watch:

"Machiguenga communities report that fear and insecurity has increased due to the rise in the numbers of outsiders entering the Urubamba region. The appearance of land grabbers has been an ongoing problem since the project began, but is now worsening. Some recent incomers who have not been able to obtain sufficient land are turning to crime to support themselves. Small groups of delinquents are now entering indigenous communities to steal and commit crimes.

Fear is worsening that women could be sexually assaulted. The Machiguenga organization COMARU reports an increase in the presence of known and suspected drug traffickers in the Urubamba region, but some communities decide not to complain about the presence of drug traffickers to the appropriate authorities for fear of reprisals.”¹⁵

Unprecedented outbreaks of previously unknown illness inside and outside of the Reserve have also been reported, including several child fatalities in isolated Nanti communities, presumably due to the increased traffic and presence of outsiders.

Violations of Table 5: Other measures and standards.

Table 5 also requires:

- **Minimization of disturbance to natural vegetation, soils, hydrological regimes, and topography**
- **Other measures and standards concerning: Liquid Effluents for Onshore Development, Solid and Liquid Non-Hazardous Wastes, Hazardous and Toxic Materials and Waste, Noise, Other General Environmental Requirements etc.**

Violations of measures and standards; and direct project impacts. We believe that, in addition to the impacts threatened by population influx into the project area, there may be impacts on natural vegetation, soils, hydrological regimes, etc., directly caused by the construction and operation of the upstream extraction and gas plant project that have not been adequately identified or analyzed by the upstream EIA (see GVE analysis, attached) which may be either unavoidable, or for which adequate mitigation plans have not been developed. Some of these impacts are mentioned in the discussion below on violations of Ex-Im Bank's Environmental Objectives. There are already, for example, complaints of local communities concerning pollution from effluents and erosion and siltation of water courses associated with impacts of construction and clearing.

Violations of Environmental Guidelines – Ex-Im Bank Environmental Objectives

We note that apart from the one bullet point regarding measures to control population influx and prevent associated secondary impacts, and some technological specifications for oil and gas projects, Ex-Im Bank's Table 5 on Oil and Gas Development, like most of its sector Tables, only provides guidelines for Ex-Im Bank Environmental Objectives 1-3 and 7, rather than Objectives 4-6. Objectives 4-6 are more qualitative and represent, in many respects, the most important issue areas for a project like Camisea, in a pristine area of the highest ecological value and involving the most sensitive social issues such as those of contacted and uncontacted indigenous peoples whose survival is dependent on local water, flora, and fauna.

Violations of Ex-Im Bank Environmental Objective 5: *Ecology.*

Ex-Im Bank Environmental Objective 5 is:

- *Ecology.* Protection of ecological resources, encouragement of conservation, and promotion of practices that result in the reduction of greenhouse gases.

Significant degradation and/or conversion of ecological resources that are critical natural habitats. Because of both the direct impacts of the project (clearing, pollution and erosion in pristine waterways, risk of spills and accidents, etc.) and its indirect and cumulative impacts (opening access to a previously isolated and nearly inaccessible region, enabling road-building into the region, luring job-seekers and resource extractors, etc.), the project can be expected to lead to significant degradation and/or conversion of the area. Both the project itself and its indirect impacts will lead to land clearing (for heliports and paths during 3D seismic testing, pipeline ROWs, etc.); a high possibility of increased invasions by illegal loggers as well as cultivators clearing land for crops; pollution and erosion in pristine waterways that are vital for drinking water and protein (fishing) for most of the population (erosion not only from cleared land but also riverbanks from which gravel and sand are extracted for construction); etc.

Even the Camisea consortium states, "We believe the area in Block 88 would be considered a 'critical natural habitat.'"¹⁶ The areas impacted by the upstream project are designated native communities and a Reserve for the protection of nomadic indigenous peoples, as well as the adjacent Manu National Park and other reserve zones threatened by the opening of access and increased population influxes into the region. The directly impacted areas are, in whole or in part, contained within the World Wildlife Fund's "Global 200"¹⁷, The Nature Conservancy's "Last Great Places" conservation campaign, and Conservation International's "Tropical Andes" hotspot¹⁸. Under World Wildlife Fund's "Biodiversity Vision for the SWA"¹⁹, the project concession ("Block 88") is also an important buffer zone for Manu National Park.

Moreover, the NGL fractionation plant & loading facility (project components that would also receive Ex-Im Bank support) are located just adjacent to the Paracas National Reserve. Paracas is Peru's only marine reserve, a UN RAMSAR site, and a Western Hemisphere Shorebird Reserve Network site. It is also home to several rare or endangered species, including four sea turtles on the CITES Appendix 1 'Endangered' list. This part of the project lies within the Humboldt marine ecoregion, which is "one of the highest priority marine areas in all of Latin America and the Caribbean."²⁰ The fractionation plant is located within the buffer zone of the Paracas Reserve, in an area that was switched from a recreational to an industrial zone right before Pluspetrol's purchase of the site. Former World Bank Group Chief Environment Adviser Robert Goodland says that "the decision to locate the fractionation plant in Paracas should be reviewed for consideration of a lower impact, less environmentally risky site."²¹

According to the World Wildlife Fund, The Nature Conservancy, Conservation International, and the Smithsonian Institution, "The high conservation value accorded to the Camisea Project region...is due to its high species richness, endemism, number and

diversity of habitats, and biogeographical and evolutionary processes. In all, the Camisea project would affect one of the areas of highest biological and ecological value of all forested regions in the world.”²²

The Camisea Consortium has argued that while the habitats affected are “critical natural habitats”, the conversion of habitat that the project risks is not “significant,” since “the quantity of land affected by the Camisea project is small compared to the overall surface of Block 88.”²³ However, this neglects the serious risks of both direct project impacts that would extend beyond the project sites (pollution, erosion, spills, etc.) and the indirect project impacts of opening of access, attracting influxes of settlers, illegal loggers, cultivators, job-seekers, etc., enabling road-building; etc. The World Wildlife Fund et al. memorandum emphasizes that the secondary and cumulative impacts of the project on critical habitats risk being “more significant and more difficult to control over the long-term than ‘direct’ impacts (e.g., construction of the infrastructure) themselves.... Opening access to Block 88 could well be a starting point for significantly greater resource extraction and irreversible primary forest destruction....” The memorandum also expresses concern “that the oil and gas companies involved in the two consortia developing the project may have limited experience in preventing and mitigating such damages to primary forests and critical habitats.”²⁴

Violations of Ex-Im Bank Environmental Objective 6: *Socioeconomic and Sociocultural Framework.*

Ex-Im Bank Environmental Objective 6 is:

- *Socioeconomic and Sociocultural Framework.* Development of the project to avoid or mitigate significant adverse impacts.

The Camisea project is clearly a case where adverse socioeconomic and sociocultural impacts are unavoidable and adequate mitigation plans are either impossible or have not been developed. As previously stated, two-thirds or more of the upstream concession and three of its four drilling platforms are located within the Nahua-Kugapakori Reserve for the protection of nomadic indigenous peoples. Some of the peoples living in the Reserve are *the* most vulnerable indigenous peoples, uncontacted and/or living in isolation, and lacking immunity to common respiratory and gastrointestinal illnesses. In 1984, during Shell’s exploration in the area, gas workers and/or loggers using gas company trails introduced diseases that killed at least 42% of the entire Nahua people (this is the minimum confirmed estimate--researchers believe the actual number may be up to 70%).²⁵ Even outside the Reserve, the vast majority of project-affected peoples are indigenous.

Thus, indigenous peoples will unavoidably suffer, to greater or lesser degrees, the above-described impacts surrounding the opening of access and luring of job seekers and resource extractors: population influxes and ensuing conflicts; loss of land and resources that groups depend upon for habitat and food, due to logging, poaching, ranching, etc.; introduction of disease and consequent dispersal of isolated indigenous groups; etc. As

noted above, already there are reports of the beginning of several of these impacts. In addition to these impacts, there are sociocultural and socioeconomic impacts directly caused by the construction and operations of the upstream project that are either unavoidable or for which adequate mitigation plans have not been developed.

In the Reserve: Forced contact, forced relocation, risk of environmental impacts and introduced disease. Within the Reserve, there are multiple disturbing reports of forced contact between project contractors and isolated indigenous groups, in contravention of international law (ILO Convention 169), company policy, and the EIA's stated mitigation measures. These reports are documented in a succession of memos and letters from NGOs sent to Ex-Im Bank over the past year. One newly released report from a Polish anthropologist relates in detail an instance of forced relocation of one extremely isolated community in the Reserve, which fled its village after contact with and threats from project workers and other project impacts:

*"According to the interview, the first representatives of Pluspetrol (identified as... workers that open up seismic trails) came to Shiateni between March and April. Soon the village found itself between two [seismic] trails that came from the side of Camisea.... Answering the question "For what reason did you abandon the village?", Juan and Segundo said that it had to do with the noise that the helicopters made and in general the lack of peace owing to an excessively great number of people that came to the village, making it impossible to live in peace and grow food. They also mentioned the contaminated soil, possibly caused by drilling (activities), though not in the village surroundings. Noe gave me additional information about the move. He said that among the company workers there were two Matsigenka.... Both were interpreters for the company. They told Noe that the inhabitants of Shiateni would have to move...: first, being in contact with the trail-makers they would contract their diseases and would die, because they weren't vaccinated; and second, if they stayed in the village they would be detained as terrorists and transported to Lima. According to Noe the threat was accompanied by the suggestion that the inhabitants of Shiateni go down the Camisea and establish themselves in the community Segakiato.... However...they chose to move themselves to the Paquiria.... I believe that the inhabitants of Shiateni chose an area close to Fernando [in part] because...he knew the outside world and...would be able to protect them from what came from this world."*²⁶

The anthropologist goes on to refute Pluspetrol's responses to his findings, providing several reasons why Pluspetrol's claim that the move was a regular, seasonal, temporary one "is evidently false."²⁷ (Note that Pluspetrol did not deny contact with the isolated village in the Reserve.) Regarding Pluspetrol's claim that the village's move was voluntary, he states, "If, let's imagine, the inhabitants of Shiateni had refused to abandon their homes, would Pluspetrol have renounced their activities in the region? I believe that the abandonment of their settlement by the inhabitants of Shiateni has been a result of pressure, subtle to a greater or lesser degree, exercised on them."²⁸ He goes on to state:

“Until now the principal problem of the Matsigenka of Paquiria was violation of the boundaries of the Reserve and treatment of the villages there as bases for loggers. In addition, the arrival of the loggers brought (and brings) the risk of contracting diseases, above all in the case of the groups (like for example the inhabitants of Kairoari) whose contacts with people of outside is nothing more than sporadic. Now to the problems mentioned one has to add the expansion of Pluspetrol in the zone of the Reserve which brings with it similar risks, only with more intensity and at a greater scale. The activity of the company relates also to the destruction of the environment, upon which depend in great measure the existence and subsistence of the Matsigenka of the Paquiria and the other inhabitants of the Reserve. In my judgment, for the welfare of the indigenous peoples that maintain little contact, the expansion of the company in the zone of the Reserve should be limited, and if it were possible – stopped.”²⁹

Pollution and erosion. Indigenous peoples both within and outside the Reserve will suffer—or are already suffering—impacts from pollution and erosion. Already, the Atalaya indigenous organization OIRA, which was present in the Upper and Lower Urubamba areas during September, reported a large fuel spill on the Urubamba River by a Veritas fuel barge, summarized in “Findings of the International NGO Delegation on the Camisea Gas Project”:

In early September a Veritas fuel barge upturned when attempting to pass a very shallow section of the Urubamba River above the confluence of the Tambo and Urubamba Rivers. Attempts to salvage the barge resulted in fuel tanks being ruptured causing fuel to spill into the Urubamba River. The fuel was clearly visible 50 kilometers down the Urubamba River. Six indigenous communities live within the spill area. Communities reported the death of many fish. Later on same day, Veritas attempted to clean up spilled fuel and recovered over 1000 gallons of fuel. Given the time lapse between the spill and the clean up operation, it is evident that a much greater quantity of fuel escaped their clean-up efforts. Since the spill, Veritas representatives have not contacted local communities to discuss further environmental cleansing and compensation procedures.³⁰

In addition to spills and pollution from effluents (which are also already the subject of complaints from local communities), the EIA states that

“the constructions of the flow-lines are going to mobilize great volumes of material and soil. It is foreseen that during the period of excavation to install the pipeline, sediment and clay will reach the gorges through the effect of rain, which will increase the concentration of suspended solids. In the dry period, typical of clean and reduced rivers, the suspended solids will drive away certain types of fish towards the gorges.... If the fish are affected, and therefore their level of capture, this will produce a significant impact for the affected population. Fishing is an important source of proteins for the local population.”³¹

Also, according to Dr. Robert Goodland, "thousands of tons of sand, gravel and rocks are being extracted" from local riverbanks, and "the vast airport at Las Malvinas was built on c. 3 m depth of stones, covered by one-meter depth of gravel, all extracted from the adjacent Urubamba river." This extraction can only be done in the dry season, causing massive erosion just "when most organisms on which people depend need relatively silt-free waters."³²

Furthermore, from the EIA:

*"If this [erosion] impact is foreseen to be of significant magnitude, it will [also] be necessary to supply the communities possibly affected with sources of potable water before construction of the project."*³³

Again, there is no mention of isolated or uncontacted communities' water supplies' being affected, for whom it would be impossible to provide alternative sources of potable water.

Project activity, noise, drownings. Indigenous peoples both within and outside the Reserve will suffer significantly from noise from project construction and operation and transport (barges, motor boats, airplanes, helicopters, etc.), as well as from significant reduction of game from project activity and noise. Recent reports indicate community complaints about reduction of fish and game, from river traffic, pollution, and project activity. Field investigations by some of our organizations (and the anthropological report quoted above from inside the Reserve) have documented the fear and stress resulting from repeated close contact with the noise of helicopters and other project activity among families in these extremely remote communities. The EIA states that noise may be so significant as to necessitate relocating the local population. The EIA also states that people traveling or fishing in the river will have to stop and take precautions in order to avoid being capsized by the wakes of passing barges and boats.³⁴ Already, one indigenous girl perished after being drowned by the wakes of two passing barges.³⁵

Other disturbances, health issues and possible relocation, etc. The EIA states, "Since certain sections of the planned routes [the flow-lines] pass near and in some cases through (Segakiato) areas directly used by the communities, the disturbance that these areas will receive will be very significant. In the particular case of Segakiato, the planned route for the flow lines goes through a highly sensitive area according to our evaluation. The flow line it's self (sic) virtually goes through the village, their crops, several gorges and an important part of their use areas."³⁶ And the March 2003 statement from Peruvian indigenous federations AIDSESEP and COMARU states (translated), "Beginning with the execution of gas exploration in the existing well in the community of Segakiato, the population has begun to experience health issues like nausea, fainting, and vomiting.... The discomfort caused by the presence of foreigners among the Matsigenkas, the appearance of new diseases, the impacts on the ecosystems, the reduction of the fauna, the threat of colonization and fears of the uncertainty of what will occur in the future with their territories is causing fear among some sectors of the local population. For the moment, family groups of the community Segakiato are considering moving to

communities of the Manu National Park in search of peace.”³⁷

Other cultural and socioeconomic impacts. There is also significant likelihood of other harmful cultural and socioeconomic impacts, including becoming dependent on seasonal, temporary, or unstable labor; social conflict arising from increased inequality between project laborers and those continuing to live a subsistence lifestyle; prostitution; increased availability of alcohol; etc. Unfortunately, these developments are the norm--from Canada to the Amazon--when large extractive projects arrive in indigenous lands, with outside influences, workers, and their lifestyles.

No indigenous peoples development plan consistent with international norms; consultations inadequate or impossible. There is no indigenous peoples development plan (IPDP), and there are no provisions resembling such a plan that would be consistent with international norms. Because of the unique culturally specific development needs of indigenous communities, the need to address historical economic and social disparities affecting indigenous peoples, and the requirements under international law (ILO 169 7.1) for indigenous peoples to be allowed to define and pursue their own developmental paths, an IPDP is necessary to avoid significant adverse socioeconomic and sociocultural impacts where projects affect indigenous peoples. As just some indications of this failure, not only have settled Machiguenga communities complained repeatedly of inadequate and problematic consultations, but there has been no discernable participation at all of affected indigenous communities in initial contact, and it is manifestly impossible for there be participation of uncontacted or voluntarily isolated peoples who have been or will be affected. Caffrey notes in her *Independent Assessment*, “No evidence is given in the Social Impact Study [of the EIA] of any participation of indigenous groups in initial contact in the Camisea gas project decision making processes....no participative mechanism is identified.” This inadequate framework for stakeholder consultation and participation violates Article 7 of ILO Convention 169, which asserts the right of indigenous peoples to “participate in the formulation, implementation and evaluation of plans and programs for national and regional development which may affect them directly.”³⁸

Unavoidable sociocultural and socioeconomic impacts, inadequate mitigation plans, mitigation plans violated. Many of the above impacts on indigenous peoples are unavoidable under any scenario. The EIA’s mitigation section speaks of reducing spills “to a minimum” – reflecting the reality that it will be impossible to avoid spills in a project of this magnitude and complexity in the middle of the Amazon.³⁹ It also states that, until there is successful reforestation on the ROWs, “there is no guarantee that the runoff from rains will not affect the removed soil placed on top of the pipes and drag off the sediments.”⁴⁰

Indeed, as both Caffrey and this memorandum make clear, there are no adequate mitigation plans for many of the adverse impacts on indigenous peoples, and many of these impacts (as previously stated) are to one extent or another unavoidable. The inadequacy of mitigation measures with respect to control of access and population

influxes has already been discussed with relation to Table 5. We have been unable to find any mention at all in the EIA or EMP of mitigation measures regarding erosion caused by extraction of construction materials from riverbanks. Indeed, in a document that is hundreds of pages long, the EIA/EMP's mitigation measures for water contamination are purely hortatory, featuring uninformative exhortations such as "Develop and implement the Water Management Plan and erosion control." But we see no evidence that such a plan exists or is being implemented. Furthermore, even for many of the measures and policies that have been indicated to mitigate impacts on indigenous peoples--from Pluspetrol's policy of avoiding contact with isolated populations to Pluspetrol's speed regulations for barge traffic--there are already multiple reports of violations, that have already had tragic consequences.

Violations of Environmental Guidelines – Lack of Information

According to Ex-Im Bank Environmental Procedures, **"Applicants will be required to provide environmental information satisfactory to Ex-Im Bank in support of their applications."**

Lack of information. Quite apart from the violations of Ex-Im Bank's Environmental Guidelines detailed above, the EIA and EMP consist of hundreds of pages of background research and information which are largely irrelevant in providing useful baseline data, rigorous impact analysis, and mitigation measures clear, detailed, and specific enough to generate confidence in their adequacy and their implementation.

Patricia B. Caffrey, after going through the EIA in detail, attests to this in several respects in "An Independent Environmental and Social Assessment of the Camisea Gas Project". Her criticisms of the lack of adequate baseline studies—and the ramifications of this—are particularly disturbing, such as in the following statement: "The deficiencies in the baseline study for semi-contacted and uncontacted peoples partly explain the EIA's ensuing failure to adequately identify and mitigate project impacts on them."⁴¹ Furthermore, reading the EIA and EMP, one is struck by the hortatory, substance-less way in which it deals with many of the key impacts to be mitigated. In a 630-page document, many of the core mitigation measures are vague exhortations to develop measures, viz. "Develop and implement a mitigation plan to address..."; or "It is recommended that Pluspetrol establish, develop and implement policies...." The documents are littered with "plans" that remain to be developed and/or are simply invoked by exhortation. Gregor MacLennon, of the Peruvian NGO Shinai Serjali, reflects the same experience: "Again and again I have heard about non-existent plans that are being 'being developed' in response to many of my questions. Meanwhile the project is ploughing ahead full steam, using a tactic of 'Oh yes, we made a mistake, but it's not worth crying over spilt milk, we're working on a plan...'"⁴²

Adequate impact analysis and mitigation cannot be based on inadequate baseline information and an approach and framework that are, in many cases, no more analytical than "Develop a plan." Three independent assessments and documents on Camisea

(Caffrey, World Wildlife Fund et al., and Goodland) cite with concern the project's lack of independent, internationally credible, transparent monitoring mechanisms and plans concerning bio-diversity and social/indigenous peoples' impacts. The GVE analysis (attached) notes that for the Loberia Beach and Camisea Environmental Management Plans "there are no fewer than 25 plans, programs and studies that are yet to be developed" with "neither... specifics of the regulations nor... compliance. It is difficult to see how the Ex-Im Bank will make a decision without having this information."

In short, in addition to clear violations of Ex-Im Bank's Environmental Guidelines (some of which are described in this memorandum), there is overwhelming evidence that there is not enough information for affected populations, the public, or Ex-Im Bank to evaluate the probable impacts or the adequacy (and likelihood of implementation) of mitigation measures.

Conclusion

This is not intended to be a comprehensive analysis of the Camisea gas project's violations of Ex-Im Bank's Environmental Guidelines, but rather a partial illustration of just some of the major violations. As illustrated above, the Camisea project:

Violates Ex-Im Bank's Environmental Guidelines -- Table 5: *Oil and Gas Development.*

- **The project will unavoidably lead to *significantly increased access and population influxes* into the Lower Urubamba, the Nahua-Kugapakori Reserve, and adjoining reserve zones, as the project lures workers, job seekers, and loggers/extractivists; and involves a pipeline ROW to Las Malvinas and then ROWs, roads, and bridges between and among Las Malvinas and multiple well locations. In addition, the project will also likely enable the construction of highways and roads into the area.**
- **The project has woefully *inadequate mitigation measures* to control this access and prevent its associated secondary impacts.**
- Even if the project had well-developed mitigation plans to control, monitor, and respond to issues of access and immigration, the record of previous gas and oil exploration and pipeline projects in tropical rainforest regions demonstrates that implementation is extraordinarily difficult. The relative inexperience, lack of capacity, and poor environmental track records of the companies involved makes massive environmental damage through the secondary and induced impacts of increased access and migration almost a certainty.
- The beginning of these impacts may already be visible.
- In addition to the impacts threatened by population influx into the project area,

there will be impacts on natural vegetation, soils, hydrological regimes, etc.--and other violations of Table 5--directly caused by the construction and operation of the upstream project that are either unavoidable or for which adequate mitigation plans have not been developed.

Violates Ex-Im Bank Environmental Guidelines -- Objective 5: *Ecology.*

- **The project itself and its indirect impacts will lead to *significant conversion and/or degradation of critical forest and marine habitats of international importance.*** There is a high possibility of impacts from land clearing (for heliports and paths during 3D seismic testing, pipeline ROWs, etc.), of increased invasions of forest areas by illegal loggers as well as cultivators clearing land for crops; pollution and erosion in pristine waterways (erosion not only from cleared land but also riverbanks from which gravel and sand are extracted for construction); etc. Several independent assessments agree on the risk of significant conversion. The NGL fractionation plant and loading facility proposed for Ex-Im support are located on Loberia Beach, just adjacent to the Paracas National Reserve.
- **The areas impacted are clearly *critical natural habitats.*** Even project sponsors agree on this. Four prominent conservation institutions, including the Smithsonian Institution, have said: "The high conservation value accorded to the Camisea Project region...is due to its high species richness, endemism, number and diversity of habitats, and biogeographical and evolutionary processes. In all, the Camisea project would affect one of the areas of highest biological and ecological value of all forested regions in the world."⁴³ The Paracas National Reserve is Peru's only marine reserve, a UN RAMSAR site, and a Western Hemisphere Shorebird Reserve Network site. It is home to several rare or endangered species, including four sea turtles on the CITES Appendix 1 'Endangered' list.

Violates Ex-Im Bank Environmental Guidelines -- Objective 6: *Socioeconomic and Sociocultural Framework.*

- Two-thirds or more of the upstream concession and three of its four drilling platforms are located within the Nahua-Kugapakori Reserve for the protection of nomadic indigenous peoples. Some of the peoples living in the Reserve are *the* most vulnerable indigenous peoples, uncontacted and/or living in isolation, and lacking immunity to common respiratory and gastrointestinal illnesses. (The former Chief Environment Adviser of the World Bank Group, Robert Goodland, has recommended that under present circumstances the three drilling platforms within the reserve not be developed.⁴⁴) Also outside the Reserve, the vast majority of project-affected peoples are indigenous.
- Past gas exploration in the area has had the most tragic of consequences, including the death of 42-70% of one indigenous society. There are now reports

of unprecedented outbreaks of previously unknown disease and resulting fatalities within neighboring indigenous peoples within the last nine months.

- The project's direct adverse impacts on indigenous peoples include introduced disease; forced contact; pollution; erosion; noise; reductions in fish, game, and other resources; disruptions and drownings due to river traffic and barge/boat wakes; etc.
- The project's indirect adverse impacts on indigenous peoples are likely to include population influxes and ensuing conflicts; loss of land and resources that groups depend upon for habitat and food due to logging, poaching, ranching, etc.; introduction of disease and consequent dispersal of isolated indigenous groups; etc.
- Groups have already reported experiencing many of these negative impacts, and many have declared their consideration of moving to the Manu National Park or other areas to escape these impacts.
- There is no indigenous peoples development plan, and there are no provisions resembling such a plan that would be consistent with international norms. Indeed, many of these adverse impacts are ultimately unavoidable, and for many others there are no adequate mitigation plans specified or they have already been violated.

Violates Ex-Im Bank Environmental Guidelines -- Lack of Information

- Both this and previous independent assessments have come to the conclusion that the EIA lacks critical environmental information in key respects, including in its baseline studies and in its inadequate and unspecific treatment of important mitigation measures and plans. There is not enough information for affected populations, the public, or Ex-Im Bank to evaluate the probable impacts or the adequacy (and likelihood of implementation) of mitigation measures.

Given the above, we strongly urge the Export-Import Bank of the United States *not to approve support for the Camisea Gas Field Development and NGL Fractionation Plant & Loading Facility* until the project is changed in ways that resolve the above issues and until more and credible information is provided to demonstrate that the project will not violate Ex-Im Bank's Environmental Guidelines and will not result in such adverse environmental and social impacts.

¹ Environmental Resources Management (ERM) Peru S.A., Estudio de impacto ambiental y social de Lote 88, Camisea y area de influencia (Lima: 2001), Ch. IV, pp. 115-6; Ch. V, p. 19.

² Ibid., Ch. IV, pp. 123-4

³ There is no good information regarding what measures will be taken to control access via the downstream pipeline ROWs ("ROWs" is plural because there are over 70 cases of re-routing, meaning that there are abandoned ROWs that can also be used as access and where, according to the October 2002 TGP monitoring report, revegetation has not taken place). On February 6, 2003, IDB said that a 5-meter clearing would be maintained all along the final ROW (apart from one small segment in the Apurimac Reserve) – easily sufficient for immigration traffic. The ROWs also will cross roads or potential roads in several places, increasing the likelihood that they will serve as access routes. A draft report from Dr. Robert Goodland states, "While slopes up to 45° and physical erosion control structures may prevent jeep access, it may be insufficient to prevent pedestrians, donkeys, horses, bicycles, and trail bikes.... A determined subsistence farmer or peasant family usually finds a way around barriers, and sooner rather than later." Reported ridge-top removal, filling-in of gullies, and service and access roads will make access even easier and revegetation more difficult. Recent reports indicate that the ROW is open and attempts to close it are either non-existent or have failed. Robert Goodland, "Peru: Camisea Natural Gas Project: Independent Assessment of the Camisea Gas Project's Environmental and Social Priorities" (draft April 8, 2003), 9-11; Luis Yallico, TGP representative, cited in Janet Lloyd, e-mail to the author, 30 April 2003.

⁴ According to Amazon Watch, Pluspetrol's Jose Luis Carbajal mentioned access roads needed to build the upstream platforms and pipelines in the Reserve in an August 2002 interview, and Pluspetrol staff confirmed the construction of such roads during the IDB public hearing in Camisea in August 12, 2002. Janet Lloyd, e-mail to the author, 22 April 2003; Janet Lloyd, e-mail to the author, 20 May 2003.

⁵ ERM, 2001, Ch. IV, p. 115.

⁶ ERM 2001, Ch IV, p. 123.

⁷ Oral Testimonies From Lower Urubamba Communities On The Impacts Of The Camisea Gas Project Documented by International NGO Delegation in August 2002 Amazon Watch, 2002.

⁸ "Findings of the International NGO Delegation on the Camisea Gas Project" (2002), 6-8.

⁹ Ibid., Ch. IV, p. 115.

¹⁰ Ibid., Ch. IV, p. 116.

¹¹ Trish Caffrey, e-mail to the author, 20 May 2003.

¹² Robert Goodland, e-mail to the author, 3 April 2003.

¹³ Robert Goodland, e-mail to the author, 21 April 2003; Amazon Watch, "Camisea Oil & Gas Project in Peru" (memorandum, 2003), 3.

¹⁴ Extensive video footage and other documentation of this is available.

¹⁵ Amazon Watch, "Camisea Oil & Gas Project in Peru" (memorandum, 2003), 3.

¹⁶ "Information Exchange with Stakeholders: Appendix A". <http://www.camisea.com.pe/dialogo08.asp> (cited 6 April 2003).

¹⁷ "The Global 200 is a science-based global ranking of the Earth's most biologically outstanding terrestrial, freshwater, and marine habitats. It provides a critical blueprint for biodiversity conservation at the global scale. Developed by WWF scientists in collaboration with regional experts around the world, the Global 200 is the first comparative analysis of biodiversity to cover every major habitat type, spanning five continents and all the world's oceans." Conservation International, et al., "Observations and Recommendations for the Camisea Project" (2002), 1.

¹⁸ "The "hotspot" concept, defined by ecologist Norman Myers and adopted by CI as its principal conservation strategy, targets regions where the threat is greatest to the greatest number of species. CI works in 25 hotspots that harbor a great diversity of endemic species...." Conservation International, et al., 2.

¹⁹ "The Biodiversity Vision of the SWA is the conservation and management landscape that is needed to ensure the preservation of the biodiversity as well as ecological and evolutionary processes in perpetuity." Conservation International, et al., 2.

²⁰ As identified by the Biodiversity Support Program, a conservation consortium formed by The Nature Conservancy, World Wildlife Fund, and the World Resources Institute. Conservation International, et al., 2.

²¹ Robert Goodland, "Peru: Camisea Natural Gas Project: Independent Assessment of the Camisea Gas Project's Environmental and Social Priorities" (draft report, 2003), 2.

²² Conservation International, et al., 2.

²³ "Information Exchange with Stakeholders: Appendix A". <http://www.camisea.com.pe/dialogo08.asp> (cited 6 April 2003).

- ²⁴ Conservation International, et al., 3.
- ²⁵ Glenn Harvey Shepard Jr., "Pharmacognosy and the Senses in Two Amazonian Societies" (Ph.D. diss., University of California, Berkeley), 39.
- ²⁶ Translated from Kacper Swierk, "Informe del estudio de campo entre los Matsigenka del Paquiria en 2002" (2002).
- ²⁷ Translated from Swierk.
- ²⁸ Translated from Swierk.
- ²⁹ Translated from Swierk.
- ³⁰ "Findings of the International NGO Delegation on the Camisea Gas Project" (2002), 8.
- ³¹ ERM 2002, Ch. IV, pp. 117.
- ³² Goodland, 14.
- ³³ ERM 2002, Ch. IV, pp. 125.
- ³⁴ ERM 2001, Ch. IV, pp. 118, 121.
- ³⁵ "Findings of the International NGO Delegation on the Camisea Gas Project" (2002), 5.
- ³⁶ ERM 2001, Ch. V, p. 21.
- ³⁷ Translated from Asociacion Interetnica de Desarrollo de la Selva Peruana, and Consejo Machiguenga del Rio Urubamba, "El Gas de Camisea y los Pueblos Indigenas de la Amazonia Peruana: Problematica y Propuestas" (2003), 6.
- ³⁸ Patricia B. Caffrey, "An Independent Environmental and Social Assessment of the Camisea Gas Project" (2002), 19.
- ³⁹ ERM 2001, Ch. IV, p. 124.
- ⁴⁰ Ibid., Ch. IV, p. 125.
- ⁴¹ Caffrey, 19.
- ⁴² Gregor MacLennan, e-mail to the author, 14 April 2003.
- ⁴³ Conservation International, et al., 2.
- ⁴⁴ Goodland, 3.

To: Aaron Goldzimer, Environmental Defense

From: Global Village Engineers

Date: May 28, 2003

Re: Review of Environmental Impact Assessment Reports Regarding the Development of Natural Gas Fields at Camisea, and a Fractionation Plant and Loading Facilities at Loberia Beach, in the District of San Andreas, Department of Pisco, Peru.

At the request of Environmental Defense, Global Village Engineers (GVE) has reviewed Environmental Impact Assessment (EIA) documentation regarding the proposed development of the above referenced projects. The documentation reviewed by GVE includes the following reports for a consortium of project developers led by Pluspetrol Perú Corporation S.A.:

- *Environmental and Social Impact Assessment of the Loading Facilities and Natural Gas Liquids Fractionation Plant, May 2002* (Chapters I-VI & Executive Summary);
- *Environmental Impact Assessment of the Loading Facilities of the Natural Gas Liquids Fractionation Plant - Alternative Sub-Sea Piping, November 2002* (Chapters I, II, V, VI & Executive Summary);
- An untitled, undated EIA report regarding the development of the Camisea Gas Fields (Chapters I-VI).

GVE has been asked to evaluate the suitability of these documents compared to *Environmental Requirements* criteria established by the Export-Import Bank of the United States. These requirements include a list of seven *Environmental Objectives* including:

- Air Quality,
- Water Use and Quality,
- Waste Management,
- Natural Hazards,
- Ecology,
- Socioeconomic and Socio-Cultural Framework, and
- Noise.

These *Environmental Objectives* provide a framework for more detailed, industry-specific quantitative and qualitative criteria required by the Export-Import Bank. These criteria, as they apply to Oil and Gas Development Projects are outlined in the Export-Import Bank's *Environmental Guidelines - Table 5*.

No supporting documentation that was utilized in the preparation of the EIA reports have been reviewed by the GVE, nor has GVE visited the sites in question. The findings of this review are based on GVE's experience and expertise with the preparation of EIA reports, and the technical issues that constitute the meaning of such reports. The findings listed below are meant to address the general format and content of the EIAs.

FINDINGS

GVE has made the following findings:

- 1. The study methodologies, as documented in the EIA reports, appear to be generic in nature and there is no obvious indication that any adaptation was made to meet specific requirements of these particular development projects.** The EIAs have identified numerous significant and complex environmental concerns that would result from the various phases of the projects' development including construction, operation, and decommissioning of these sites. The EIA reports have indicated that the analysis and management of these risks will require numerous plans, many of which are legally required by governing authorities. Notably these plans are required to include contingency scenarios based on potential releases of product to land and/or sea. Despite the identification of these risks, the conclusions of the EIAs are broad and do not directly address these points. This also applies to the various plans associated with the EIA reports, such as the Environmental Management Plan, Environmental Monitoring Plan, and Contingency Plan. These plans are often too general in nature to be enforceable or operational; many of the critical components of the plans are missing or deferred for inclusion at a later, unspecified time.
- 2. The EIA reports contain no findings or data that support a conclusion that the project is achieving the requirements of the Export-Import Bank's *Environmental Guidelines - Table 5*.** Despite the use of risk management matrices as described in Chapter V of the various reports, there is not a sufficient

detailed quantitative examination of the potential harm to the environment should there be either ongoing waste management breakdowns, equipment failures or a cataclysmic failure that would result in a major release either to land or sea. The studies do not include data representing known risk to human health from environmental contaminants, pathway definitions, and time frame representation of remedial efforts should they become necessary. Nor is there operational analysis that would indicate if such a scenario was likely or not - or if sufficient specific precautions were being implemented to address them.

- 3. The EIA reports appear to meet the basic general format of the Export-Import Bank's document "Guidance Outline on Environmental Assessment Format and Contents," regarding the type of information required for an environmental analysis.** This includes the seven *Environmental Objectives*, as well as the Export-Import Bank's suggested general format for EIA documentation. The EIA reports appear to be prepared with great expertise, structured in a transparent fashion, and adhere to generally recognized technical reporting rules and conventions. There is, what appears to be, a comprehensive overview of the Peruvian regulatory framework for which the EIA was prepared, and a detailed discussion of the study methodologies used in preparation of the report. However, while the report addresses each of the seven environmental objectives, as required, the depth of analysis for each could be expanded.

CONCLUSIONS

Based on the findings of this review, our conclusion is that the EIA reports do not present a full and complete assessment of all the findings of environmental concern that the reports themselves have identified. Further, other potentially important environmental factors, including the existence of the Paracas National Reserve at a site adjoining the proposed developments, have yet to be properly vetted. As such, it appears to GVE that these EIA reports do not demonstrate that the proposed developments will meet the *Environmental Requirements* of the Export-Import Bank.

To: Aaron Goldzimer, Environmental Defense

From: Global Village Engineers

Date: May 28, 2003

Re: Background Information: Review of Environmental Impact Assessment (EIA) Reports Regarding the Development of Natural Gas Fields at Camisea, and a Fractionation Plant and Loading Facilities at Loberia Beach, in the District of San Andreas, Department of Pisco, Peru.

The following information is a compilation of comments made by the engineers and scientists who, in association with Global Village Engineers, have reviewed the referenced EIA documents regarding the developments at Loberia Beach and the Camisea Gas Fields. These comments are meant to provide further background information regarding GVE's final memorandum on the EIAs which has been provided under separate cover.

The Environmental Impact Assessments prepared for the Natural Liquids Gas Fractionation Plant and Loading Facilities at Loberia Beach and for the Camisea Gas Fields and Las Malvinas Plant are documents conceived, organized, and presented in the same manner. The same technique is employed in each to assess environmental impacts and the approach to environmental compliance and mitigation are the same. As a result, the EIAs present the same flaws as environmental disclosure documents upon which funding and other crucial decisions may be made. These topics are discussed below. GVE notes that the comments provided are not inclusive of all of the strengths and weaknesses of the subject EIAs. Examples are provided to illustrate broad concerns and reflect the reviewers' areas of expertise.

SITE SELECTION AND ALTERNATIVES

It is usual practice for an environmental impact assessment to consider several alternatives in equal detail so that, by comparing and contrasting, the best alternative can be selected. Alternatives are other choices, such as other sites or other methods to accomplish the project goal.

Lobería Beach Site Selection

The executive summary states that a process (apparently outside the EIA) was carried out to select a site based on oceanographic and environmental concerns. The site selected, at Lobería Beach, is immediately adjacent to and within the buffer zone of what the EIA describes as perhaps the country's most important and sensitive ecological resource, Paracas National Reserve. The document describes in detail the importance, uniqueness, environmental sensitivity, and current stress of the reserve. It also states that of all the designated reserves in the country, the Paracas National Reserve it is the only one that actually includes marine habitat.

It is apparent from the project description and the analysis of impacts in the document that the proposed development will have an impact on the Reserve. Knowing that impacts will occur it appears reasonable that the site selection process be reexamined.

Camisea Site Selection

Discussion regarding the site selection process for the installations at Camisea are not apparent.

ENVIRONMENTAL BASELINE

Two types of information are typically considered in order to analyze the possible impacts of any project on the natural and human environment. These are:

- complete and detailed information regarding the activities involved in constructing, operating, maintaining and abandonment of the project and

- comprehensive information regarding the resources and site conditions throughout the proposed project location.

The information regarding (1) above is provided in chapters 2 of the EIAs and appears to be comprehensive. The information described in item (2) above is the environmental baseline data which is provided in chapters 3 of the two EIAs.

An impressive amount of valuable information has been gathered considering the period of time dedicated to field work and report preparation. Citations on previous and on-going work in the area are also helpful.

An area of difficulty is the biological data. In light of the rich biodiversity throughout the project area of influence (both Lobería Beach and Camisea) rigorous studies of aquatic and terrestrial flora and fauna should be provided. The biological surveys for the subject EIAs were conducted over an unspecified 60 day period and are necessarily superficial. A far more intensive effort would be required to provide the type of baseline data needed to accurately assess potential impacts to such biological resources.

Lobería Beach Biological Data

According to the Lobería Beach EIA, Paracas National Reserve, abutting the project site is "internationally important as a resting spot for endemic migratory and/or resident birds." (The Nature Conservancy web site reports 215 species). An intensive survey of migratory birds at Lobería Beach would therefore appear warranted. Sixty days worth of data can not fulfill this need. Bird migrations would require surveys be taken over the course of one year at least to obtain a minimal amount of information. However, due to population trends, it would be preferable to have several seasons of data.

Factors that make Paracas National Park attractive to migratory birds should be defined and compared and contrasted to conditions at Lobería Beach. Routes of migration and time in residence should be discussed.

In order to assess project impacts on fish populations, and indirectly upon fishing effort, detailed information is required on species composition, life history, abundance, and seasonal distribution within the project's area of influence. Data is normally gathered over a period of one year or more.

Also missing is documentation of marine mammals' and sea turtles' use patterns in the area.

Since ship/animal collisions are a significant source of death and injury to these animals, their likely presence in areas of loading and shipping activity should be known and mitigative measures planned.

Camisea Biological Data

Lack of good information on the fauna in the area of influence of the Camisea project is acknowledged in the Camisea EIA. In Chapter III - 2.6.1.1, it states the following:

"On carrying out this survey, it has been determined that there are species in the region previously unknown to science, some of them endemic to this area."

"There are no detailed descriptions of the fauna in the studied area."

At 2.6.4.1 of this chapter it is stated that:

"Fauna impacts cannot be measured adequately due to biodiversity and the unknown in the area."

It is further stated in the same Section that,

"various species have been hunted to near extinction in some areas of the Peruvian Amazons, but up to now this does not occur in the studied area."

This statement should be evaluated in terms of the concern for increase in furtive hunting. According to the impacts discussion (Chapter V - 4.2), furtive hunting is "very difficult to control".

In the discussion of Threatened Species and CITES (Chapter III - 2.6.5) and as stated in the conclusions (Chapter III -2.6.9), the uniqueness of the area is further stated,

"Analyzing the studied sites globally, we learn that the area of the lower Urubamba is territory with pristine natural conditions that

allows the existence of species that are extinct in other areas or have serious preservation problems in a large part of their distribution.”

The consequence of development in the area is concluded as follows (Chapter III - 2.6.9)

“All the actions ...will produce alterations and impact the fauna. Especially the larger fauna... On the other hand, human attendance will grow in large proportions and so will the hunting. For these reasons, the fauna will be affected by the reduction of available habits or at least will disturb them significantly.”

Lobería Beach and Camisea Rare & Endangered Species

Treatment of rare and endangered species presents special problems. Limited sampling is least likely to pick up those species that are rare, endangered or elusive. Factors such as human intrusion, changes in light and sound intensity, division of territories, and impacts on habitat quality should be compared with requirements and tolerances of each of the species of concern. The EIAs make do not quantify changes anticipated to critical habitat for such species.

The above discussion indicates that the environmental baseline data on biological resources in the EIAs may not be sufficient to predict the impacts that the proposed activities will have upon these resources. It is recommended that the Environmental Baseline discussions and data for the Lobería Beach and the Camisea projects be thoroughly viewed and critiqued by independent professionals expert on the flora and fauna of the project area prior to decision making.

Camisea Physical Data

- ***Slope Stability***

The landslide information (Chapter III - 2.3.6.2) indicates any slopes over 30° (33 percent slope) have a very high risk of erosion and scarce chance of revegetation. Soils information supplied for the study area (Chapter III - 2.4.4) indicates that 70% of the area has slopes greater than 45° (50 percent slope).

The descriptions of present conditions at Well Platforms (Chapter III - 2.5.4.1.2) indicate a high degree of environmental damage from erosion and landslides. The damage is occurring despite erosion control measures put in place. The flowline route is through steep areas (Chapter III - 2.8.11) and slope stability problems will increase with development.

- *Surface Water*

Annual water volumes were determined for large drainage basins (Chapter III -2.5.4.2). However despite alluding to a discussion on degree of risk of contaminating surface water, no discussion was found.

IMPACT ASSESSMENT

A project may have positive or negative impacts on socioeconomic, cultural, and natural resources. Impact analysis looks at the changes that project activities will cause and the effect of these changes on the resources present.

Both EIAs, with regard to impacts upon human or social resources and upon natural resources, do not appear to provide analysis of impacts. The analysis of impacts provided is vague, inconclusive, and may not be appropriate as input to a financial, social and environmental decision.

Problems identified include the lack of adequate attention to cumulative and secondary impacts and project fragmentation, the use of outmoded methodology for analyzing environmental impacts and misleading presentation of analytic results.

Lobería Beach and Camisea Impact Assessment: Cumulative and Secondary Impacts and Project Fragmentation.

Cumulative impact may be explained as the impact of the proposed project (on the resources in the project area) when added to the impacts of other present, past or reasonably foreseeable future actions, regardless of who undertakes such other actions. For example, a discussion of the cumulative impacts on Paracas National Reserve was omitted from the Lobería Beach EIA. The document points out that fish processing plants, developments (sewage and solid waste), indiscriminate fishing, ship traffic (Port of San Martin), and tourism threaten the Reserve. With these factors already having "strong pressure" on the

resources, the additional development of a terminal and associated traffic should be evaluated as adding to these impacts, not as a stand-alone impact.

Secondary impacts are impacts that result indirectly from the project activity. The term "secondary" impacts does not mean impacts of secondary or lesser significance. It means impacts that follow from, or result from, a direct activity. They may occur later in time or be removed from the project site, but still are reasonably foreseeable. Secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate and related effects on air and water and other natural systems, including ecosystems. If, for example, the presence of the Las Malvinas plant and the pipeline to Lobería Beach resulted in the development of additional gas field development in the future, the impacts of this work would be secondary impacts. These impacts should be anticipated and factored in to the impact assessment Chapter II - 3.2.2 of the Camisea EIA states "...roads will NOT be in contact with the river." How trucks, equipment and fuel would arrive at the road system is not explained. Chapter II -3.2.3 infers that barges would be used. If so, then there would be a river access. In any case, an internal road system would be set in place for future timber harvesting and settlement. This is another example of a secondary impact resulting from the project.

Project fragmentation refers to treating portions of a project as separate entities rather than looking at the project as a whole. The "project" means the whole of an action which has the potential for resulting in either direct physical change in the environment, or reasonably foreseeable indirect physical change in the environment. The separation of the Camisea and Lobería Beach EIAs is an example of project fragmentation.

There is no discussion in either EIA as to how the product is transported from Camisea to Lima and Paracas. If there is no existing pipeline to take the product from the Malvinas plant to these locations, the EIAs would seem to be incomplete. Construction of this pipeline and its impacts (construction, operation, abandonment) should be evaluated as part of the impacts from the proposed project.

Project fragmentation results in viewing various parts of a project as separate entities and underestimating direct, indirect and cumulative impacts. This is a flaw with the Lobería Beach and Camisea EIAs.

Loberia Beach Social Impact Assessment

Chapter IV is a 100 page Social Impact Assessment of the creation of a 108 acre facility and loading dock 690 ft long and 570 ft wide in an area of rich biodiversity that supports commercial and artisan fisheries. Yet the first 90 plus pages of the EIA describe the existing conditions with strong emphasis on details of lesser importance (e.g. ten pages are devoted to the prehistoric settlement of the western hemisphere, going back 9,000 years and including arguments for various native American origin theories.) Fewer than 10 pages are devoted to the social impacts of the project.

Chapter IV indicates that tourism (particularly potential eco-tourism) is critical to the region and that the project will "reduce potential visitors." However, there is no apparent attempt to quantify the reduction or to evaluate the effect of the reduction on the local or regional economy. Similarly, the document states that the project will generate noise which could effect adjacent land use and residents, but there is no apparent attempt to quantify the reduction or evaluate the significance.

Camisea Social Assessment

Of significance is the fact that the Social Impact Assessment for the Camisea project reflects that the proposed gas field and plant developments in and around Camisea do not meet the US Export-Import Bank guidelines for approval. The Environmental Guidelines Specific to Oil Pipelines - Table 5 calls for "Positive measures to control population influx to remote areas due to increased access created by the pipeline right-of-way, and to prevent associated secondary impacts." Of specific concern are "encroachment on traditional indigenous population lands or preserves and uncontrolled exploitation of natural resources."

- The project is a direct encroachment on traditional indigenous population lands, an indigenous population that is "one of the largest concentrations of native communities in the Peruvian Jungle" (Chapter IV - 2.0.)

A direct correlation between an influx of settlers and gas development would occur, based on historical trend in the area (Chapter IV - 6.1.2). The influx of settlers would be into areas not suited for commercial forestry, cattle, or agriculture due to very steep and extremely steep slopes. Per information contained in Chapter III - 2.4.4.3, 68% of the study area is "...land which do not have edaphic, topographic or ecological conditions required for farming and cattle breeding or forestry ...". Considering that the only 14% of the study area

has land suited for agriculture (Chapter III - 2.4.4.3), the influx of settlers and conversion of forest to pasture and croplands would result in an eventual loss of productivity and slope stability.

Lobería Beach and Camisea Environmental Impact Assessment

The methodology used for the environmental impact evaluation is described in the document as dual-entry, color-coded matrices after Leopold's Matrices (1971).

Matrices are often used in modern environmental disclosure documents as a way of ordering, displaying and contrasting information on environmental impacts. Their usefulness as an analytic tool, however, is questionable.

Leopold's paper was published in 1971. At that time, the multiple and interrelated effects of alterations on natural systems were poorly understood and it was recognized that the methodology had limitations

Gary F. Martel & Robert T. Lackey, Virginia Polytechnic Institute and State University, write in their 1977 publication, *A Computerized Method for Abstracting and Evaluating Environmental Impacts Statements*, Leopold's system proves quite useful when it is used as a general pre-evaluation tool for projects involving environmental change. One of the most valuable aspects of Leopold's method is that it may be utilized to identify areas in which acquisition of data is necessary. Also areas of obvious environmental disturbance may be easily identified, and thus gross comparisons made between projects. One of the problems with Leopold's method is that it is lacking in the ability to predict change caused by development. There are two major reasons for the lack of predictive value: (1) the matrix method requires value judgments, not measurements by the individuals completing the matrix, and (2) no method of limiting personal biases is provided."

A clear and concise presentation of some major impacts is found in Chapter's V - 4.0 Main Identified Negative Effects.

A summary of impacts shown in the matrix system follows. Positive and negative impacts show the greatest difference in those categories marking the longest period of impact. The discrepancy is smallest in phases of short duration and/or closure.

TABLE 1: SUMMARY OF POSITIVE AND NEGATIVE IMPACTS

| Operation / Phase | | % Positive Impact | % Negative Impact |
|------------------------------|---------------------------------|-------------------|-------------------|
| Gas Plant | | | |
| | Construction | 75 | 25 |
| | Operation | 72 | 28 |
| | Closure | 55 | 45 |
| Flow Lines | | | |
| | Construction | 84 | 16 |
| | Operation | 61 | 39 |
| | Closure | 60 | 40 |
| Drilling | | | |
| | Drill & Testing | 57 | 43 |
| | Closure | 58 | 42 |
| 3D Seismic Subproject | | | |
| | Operations and Data Acquisition | 79 | 21 |
| | Restoration | 40 | 60 |

If the Chapter V-3.0 information were analyzed as the percentage rated slight, moderate or significant as a function of the total positive or negative impacts (i.e. % x %), the results would look as follows. The analysis shows that positive significant impacts are the lowest totals.

TABLE 2: CATEGORIZED SUMMARY OF POSITIVE AND NEGATIVE IMPACTS

| | Negative | | | Positive | | |
|--|----------|----------|-------------|----------|----------|-------------|
| | Slight | Moderate | Significant | Slight | Moderate | Significant |
| | (%) | (%) | (%) | (%) | (%) | (%) |
| | | | | | | |

| Gas Plant | | | | | | | |
|-----------------------|------------------|------------|------------|------------|------------|-----------|-----------|
| | Construction | 42 | 23 | 11 | 16 | 4 | 5 |
| | Operation | 37 | 21 | 14 | 17 | 6 | 5 |
| | Closure | 22 | 16 | 17 | 24 | 14 | 7 |
| Flow Lines | | | | | | | |
| | Construction | 47 | 18 | 19 | 13 | 1 | 2 |
| | Operation | 28 | 16 | 18 | 30 | 4 | 4 |
| | Closure | 26 | 12 | 22 | 28 | 12 | 0 |
| Drilling | | | | | | | |
| | Drill & Test | 24 | 19 | 14 | 26 | 15 | 3 |
| | Closure | 24 | 21 | 13 | 25 | 14 | 3 |
| 3D Seismic Subproject | | | | | | | |
| | Data Acquisition | 31 | 21 | 28 | 17 | 2 | 8 |
| | Restoration | 11 | 11 | 17 | 39 | 17 | 3 |
| Total | | 292 | 178 | 173 | 235 | 89 | 40 |

The discussion of the matrix was brief and appeared contradictory to information given. An example of this is in Chapter V - 3.1 where the following is stated under discussion of the Camisea Gas Plant Construction Phase:

"The negative impacts with the introduction of diseases, owing to their capacity of transmission throughout all the populations, present the same problem. Almost all the rest have strictly local extent."

The statement of "strictly local extent" contradicts the social information presented in Chapter IV, describing the extended family unit developed through marriage outside of specific villages.

Another example of contradiction is in the discussion of the Gas Plant Operation Phase (Chapter V- 3.1), it is stated as follows:

"The majority of the negative impacts are slight intensity, associated mostly to Environmental Factors corresponding to the physical-

natural environment. On the other hand, a great part of the positive impacts present very high intensities (significant environmental impacts), being associated to Environmental Factors corresponding to the social environment.”

However, the majority of the positive impacts are of slight intensity (62%), as well. And, the percent of significant negative impacts (19%) is greater than the percent of significant positive impacts (18%).

Another example is within the Closure Phase of the Gas Plant Subproject discussion (Chapter V – 3.1). In one instance the “naturalization” (restoration) of the environment translates into a positive impact. In the next paragraph, the authors are implying that the area would be developed agriculturally.

The impact analyses provided in the Lobería Beach and Camisea EIAs appears inadequate to serve as a basis for decision-making even if the baseline data on existing conditions was sufficient. Along with the site selection and lack of alternatives analysis, GVE considers the Impact Assessment portions of these documents to be flawed. The subject EIAs point to the need for a far more thorough and sophisticated environmental disclosure document, if there is interest in pursuing this project in this location. The timeframe for completing an adequate document should realistically be anticipated as years rather than months.

ENVIRONMENTAL MANAGEMENT PLAN

Chapters VI of the EIAs address the Environmental Management plans for Lobería Beach and Camisea. The basis of the plans is that there are a number of environmental regulations in place and that the selected contractor for the project will comply with these regulations. In the Camisea document alone there are no fewer than 25 plans, programs, and studies that are yet to be developed for mitigation purposes. There are a number of problems with this approach. First, the document neither identifies the specifics of the regulations nor describes compliance. It is difficult to see how the Ex-Im Bank will make a decision without having this information. Similarly, there is no discussion of historic compliance with the regulations. Finally, it is GVE's opinion that leaving environmental compliance solely in the hands of the construction contractor is not considered good environmental practice. Independent monitoring and implementation of environmental mitigation should be required.

Lobería Beach Environmental Management Plan

The Environmental Management Plan, Environmental Monitoring Plan, and Contingency Plan appear too general to be enforceable. Much of the Environmental Management Plan is written subjectively, using phrases like "Establish a Contingency Plan to include procedures to respond..." or "Train workers on safety and the environment." Too much of the Environmental Management Plan is to be developed later.

An example of how some serious issues are expressed is the single sentence addressing discharges from ships that reads, "Verify compliance with international regulations regarding waste dumps into the sea." Studies have shown that the single largest means of introduction of non-native introduced species is the exchange or partial exchange of ballast water from transoceanic ships as they pass through the ports of the world. Introduced species are a substantial and growing global threat due to the potential for economic and ecological harm as well as human health risk. New introductions are leading to millions of dollars of expense each year for research, control and management efforts. The scientific consensus is that current ballast water exchange protocols, while a helpful preventive measure, are not a completely effective method of reducing the risk of introduced species, even if rigorously applied. (1)

Camisea Environmental Management Plan

The policy of forbidding contact with native peoples is unenforceable in light of the facts stated throughout the document. The mitigation measures do not cover contact from non-employees. These individuals would be commercial businessmen, government personnel, furtive game hunters, and timber merchants.

Revegetation can only occur in areas not undergoing active erosion. The erosion control measures will not work on steep slopes. Water evacuation berms cannot be constructed on slopes greater than the angle of repose, approximately 45° (50%). Because of the slopes, geology and rainfall in the area, massive slope failures cannot be prevented in the area of the flowlines and roads. Based on information presented in Chapter III – 2.3.6.2 revegetation is not expected in these areas either.

Many of the impacts stated in Chapter V- 4.0 are the same for various operations and phases. Nor can the immigration and undesired access and the problems generated with them. The proposed construction of a flowline through the Segakiato community has not been changed to mitigate impacts and flights would fly directly over communities

It is unreasonable to expect critical decisions to be made based upon no more than faith in the promise that unidentified third parties will take responsibility for addressing environmental compliance, mitigation, and monitoring requirements.

(1) Ballast Water and Introduced Species A Management Approach for Narragansett Bay and Rhode Island, Narragansett Bay Estuary Program, 2003.