

This Guidance Note 4 corresponds to Performance Standard 4. Please also refer to the Performance Standards 1-3 and 5-8 as well as the corresponding Guidance Notes for additional information. Bibliographical information on all reference materials appearing in the text of this Guidance Note can be found in the References Section at the end.

Introduction

1. Performance Standard 4 recognizes that project activities, equipment, and infrastructure often bring benefits to communities including employment, services, and opportunities for economic development. However, projects can also increase the potential for community exposure to risks and impacts arising from equipment accidents, structural failures, and releases of hazardous materials. Communities may also be affected by impacts on their natural resources, exposure to diseases, and the use of security personnel. While acknowledging the public authorities' role in promoting the health, safety and security of the public, this Performance Standard addresses the client's responsibility to avoid or minimize the risks and impacts to community health, safety and security that may arise from project activities. The level of risks and impacts described in this Performance Standard may be greater in projects located in conflict and post-conflict areas.

Objectives

- *To avoid or minimize risks to and impacts on the health and safety of the local community during the project life cycle from both routine and non-routine circumstances*
- *To ensure that the safeguarding of personnel and property is carried out in a legitimate manner that avoids or minimizes risks to the community's safety and security*

G1. The client's Social and Environmental Assessment presents an opportunity to the client to identify, evaluate and address potential impacts and risks of the project to the local community, and to decrease the incidence of accidents, injuries, illnesses, and deaths from project related activities in the community within the project's area of influence (the local community). Local community is considered as an affected community if it is likely to be directly affected by the project. The breadth, depth and type of analysis should be proportionate to the nature and scale of the proposed project's risks to and potential impacts on the health and safety of the local community.

G2. Performance Standard 4 also recognizes that clients have a legitimate obligation and interest in safeguarding company personnel and property. If the client determines that they must use security personnel to do so, security should be provided in a manner that does not jeopardize the community's safety and security or the client's relationship with the community and that is consistent with national requirements, including national laws implementing host country obligations under international law, and the requirements of Performance Standard 4.

Scope of Application

2. *The applicability of this Performance Standard is established during the Social and Environmental Assessment process, while implementation of the actions necessary to meet the requirements of this Performance Standard is managed through the client's Social and Environmental Management System. The assessment and management system requirements are outlined in Performance Standard 1.*

3. *This Performance Standard addresses potential risks and impacts to the affected community from project activities. Occupational health and safety standards are found in paragraph 16 of Performance Standard 2, and environmental standards to prevent impacts on human health and the environment due to pollution are found in Performance Standard 3.*

Requirements

Community Health and Safety Requirements

General Requirements

4. *The client will evaluate the risks and impacts to the health and safety of the affected community during the design, construction, operation, and decommissioning of the project and will establish preventive measures to address them in a manner commensurate with the identified risks and impacts. These measures will favor the prevention or avoidance of risks and impacts over minimization and reduction.*

5. *Where the project poses risks to or adverse impacts on the health and safety of affected communities, the client will disclose the Action Plan and any other relevant project-related information to enable the affected communities and relevant government agencies to understand these risks and impacts, and will engage the affected communities and agencies on an ongoing basis consistent with the requirements of Performance Standard 1.*

G3. Community health and safety considerations should be addressed through a process of Social and Environmental Assessment, resulting in an Action Plan for disclosure to the community. When complex health or safety issues are involved, it may be appropriate for the client to engage experts for free-standing assessment, separate from the Assessment required under Performance Standard 1. Details of Health Impact Assessment process and example of critical elements can be found in Annex C of this Guidance Note, as well as in *Health Impact Assessment: Main concepts and suggested approach* (ECHP/WHO 1999), and *A Guide to Health Impact Assessment in the oil and gas industry* (IPIECA/OGP 2005) (see the Reference Section of this Guidance Note). Where mitigation measures require action by third parties, such as national or local governments, the client should, if permitted by the relevant governmental agency, be prepared to work with them in order to find a solution that helps meet the requirements of Performance Standard 4.

G4. The community engagement requirements of Performance Standard 4 can be met through implementation of the community engagement process described in paragraph 19 through 23 of Performance Standard 1, including the process of free, prior, and informed consultation and informed participation of the affected communities, in the case of projects with potential significant adverse impacts to them. The client should design its community

engagement process that reflects communities' capacities to understand and act on health and safety information. For example, since women generally make most health decisions at the household level, their role in future health education and intervention programs should be considered.

G5. Community health and safety management is more than a technical issue. It also requires a sound understanding of the social and cultural processes through which communities experience, perceive and respond to risks and impacts. Community perceptions are often conditioned less by technical or quantitative assessments, and more by the ways in which community members experience change in their environments. They are, for example, likely to have greater perception of risk where it is involuntary, complex, beyond their personal control, or where the distribution of risks and benefits is considered inequitable. The community might be impacted by various psychosocial effects associated with a project. Impacts include changes in sense of cohesion and security among members of the community, and perceived distribution of the project benefits and negative impacts, e.g., equity, particularly for women. Another psychosocial concerns are changes in alcohol, drugs, or tobacco usage, gender violence and influx of sex workers associated with increased incomes or migration of "outside" workers into established communities surrounding a project.¹ These issues should therefore be taken into account during the engagement process. The client's grievance mechanism as outlined in paragraph 23 of Performance Standard 1 should help the client understand the community's perceptions of project risks and impacts and to adjust its measures and actions to address the community concerns.

G6. For small projects, community engagement to address the health and safety of communities entail brief consultation with community representatives, including women's groups or women only sessions, local authorities and providers of health and safety services to address their concerns about any critical aspects of a project that may be encountered during the construction phase (e.g. increased traffic, noise, dust, movement of heavy machinery). For large or complex projects with risks and potentially significant impacts to public health, health care systems and demand for health services, this process may involve reviewing existing health and safety conditions, wide dissemination of information through public forums, and consultation with communities in the project area of influence about their health and safety concerns in order to address potential impacts from activities such as the influx of workers during the construction phase and more lasting environmental changes during the operational phase. In these large or complex projects, further consultation may be needed with regulatory agencies, local government, and community representatives in order to determine appropriate measures and actions and delineate responsibilities with respect to community health and safety issues.

G7. Generally, community health monitoring is considered as a government function that is not within the technical obligation or expertise of a project. However, some projects may be located in environments that have extremely weak health and demographic surveillance systems. In these cases, a higher level of interaction with the host government may be needed

¹ Survey questionnaires, e.g., the World Bank Core Welfare Indicators Questionnaire (CWIQ) or separate modules developed by the In-Depth Network of Demographic Surveillance Sites (see the References Section) can be useful in identifying such concerns.

in order for the project to accurately track health performance. While from a public health perspective, monitoring is typically performed at a community rather than at an individual household level, in some situations, household level monitoring may be appropriate. For example, where large numbers of vulnerable and disadvantaged individuals may be created by project related resettlement or relocation activities, individual household level health monitoring may be appropriate as part of a monitoring plan under the relevant resettlement action plan. Monitoring and reporting activities that are linked to government health and demographic information systems may provide opportunities to highlight and track positive health outcomes linked to the project, which otherwise may be overlooked.

Infrastructure and Equipment Safety

6. The client will design, construct, and operate and decommission the structural elements or components of the project in accordance with good international industry practice,¹ and will give particular consideration to potential exposure to natural hazards, especially where the structural elements are accessible to members of the affected community or where their failure could result in injury to the community. Structural elements will be designed and constructed by qualified and experienced professionals, and certified or approved by competent authorities or professionals. When structural elements or components, such as dams, tailings dams, or ash ponds, are situated in high-risk locations, and their failure or malfunction may threaten the safety of communities, the client will engage one or more qualified experts with relevant and recognized experience in similar projects, separate from those responsible for the design and construction, to conduct a review as early as possible in project development and throughout the stages of project design, construction, and commissioning. For projects that operate moving equipment on public roads and other forms of infrastructure, the client will seek to prevent the occurrence of incidents and accidents associated with the operation of such equipment.

¹ Defined as the exercise of that degree of skill, diligence, prudence and foresight that would reasonably and ordinarily be expected from skilled and experienced professionals engaged in the same type of undertaking under the same or similar circumstances globally.

G8. Qualified and experienced professionals are those with proven experience designing and constructing projects of a similar complexity. Qualifications may be demonstrated through a combination of formal technical training and practical experience or through more formal professional registration or certification systems at the national or international levels.

G9. The need for certification and approval of structural elements to meet the requirements of Performance Standard 4 will entail consideration of engineering safety competencies including geotechnical, structural, electrical, mechanical, and fire specialties. Clients will be expected to base this determination on the potential risk of adverse consequences posed by the nature and use of these structural elements and by local regulatory requirements. Additional guidance is provided in the [General EHS Guidelines and Industry Sector EHS Guidelines](#).

G10. Projects involving structures and buildings accessible to workers and the public may entail certification of structural and fire safety issues by engineering and fire safety professionals registered with national or international professional organizations to perform these duties and/or local regulatory agencies with oversight on these matters. Certification is generally best conducted at the design stage of the project, after construction, and during operation to identify flaws that may be due to the construction phase or to structural movements during operation.

For projects with risks to workers and the public, the client should also build its internal capacity to monitor engineering and fire safety of its operations, including daily monitoring and internal audits. The risk will be higher in hotels, medical facilities, and residential institutions, where members of the public are involved, since they may not have access to safety information about buildings.

G11. High risk structural elements are most commonly encountered in larger projects and include those that could threaten human life in the event of failure, such as dams located upstream of communities. In these cases, a risk assessment should be performed by recognized and qualified experts in addition to the local engineering certification requirements. Representative types of dams which may require risk assessments and/or review by experts include hydroelectric power dams, mine tailings dams, dams for ash ponds, fluid overburden and spoils, water and other liquid storage, and dams for wastewater and storm water management. Examples of risk-based criteria that can be used to evaluate dams are included in Annex D.

Hazardous Materials Safety

7. The client will prevent or minimize the potential for community exposure to hazardous materials that may be released by the project. Where there is a potential for the community (including workers and their families) to be exposed to hazards, particularly those that may be life-threatening, the client will exercise special care to avoid or minimize their exposure by modifying, substituting or eliminating the condition or substance causing the hazards. Where hazardous materials are part of existing project infrastructure or components, the client will exercise special care when conducting decommissioning activities in order to prevent exposure to the community. In addition, the client will exercise commercially reasonable efforts to control the safety of deliveries of raw materials and of transportation and disposal of wastes, and will implement measures to avoid or control community exposure to pesticides in accordance with the requirements outlined in paragraphs 6 and 12 through 15 of Performance Standard 3.

G12. In addition to addressing the release of hazardous materials consistent with Performance Standard 3, clients should also evaluate, as part of the I Assessment, the risks posed by the management of hazardous materials that may extend beyond the project's property boundary and into areas inhabited or used by the community. Clients should take steps to avoid or minimize community exposure to hazards associated with the project. One of the ways to accomplish this is by using less hazardous substitutes where they are found to be technically and financially feasible and cost-effective.

G13. Because some hazardous materials may pose a significant risk to the community at the end of their life-cycle, as may be the case with the use of asbestos in building materials or PCBs in electrical equipment, Performance Standard 4 requires that clients make reasonable efforts to avoid their use, unless there are no feasible alternatives or the client can ensure their safe management. The safe management of hazardous materials should extend into the decommissioning phase of the project where remaining wastes, including demolition wastes, must be safely managed according to the waste management requirements of Performance Standard 3. Additional guidance is provided in the [General EHS Guidelines and Industry Sector EHS Guidelines](#)

G14. Even if the client cannot exert direct control over the actions of its contractors and subcontractors, clients should use commercially reasonable means to investigate their capacity to address safety issues, communicate its expectations of safety performance, and otherwise influence the safety behavior of contractors, especially those involved in the transportation of hazardous materials to and from the project site.

G15. Incremental or cumulative project related increases in emissions or releases to air, water and soil may be critical, particularly in periurban and urban locations. While the absolute magnitude of the proposed new project may be relatively low, the impacts are incremental to what may already be a tenuous health setting. In this situation, careful documentation of pre-project baseline conditions is critical².

Environmental and Natural Resource Issues

8. ***The client will avoid or minimize the exacerbation of impacts caused by natural hazards, such as landslides or floods that could arise from land use changes due to project activities.***

9. ***The client will also avoid or minimize adverse impacts due to project activities on soil, water, and other natural resources in use by the affected communities.***

G16. These requirements primarily apply to projects that may result in significant changes to the physical environment, such as natural vegetation cover, existing topography, and hydrologic regimes including projects such as mining, industrial parks, roads, airports, pipelines, and new agricultural development. In these cases, special precautions should be followed to prevent geological instability, safely manage storm water flow, prevent a reduction in the availability of surface water and groundwater for human and agricultural use (depending on the sources of water that the community has traditionally relied on), and prevent the degradation in the quality of these resources. These requirements also apply to soil resources used by the community for agricultural or other purposes.

G17. Consistent with the requirements of Performance Standard 3, the quality of soil and water as well as other natural resources such as fauna and flora, woodlands, forest products and marine resources, should be protected so as not to pose an unacceptable risk to human health, safety, and the environment due to the presence of pollutants. These requirements also apply to the project's decommissioning phase where the client should ensure that the ambient quality of the project site is compatible with its intended future use. General information on the management and use of renewable natural resources can be found in paragraphs 14 through 17 of Performance Standard 6 and its accompanying Guidance Note.

² Quantitative human health risk assessment techniques that characterize the attributable, facility-specific incremental burden are well described and are focused on risks from impacts to air, soil and water. These risk assessment techniques which use non-cancer and cancer disease endpoints as performance indicators. In a developing country setting, there are other summary measures of population health that may be considered, e.g., disability-adjusted life years (DALY), disability-adjusted life expectancy (DALE), and are discussed at the WHO Statistics and Health Information Systems (See the References section).

Community Exposure to Disease

10. *The client will prevent or minimize the potential for community exposure to water-borne, water-based, water-related, vector-borne disease, and other communicable diseases that could result from project activities. Where specific diseases are endemic in communities in the project area of influence, the client is encouraged to explore opportunities during the project life cycle to improve environmental conditions that could help reduce their incidence.*

11. *The client will prevent or minimize transmission of communicable diseases that may be associated with the influx of temporary or permanent project labor.*

G18. Health impacts to potentially affected communities should be broadly considered and not just restricted to infectious diseases³. In many settings, changes in natural vegetation and habitat have pronounced impacts on vector-borne diseases. Poorly designed surface water drainage and creation of construction pits and depressions can have potentially adverse impacts on adjacent local communities. Primary prevention through appropriate design and construction techniques is likely to be an extremely cost-effective strategy if applied early during the front-end engineering design cycle. In contrast, retrofitting facilities and physical structures is expensive and difficult. Significant health improvements can be captured by design and construction improvements in four critical sectors: (i) housing; (ii) water and sanitation; (iii) transportation; and (iv) information and communication facilities. The public health implications, both positive and negative, of physical structures are often overlooked. Building and construction activity invariably alter habitats with both short and long-term disease consequences. For example, water storage facilities may have significant consequences for the distribution and transmission of vector-borne diseases such as malaria, schistosomiasis and dengue fever.

G19. Food security and nutritional status within communities may be positively or negatively impacted by projects at both a household and community level. Significant food inflation may marginalize vulnerable populations. Individuals who are resettled because of a project may experience both short and long-term changes in nutritional status. These impacts can be observed both acutely and chronically by changes in the levels of stunting, wasting and underweight children under age five. Similar assessments can be made in other age groups including working adults, women of reproductive ages, and adolescents.

G20. Consideration of the typical communicable infectious diseases is equally important. Communicable diseases can pose a risk to the viability of businesses by affecting the availability of a labor pool, the productivity of the workforce, or even the customer base. Communicable diseases, also referred to as infectious diseases, are described as illnesses that are attributable to specific infectious agents or their toxic products that arise through transmission of these agents or their products from an infected person, animal, or inanimate reservoir to a susceptible host. Transmission may occur either directly or indirectly through an intermediate plant or animal host, vector, or the inanimate environment. Examples of

³ There is a clear differentiation between the traditional definition of “public health” with its disease-specific focus and the more broadly defined “environmental health” which encompasses the “human living environment” (See the References section on *Environmental Health: Bridging the Gap*).

communicable diseases include water-borne (e.g. amoebiasis, cholera and typhoid), water-related (e.g. malaria and arboviral disease), food-borne (e.g. botulism, hepatitis A, and Creutzfeldt-Jakob disease), respiratory diseases (e.g. influenzas, SARS, and tuberculosis), and sexually transmitted diseases (e.g. Chlamydia, Syphilis, HIV/AIDS and Gonorrhoea). The spread of some communicable diseases can be difficult to control without a comprehensive approach involving national and local governments, and in some cases, the support of international health agencies.

G21. Paragraph 10 of Performance Standard 4 applies primarily to projects that may cause significant changes in the natural hydrologic regime of an area, such as dams and irrigation schemes or project located in areas without proper sanitary wastewater discharge and treatment infrastructure. The waterborne diseases mentioned in Performance Standard 4 and the types of project activities that may contribute to their incidence are described in further detail in Annex E. The client is encouraged to find opportunities during the project life-cycle to improve environmental conditions, such as improvement in site drainage patterns, in order to limit possible habitats for mosquitoes linked to water-based and water-related disease, or through improvements in potable water availability or sanitary wastewater collection, treatment, or discharge, especially where these improvements can be provided at marginal cost to the project.

G22. The client should have adequate surveillance programs to screen the health of its workers, which may include documenting and reporting on existing diseases as required in paragraph 16 of Performance Standard 2. If the client proposes to bring in skilled third-country national workers for short term construction activities, then careful pre-employment screening should be considered. The disease burdens of many important communicable diseases (e.g., malaria, tuberculosis, influenza) can significantly vary from one region of the world to another. Disease resistance patterns can also significantly vary (e.g., multi-drug resistant tuberculosis). Therefore, the client should take precautions to avoid any inadvertent introduction of new or highly resistant diseases into host communities. Similarly, the reverse situation -- host communities introducing diseases into "naïve" work populations -- should also be anticipated and avoided. Within the local community (including workers and their families), the client is encouraged to play an active role to prevent the transmission of communicable diseases through communication and educational programs designed to raise awareness. If the client's workers are composed of a significant percentage of local community residents, they constitute an ideal "peer education" group for introducing positive health programs in host communities.

G23. Contractor action can also have significant health impacts in relation to two key areas; (i) transmission of Sexually Transmitted Infections (STIs), including HIV/AIDS; and (ii) accidents and injuries. For example, in any settings, long-haul truckers have significantly higher rates of STIs than the host communities. Clients should carefully consider the use of specific education and training programs for transport contractors. .

G24. The client should also ensure that health information obtained as part of its efforts to prevent the transmission of communicable diseases, such as through the use of pre-employment medical exams and other forms of health screening, will not be used for exclusion from employment or any other form of discrimination. For further details on good practices to address HIV/AIDS, see IFC's [Good Practice Note on HIV/AIDS in the Workplace](#), and the [HIV/AIDS Resource Guide for the Mining Sector](#).

Emergency Preparedness and Response

12. The client will assess the potential risks and impacts from project activities and inform affected communities of significant potential hazards in a culturally appropriate manner. The client will also assist and collaborate with the community and the local government agencies in their preparations to respond effectively to emergency situations, especially when their participation and collaboration are necessary to respond to such emergency situations. If local government agencies have little or no capacity to respond effectively, the client will play an active role in preparing for and responding to emergencies associated with the project. The client will document its emergency preparedness and response activities, resources, and responsibilities, and will disclose appropriate information in the Action Plan or other relevant document to affected communities and relevant government agencies.

G25. Where the consequences of emergency events are likely to extend beyond the project property boundary or originate outside of the project property boundary (e.g. hazardous material spill during transportation in public roadways), the client is required to design emergency response plans based on the risks to community health and safety identified during the process of Social and Environmental Assessment. When projects need to develop such plans, the proposed actions and measures should be included in the client's Action Plan. Emergency plans should be developed in close collaboration and consultation with potentially affected communities and should include detailed preparation to safeguard the health and safety of workers and the communities in the event of an emergency. Further requirements and guidance on this subject, including some of the basic elements of emergency preparedness and response plans, are provided in paragraph 16 of Performance Standard 2 and paragraph 7 of Performance Standard 3 and the accompanying Guidance Notes.

G26. The client should provide relevant local authorities, emergency services, and the affected community with information on the nature and extent of environmental and human health effects that may result from routine operations or unplanned emergencies at the project facility. Information campaigns should describe appropriate behavior and safety measures in the event of an accident involving project facilities, as well as actively seek community views concerning risk management and associated community preparedness. In addition, clients should consider including the community in regular training exercises (e.g. simulations, drills, and debriefs of exercises and actual events) to familiarize them with proper procedures in the event of an emergency. Emergency plans should address the following aspects of emergency response and preparedness:

- Specific emergency response procedures
- Trained emergency response teams
- Emergency contacts and communication systems / protocols
- Procedures for interaction with local and regional emergency & health authorities
- Permanently stationed emergency equipment & facilities (e.g. first aid stations, fire extinguishers/hoses, sprinkler systems)
- Protocols for fire truck, ambulance and other emergency vehicle services
- Evacuation routes and meeting points
- Drills (annual or more frequently as necessary)

Additional guidance is provided in the [General EHS Guidelines and Industry Sector EHS Guidelines](#).

Security Personnel Requirements

13. When the client directly retains employees or contractors to provide security to safeguard its personnel and property, it will assess risks to those within and outside the project site posed by its security arrangements. In making such arrangements, the client will be guided by the principles of proportionality, good international practices in terms of hiring, rules of conduct, training, equipping and monitoring of such personnel, and applicable law. The client will make reasonable inquiries to satisfy itself that those providing security are not implicated in past abuses, will train them adequately in the use of force (and where applicable, firearms) and appropriate conduct toward workers and the local community, and require them to act within the applicable law. The client will not sanction any use of force except when used for preventive and defensive purposes in proportion to the nature and extent of the threat. A grievance mechanism should allow the affected community to express concerns about the security arrangements and acts of security personnel.

14. If government security personnel are deployed to provide security services for the client, the client will assess risks arising from such use, communicate its intent that the security personnel act in a manner consistent with paragraph 13 above, and encourage the relevant public authorities to disclose the security arrangements for the client's facilities to the public, subject to overriding security concerns.

15. The client will investigate any credible allegations of unlawful or abusive acts of security personnel, take action (or urge appropriate parties to take action) to prevent recurrence, and report unlawful and abusive acts to public authorities when appropriate.

G27. Security arrangements to protect a client's personnel and property will typically depend in large part on security risks in the operating environment, though other factors, such as company policy or the need to protect intellectual property or hygiene in production operations, can also influence security decisions. In determining what security arrangements and equipment are necessary, clients should apply the principle of proportionality. In many circumstances, a night watchman may be all that is required, together with some basic security awareness training for staff, sign-posting, or well-placed lighting and fences. In more complex security environments, the client may have to directly employ further security personnel or engage private security contractors or even work directly with public security forces.

G28. It is important for clients to assess and understand the risks involved in their operations, based on reliable and regularly updated information. For clients with small operations in stable settings, a review of the operating environment can be relatively straightforward. For larger operations or those in unstable environments, the review will be a more complex and thorough risk assessment that may need to consider political, economic, legal, military and social developments, and any patterns and causes of violence and potential for future conflicts. It may be necessary for clients to also assess the record and capacity of law enforcement and judicial authorities to respond appropriately and lawfully to violent situations. If there is social unrest or conflict in the project's area of influence, the client should understand not only the risks posed to its operations and personnel but also whether its operations could create or exacerbate

conflict. Conversely, if provided consistent with Performance Standard 4, the client's operations involving the use of security personnel may avoid or mitigate adverse impacts on the situation and contribute to the improvement of security conditions around the project area. Clients should consider security risks associated with the entire range and stages of their operational activities, including personnel, products and materials being transported. The assessment should also address negative impacts on workers and the surrounding communities, such as the potential for increased communal tensions due to the presence of security personnel or the risk of theft and circulation of firearms used by security personnel.

G29. Community engagement is an important aspect of an appropriate security strategy, as good relations with workers and communities can be the most important guarantee of security. Clients should communicate their security arrangements to workers and the affected community, subject to overriding safety and security needs, and involve workers and surrounding communities in discussions about the security arrangements through the community engagement process described in Performance Standard 1.

G30. Clients should require the appropriate conduct of security personnel it employs or engages. Security personnel should have clear instructions on the objectives of their work and permissible actions. The level of detail of the instructions will depend on the scope of permitted actions (particularly if security personnel are permitted to use force and in exceptional circumstances, firearms) and the number of personnel. The instructions should be based on applicable law and professional standards. These instructions should be communicated as terms of employment and reinforced through periodic professional training.

G31. If security personnel are permitted to use force, instructions must be clear on when and how force may be used, specifying that security personnel are permitted to use force only as a matter of last resort and only for preventive and defensive purposes in proportion to the nature and extent of the threat, and in a manner that respect human rights (see paragraph G26 below). When the use of firearms is appropriate, any firearms and ammunition issued should be licensed, recorded, stored securely, marked and disposed of appropriately. Security personnel should be instructed to exercise restraint and caution, clearly prioritizing prevention of injuries or fatalities and peaceful resolution of disputes. Use of physical force should be reported to and investigated by the client. Any injured persons should be transported to medical facilities.

G32. The appropriate conduct of security personnel should be based on the principle that providing security and respecting human rights can and should be consistent. For example, any security personnel who interact with workers should not harass or intimidate workers exercising their rights in accordance with Performance Standard 2. If community members decide to associate, assemble and speak out in opposition to the project, the client and any security personnel who interact with them should respect the right of the local communities to do so. The instructions for security personnel should also make clear that arbitrary or abusive use of force is prohibited.

G33. Who provides security is as relevant as how security is provided. When employing or engaging any security personnel, the client should make reasonable inquiries to investigate the employment record and other available records, including any criminal record, of individuals or firms and should not employ or use any individuals or companies that have been credibly

alleged to have abused or violated human rights in the past. Clients should use only security professionals who are and continue to be adequately trained.

G34. The client should record and investigate security incidents to identify any necessary corrective or preventive actions for continuing security operations. To promote accountability, the client (or other appropriate party such as the security contractor or appropriate public or military authority) should take corrective and/or disciplinary action to prevent or avoid a repetition if the incident was not handled according to instructions. Unlawful acts of any security personnel (whether employees, contractors or public security forces) should be reported to the appropriate authorities (bearing in mind that clients may have to use their judgment about reporting violations if they have legitimate concerns about treatment of persons in custody). Clients should follow-up on reported unlawful acts by actively monitoring the status of investigations and pressing for their proper resolution. The grievance mechanism required under Performance Standard 1 provides another avenue for workers or community members to address concerns about security activities or personnel within the client's control or influence.

G35. There may be cases where the government decides to deploy public security forces to protect a client's operations, whether on a routine or as needed basis. In countries where it is illegal for companies to employ private security forces, the client may have no choice but to engage public security forces to protect its assets and employees. Governments have the primary responsibility for maintaining law and order and the decision-making authority with respect to deployments. Nonetheless, clients whose assets are being protected by public security forces have an interest in encouraging those forces to behave consistently with the requirements and principles set out above for private security personnel in order to promote and maintain good relations with the community, bearing in mind that public security forces may be unwilling to accept restrictions on their ability to use offensive force where they consider necessary. Clients are expected to communicate their principles of conduct to the public security forces, and express their desire that security be provided in a manner consistent with those standards by personnel with adequate and effective training. The client should request that the government make information about the arrangements to the client and the community, subject to overriding safety and security needs. If clients are required or requested to compensate the public security forces or provide equipment to public security forces, and if the option of declining the request is not available or desirable, clients may choose to provide in-kind compensation, such as food, uniform, or vehicles, rather than cash or lethal weapons. Clients should also try to implement restrictions, controls and monitoring as necessary and possible under the circumstances to prevent misappropriation or use of the equipment in a manner that is not consistent with the principles and requirements set out above.

G36. Pursuant to the requirement of paragraph 15 of Performance Standard 4 to report unlawful and abusive actions to public authorities, IFC may require its client to update IFC on the client's use of security personnel and any material developments and incidents as part of periodic monitoring reports to be submitted to IFC.

Annex A

Environmental Health Areas (EHAs)

Industrial projects will interact with influence health performance in surrounding communities. Potential project related effects are considered across twelve key environmental health areas (EHAs). The EHAs provide a standard framework for considering community and household level impacts.

1. **Respiratory disease** – projects can be associated with significant influx of workers and overcrowding of living quarters and number of occupants per room. Many types of respiratory diseases, including tuberculosis, are strongly related to housing conditions.
2. **Vector-related disease** – the physical setting and environment can be impacted by projects with landscape alterations that can alter the size, location and intensity of existing vectors and their breeding grounds, e.g., mosquito breeding sites, location and distance to forests, temporary water pools, discarded containers, rodents, flies, etc.
3. **Veterinary Medicine** – Zoonotic diseases are those illnesses that are typical present in an animal host but can, under the right conditions, “jump” to humans. Zoonotic disease amplification can readily occur when traditional herding/livestock management patterns are altered due to Project construction and/or relocation of water bodies. .
4. **Sexually Transmitted Infections (STIs) – including but not exclusive to HIV/AIDS-** The key consideration is “men, money, movement and mixing” with local communities and particularly young women.
5. **Soil, Water and food borne disease** – the rapid influx of workers, families, and camp followers triggered by a project can overtax existing community infrastructure and support services, such as sanitation and waste management services/systems.
6. **Nutrition related issues** – significant changes in community level agricultural practices due to changes in landownership status (ownership versus tenant farming), resettlement/relocation and physical environmental alterations, such as increased or decreased availability of water, riverbank gardens, can occur.
7. **Accidents/injuries** – significant increases in the level of road (e.g., car, truck, bicycle, and pedestrian), boat and air traffic within the project area. New physical structures, especially water bodies, can be unintended attractors for community members, particularly children.
8. **Exposure to potentially hazardous materials** – potential project releases and/or emissions. Project drums and containers can inadvertently “leak” into the community and be recycled by community members for food and water storage with unintended hazardous materials exposures.
9. **Psychosocial** – relocation, violence (especially gender-related), security concerns, substance abuse (drug, alcohol, smoking), depression and communal social cohesion including equitable distribution of benefits.
10. **Cultural Health Practices** – including but not exclusive to the role of traditional medical providers, indigenous medicines and unique cultural or ethnic health practices. By developing on-site medical services, particularly during construction, projects often bring a rapid “infusion” of western medicine.
11. **Health Services Infrastructure and Capacity** – local health services/facilities, staffing levels, management of national programs (e.g., malaria, TB, HIV/AIDS, etc.) and technical capabilities of health care system.
12. **Non-Communicable Diseases (NCDs)** – Rising incomes and movement from rural to periurban/urban lifestyle may trigger an epidemiological transition from infectious diseases to NCDs including hypertension, diabetes, stroke, and cardiovascular disorders.

Annex B: Environmental Health Areas and Issues

Environmental Health Areas	Health Impact Issues					Changes in income & expenditure consumption including food/housing inflation
	Influx	Resettlement; relocation	Water management	Linear features: Roadways; transportation routes; Transmission lines	Hazardous materials control and disposal including waste containers (drums)	
Vector Related	Influx camp followers, job seekers, family, service workers	movement to different prevalence area	including creation of new water bodies; altering existing water bodies and changes in drainage patterns	improper drainage, temporary water pool creation	creation of breeding sites with drums at household level	
Respiratory & Housing	Increasing human parasite burdens (malaria)	number of occupants per room.; mix of occupants children/elderly/adults (different vulnerability)	creation and movement of breeding grounds	facilitating mixing/interaction of different groups		housing inflation triggered crowding
Veterinary Medicine	crowded housing, both work camps and community	movement and migration of livestock due to influx of new groups	creation and/or movement of livestock watering locations		inadvertent water source contamination, of streams/rivers	
Sexually Transmitted Infections; HIV/AIDS	movement and migration of livestock due to influx of new groups	mixing of high and low prevalence groups	changes in surface water flows/quality, potential groundwater drawdown	facilitating movement of high risk groups into rural settings		men with money mixing with vulnerable women
Soil, Water & Sanitation	overburdening existing services/systems; explosive food-borne epidemics	failure to anticipate extended family influx in initial design	changes in surface water selection and planting cycle		releases into surface water; long-term impacts to groundwater	
Food & Nutrition	influx of extended family, more mouths to feed	shift from subsistence agriculture to peri-urban living/petty trading	drownings, boat accidents	changes in access to gardens or local markets		food inflation further marginalizing vulnerable groups
Accidents & Injuries	overcrowding, falls, burns, road traffic			road traffic, increased pedestrian activity	unplanned releases/emissions	
Hazardous Materials Exposure	squatter developments adjacent to industrial facilities with unplanned releases			movement via trucks of hazardous materials across communities to project areas	use of Project drums and containers for water and food storage; inadequate incinerators design	
Psychosocial; Gender Issues	cultural shock due to rapid societal change	transformation of rural to periurban/urban lifestyle		greater ease of mixing of different social/ethnic groups		sudden money influx in a barter economic structure
Cultural Health Practices	introduction of new practices and/or elimination of existing practices	introduction of new practices and/or elimination of existing practices				shift to western medicine
Health Services Infrastructure & Capacity	increased visits for out and inpatient services	increased visits for out and inpatient services if access improves		changes in access		attraction of additional private providers/increase in insurance enrollment
Non-Communicable; hypertension, diabetes	changes in diet	periurban living versus high intensity subsistence farming				shift from high physical activity to sedentary lifestyle

High Risk Potential
Medium Risk Potential
Low Risk Potential

Notes

Influx Management

When the project triggers significant **migration** (laborers, extended families, service providers, etc.) to the project area it can pose potential significant impacts to surrounding communities. These impacts may occur, to varying degree levels, across all phases of the project (exploration, pre-construction, construction, operations and decommissioning). A strong interaction and mixing between local workers, imported specialty workers, and expatriates can facilitate respiratory disease spread including the production of explosive epidemics that can pass and forth between the project and the community. In additions, explosive food-borne epidemics are significant consideration and can spread back and forth between the project worksite and the community via food handlers or petty traders.

Resettlement/relocation

The health effects of resettlement/relocation should be carefully considered above and beyond the more typical social/anthropologic analysis that is triggered by resettlement/relocation.

Water Management

During active construction periods, projects may create new breeding sites for key mosquito vectors. Resettlement/relocation communities may be in closer proximity to water bodies which will significantly increase the vector-borne disease risk. New water bodies, such as surface water environmental control dams or new reservoirs may become attractors for local community members and increase the risks of injury including accidental drowning. In addition, water storage facilities require careful environmental engineering (e.g., shoreline slopes and vegetation control) in order to prevent development of vector breeding sites. During construction and operations phases, tires, drums and other containers may become significant breeding sites for mosquitoes with subsequent increased risk of dengue fever outbreaks. Provide examples of negative impacts (vector borne, contamination of water which it may be used by nearby communities, exposure to community kids (drown), etc. due to poor design and management of man-made water deposits (dam, reservoirs, ponds, etc)

Linear Features

Any physical structure, e.g., roads, bridges, transmission lines, pipelines, river systems, etc. that cross and/or connect diverse ecologic or human populations can be considered a linear feature. Linear features have the potential for both positive and negative health consequences as the movement and interaction of diverse groups of humans and animal livestock is significantly facilitated.

Hazardous Materials Control and Disposal

These materials are often “recycled” within communities with unusual consequences, e.g., increased small-scale breeding grounds for the mosquito vectors of dengue and other arboviral diseases. In addition, waste storage drums may have industrial residues that adversely impact household water and food supplies as these containers are often prized as inexpensive storage devices

Changes in Income & Expenditure Consumption

Projects have significant potential to positively alter underlying levels of community and household income poverty. These potential positive effects can have profound impact on a variety of health performance indicators for all populations in a community, e.g., children under age 5, women of reproductive age, elderly, etc. Conversely, projects can trigger significant inflation impacting both food and housing in surrounding communities. Significant food and/or housing inflation can adversely impact existing vulnerable groups with negative consequences on both individual and community level health performance indicators. Significant food/housing inflation can make recruitment and retention of health care workers and teachers extremely difficult for local communities. Significant and sudden changes in income can have a marked effect on alcohol usage and subsequent gender violence. Workforce education and training are potential key mitigation activities.

Annex C
The Health Impact Assessment Process

Screening: preliminary evaluation, determines whether an HIS is indicated and its complexity.

- Have there been any HIAs or other types of health risk assessments conducted on this project or in this area?
- Is there potential for positive or negative impacts as a result of the project?
- Are the potential negative impacts likely to affect a large number of people or cause death or disability?
- Are the potential negative health impacts likely to be disproportionately greater for disadvantaged or vulnerable population group?
- Is there uncertainty about what the potential health impacts might be?

Scoping: outlines the range and types of hazards and beneficial impacts basis for TOR.

- How will the HIA fit in with the EIA and SIA?
- Are all phases of the project to be considered in the HIA (project conception, design/engineer, construction, operations, decommissioning)?
- For each project phase, what processes are to be included in the HIA?
- What are the main factor determining health that may be affected by this project (health determinants)?
- Which population will be addressed?

Stakeholder Communication and consultation: a two-way communication process carefully planned in a coordinated fashion responsive to overall business objectives.

- Who are the stakeholders?
- Has a stakeholder communication plan been developed?
- What health issues are of concern to the stakeholders within each phase of the project?
- Are there additional data or studies available to help address anticipated health issues?

Risk assessment / appraisal: appraises and qualitatively or quantitatively ranks the health impacts.

- Has existing data been evaluated for accuracy, relevance and completeness?
- If new baseline data is to be collected, are relevant study questions carefully formulated?
- What are the potential impacts on the determinants of health?
- Have all of the Health Areas of Concern been addressed?
- Has a ranking process taken place?

Decision making, establishing priorities, reporting: includes the development of a Health Action Plan (HAP) with mitigation strategies.

- Have the rankings from the risk assessment process been addressed by a Health Action Plan?
- Are mitigation strategies, including primary, secondary and tertiary, included in this plan?
- Is the Health Action Plan coordinated with the Environmental And Social Action Plan?

Implementation and monitoring: surveillance plan that captures early effects and unanticipated consequences.

- Has the Health Action Plan been expanded with specific implementation plans?
- Are responsibilities and timing defined?
- Is a monitoring/surveillance system designed to capture unanticipated effects?

Evaluation and verification: a system for determining that implementation has both occurred and is achieving the intended results.

- Is a system in place to verify that the Health Action Plan has been implemented effectively?
- Are milestones in place, i.e. malaria incidence rates, immunization rates, etc.?
- Are both international and external independent audit systems in place?
- Is contractor health performance verified and assessed?

Source: A Pocket Guide to Health Impact Assessments (IPIECA/OGP 2005)

Example of Critical Elements of a Health Impact Assessment report

Introduction to Health Impact Assessment

HIA within the Project

Scope of the HIA

Project Timescale

Interface of the HIA with environmental and social impact assessments

Impacts Categorization

Direct versus indirect effects

Cumulative impacts

Methodology

Key Sectors- housing, water/sanitation, transportation and information/ communication

Potential Impact Areas (PIAs)

Environmental Health Areas (EHAs)

Poverty and Health

Income Poverty and Health

Country Poverty Data and Wealth Quintiles

Pre-Project Database

Sources of Data

Key demographic Characteristics

Physical Capital- housing, access, water/sanitation, consumer durables

Financial Capital- income, consumption expenditure

Human Capital

Education- literacy, household head education attainment

Health- EHAs

Social Capital

Environmental Capital

Risk Assessment and Impact Characterization

Annex D
Examples of Risk-based Criteria for Assessment of Dams

In the case of dams and impoundments, qualified experts can base their evaluation of safety on specific risk criteria. Experts can initially refer to national regulations and methodologies. Should such regulations not be available in the country, existing, well-developed methodologies promulgated by authorities in countries with mature dam safety programs can be referred to and adapted as necessary to local conditions. In broad terms, risk assessment criteria can include the following aspects:

- Design flood
- Design earthquake (maximum credible event)
- Properties of construction process and properties of construction materials
- Design philosophy
- Foundation conditions
- Height of dam and volume of materials contained
- Quality control during construction
- Management capacity of the client/operator
- Provisions for financial responsibility and closure
- Financial resources for operation and maintenance, including closure when applicable
- Population at risk downstream of the dam
- Economic value of assets at risk in case of dam failure

Annex E
Definitions of Water Diseases

Waterborne	Water-based	Water-related	Water-washed
<p>Water-borne illnesses are those caused by consuming water contaminated by human, animal, or chemical wastes. These diseases are especially prevalent in areas lacking access to adequate sanitation facilities, and include diarrhea, cholera and typhoid.</p> <ul style="list-style-type: none"> ▪ Contaminated water that is consumed may result in water-borne diseases including viral hepatitis, typhoid, cholera, dysentery and other diseases that cause diarrhea 	<p>Water-based illnesses are caused by parasites that spend at least part of their life cycles in water. These include guinea worm and schistosomiasis.</p> <ul style="list-style-type: none"> ▪ Water-based diseases and water-related vector-borne diseases can result from water supply projects (including dams and irrigation structures) that inadvertently provide habitats for mosquitoes and snails that are intermediate hosts of parasites that cause malaria, schistosomiasis, lymphatic filariasis, onchocerciasis and Japanese encephalitis 	<p>Water-related illnesses are those transmitted by vectors that live and breed in or around water. Vectors are insects or animals that carry and transmit parasites between infected people or animals. This category of disease includes Malaria, transmitted by mosquitoes.</p> <ul style="list-style-type: none"> ▪ Water-related vector-borne diseases can result from water supply projects (including dams and irrigation structures) that inadvertently provide habitats for mosquitoes that are intermediate hosts of parasites that cause malaria, lymphatic filariasis, and Japanese encephalitis 	<p>Water-washed illnesses are those that can be prevented through more frequent hand washing and bathing, including trachoma and onchocerciasis.</p> <ul style="list-style-type: none"> ▪ Ascariasis (roundworm infection) ▪ Ancylostomiasis (hookworm infection)

Annex F
What types of Health Impact Assessment are available?

1. Mini HIA
 - Broad overview
 - Used at early development stage
 - Involves collecting and analyzing existing data
 - No new data collection
 - Takes approximately two to six weeks (for one assessor)

2. Desktop HIA
 - More detailed
 - Most frequently used
 - More thorough investigation of impacts
 - Involves collecting and analysing existing data and some new qualitative data from stakeholders and key informants
 - Lasts approximately 12 weeks (for one assessor)

3. Comprehensive
 - Provides comprehensive assessment
 - Most robust definition of impacts
 - Involves collecting and analysing data using multiple methods and sources (quantitative and qualitative, including participatory approaches involving stakeholders and/or their representatives and key informants).
 - Lasts approximately six months (for one assessor).

Source: A Pocket Guide to Health Impact Assessments (IPIECA/OGP 2005)

References

Several of the requirements set out in the Performance Standard are based on principles expressed in the following international agreements and the related guidelines:

- *Natural Disasters: Protecting the Public's Health* (Pan American Health Organization, 2000) provides a framework to make effective decisions in managing the health sector's activities to reduce the consequences of disasters.
<http://www.paho.org/English/PED/sp575.htm>
- *IFC's Environmental, Health and Safety Guidelines* (IFC) – technical guidance informing those parts of the new policy structure related to environmental, health and safety issues. <http://www.ifc.org/ifcext/enviro.nsf/Content/EnvironmentalGuidelines>
- Guidance for Life and Fire Safety for new buildings accessible for public can be found in the “*Life and Fire Safety*” section of the sub section “*3.0 Community Health and Safety*” included in the General Environmental, health and Safety Guidelines of the IFC.
[http://www.ifc.org/ifcext/enviro.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_GeneralEHS_3/\\$FILE/3+Community+Health+and+Safety.pdf](http://www.ifc.org/ifcext/enviro.nsf/AttachmentsByTitle/gui_EHSGuidelines2007_GeneralEHS_3/$FILE/3+Community+Health+and+Safety.pdf)
- *IFC's Good Practice Note on HIV/AIDS in the Workplace* (IFC, 2002) outlines the costs of HIV/AIDS to businesses and gives companies concrete advice on designing and implementing workplace programs
http://www.ifc.org/ifcext/enviro.nsf/Content/Publications_GoodPractice
- *HIV/AIDS Resource Guide for the Mining Sector* (IFC, 2004) an HIV/AIDS resource guide for developing stakeholder competency in mining communities. Introduces a new framework for management strategies and workplace prevention, as well as care and outreach programs to help combat the disease.
<http://www.ifc.org/ifcext/aids.nsf/Content/Publications>
- *Code of Conduct for Law Enforcement Officials* (UN, 1979) – stipulates code of conduct for law enforcement officials to uphold while serving and protecting all persons against illegal acts. <http://www.ohchr.org/english/law/codeofconduct.htm>
- *Basic Principles on the Use of Force and Firearms by Law Enforcement Officials* (UN, 1990) – provides rules and regulations for the use of firearms by law enforcement officials. <http://www.ohchr.org/english/law/firearms.htm>
- *US/UK Voluntary Principles - Voluntary Principles on Security and Human Rights* (US and UK Governments, 2000) – balance the need for safety while respecting human rights. Provides guidance on risk assessment, relations with public security, and relations with private security. <http://www.voluntaryprinciples.org/>
- *Conflict Sensitive Business Practice: Guidance for Extractive Industries* (International Alert, 2005) -- provides a set of tools for companies concerned about improving their

impact on host countries to begin thinking more creatively about understanding and minimizing conflict risk, and actively contributing to peace.

<http://www.international-alert.org/publications/234.php>

- *Demographic Surveillance Site (DSS) (The INDEPTH Network)* – DDS is an extremely cost-effective and well established program that can transparently and longitudinally collect and evaluated a wide range of social, health and economic survey data. <http://www.indepth-network.org/>
- *Health Impact Assessment: Main concepts and suggested approach (WHO/ECHP)* creates a common understanding of health impact assessment and provides a departure point for discussion, comments and suggestions for the further development of an HIA approach. <http://www.euro.who.int/document/PAE/Gothenburgpaper.pdf>
- *A Guide to Health Impact Assessment in the oil and gas industry (IPIECA/OGP 2005)* – It provides a summary checklist of activities consider when conducting health impact assessments. <http://www.ipieca.org/activities/health/downloads/publications/hia.pdf>
- *A Guide to Malaria Management Programmes in the oil and gas industry (IPIECA/OGP 2006)* -- This Guide outlines and describes the scientific concepts, rationale and value of Malaria Management Programmes (MMPs). The Guide provides a broad overview of MMPs, and templates such as implementation checklists and audit protocols that might typically form part of key activities when implementing. <http://www.ipieca.org/activities/health/downloads/publications/malaria.pdf>
- *Strategic Health Management: Principles and guidelines for the oil & gas industry, International Association of Oil & Gas Producers (OGP 2000)* – This document provides a basis for incorporating workforce and community health consideration systematically into project planning and management. <http://www.ogp.org.uk/pubs/307.pdf>
- *Environmental Health: Bridging the Gap (World Bank 2001), James A. Listorti and Fadi M. Doumani, World Bank Discussion Paper 422* – This review written by World Bank consultants provides a detailed analysis of an approach to environmental health assessment.
- *WHO Statistics and Health Information Systems* – This information systems introduce disability-adjusted life years (DALY), which is a health gap measure that extends the concept of potential years of life lost due to premature death (PYLL) to include equivalent years of ‘healthy’ life lost by virtue of being in states of poor health or disability <http://www.who.int/healthinfo/boddaly/en/index.html>

For guidance on minimizing the occurrence and harmful effects of technological accidents and environmental emergencies:

- *APELL* - Awareness and Preparedness for Emergencies on a Local Level (UNEP) – provides technical reports and other materials to assist disaster prevention and response planning in vulnerable areas <http://www.uneptie.org/pc/apell/>