MODULE 9

SECTORAL GUIDANCE

I. Hydropower

Large and medium-size HPPs are usually high-visibility projects that receive considerable scrutiny from international and national NGOs, which may require a specific engagement strategy.

Even if there is a private sponsor, land acquisition in these projects will typically involve the government and often include compulsory acquisition (expropriation) procedures.

Sometimes HPPs adversely have a very large footprint with significant physical and economic displacement, which may adversely affect the economy of an entire region.

The project may have complex hydrological impacts, during both construction and operations, which makes the delineation of affected areas and livelihood impacts difficult. These include, for example, variable water levels (with daily or seasonal fluctuations for facilities with large storage capacity and peaking plants) both in the reservoir and downstream. This may make the determination of the affected footprint or impacts to livelihoods, including agricultural land and grazing systems and fishing, difficult as a result.

Reservoirs typically impact the best and most intensively cultivated land in the bottom of river valleys, making agricultural livelihood restoration extremely challenging in some cases when the most productive land is inundated.

HPPs often take a very long time to develop, and communities may have been told they would be moved decades earlier, thereby finding themselves in limbo of a never-ending pre-displacement situation, with many negative effects.

Lastly, HPPs often entail various associated facilities (diversion of roads and transmission lines, etc.) placed under the responsibility of other agencies upon which the project sponsor will have limited leverage (see table 9.1).

Table 9.1. Key Aspects to Consider in Hydropower Projects

STAGE	SPECIFIC ASPECTS
Scoping	Footprint delineation and optimization: • An iterative optimization of the dam height can help avoid and minimize physical and economic displacement as well as other adverse impacts, such as loss of biodiversity due to inundation. It should always be included in the resettlement-scoping exercise and often requires lengthy interaction with the project sponsor and its engineers. Maximum energy-generating capacity should not be an objective if it is unsustainable from a social perspective. Similarly, alternative sites or routes should be considered for ancillary facilities, such as workers' camps, switchyards, or transmission lines. • Similarly, the operations condition of the reservoir should be assessed as of the scoping stage, as this may entail an additional footprint, particularly for peaking plants. • Exceptional hydrological conditions need to be taken into account when delineating the footprint, particularly downstream. Areas that are not inundated in most hydrological conditions may be suitable for agriculture under certain conditions, but robust emergency procedures must be put in place. • Large reservoirs may cut off villages located above the water line from their agricultural or grazing land located below it, in which case the resettlement of the community may be necessary even though their houses are not affected. • Where graveyards may be affected, legal and sanitary requirements associated with grave relocation are very demanding in some countries and need to be factored into the overall project schedule. In addition, cultural and psychological aspects have to be handled with sensitivity. • Construction-related facilities, such as access roads and quarries, may entail a significant footprint (sometimes more than the reservoir itself for run-of-river projects), and the details on such footprints may be available only late in the resettlement-planning process when the final selection of quarry sites is a responsibility of an engineering, procurement, and construction contractor. • There may be associated facilities with significant land impacts (relocated roads and bridges, switchyards, transmission lines, etc.) that fall under the responsibility of a different project sponsor. • For large dams with long construction periods, undertaking asset surveys and a census of affected persons (and declaring cutoff) over the reservoir area may need to be phased carefully to avoid peoples' lives being on standby for too long before impacts actually take place. • Community impact of potential dam failure should be considered. In some cases, community safety concerns may drive resettlement.

(*Table continued on next page*)

Table 9.1. *(Continued)*

STAGE	SPECIFIC ASPECTS
Scoping *(continued)*	Scoping of livelihood impacts: • Impacts to fisheries and/or other activities, such as loss of access to timber and NTFPs, medicinal plants, hunting grounds, and sand mining—both upstream and downstream—have to be considered, with specific impacts during construction (changes to hydrology and river levels caused by diversions or temporary obstacles in river). • Activities that are impacted may include, in addition to fisheries, tour operators operating rafting or kayaking tours, picnic sites or restaurants on riverside scenic spots, sand and gravel extraction, and other mineral extraction from alluvial deposits. • Livelihood impacts are sometimes so significant (e.g., where no good replacement agricultural land is available) that the project will eventually appear unfeasible or will need to be substantially amended (e.g., reduction of dam height to minimize impacts). Inputs from resettlement specialists should be systematically sought at the prefeasibility stage in HPPs. • Livelihood impacts may have additional impacts on women and children with respect to their roles and status in the home, especially if there are impacts on livelihoods of men that prevent men from continuing to perform their role as the provider for the family. Legal aspects and government involvement: • HPPs are typically public interest projects, even where a private investor is involved. Land acquisition is often a government responsibility as a result. The legal review to be done at scoping needs to identify any gaps against PS5 in both legislation and usual government practice. Refer to the guidance in Module 8. II. Government-Led Land Acquisition. • Some jurisdictions have stringent land and environmental management regulations applicable to water bodies and/or reservoir protection. These must be factored in the footprint review, as certain agricultural or husbandry activities may not be permissible anymore in the watershed. A typical example is the prohibition of certain agricultural practices in the watershed to prevent erosion and maintain water quality in the reservoir. Such buffers may warrant compensation, depending on the extent of the restrictions and their livelihood impacts. • Impacts to water- or river-associated cultural sites take place in many HPPs. They need to be understood early in the process, as their sensitivity may be significant.

(*Table continued on next page*)

Table 9.1. *(Continued)*

STAGE	SPECIFIC ASPECTS
Planning	Devising an appropriate compensation package for affected fisherpeople may be difficult and requires sufficient and ongoing consultation, keeping speculative risks in mind. Gathering adequate baseline information on fishing and fishing-related livelihoods is often challenging, and specialists with extensive local knowledge should be engaged. Communities and the fishermen themselves should be engaged in the surveys and share in the responsibility of avoiding opportunistic behaviors that may jeopardize the survey process.
Stakeholder engagement	As numbers of displaced people can be significant, with large resettlement sites as a result, engagement with host communities can have more importance than in other types of projects. Where graveyards are affected, relocating graves and associated engagement, information, and disclosure requires specific types of interaction, which may involve religious authorities. Engage specifically with custodians of potentially affected cultural sites.
Baseline collection	Before the baseline surveys start, the area to survey needs to be reviewed thoroughly, as in many cases impacts will affect land beyond the boundaries of the reservoir, for a number of possible reasons: • Relocated communities may have unaffected agricultural land, which, as a result, may need to be surveyed to provide a full understanding of livelihood impacts. • Communities that are not physically displaced may own affected agricultural land, thereby requiring their relocation. • Communities may become severed from their agricultural land. • Impacts to grazing areas or agricultural systems based on flood recession are often overlooked. Similarly, impacts to wetlands or riparian woodlands may cause impacts to livelihoods: for example, gathering ligneous and nonligneous forest products and medicinal plants. Impacts to other river usage, such as fishing, sand mining, or leisure activities (e.g., rafting, kayaking) will typically need to be assessed in addition to impacts to agriculture: • Identification of affected fisherpeople can be challenging and involve a potential for speculation. A strategy for fishery baseline collection and associated engagement (including setting a proper cutoff) should be devised as of scoping, in coordination with the ESIA. • Because sand or gravel mining may be environmentally harmful and/or illegal, surveys and engagement should focus on potential alternative livelihoods wherever practical.

(*Table continued on next page*)

Table 9.1. *(Continued)*

STAGE	SPECIFIC ASPECTS
Baseline collection *(continued)*	• Operators of affected tourism activities are usually formally established companies. While their identification is generally straightforward, local legislation may be silent on their rights and not require compensation, while impacts to businesses and livelihoods, including those of local employees, are obvious and do warrant some form of compensation per PS5. In some cases, a relocation or LRP can be established in cooperation with those companies to either relocate the business to an unaffected stretch of river or support a change in activity. Where such activities are illegal or informal, tailored and tactful engagement that safeguards confidentiality may be required to contact affected persons and investigate their activities. Where entire villages are affected, and burial grounds are affected as a result, a specific survey of graves may be required to identify next-of-kin, with mandatory periods provided by legislation for notices and agreement. This must be factored in the baseline collection and stakeholder engagement strategy, as well as in the general project development timeline where long notice periods are required by law. Impacts to women and domestic duties, as well as to children, need to be considered in this survey.
Implementation	For the larger dams and reservoirs, construction and infilling may occur in phases over a long period of time (sometimes more than five years). It is therefore important to schedule and implement the moves in successive waves. Some jurisdictions have stringent reservoir clean-up regulations prior to infilling (and associated reservoir acceptance) that may entail specific constraints to the schedule of moves and demolition. Where vegetation needs to be cleared prior to infilling, a strategy for affected communities to benefit from this should be devised.
Livelihood restoration	The positive impacts to fisheries of the reservoir establishment are sometimes overestimated by developers. While there may be potential for fishing in reservoirs, materializing this potential is not always easy for current subsistence fisherpeople, who will not have the training or equipment to change their fishing practice and adapt to the new hydrological conditions in the reservoir.

(*Table continued on next page*)

Table 9.1. *(Continued)*

STAGE	SPECIFIC ASPECTS
Livelihood restoration *(continued)*	In such cases, the transition of subsistence fisherpeople to the new hydrologic conditions needs to be aggressively supported by specific livelihood-restoration measures and provision of new equipment. For peaking plants, the drawdown in the reservoir raises specific issues with regard to landing sites and the safety of the fishermen. This is also true for tourism development, for which the reservoir may offer new opportunities. However, local people may not embrace such new opportunities and activities readily if they are not provided with extensive support and training. The same applies to agriculture, particularly where a certain type of agricultural system (e.g., flood-recession crops) is not feasible once the dam is built. Even if other agricultural land is available, the transition to a different agricultural system will be difficult and will require time and significant technical support. Where the livelihood-restoration strategy is based on transitioning subsistence farmers to a more intensive, irrigated system, the technical, economic, financial, and social risks of such systems must be carefully evaluated, and the opportunity of such transitions must be thoroughly consulted with affected farmers. Again, training will be essential to support the transition to new, more intensive systems. As suitable crops may change dramatically from those previously grown, this support should address not only production techniques but also storage and marketing.
Monitoring	For large dams, monitoring of livelihoods and completion audits should be planned to occur over a long period of time. Experience shows that the very significant social and economic changes caused by large resettlement can take up to a generation to materialize and stabilize.

II. Renewable Energy

Projects considered "green" sometimes avoid scrutiny for environmental and social impacts, and yet the impacts—such as from land acquisition—can be significant.

In renewable energy projects, significant effort usually is (and should) be dedicated to avoidance of displacement impacts. Private developers could seek to minimize impacts by locating facilities outside of settled or cultivated areas and design the project, through alternative analyses, to be able to purchase land through negotiated transactions, without resorting to expropriation. However, impacts to livelihoods may also be underestimated and proper planning processes may not be followed.

There may be many small, separate elements of the footprint (particularly wind farms). Even if discrete impacts of one facility seem benign, cumulative impacts on livelihoods and natural resources may be significant. Lastly, it is not uncommon to observe that access roads and other ancillary facilities such as substations or transmission lines entail more significant land impacts than the power-producing facilities themselves (see table 9.2).

Table 9.2. Key Aspects to Consider in Renewable Energy Projects

STAGE	SPECIFIC ASPECTS
Scoping	For smaller facilities, particularly for wind farms, impacts can often be minimized through relocation of all or most elements of the facility to land plots of limited value (such as hill tops). Also, a willing buyer–willing seller approach can become feasible where facilities can be relocated if some landowners are unwilling to sell, and the project sponsor can commit to not using compulsory acquisition under any circumstances. The interaction between ESIA, micrositing, and RAP teams is critical in this regard. Inconsistent land transactions could lead to community discontent. It is therefore preferable to adopt a RAP/LRP approach to include SE and negotiations around compensation rates. Benefits at the community level should also be utilized, even when willing buyer–willing seller transactions are sought. Access roads and other ancillary facilities may account for a large part of the overall land impacts and need to be considered in the avoidance and/or minimization approach. PPPs are becoming more frequent in renewable energy projects. Power purchase agreements may allocate the responsibility for land acquisition to the government, with the project sponsor obtaining a long-term lease to the land (often on the order of 20 to 25 years). It is important to note that such durations entail long-term impacts and that the typical RAP/LRP approach warranted for permanent acquisition is also required for such long-term leases.
Planning	Even if willing buyer–willing seller transactions are sought, land rates should be equitable and based on reasonable valuations, and refer to prior community engagement, using the guidance in Module 2. Planning Land Acquisition and Involuntary Resettlement.
Stakeholder engagement	Even if willing buyer–willing seller transactions are sought, there must be community-engagement activities around land acquisition per the guidance in Module 3. Stakeholder Engagement to enhance transparency and avoid jealousy.
Baseline collection	Even if willing buyer–willing seller transactions are sought, baseline socioeconomic and livelihood information should be obtained per the guidance in Module 4. Baseline Data Collection to be able to monitor affected livelihoods.

(*Table continued on next page*)

Table 9.2. *(Continued)*

STAGE	SPECIFIC ASPECTS
Implementation	Track and document transactions per normal RAP/LRP processes. Avoid haphazard bargaining. Consider providing a reasonable premium to landowners prepared to sell their land within a set time period, as long as the process related to this premium is transparent.
Livelihood restoration	Land impacts may be generally limited, but some landowners or land users could be significantly affected, particularly by photovoltaic plants. In such cases of economic displacement, these landowners or land users will be considered as economically displaced and should benefit from livelihood-restoration activities per a normal RAP/LRP process.
Monitoring	Monitor per normal RAP and LRP processes.

III. Mining

Mining usually entails a large footprint with significant physical and economic displacement, which may affect the economy of an entire region or country. Significant non-displacement-related social impacts may affect the process of resettlement and require the integration of the resettlement assessment into a broader social impact assessment:

- With in-migration of workers and job seekers and potential for conflict between locals and nonlocals, the resettlement and compensation process may make acute conflict more likely.
- The presence of haves (the workers) and have-nots (the job seekers and those displaced by the mine) may affect community engagement on resettlement issues.
- There is potential for external interference and speculation.
- There is significant risk of increased GBV in communities, especially due to the influx of large numbers of male workers.
- It is not unusual for the planned footprint of the mine to significantly increase as new reserves are found.

See table 9.3 for additional aspects to consider.

Table 9.3. Key Aspects to Consider in Mining Projects

STAGE	SPECIFIC ASPECTS
Scoping	Footprint delineation and optimization: • The entire footprint is rarely defined at the time of scoping impacts, and sometimes this definition occurs much later, with exploration for subsequent project phases carried out while the first phases of the project are already in operation. This can make it difficult or even impossible to have a proper image of long-term land, influx, and livelihood impacts, with negative implications for the process of identifying resettlement sites, for example. • Not only is the full footprint not always known at project inception, but the timing of development of the different phases of the project (and associated land acquisition) is not always known. It may also vary after the project has started: if there is a significant change in a commodity price, for example. • Protection or buffer zones called for by regulations or required for technical, environmental, or safety reasons often entail a large footprint in addition to the pits and facilities. Sometimes the provision of temporary access to local residents for agricultural uses is still possible in these protection zones. These uses must be considered in the overall footprint assessment. • Where noise, dust, and flying rock are issues, berms can help reduce the size of protection zones and protect nearby communities from environmental impacts. • For open-pit mining, opportunities for minimizing or optimizing the footprint may be limited: the pits have to be where the ore body is located, and a change to an underground mining method is generally not realistic. However, there is often more flexibility for facilities such as processing plants, tailings storage facilities, water dams, pipe and transmission lines, or access roads. Also, for some minerals often found in relatively shallow ore bodies (bauxite), ongoing reinstatement of closed pits may offer opportunities for land hand-back and related footprint minimization. Workshops between resettlement, environment, and mine planning or ore body specialists are required at the time of scoping impacts. • For underground mining, risks of subsidence have to be assessed before the final footprint is assessed. • The size of the mine or the tailings storage facilities can cut off access in ways that are hard to predict. Communities (or social services) that were next door can become separated by a five-kilometer walk around the mine infrastructure.

(*Table continued on next page*)

Table 9.3. *(Continued)*

STAGE	SPECIFIC ASPECTS
Scoping	Engagement: • As when scoping, the right balance between meaningful information disclosure and engagement, on the one hand, and managing speculation risks, on the other, must be sought. • Adequate information management security provisions must be put in place within the mining company to avoid having sensitive footprint information leaked to potential speculators and land grabbers. • At the same time, communities must be informed in a timely fashion in advance of the potential displacement. • Early identification of the potential for GBV (from workers, influx of job seekers, and risks associated with illicit activities) and engagement with the communities can help protect women and children from abuse. Legal aspects and government involvement: • In most jurisdictions, land acquisition for mining projects involves the government, to varying degrees. The legal review to be done at scoping needs to identify what the role of the government is going to be and any gaps between it and PS5 in both legislation and usual government practice. • The interaction between the licensing-permitting and the land-acquisition processes may be complex from both a scheduling and timing perspective. • A joint review of mining legislation, environmental legislation, and land legislation is usually required to understand interactions between various legal aspects and to devise an integrated permitting-licensing, ESIA, and land-acquisition process that works. • It is important to ensure that "sterilization" and/or "condemnation" drilling is carried out before any resettlement sites are selected and developed to check that resettlement sites are not located on valuable ore bodies. This is to avoid repeated displacement of the same communities if an ore body is found where a community has been resettled.

(*Table continued on next page*)

Table 9.3. *(Continued)*

STAGE	SPECIFIC ASPECTS
Scoping	• It is good practice to involve resettlement or social experts in the exploration phases of the project. There may be negative legacies of early project phases, which may have been carried out by a different company and sometimes long before the mine development. It is important to understand whether such legacies may affect the resettlement process and to include corrective activities in the resettlement plan if warranted. • Where the mine will be developed in several phases, a resettlement framework approach can be useful, whereby a framework is developed to encompass all phases and include all principles that will apply throughout the successive phases, while each phase is covered by a discrete RAP covering that phase only (with its specific cutoff).
Planning	See the normal planning process in Module 2. Planning Land Acquisition and Involuntary Resettlement.
Stakeholder engagement	Balancing the needs of preventing speculation and meaningful and timely engagement is critical. Please see section above on scoping. Actively engaging indirectly affected communities around the mine footprint is critical, as these communities often perceive that the project benefits all go to directly affected communities, to the detriment of the indirectly affected communities. This perceived unequal treatment is frequently the source of opposition to the project and conflict. Apart from the affected parties, a broad range of interested parties should be involved in land-acquisition and resettlement planning, including government at various levels and in various agencies, and CSOs. Refer to IFC's *A Strategic Approach to Early Stakeholder Engagement: A Good Practice Handbook for Junior Companies in the Extractive Industries*.[a]

[a] IFC. 2014. *A Strategic Approach to Early Stakeholder Engagement: A Good Practice Handbook for Junior Companies in the Extractive Industries*. Washington, DC: IFC. https://commdev.org/publications/a-strategic-approach-to-early-stakeholder-engagement/.

(*Table continued on next page*)

Table 9.3. *(Continued)*

STAGE	SPECIFIC ASPECTS
Baseline collection	Coordination between the ESIA baseline collection and that required for RAP development is particularly critical in mining projects. Areas of investigation may be different, with misunderstandings quite common—people surveyed for ESIA purposes may start to think they will be displaced even when this is not the case—and the risks of community survey fatigue are high. Seek proper coordination between both exercises to avoid duplication of effort and survey fatigue. Livelihood baseline information is particularly critical because impacts to livelihoods may be significant. The baseline must include a comprehensive assessment of the economic and cultural dependency on land that will be affected (in most cases permanently), including uses such as farming, grazing, and gathering. Where blasting or traffic will be significant, or if there are risks of subsidence or other similar disturbances, it may be useful to take a preproject building baseline (including documentation of preexisting damage to buildings) to be able to manage potential damage claims should they arise later. Scheduling baseline collection: • Carefully coordinate the schedule of the successive phases of baseline collection, with cutoff dates that are not too long before the actual relocation of affected persons. • Do not start baseline collection if the footprint of a first phase of mining and related facilities is not defined with a sufficient level of accuracy. Surveying areas that will eventually not be displaced is never a good thing. • Where land take will not occur for several years, do not undertake baseline collection. Adapt successive cutoff dates (and related baseline surveys) to a realistic schedule of mine development.
Livelihood restoration	The development of mining projects causes rapid economic growth, which makes planning of livelihood restoration and community development particularly challenging. Early construction brings an employment influx and economic development, but the end of construction can bring a sharp economic decline (boom-bust cycle). This can have significant impacts on the temporary economic empowerment of women and risks of GBV due to changes in gender roles.

(*Table continued on next page*)

Table 9.3. *(Continued)*

STAGE	SPECIFIC ASPECTS
Livelihood restoration	The cycles of commodity prices also bring about phases of rapid project expansion and economic growth followed by lower commodity prices and resulting retrenchment. Neighboring communities tend to lose their appetite for traditional activities like agriculture or animal husbandry, because the mining project brings an expectation of salaried employment and a more comfortable life. The interest in agriculture-based livelihood restoration may be limited as a result. Livelihood-restoration activities for affected persons must be planned mindful of broader community development and training initiatives, whether the latter originate in the mining company, the government, or other parties such as NGOs. Projects need to develop mechanisms that invest in long-term livelihood-restoration solutions and community development and ensure that funds are available to sustain these activities during low commodity prices and at project closure. These should target men, women, adolescent boys, and adolescent girls. There are examples of successful community foundations that develop investment funds for long-term community development and can consolidate or broaden livelihood-restoration activities.
Implementation	See a normal planning process in Module 6. Implementation of the Resettlement Program.
Monitoring	Because livelihood impacts will usually be significant, ensure that the completion audit takes place only once sufficient time has elapsed after the displacement (typically at least three years and sometimes significantly more). For mining projects involving several successive phases of development, make sure that lessons learned from earlier phases are applied to the resettlement planning in later phases.

IV. Oil and Gas (Onshore)

Note: Starting 2019, the World Bank Group no longer finances upstream oil and gas projects. More information on this commitment can be found in the WBG Climate Change Action Plan 2021–2025. The sectoral information in this section is provided as good practice guidance for stakeholders working in this sector (see table 9.4).

Table 9.4. Key Aspects to Consider in Onshore Oil and Gas Projects

STAGE	SPECIFIC ASPECTS
Background	Onshore oil and gas fields are typically complex projects with multiple components and associated facilities. They can use significant pieces of land for the following: • Wells, but it is usually possible to reclaim part of the well pad once drilling and completion works are finished • Flow lines and pipelines, usually underground, with agriculture possible on associated corridors, although with restrictions (depth of roots, weight of machinery, etc.) • Power transmission lines, which can be overhead or underground • Access roads and associated infrastructure and upgrade works • Exploration investigations (seismic lines and other geophysical methods) • Exploration, construction, and operations camps • Processing facilities • Ancillary facilities associated with loading and export There are numerous opportunities for footprint minimization and optimization: • Directional drilling enabling the grouping of several wellheads on one well pad, thereby significantly reducing the footprint and giving flexibility to the location of well pads: for example, away from settlements or valuable agricultural areas • Routing of linear infrastructure: for example, flow- and pipelines, transmission lines, and roads • Location of processing plants and camps Oil and gas projects typically evolve, as actual operations of multiple wells allow reservoir modelling to be refined. More wells may result from this refinement, or wells in different locations that were not initially anticipated, with resulting impacts to the footprint of the well pads themselves and ancillary facilities.

(*Table continued on next page*)

Table 9.4. *(Continued)*

STAGE	SPECIFIC ASPECTS
Background	Oil and gas development entails long periods of exploration that precede actual project development, with the succession of several phases of intense activity and presence in the field and sometimes long periods when nothing or very little happens in the field, which is a significant challenge when engaging communities and maintaining a long-term social license to operate. Transactions between operators may take place during the different phases of a project, with different teams coming onboard, sometimes with different policies and approaches to community engagement, resettlement, and compensation. There are different legal and institutional approaches to government involvement in oil and gas projects, depending on the applicable legislation. In some cases, land acquisition will be done by the government itself (see Module 8. Specific Circumstances), in others it may be done by the company under a cost-recovery agreement, whereby all land-acquisition and resettlement costs will ultimately be reimbursed by the state. This is an important aspect that is key to understand as of scoping.
Scoping	Review the footprint closely and jointly with project planners and environmental specialists, looking into opportunities for minimization and optimization. Liaise with project and reservoir planners to consider different probable footprint evolution scenarios and to establish potential long-term views of the project footprint and resulting land availability in the area. Take this into consideration when devising livelihood-restoration options and resettlement areas. In cooperation with project engineers and planners, seek to understand as thoroughly as possible the nature of restrictions that will apply in buffer zones around facilities (will agriculture and grazing be possible?, etc.). Categorize land needs and land impacts accordingly: temporary versus permanent, temporary with reinstatement to previous condition or not, restricted and nature of restrictions, and so forth. Consider specific restrictions associated with explosion risks, emergency situations, and temporary operations, such as flaring. Based on these considerations, devise the approach to resettlement planning and phasing, including related documentation and engagement planning (framework approach and/or successive RAPs), keeping in mind long-term impacts on land availability and use in the area.

(*Table continued on next page*)

Table 9.4. *(Continued)*

STAGE	SPECIFIC ASPECTS
Scoping	Consider any potential legacies associated with previous project phases, including those that may have taken place long ago under the responsibility of different sponsors. Consider the additional pressure put on land and natural resources by migrants, whether by project employees and their families or job seekers. For projects that include a marine export terminal, see the offshore oil and gas guidance in table 9.5. Understand institutional arrangements deriving from applicable legislation and/or from host government agreements between the license holder or operator and the state, and their implications for funding, fund channeling, and implementation arrangements.
Planning	See normal planning process in Module 2. Planning Land Acquisition and Involuntary Resettlement.
Stakeholder engagement	See mining guidance in table 9.3 on balancing the needs of preventing speculation and meaningful and timely engagement. Apart from the affected parties, a broad range of interested parties will usually have to be involved in land-acquisition and resettlement planning, including government at various levels and in various agencies, CSOs, women's organizations, and international NGOs. Refer to IFC's *A Strategic Approach to Early Stakeholder Engagement*.[a]
Baseline collection	Similar to the case for mining (refer to table 9.3), coordination between ESIA baseline collection and that required for RAP development is critical. Seek proper coordination between these exercises to avoid duplication of effort and survey fatigue. Livelihood baseline information is critical because impacts to livelihoods may be significant. See mining guidance in table 9.3. Similar to the case in mining, the phased development of oil fields may pose specific cutoff and census or baseline scheduling challenges. Think this through carefully and adapt cutoff dates (and related baseline surveys) to a realistic schedule of field development.

[a] IFC. 2014. *A Strategic Approach to Early Stakeholder Engagement: A Good Practice Handbook for Junior Companies in the Extractive Industries*. Washington, DC: IFC. https://commdev.org/publications/a-strategic-approach-to-early-stakeholder-engagement/.

(*Table continued on next page*)

Table 9.4. *(Continued)*

STAGE	SPECIFIC ASPECTS
Livelihood restoration	See mining guidance in table 9.3 and Module 5. Livelihood Restoration and Improvement.
Implementation	See the normal implementation process in Module 6. Implementation of the Resettlement Program.
Monitoring	Because livelihood impacts will usually be significant, ensure that the completion audit takes place only once sufficient time has elapsed after the displacement (typically at least three years and sometimes significantly more). • For projects involving several successive phases of development, make sure that lessons learned from earlier phases are applied to the resettlement planning in later phases.

V. Oil and Gas (Offshore), Including Liquefied Natural Gas Terminals and Other Marine Operations

Note: Starting 2019, the World Bank Group no longer finances upstream oil and gas projects. More information on this commitment can be found in the WBG Climate Change Action Plan 2021–2025. The sectoral information in this section is provided as good practice guidance for stakeholders working in this sector (see table 9.5).

Table 9.5. Key Aspects to Consider in Offshore Oil and Gas Projects

STAGE	SPECIFIC ASPECTS
Background	While little or no land usually will be required, impacts to livelihoods may still be significant in terms of prohibition or restrictions to fishing and/or vessel movements around facilities. Impacts will typically be experienced in both construction and operations: • Dredging and other construction-related operations may generate turbidity with impacts on spawning grounds or fish movements. • Safety zones around maneuvering vessels may be required by local and maritime regulations, thereby impeding or restricting fishing-boat movements. • Buoys and other superstructures or sea bottom structures, including pipelines, may create obstacles to both fishing boats and nets or lines.
Scoping	In most jurisdictions, the legal framework around impacts to fishing and related compensation or livelihood restoration is weak or nonexistent. As a result, there are usually no accepted methodologies to define areas of influence or baseline catches. The scoping stage must thoroughly define who will be doing what in terms of impact assessment, consultation, and planning mitigations and compensation. Refer to Module 1. Scoping of Land-Acquisition Impacts. For impacts to fishing, the link between the ESIA and livelihood impact assessment is critical. There is a risk of livelihood impacts not being properly assessed as ESIA fishery specialists (usually biologists) may consider this beyond their scope and abilities, while no provisions are being made to establish a link with another team, such as a RAP/LRP team. It may be best to seek full integration of the livelihood impact assessment into the ESIA to ensure this link is not diluted among several different teams hired under different contracts.
Planning	Refer to IFC's *Addressing Project Impacts on Fishing-Based Livelihoods—A Good Practice Handbook: Baseline Assessment and Development of a Fisheries Livelihoods Restoration Plan.*[a] Refer to Module 2. Planning Land Acquisition and Involuntary Resettlement.
Stakeholder engagement	Refer to IFC's *Addressing Project Impacts on Fishing-Based Livelihoods.*[a] Refer to IFC's *A Strategic Approach to Early Stakeholder Engagement.*[b] Refer to Module 3. Stakeholder Engagement.

(*Table continued on next page*)

Table 9.5. *(Continued)*

STAGE	SPECIFIC ASPECTS
Baseline collection	Refer to Module 4. VII.C. Fishing and Gleaning and to IFC's *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 4. Baseline Data Collection.
Livelihood restoration	Refer to IFC's *Addressing Project Impacts on Fishing-Based Livelih*oods.[a] Refer to Module 5. Livelihood Restoration and Improvement.
Implementation	Refer to IFC's *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 6. Implementation of the Resettlement Program.
Monitoring	Refer to IFC's *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 7. Monitoring.

[a] IFC. 2014. *Addressing Project Impacts on Fishing-Based Livelihoods—A Good Practice Handbook: Baseline Assessment and Development of a Fisheries Livelihoods Restoration Plan*. Washington, DC: IFC. https://commdev.org/publications/addressing-project-impacts-on-fishing-based-livelihoods-a-good-practice-handbook-baseline-assessment-and-development-of-a-fisheries-livelihood-restoration-plan/.

[b] IFC. 2014. *A Strategic Approach to Early Stakeholder Engagement: A Good Practice Handbook for Junior Companies in the Extractive Industries*. Washington, DC: IFC. https://commdev.org/wp-content/uploads/2015/06/A-Strategic-Approach-to-Early-Stakeholder-Engagement.pdf.

VI. Linear Public Infrastructure

Linear projects include roads, railroads, power transmission lines, pipelines (usually water, oil, or gas), and fiber optic and other cables. Key specificities of linear projects from a land-acquisition and resettlement perspective are the following:

- Linear public infrastructure projects, such as roads and railways, are usually public interest projects with government involvement: see guidance on PPP projects (table 8.3) and Module 8. II. Government-Led Land Acquisition.
- They can involve a large number of transactions, sometimes in the thousands or tens of thousands for the longest projects, which can raise capacity issues, particularly where government agencies have to be involved in the land-acquisition process and if project schedules are tight.
- Economic displacement impacts may be significant, but because these projects often entail no or limited physical displacement, particularly for infrastructure that can be rerouted to avoid settlements and houses, they are often perceived as benign projects, and livelihood issues are not given sufficient attention as a result.

- Construction impacts are often significant (dust, noise, traffic, safety, and worker influx), which tend to complicate engagement pertaining to land acquisition and resettlement.
- Where existing roads are widened, the fate of existing roadside businesses (filling stations, bars and restaurants, temporary food traders, etc.) will often constitute one of the most sensitive displacement and livelihood issues, particularly where such businesses are informally occupying the roadside. As with all impacts, these need to be adequately assessed and mitigated.
- Severance and orphan land (see Glossary) can be significant issues.
- For projects that entail temporary occupation or restrictions to access to land and resources for construction and permanent rights-of-way, easement, or servitude rights, such as for transmission lines and pipelines, the calculation of compensation can be complex.

Projects will typically involve a very large number of communities over a long distance (sometimes several hundred kilometers). These communities may belong to different countries and administrative units and have linguistic, cultural, and sociopolitical differences, which will need to be considered when devising engagement and associated resources (see table 9.6).

Table 9.6. Key Aspects to Consider in Linear Public Infrastructure Projects

STAGE	SPECIFIC ASPECTS
Scoping	Footprint minimization and optimization: • Review opportunities for rerouting in cooperation with project engineers and planners early in the process of project development. • Consider ancillary facilities in the footprint minimization and optimization exercise. Some of these may be permanent—pumping stations, maintenance areas, and so forth—and others will be construction related: borrow pits and quarries, construction camps, and the like. • Consider mandatory operational buffers and rights-of-way or areas that will be restricted for public safety reasons in the footprint minimization and optimization exercise. In cooperation with project engineers and planners, seek to understand as thoroughly as possible the nature of restrictions that will apply in these buffers. Will residency and construction of residential houses and other buildings be possible? Will crop cultivation be possible? Will grazing be possible? Will informal trade be possible? Other questions also apply.

(*Table continued on next page*)

Table 9.6. *(Continued)*

STAGE	SPECIFIC ASPECTS
Scoping *(continued)*	• Categorize land needs and land impacts accordingly: temporary versus permanent, temporary with reinstatement to previous condition or not, exact nature of restrictions and implications to usability of land, and so forth. Consider specific restrictions associated with electromagnetic fields (transmission lines), explosion risks (oil and gas pipelines), and emergency situations. Capacity and resources: • Where government agencies are involved in identification, valuation, or compensation and payment processing, assess the capability of these agencies to carry out the tasks within the time frame requirement of the project. If capacity gaps are observed, consider support and confirm the agencies' acceptance of this support. • Consider cultural and sociopolitical differences when planning engagement and associated resources. • Assess the accuracy and currency of cadastral information so that resources that may be necessary to update such information are identified up front. It may be necessary to resurvey the area, and the process to effect changes to cadastral information may be difficult to manage and cause significant delays. Consider issues such as co-ownership, absent landowners, deceased owners, and so forth when devising the process and resources for land acquisition. The 10 percent of land transactions with such complex situations may require 90 percent of resources and time. Secure legal support from land-acquisition and expropriation lawyers to deal with such situations, but make sure that legal constraints do not lead to the neglect of livelihood aspects and compliance with international standards.
Planning	If only a few households are physically displaced over a large territory (as would be typical for a linear project), give consideration to the benefits of in-fill resettlement (see Module 2. VIII.C.ii. Resettlement without a resettlement site) within existing communities. Assess thoroughly the nature and width of the different corridors of impact, using applicable legislation and standards or the ESIA in close cooperation with design and environmental assessment teams and the construction contractor: • A temporary construction corridor may be wider than the final footprint, as there may be a need for a construction track along the linear infrastructure or staging areas.

(*Table continued on next page*)

Table 9.6. *(Continued)*

STAGE	SPECIFIC ASPECTS
Planning (continued)	• There may be a need for a permanent operation corridor and footprint: this would include the final footprint of the road or rail track, including ancillary infrastructure, such as drainage and storage ponds, the potential for a permanent maintenance track along the pipeline or overhead line, the footprint of towers or block valves, and any other permanent facilities. • Permanent restrictions may be needed along the linear infrastructure, such as restrictions to building and residency related to explosion risks or electromagnetic field impacts. Consider the width of restricted corridors and the exact nature of restrictions. • Restrictions and disturbances may result from environmental impacts such as noise or vibrations. • Properly categorize the different land requirements of the project (length of occupation, type of impact) so that compensation reflects the duration and nature of impacts. Make sure any restriction is compensated. Not all jurisdictions mandate compensation (e.g., for transmission line corridors), whereas landowners' and land users' experience long-term inconvenience and/or losses in land value and should receive reasonable compensation accordingly. Use mandated compensation calculation methods for the different types of restrictions if such exist in the jurisdiction. If no such methods exist, devise a consistent calculation methodology based on the nature of restrictions: for example, seek to calculate the diminished value of land resulting from a restriction on building if the land is suitable for construction. Give consideration to payment modalities for restriction compensation, either as a one-off or as yearly payments. Devise a methodology to address orphan land and severance, either on a claim basis or proactively. Prepare objective criteria to review orphan land claims and make sure these are disseminated to potentially affected landowners and land users. Where crossing the corridor will be a problem—for example, in a fenced toll road—plan for overpasses or underpasses to ensure residents have access to the other side of the road. Where some of the land is going to be handed back to landowners or land users after the construction period (pipeline construction corridors, construction camps, etc.), make sure the legal and practical processes for this hand-back are addressed in the planning documentation. Refer to Module 2. Planning Land Acquisition and Involuntary Resettlement.

(*Table continued on next page*)

Table 9.6. *(Continued)*

STAGE	SPECIFIC ASPECTS
Stakeholder engagement	In planning SE, give due consideration to the specificities of dealing with multiple communities over a long distance with administrative, cultural, and sociopolitical differences. Adapt approaches and resources accordingly. Refer to Module 3. Stakeholder Engagement.
Baseline collection	Collecting asset and livelihood data from large numbers of landowners and land users over a long distance may represent a considerable task and require considerable resources. Do not overlook the collection of information on livelihoods, even if economic displacement impacts may initially appear benign. Refer to Module 4. Baseline Data Collection.
Livelihood restoration	Refer to Module 5. Livelihood Restoration and Improvement.
Implementation	Consider the potential for large numbers of grievances from multiple communities over a large territory and dedicate resources to grievance processing accordingly. Establishment of grievance committees along the right-of-way can be an option, as can staffing multiple offices for receipt of grievances. Ensure that contractor land needs arising at the time of construction are addressed consistently with other project land needs. These impacts need to be addressed by the project owner rather than by the contractor. Refer to Module 6. Implementation of the Resettlement Program.
Monitoring	Refer to Module 7. Monitoring.

VII. Marine Ports

Usually only limited land onshore will be required, but impacts to livelihoods may still be significant because of (i) prohibition of or restrictions to fishing and small boat presence related to vessel movement around facilities, (ii) impacts to activities on nearby beaches, such as recreational activities or sand extraction, and (iii) increased truck traffic in and out of the port area. Impacts will typically be experienced in both construction and operations:

- Dredging and other construction-related operations may generate turbidity with impacts on spawning grounds or fish movement and will also cause restriction to vessel movement.
- Construction and operations may impede access to beach areas critical for recreational activities and/or coastal gathering.
- Safety zones around maneuvering vessels may be required by local and maritime regulations, impeding or restricting fishing boat movements.
- Buoys and other superstructures may create obstacles to both fishing boats and nets or lines.

See table 9.7 for other impacts and aspects to consider in marine ports.

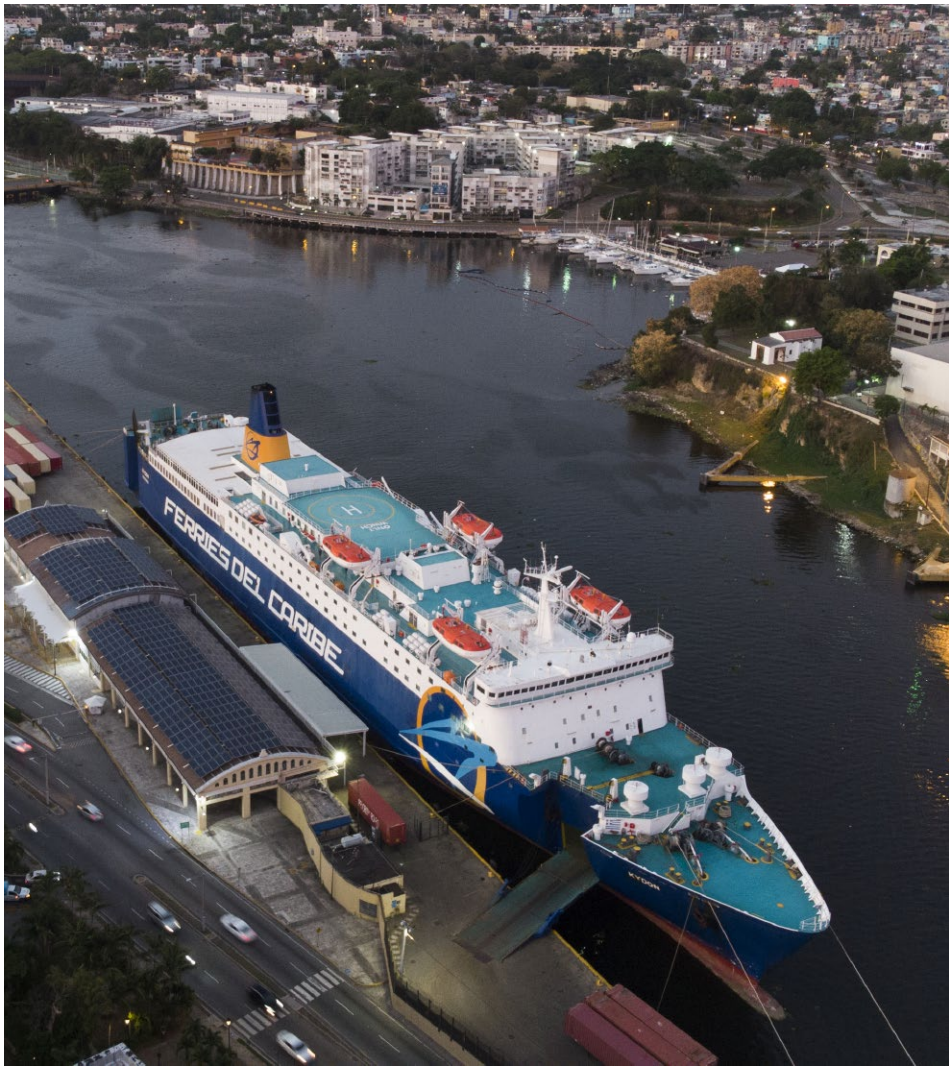

Table 9.7. Key Aspects to Consider in Marine Port Projects

STAGE	SPECIFIC ASPECTS
Scoping	In most jurisdictions, the legal framework around impacts to fishing and related compensations or livelihood restoration is weak or nonexistent. As a result, there are usually no accepted methodologies to define areas of influence or baseline catches. The scoping stage must thoroughly define who will be doing what in terms of impact assessment, consultation, and planning for mitigations and compensation: • For impacts to fishing, the link between the ESIA and the livelihood impact assessment is critical. There is a risk of livelihood impacts not being properly assessed, as ESIA fishery specialists (usually biologists) may consider this beyond their scope and abilities, while no provisions are being made to establish a link with another team, such as a RAP/LRP team. • It may be best to seek full integration of the livelihood impact assessment into the ESIA to ensure this link is not diluted among several different teams hired under different contracts.
Planning	Refer to IFC, *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 2. Planning Land Acquisition and Involuntary Resettlement.
Stakeholder engagement	Refer to IFC, *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 3. Stakeholder Engagement.
Baseline collection	Refer to Module 4. VII.C. Fishing and Gleaning and to IFC, *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 4. Baseline Data Collection.
Livelihood restoration	Refer to IFC, *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 5. Livelihood Restoration and Improvement.
Implementation	Refer to IFC, *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 6. Implementation of the Resettlement Program.
Monitoring	Refer to IFC, *Addressing Project Impacts on Fishing-Based Livelihoods*.[a] Refer to Module 7. Monitoring.

[a] IFC. 2014. *Addressing Project Impacts on Fishing-Based Livelihoods—A Good Practice Handbook: Baseline Assessment and Development of a Fisheries Livelihoods Restoration Plan*. Washington, DC: IFC. https://commdev.org/publications/addressing-project-impacts-on-fishing-based-livelihoods-a-good-practice-handbook-baseline-assessment-and-development-of-a-fisheries-livelihood-restoration-plan/.