

Photo Credit: Tourism Solomons (David Kirkland)

4. Analysis of Findings

4.1 INTRODUCTION

This section provides an overview of key findings from the data analysis and trends where applicable. Sections 5 and 6 provide more in-depth review of the key risks, opportunities, and recommendations.

4.2 CONTEXTUAL FINDINGS

IFC's contextual-risk framework indicates the level of risks based on international datasets and analysis as well as their presence for all sectors in the country.

The risk rating identified below are based on investigations undertaken as part of this study. Risks are considered high or moderate with potential to become high if not well managed where applicable to the tourism sector in Western Province.

Security and Conflict (Moderate)

This rating is derived from historic conflicts on Guadalcanal in the late 1990s and early 2000s. The civil unrest was caused by discontent from Guadalcanal people, who were customary rights owners, against the relatively prosperous people from neighboring Malaita who had legally acquired land or were squatters on customary land.

There was also civil unrest among informal settlers pushing the boundaries of settlements upward toward the border of Honiara city. While there are still pockets of discontent, there has not been any notable conflicts in the last 10 years.

The relevance of this risk is limited in the context of tourism development in Western Province. Some petty conflicts, often as a result of jealousy, exist at the village level, but this will unlikely affect tourism development.

Social Cohesion (Moderate)

Based on the baseline analysis in section 3.10 and the cultural homogeneity of the study corridor, no recent conflicts were noted. However, some localized community conflicts were observed during site visits. These can potentially delay proposed tourism developments, increase investment cost as a result of dispute settlement, sabotage and vandalize tourism facilities, or pose security risks to tourism personnel or visitors.

The Western Provincial Government's policy to work with the locals to develop village and community-based tourism and raising awareness about the potential of tourism across the study corridor will help minimize conflicts with the communities.

Religion is an important part of many Solomon Islanders' daily lives. Investors and tourism operators need to understand and respect local practices to reduce conflict with local communities. Many church members interviewed were concerned that tourism growth would bring cultural challenges for their community, as tourists with different beliefs, customs, and standards of dress do not always understand or respect local cultures. Stakeholders noted that religion helps maintain peace and harmony between community members, with many activities and gatherings designed to bring the wider community together.

It was inferred from the stakeholder consultation that as tourism development increases, indigenous communities have the opportunity to practice and strengthen their cultural identities. However, influences from tourism activities may also alter the way indigenous people connect to land and practice customs as well as affect traditional community values.

The Gilbertese people who have mostly been allocated registered land could be at risk of being displaced as tourism development would prefer to occur on registered rather than customary land. The Gilbertese are therefore more susceptible to the ramifications of tourism development.

Labor and Workforce (Moderate)

Solomon Islands has a young population with a good supply of working-age people, but their skill level is limited because of the low education levels of a percentage of the population. The literacy rate was 83.7 percent for men and 69 percent for women in 2015. It is necessary to invest in training and capacity building in tourism operation and management to maximize employment opportunities and the tourism-development value chain for local communities.

Requirements for women and for men are different in some types of labor and a general disparity between genders is present. Tourism operations can help address this inequality, which constrains many women to a narrow set of defined roles and limit the potential benefits they may gain from tourism development. For child labor, the SIG now allows children as young as 12 to undertake some types of work under the *Labour Act*, a practice that does not align with the global minimum age of 14 (International Labour Organization 2020)

Based on site observations and stakeholder interviews, many Western Province communities said they are willing to get involved and be guided to make a meaningful and profitable living from tourism development.

Food Security (Moderate)

While the country has a wide range of natural resources to support food production, these are not widely understood by communities and strong pressure remains on reef-fish stocks because of overfishing. The country's resilience and capacity to deal with food shortages is therefore limited.

Health Epidemic/Pandemic (Moderate)

Although the tourism sector has some buffering capacity and resources to address emergencies, the medical capacity to deal with emergencies and epidemics, especially in rural areas of Western Province, is likely to pose a moderate risk.

Political Risk and Governance (Moderate to High)

The key sub-risks that warrant further consideration in the context of tourism development include weak governance structures (moderate risk) and access to basic infrastructure (high risk).

Weak governance is already discussed in section 3.4.3. Key risks include corruption, weak policy and processes, and weak compliance and enforcement.

Investors may encounter corruption, such as bribery to expedite permit processing, as there is still an overlap between traditional *wantok* customs and modern business practices. Media reported cases of government officials indicted with corruption over development projects. To address this problem, the SIG rolled out a three-year National Anti-Corruption Strategy in 2017. Further actions are, however, needed to enhance community understanding and participation to curb corruption across Solomon Islands.

Bureaucracy is another obstacle that may delay the decision-making and approval of development projects, which require permissions from both national and provincial government bodies.

While the Ministry of Commerce, Industry, Labor and Immigration has made efforts to improve business registration, investors still face challenges because of limited available data, such as the registry of landowners, and conflicting information on policies and the status quo.

While these issues are not unique to Solomon Islands, it does present challenges for improving the business-enabling environment and attracting investors to its tourism market.

There is a strong political will to develop tourism nationally, particularly in Western Province and the study corridor, based on a review of the tourism governance structure and tourism policy (see appendix B for a detailed review of specific policies) and legislative framework as described in section 3.4 and stakeholder consultations. While the SIG has established a legal framework to guide business activities and development projects, challenges remain in implementing the provisions and monitoring violations due to limited financial and technical resources.

Institutional capacity for evaluating and monitoring E&S impacts of projects is weak. This is because of limited technical capability and insufficient staff, operational budget, vehicles, and equipment to undertake inspection and compliance monitoring of developments against approval conditions and management plans. Tourism projects in remote islands are particularly vulnerable to noncompliance with E&S safeguards and regulations. Local communities there often have limited access to legal mechanisms that would allow them to file complaints against the aggravators.

Access to basic infrastructure is an ongoing challenge across Solomon Islands, particularly for remote communities such as those in Western Province. Although this is rated as a high risk, it will be a moderate risk for tourism developers as they most likely need to provide basic infrastructure, such as water supply, wastewater treatment, waste disposal, and power generation, in most locations outside of Gizo, Munda, Noro, and Seghe.

At present, there are gaps in SIG's policy frameworks, legislations, and action plans on energy and water resources and conservation in Solomon Islands. As tourism develops, the government should devise ways to address the waste, pollution, and wastewater generated by tourism establishments, which could affect the natural environment and water supplies for the local communities.

The government would need to define guidelines or standards to regulate and build infrastructure to treat waste, toxic chemicals, and wastewater discharged by these establishments.

Hospital and health clinic infrastructure are basic and evacuation to Honiara or overseas may be required for medical treatment.

No concrete maritime safety support is available, but the Western Province police department does respond to emergencies. This is discussed further in the Risks and Recommended Actions Matrix in section 5.

Natural Hazards (High)

Natural hazards are an important consideration as Solomon Islands is seismically active and prone to tropical cyclones as described in section 3.5. Tsunamis have occurred in Western Province as recently as 2007. This risk and potential mitigations are described in section 5.

Biodiversity Ecosystem Services, and Climate Change (High)

Biodiversity, ecosystem services, and climate change represent the greatest contextual risk, but it also transcends to the corridor and identified-site levels. Key risk attributes include deforestation and other threats to natural resources (moderate), government capacity in natural-resource and protected-area management (high), and climate change vulnerability and resilience (high).

Monitoring mechanisms for wildlife protection or biodiversity conservation are unavailable. Provisions between various policies⁽³¹⁾ overlap and make process requirements for protection and management unclear.

While the SIG bans the sale of species listed under CITES, local communities' consumption of such species based on culture and *kastom* is still allowed. It is also difficult to determine if the species are being sold for local consumption.

The Ministry of Fisheries has acknowledged some gaps in the monitoring and implementation of regulations with regards to recreational fishing. There are no regulations to address these gaps now, but the ministry mentioned that it will be a focus in the future.

31 These legislations and policies include the *Wildlife Protection and Management Act 1998*, the *Protected Areas Act 2010*, the *Fisheries Management Act 2015*, Solomon Islands National Climate Change Policy 2012-2017, Solomon Islands National Ocean Policy 2018, and the *Simbo Megapode Management Area Ordinance 1990*.

All these aspects are important considerations for tourism development, as tourists often want to visit an area because of its natural beauty and natural resources. Climate-change vulnerability should be taken into account as it may affect future operability or viability of the operations. These risks and opportunities, together with potential mitigations, are further described in section 5.

Access to Land and Natural Resources (High)

Tourism investors and developers will likely find it difficult to identify sites for tourism development because of limited available data on registered land titles. Based on the SIG's request, IFC has undertaken a preliminary effort in listing registered sites in Solomon Islands, which are included in this report. Despite the SIG's attempt to improve the process, including digitizing some materials, it was challenging and time-consuming to access land titles and the manual, paper-based filing system.

Tribes and local communities and families have trouble recording customary land because of overlapping claims to land or resources, despite the government's passage of the *Customary Land Records Act 1998* to provide a legal mechanism for recording tribal land boundaries and customary rights and interests. Under the act, a group can apply to have their right to control customary land (primary rights) recorded, along with the name of the person who is authorized to represent the customary land-holding group. Still, customary landowners have seen little benefit in recording their land and the records have had limited uptake.

Reprisals (High)

Reprisal is a strong feature of Melanesian culture and a source of discontent within and between communities. Consultations with local communities and tourism operators identified numerous violent and destructive reprisal incidents that are often repetitive if not resolved. Potential mitigation strategies are further discussed in the Risks and Recommended Actions Matrix in section 5.

4.3 CORRIDOR LEVEL

The findings from the baseline situation described in section 3 are further analyzed here to identify potential opportunities and risks for tourism development in the study corridor in Western Province. This analysis takes into consideration the information gathered at the corridor and the identified sites as well as at the country level where only national data was available. This section is organized per the E&S indicators listed in section 2.3.3.

4.3.1 ENVIRONMENTAL FINDINGS AT THE CORRIDOR LEVEL

The environmental-risk assessment based on the indicators (see section 2.3.3) is described below. For a list of the broad indicators and data sources, refer to appendix A. Site-specific locational data, such as species records, is not available. Environmental-risk areas are marked in Map 17.

Marine Environment

Low-Risk Areas

- The vast majority of low-risk marine areas included within the corridor are open ocean areas that are not at risk from ecotourism development. Low-risk marine areas that include reef systems are primarily associated with high fishing pressures, coral extraction, and other intensive resource use, resulting in lower environmental significance. These are usually in proximity (2 to 5 km) to more densely settled areas along the coast and on islands.
- Low-risk marine areas in inshore localities are associated with coastal development, such as the clearing of mangroves and draining of intertidal areas for plantations. These localities are also associated with poor water quality as a result of land clearing and logging activities in the catchments adjacent to these environments.
- There are limited to no constraints to development inside or adjacent to low-risk marine areas. However, potential developers will need to ensure that the development meets all relevant statutory requirements and addresses potential environmental risks.

Moderate-Risk Areas

- Moderate-risk marine areas were primarily associated with coral atoll reef systems of the smaller island conglomerations, particularly Rendova and Vonavona lagoons between Parara and Arundel (Kohinggo Island), Roviana Lagoon, and the outer barrier reef systems east and west of Vangunu Island. Most of these areas support sparse but widespread settlement where artisanal fishing pressures are limited.
- Detailed site-level investigations are necessary to establish whether potential investments will meet good international industry practice.
- Further assessment at an EIA level must be commensurate with the outcomes of the risk and impact identification to minimize impacts on the area's biodiversity. Development projects will need an Environmental Management Plan to ensure that risks are mitigated, and performance outcomes are delivered.

High-Risk Areas

- Six distinct areas in the corridor were mapped as high-risk. These locations centered on reefs of outstanding (known and published) biodiversity values and extensive areas of mapped mangroves and intertidal areas that sustain critical ecosystem processes. Some of these locations include MPAs, notably the Saeraghi Reef at the northern end of Ghizo Island.
- Development within these areas should be limited and will require strong mitigation and management controls to ensure that impact is minimal.
- While small tourism activities or development projects may be perceived to have little impact on these areas, the government needs to strengthen the policy framework and enforcement of conservation regulations in these areas.

Terrestrial Environment

Low-Risk Areas

- These are areas representing low biodiversity and limited ecological value. They include areas comprising monoculture, such as coconut plantation and plantation forestry blocks on Kolombangara, cultivated areas, or areas that have been significantly modified by human activity, including urban and village areas and environs such as most of Ghizo Island, Ringgi Station, Munda, Noro, and Seghe.

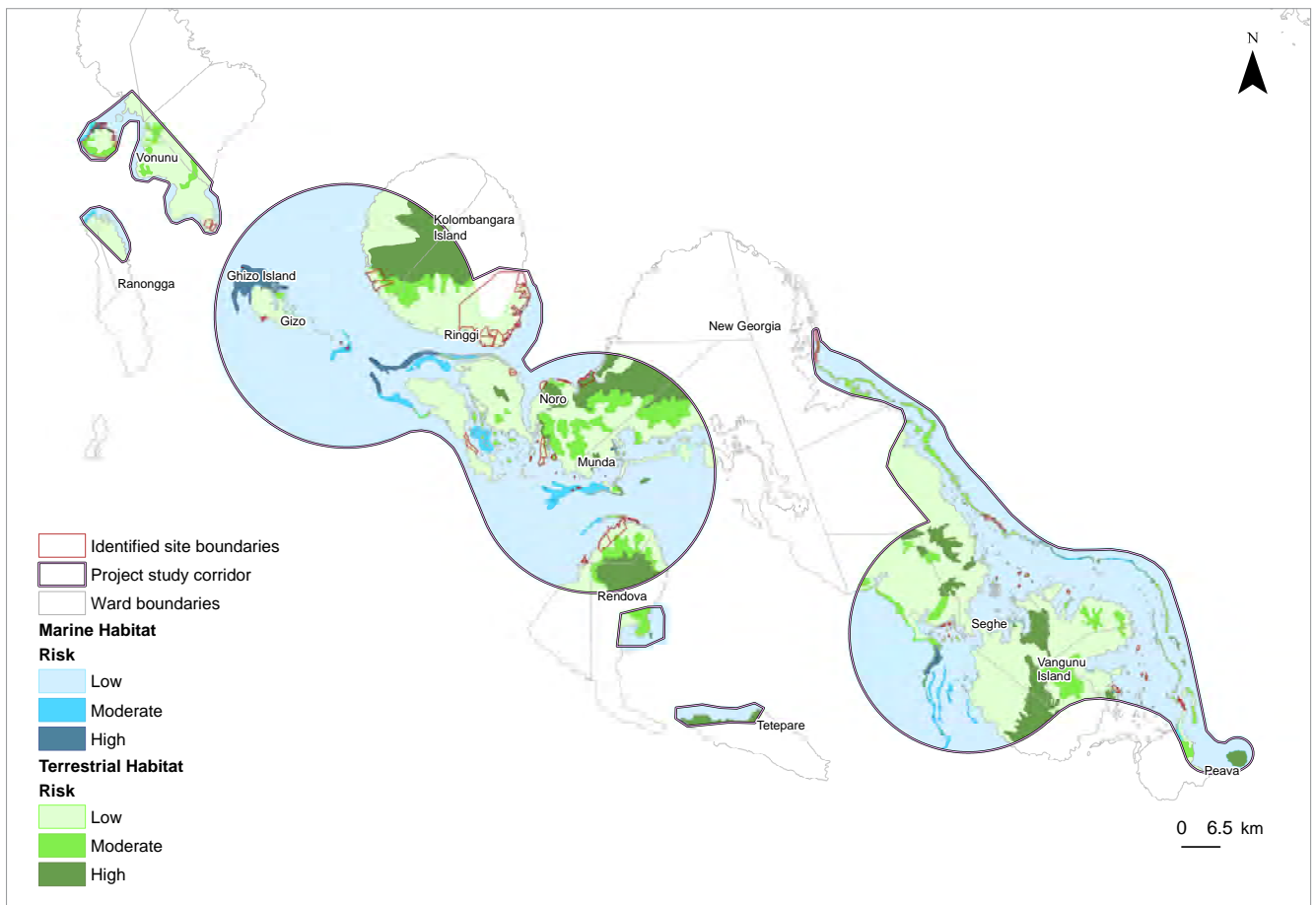
Moderate-Risk Areas

- The majority are associated with previously logged areas away from the coast on larger islands, such as New Georgia. These areas exhibit a moderate-to-high level of environmental condition and integrity as logging took place more than 10 years ago and forest has been allowed to regenerate without interference. As a result, they may provide key resources to threatened species and important ecosystem services.
- Other moderate-risk areas are larger offshore islands with small villages or isolated settlements and signs of resource usage, such as historically logged areas or small coconut plantations.
- Proposed development in these areas require detailed site-level investigations to determine whether they are considered "modified habitat".

High-Risk Areas

- High-risk terrestrial areas broadly fall into two categories: i) upland areas of ridges and mountains, such as the slopes of Kolombangara Island, which are difficult to access with modernized machinery for large-scale logging, increasing the cost of development; and ii) small islands with vulnerable littoral ecosystems that support breeding areas for internationally listed threatened species, including turtles and migratory marine birds.
- Development in these areas would present high environmental risks and should be highly constrained based on the indicators used in the study.
- Environmental risk in the corridor is already high because of logging activities affecting local biodiversity. Development projects in these areas may threaten vulnerable ecosystems.

Map 17: Environmental-Risk Areas at the Corridor Level



4.3.2 SOCIAL FINDINGS AT THE CORRIDOR LEVEL

This section discusses the various social risks and opportunities for tourism development at the corridor level based on the situational analysis in section 3 and the social indicators outlined in Table 20.

Presence of Livelihoods and People

As presented earlier in Map 6, the majority of identified sites are located near or within existing villages throughout the study corridor. Proximity to communities offers better access to workforce for tourism development. In return, the communities can also benefit from tourism-related training, jobs, and income generation by charging fees for access to land and marine resources.

Tourism may offer opportunities for local garden growers and fishermen to sell their produce to visitors and collaboration with investors to increase local production. However, unless managed well by tourism investors and communities, this could also lead local growers to sell their produce to hotels for cash income, causing themselves and their families to rely more on food with poor nutritional value.

While tourism development could improve the economic prospects for both men and women with training and work in a wider range of roles, it could also exacerbate social vulnerabilities within the study corridor. Risk factors include subsistence livelihood and weak food security, poor understanding of the impacts of tourism development and inequitable distribution of benefits, low education levels, poor health and nutrition, and gender imbalance and domestic violence. Land acquisition for tourism facilities development can also result in displacement of people if not properly managed.

Proximity to Infrastructure and Existing Tourism Facilities and Activities

Two main aspects were investigated to understand access to infrastructure for tourism development: i) physical access and ii) the capacity and capability of the services provided by the provincial or local government at the facilities. As described in section 3.11, access to grid power, potable water supply, and waste and wastewater disposal services are limited within the corridor and the communities. Some of these services are available in Gizo, Munda, and Noro in the central corridor and Seghe in the south and there are planned power-supply projects in some areas. But existing tourism facilities mainly rely on their own site-based facilities; therefore, the lack of or limited access to these common services do not necessarily pose a risk to tourism development.

The potential self-sufficiency of tourism developments may bring opportunities for locals to access some of these services from the tourism operators; the developments could also become a catalyst to improve the supply of these services along the corridor.

Further tourism growth will strain existing waste infrastructure, such as dumps for solid waste and on-site septic systems and outfall pipes for wastewater, used by most businesses and tourism operators. If the receiving environment becomes overloaded, it may alter the surrounding ecology and impair the tourist experience. Tourism development must be self-sufficient and environmentally friendly; thus, developers need to ensure the design will achieve the long-term environmental viability of solid waste and wastewater disposal.

Access to mobile telecommunications network varies across the corridor, but this will likely improve in some areas with the submarine telecom cable landing station installed in Noro. Tourism development could also become a catalyst to improve telecommunications services along the corridor.

In terms of transport infrastructure, the corridor can be accessed via the international gateway airport at Munda and domestic airports in Gizo and Seghe, with connections to other areas and islands via limited roads and logging tracks or local banana boats. The boat transport through open water, particularly during bad weather, poses a risk to life.

This can be alleviated by extending air access to the northern and southern parts of the corridor through reopening existing WWII airstrips located north of Liapari, adjacent to Vila Point on Kolombangara, Batuna on Vangunu Island, and Nggatokae Island. This can minimize longer boat rides through open water to destinations at extreme ends of the corridor. However, some of these locations could be on customary land, which might be challenged in land disputes.

While physical access to health services is challenging because of the corridor's island geography, the availability of trained staff and resources at these facilities is also an issue. Stakeholder consultation has highlighted that the predicted high population growth of Solomon Islands will continue to put pressure on the receiving environment and social resources; the country already has a critical shortage of healthcare workers, especially doctors, medical specialists, medical laboratory staff, and radiologists (Hodge, Slatyer and Skiller 2015). Also, tourists and developers should be aware that dengue fever and malaria occur across Solomon Islands. This healthcare shortage will be exacerbated by the increasing number of tourists, who may require medical services and even bring in infectious diseases.

Access to Land and Natural Resources

Development of tourism facilities and activities will need access to land and marine resources. The land use and land tenure in Solomon Islands, mainly in reference to the corridor, pose various opportunities and risks as outlined below.

- Land tenure across the corridor (Map 6) shows pockets of surveyed and formally registered, and surveyed but not registered, land in all sections of the corridor. Such land could be more accessible from a land title and registration perspective, but this is not to preclude customary land, which could involve lengthy and expensive land negotiation and compensation, from tourism development.
- Other nuances of land access and tenure to be considered include the use of land as gardens for subsistence living. Subsistence farming and fishing is a common practice in Solomon Islands, especially in rural and remote areas. During site visits and stakeholder consultations, this type of land use was found to be prevalent in areas near

villages across the entire corridor and was noted at several identified sites. Food gardens may also be found on vacant registered land by informal users; therefore, land negotiation and compensation would need to consider the presence of such gardens. Restrictions of access to land or marine areas can result in loss of livelihood for the landowners, occupiers, or users.

- Similar to the location of gardens on land, informal homes or building structures should also be considered during the land-access process. Destruction of these homes and structures can result in involuntary resettlement, creating conflict between the community and the developer. This can potentially increase the cost and timeframes of land access, pose safety and security risks for tourism facilities and activities, and delay the development.
- Although the local community may earn additional income from tourism, the lack of a common vision for tourism development and potential unequal distribution of opportunities and benefits within the community may give rise to disputes and social cohesion issues. Stakeholder consultations highlighted that fees for anchorage and reef access can cause disputes between yachts and local communities if not clarified and communicated clearly to all parties.
- Land use across the corridor shows concentration of settlements along the coast, with sparse settlements in the extreme northern and southern parts of the corridor. While the presence of communities provides access to workforce, cultural aspects of local people, and other facilities and services, it also poses the risk of competition for land use and involuntary resettlement.
- Other terrestrial land use across the corridor mainly include coconut forest, coconut plantations, and natural forest. Most land use within the corridor, except logging areas, are suitable for tourism development. As discussed in section 3.4.3, logging is illegally carried out in some areas beyond permissible boundaries. Such activity may create competing land use and adversely affect the area's amenity value for tourism development.
- The Western Provincial Government's policy to support locals in developing village and community-based tourism and promote tourism lease to landowners provides an opportunity to enable access to land while protecting the interests and sustainability of the communities.



Photo Credit: Becky Last

This includes:

- Raising awareness on how a community-based tourism project is established
- Explaining the benefits of tourism ventures for the community and the examples of Mbili, Simbo, and Tetepare
- Establishing a marine reserve and looking after the environment and the community
- Advising landowners on setting up a tourism lease—such as land-title registration costs, vetting and application of lessee, negotiation with lessee, and preparing legal contracts including which companies to use and how much to pay for the service—to facilitate access to land and help tourism developers become registered operators on leased land.

UXO

As seen in section 3.5.5, the corridor is at a high risk of exposure to UXO. The impacts could be fatal if tourism developers are not cautious in undertaking UXO clearance and during construction. It is, however, possible to clear an area and make it safe for tourism activities, thus UXO is not considered a “showstopper” for development.

Culture, Ethnic Diversity, and Conflict

See baseline analysis in section 3.10 and Social Cohesion under section 4.2.

Communities’ Ability to Support Tourism Development (Livelihoods, Labor, and Other Social Vulnerabilities)

See Presence of Livelihoods and People under section 4.3.2.

Measured Social Findings

Based on the social risks discussed above, Map 18 presents the risk rating at the corridor level, as per section 2.3.3. Measurements used (detailed in Table 2) are:

- Land tenure
- Access to infrastructure (distance from airports and medical facilities)
- Exposure to potential UXO areas

Key findings from the assessment include:

Low-Risk Social Areas

These are registered and readily available land located in close proximity to infrastructure services, such as airports and medical facilities, and urban centers with access to goods and services. Most areas would have a low likelihood of UXO presence. They are located on Ghizo Island, coastal margins of and in the Vonavona Lagoon, and the environs of Munda, Noro, and Seghe.

Moderate-Risk Social Areas

These are areas on land tenure that is surveyed but not registered and are 10 km to 15 km from medical facilities and 15 km to 30 km from an airport with potential presence of UXO. They cover areas around Ringi on Kolombangara Island, northeast of Noro, southeast of Munda, and the interior of Kohinggo Island.

Rendova coast has also been given a moderate rating due to its registered land tenure status, although this area is more than 40 minutes by boat from Munda Airport. Small sections of Ranongga and Vonunu as well as western Kolombangara Island have also been rated as moderate, although they are also at least an hour by boat from Gizo Airport.

The northern peninsular of Gizo is regarded as moderate due to its customary land tenure and proximity to potential UXO areas. An area of Vanguu Island and north of Seghe on New Georgia Island are also rated moderate, as they are on registered or surveyed lands and are reasonably close to medical facilities.

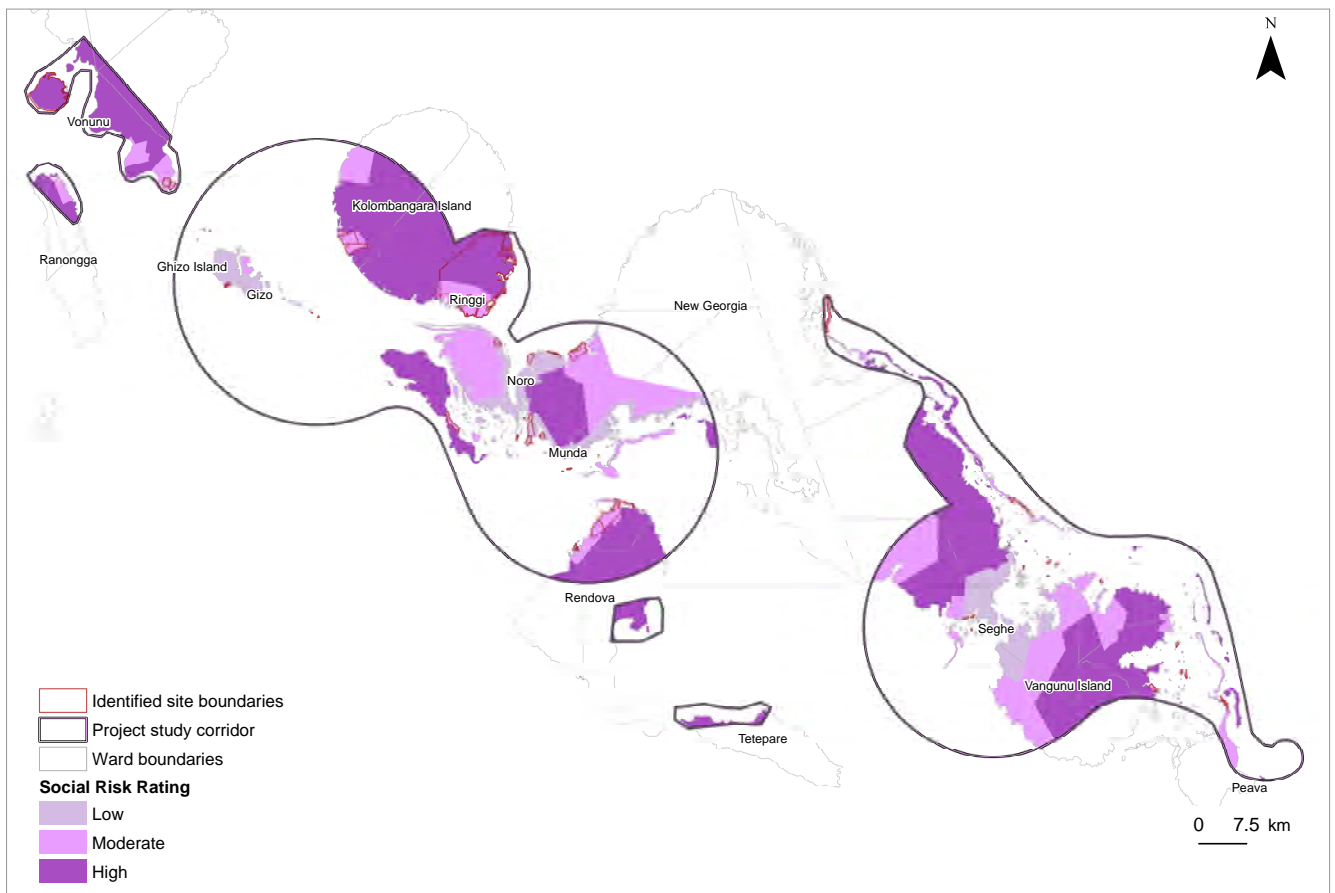
High-Risk Social Areas

These are areas on customary land with potential exposure to UXO and at least 15 km from medical facilities and more than 30 km from airports, requiring travel in a banana boat across open water to access the area.

All remaining areas of the map are rated high as the land is either customary or surveyed and at a longer distance from airports and larger medical facilities.

It should be noted that areas with moderate and high social-risk rating are not precluded from tourism development, but they would require implementation of mitigation measures and could involve longer timeframes and costs. As the social environment changes, social factors can also become obsolete; therefore, this mapping and rating should be reconfirmed after a few years to see if they are still applicable and to what extent.

Map 18: Social-Risk Areas at the Corridor Level



4.3.3 OVERALL CORRIDOR ENVIRONMENTAL AND SOCIAL-RISK MAPPING

Map 19 depicts the overall environmental and social-risk areas of the study corridor for tourism development. Recommended mitigations of these risks are summarized in section 5.2.

Low-Risk Areas

The map shows that the low-risk areas are within close proximity to the urban centers of Gizo, Noro, Munda, and Seghe. These areas are moderately disturbed from human activity and are therefore less important in terms of biodiversity and ecosystem services. They also appear to have more registered land and less customary land, so property acquisition (lease or purchase) is likely to be less complicated.

These locations are closer to essential tourism infrastructure, such as airports, ports (shipping of goods and materials), and hospitals.

Most low-risk areas are in coastal locations but are not close to marine areas of moderate or high importance.

Moderate-Risk Areas

These are generally rural or disturbed forest environments, with a greater distance from urban centers and infrastructure. Landownership is likely to be more complex and may include unregistered land.

Most moderate-risk areas are more inland, although some are also located along the coast. They include less developed areas of Western province, such as Bava Island, Vella Lavella, Kolombangara, Ranongga, Vonavona, and coastal zones on Rendova and Vangunu.

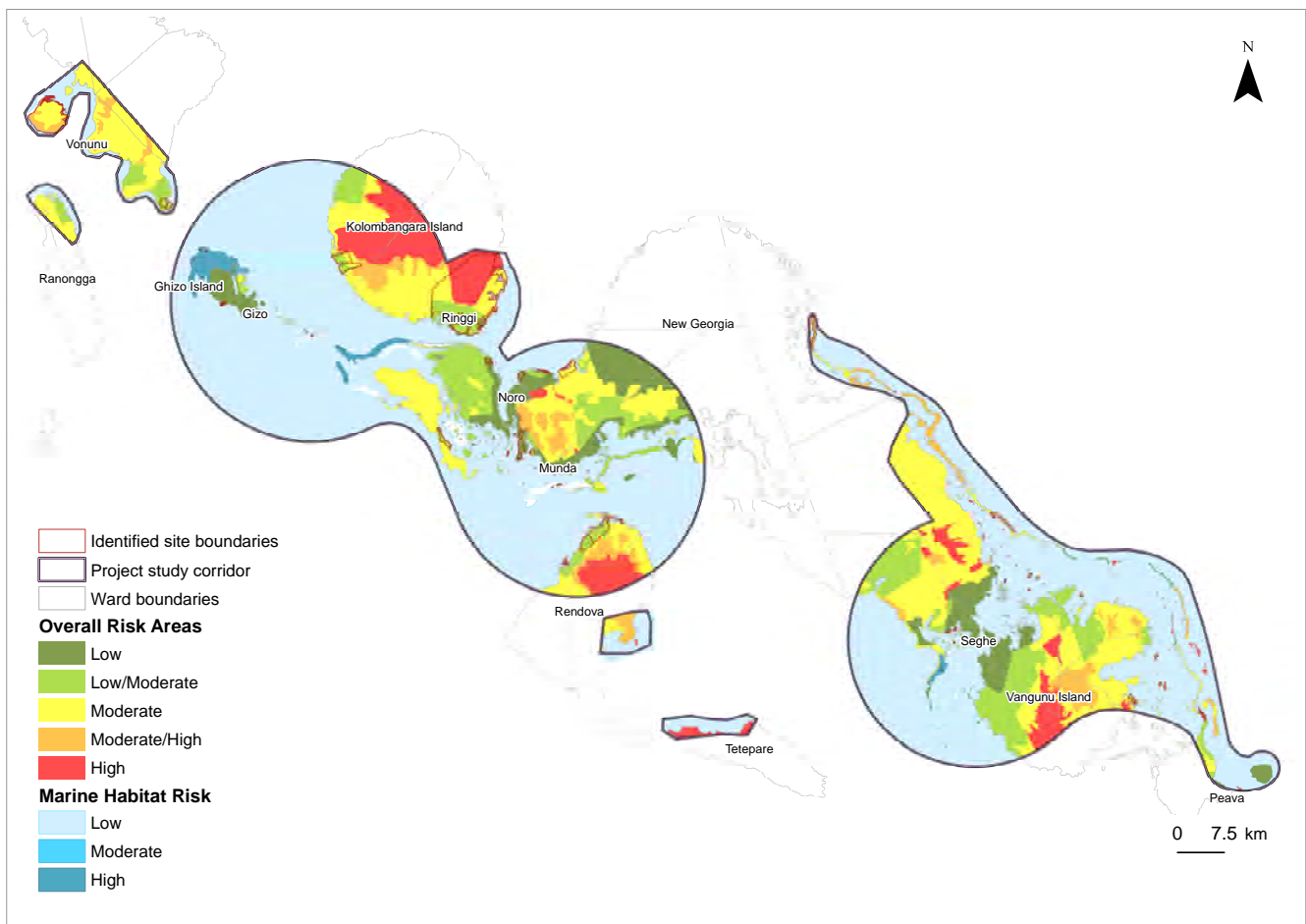
They may be adjacent to moderate-risk marine areas as described in section 4.3.1.

These areas likely require further investigation to determine E&S risks, depending on the size and nature of the tourism development.

High-Risk Areas

These are generally remote inland areas on customary land with higher terrestrial biodiversity importance, such as Tetepare Island and the above 400-m elevation area on Kolombangara. They have no road access and require travel by river or on foot.

Map 19: Overall Environmental and Social-Risk Areas at the Corridor Level



4.4 IDENTIFIED SITES

The environmental, social, and natural-hazard findings of the 70 identified sites are summarized in the following sections. Map 20 shows environmental risks, Map 21 displays social risks, and Map 22 indicates natural-hazard risks. An overview of the final risk rating for each site is shown in Map 23. The findings focus on the 70 identified sites of which entailed information can be found in the site profile sheets (see appendix D).

4.4.1 ENVIRONMENTAL FINDINGS AT THE IDENTIFIED-SITE LEVEL

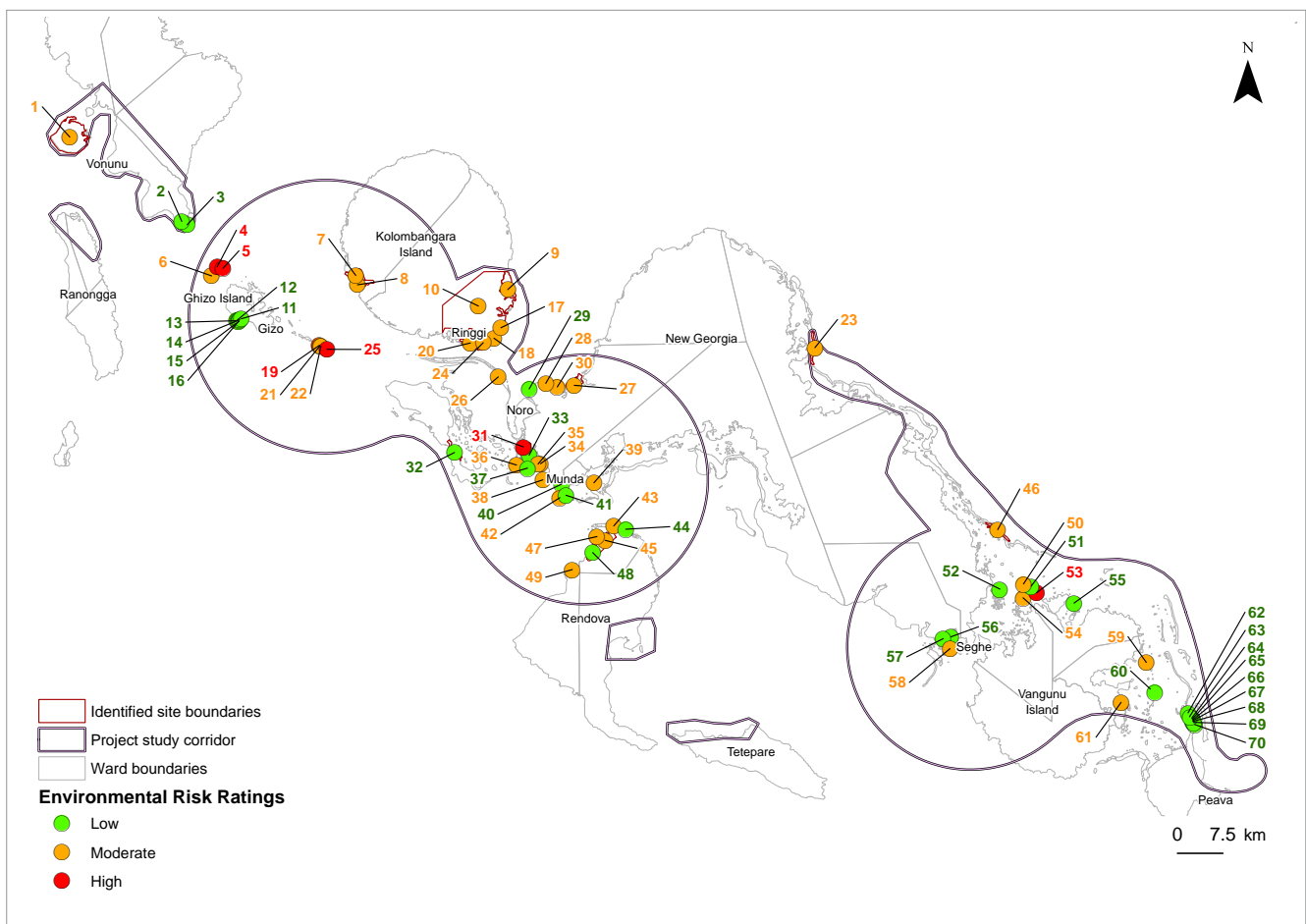
The following table summarizes the overall environmental-risk assessment for each identified site and the rationale for the rating. Overall, environmental risks were given a 40 percent weighting in the assessment.

The detailed dashboard for each site (appendix D) identifies the contribution of other risk indicators, including social and natural hazards. When considered in conjunction with the other weighted risk criteria, the overall risk ranking for each individual site may differ from that of the individual environmental (or social or natural hazard) risk rating. Each of the 70 potential investment sites had both marine and terrestrial risks ranked separately. When terrestrial and marine scores were combined, 6 sites were rated high risk, 40 moderate and 24 low risk.

Table 10: Identified-Site Analysis of Environmental Findings and Risk Assessment

Environmental Risks	Risk Rating	Description
<i>Marine environment</i>	Low 8 sites	<ul style="list-style-type: none"> There are few environmental constraints associated with development within or adjacent to low-risk marine areas considering the livelihood activities, such as artisanal fishing, coral harvesting, and tuna fishing, already occurring in the area. Nonetheless, development should follow the risk and impact-identification process.
	Moderate 57 sites	<ul style="list-style-type: none"> Despite evidence of resource utilization, such as fishing, ecological processes retain a high degree of functionality in these marine sites. They can still make important contribution to biodiversity values and the maintenance of ecosystem services. Tourism development may disrupt and/or damage such ecological processes and biodiversity in these areas.
	High 5 sites	<ul style="list-style-type: none"> Tourism development is not recommended as it can affect and increase the vulnerabilities of the ecosystems in these areas. High-risk areas require significant investment to mitigate and manage the following risks: Measurable adverse impacts on the biodiversity values of critical habitats and on the ecological processes supporting these values Net reduction in the global and/or national/regional population of any critically endangered or endangered species over a reasonable period
<i>Terrestrial environment</i>	Low 29 sites	<ul style="list-style-type: none"> Opportunities and constraints associated with development in these low-risk terrestrial environments are similar to those for low-risk marine environments. If developers identify, minimize, and mitigate the direct, indirect, and cumulative impacts of their identified projects on biodiversity and ecosystem services, as well as comply with regulatory requirements and good international industry practices, then development in these areas should be low risk.
	Moderate 32 sites	<ul style="list-style-type: none"> These sites may include large proportions of non-native species, such as coconut plantations, but may still retain areas of significant biodiversity. Prior to tourism development, a detailed environmental impact assessment (EIA) must be conducted at each site and the findings incorporated into a project environment management plan to reduce the negative effects of development on the significant biodiversity.
	High 9 sites	<ul style="list-style-type: none"> Similar to the high-risk marine areas, tourism and infrastructure development is not recommended in high-risk terrestrial areas. Most of these sites are highly constrained by their physical size, as many of them are small islands and are extremely vulnerable to edge effects as a result of any clearing. Even small clearings will promote changes in microclimates, potentially resulting in exotic species invasion and altering the phenology of local flora species.

Map 20: Environmental-Risk Ratings at Identified Sites



4.4.2 SOCIAL FINDINGS AT THE IDENTIFIED-SITE LEVEL

Table 11 summarizes the social-risk assessment for identified sites and the rationale for the rating based on the assessment criteria presented in section 2.3. The section concludes with an overall social-risk rating for each identified site as displayed in section 5. Map 21 shows 28 as low risk, 21 as moderate, and 21 as high risk.

Similar to the corridor-level risk assessment, the risk rating at the identified-site level is also based on expert judgment on how various social indicators interact with each other. The ratings, however, should be used only as an indicative tool.

Moderate and high-risks areas on the social map will likely require further assessment by tourism developers in terms of cost and time to access land-use rights and infrastructure as well as address potential land legacy issues and clearance of UXO. Access to public services and infrastructure, such as energy and waste management, are likely to remain a challenge.

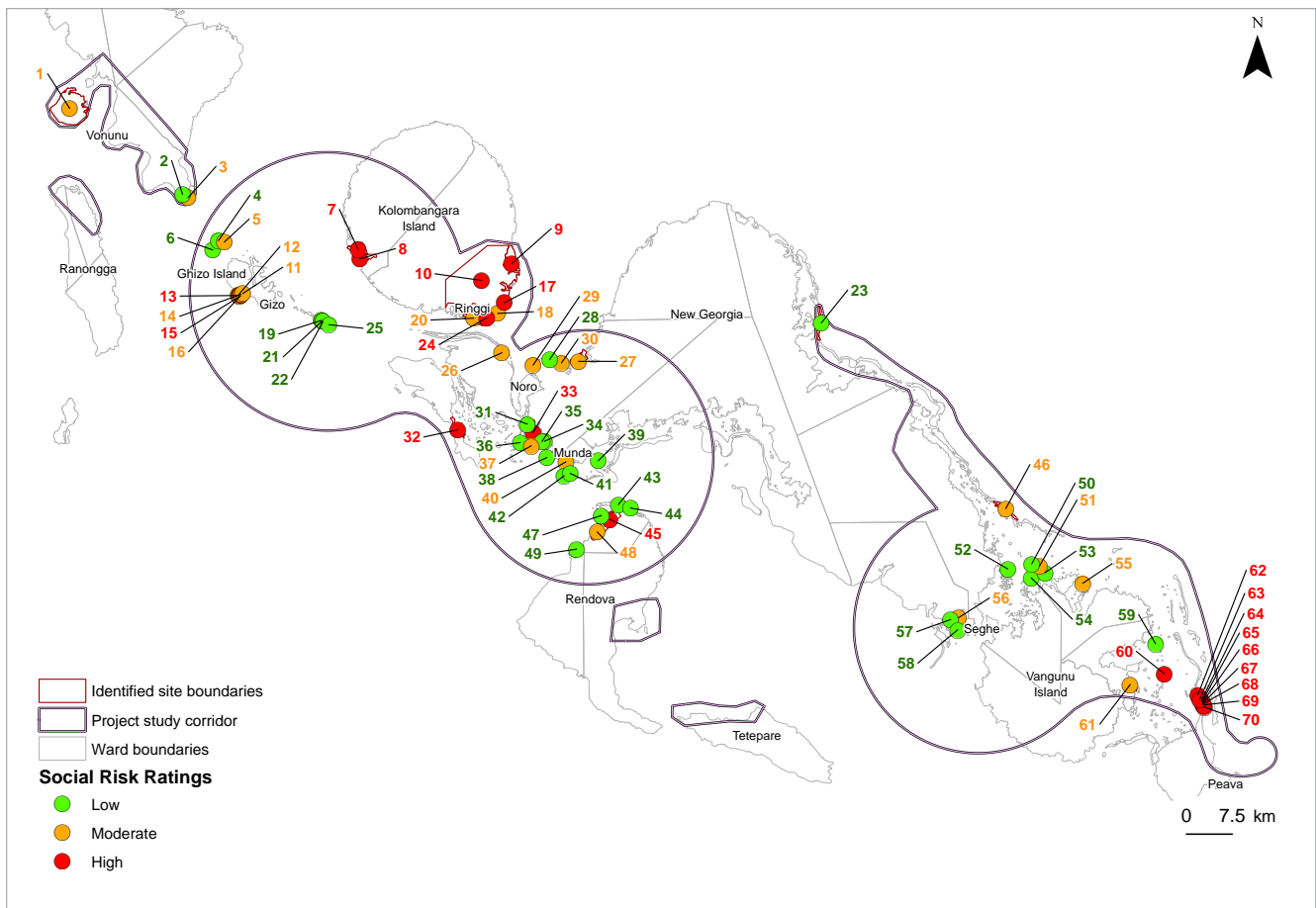
The detailed dashboard for each site (see appendix D) identifies the contribution of all social-risk indicators.

The table only identifies social risks that were weighted at 40 percent in the overall assessment.

Table 11: Identified-Site Analysis of Social Findings and Risk Assessments

Social Risks	Risk Rating	Description
Presence of people	Low 36 sites	<ul style="list-style-type: none"> These are identified sites that have no human occupation apart from those who seek to undertake tourism development. Therefore, there will be limited negative impact on these sites.
	Moderate 30 sites	<ul style="list-style-type: none"> These sites may have one to three households per hectare. The occupiers do not have sole control of the land and decision-making powers to manage its development, and they may be affected as a result. Tourism should consider the local communities' land use and/or traditional livelihoods to avoid or minimize its effects on their way of life.
	High 4 sites	<ul style="list-style-type: none"> These sites typically have a higher population density than the moderate-risk ones. In case of development, the local communities should be accommodated in a way that will not affect their way of life. Potential resettlement, conflict related to land use and land access, and cultural conflict are among some of the associated risks.
Presence of livelihoods	Low 31 sites	<ul style="list-style-type: none"> These are sites that are not used for gardening or plantations by the owners and/or users.
	Moderate 32 sites	<ul style="list-style-type: none"> These sites may have gardens and crops that support a person, family, or community, but there is still space to allow development without large impacts on these areas and the corresponding livelihoods they support. Tourism should be developed considering the local communities' land use and/or traditional livelihoods to avoid or minimize its effects on their way of life.
	High 7 sites	<ul style="list-style-type: none"> These sites are largely covered in crops and gardens. Tourism development on these sites is likely to require removal of crops, affecting surrounding communities. Investors should consult with local communities to ensure all development impacts are avoided and/or managed carefully.
Proximity to infrastructure (access to airport and health infrastructure)	Low 29 sites	<ul style="list-style-type: none"> Sites that are close to airports and medical facilities (up to 15 km from an airport and up to 10 km from a health clinic) can rely on these and other associated social infrastructure.
	Moderate 26 sites	<ul style="list-style-type: none"> These sites are further removed from an airport or a medical facility. They are, therefore, more challenging to develop and connect with other social infrastructure.
	High 15 sites	<ul style="list-style-type: none"> These are sites that are over 30 km from an airport and 15km from a health clinic. Such remote sites present health, safety, and logistical challenges for the workers and guests of tourism operators because of limited accessibility to public goods, services, and/or infrastructure.
Presence of cultural heritage	Low 50 sites	<ul style="list-style-type: none"> These have no known cultural heritage sites, including <i>tabu</i> sites, WWII historical sites, graves, or sites of other kastom significance. While Solomon Islands and Western Province have a rich cultural and historical heritage, there are challenges in the protection and maintenance of artefacts and sites as they are not registered. Areas with no confirmed <i>tabu</i> or cultural heritage sites have been given a rating to reflect the notion that local communities may hold further information on the cultural significance of the sites. It is therefore important to consider cultural heritage on any site where detail has not yet been obtained. Tourism development generates an opportunity to improve the situation through increased heritage surveys and consultations with local communities for the identification and preservation of artefacts and sites.
	Moderate 16 sites	<ul style="list-style-type: none"> Areas with identified but sparse cultural heritage sites are classified as moderate risk. These sites will likely be considered and avoided in a development plan.
	High 4 sites	<ul style="list-style-type: none"> Areas with several cultural heritage sites that are most likely impacted by development are classified as high risk. Associated risks include potential loss or damage to sites of cultural significance, resulting conflict with local groups, and lack of a common vision regarding tourism use and access to the site. Therefore, any development where cultural heritage sites are present should ensure comprehensive consultation with government, landowners, occupiers, and surrounding communities so that these sites are managed in a way that aligns with community opinions, applicable law and good practice.

Map 21: Social-Risk Ratings at Identified Sites



4.4.3 NATURAL-HAZARDS FINDINGS

The corridor is at high risk of exposure to natural hazards such as earthquakes, tsunamis, sea-level rise, and extreme weather events, which pose risks to tourism development and should be taken into consideration. Although Map 22 identifies areas of the province that have previously been subject to earthquakes and tsunamis, it is difficult for experts to make long-term predictions on where future natural hazards will occur. Still, identified sites within the corridor have been assessed (see appendix D) for their potential susceptibility to coastal vulnerability and sea-level rise.

Table 12 summarizes the natural-hazard risk assessment for identified sites and the rationale for the rating based on the assessment criteria presented in section 2.3. The section concludes with an overall natural-hazard risk rating (coastal vulnerability and sea level rise) for each identified site, which is displayed in Map 22 showing 9 sites had a high-risk rating, 32 sites had a moderate rating and 29 were rated as low risk.

While low-risk sites could be more easily developed, sites with moderate-to-high-level risk rating should not be precluded from development, as mitigation measures could be developed based on site-specific impact assessment.

The detailed dashboard for each site (see appendix D) identifies the contribution of all natural-hazard risk indicators. The table only identifies natural-hazard risks weighted at 20 percent in the overall assessment.

Table 12: Identified-Site Analysis of Natural-Hazard Findings and Risk Assessments

Natural-Hazards Risks	Risk Rating	Description
Coastal vulnerabilities	Low 11 sites	• These are sites in sheltered locations with some elevation, such as those in the southern corridor around Seghe and the Marovo Lagoon.
	Moderate 44 sites	• Sites centered on the Munda hub are slightly more exposed and are categorized as having a moderate rating. Sites around Noro, Kolombangara, and Bava are more exposed but are elevated, so they also fall into the moderate category.
	High 15 sites	• Low-lying coral sand islands or coastal sites with little elevation are high-risk sites. In general, the sites with greater coastal sea-level-rise vulnerability are centered around the Gizo hub.
Sea-level rise	Low 21 sites	• Low-risk sites have higher ground levels with only a small portion of them less than one meter above sea level. These sites allow for retreat and shelter in case of storm surges and sea-level rise.
	Moderate 44 sites	• Moderate sites have between 30 and 70 percent of the areas below one meter above sea level. They are likely to experience the effects of sea-level rise but can still provide occupants some options to retreat.
	High 5 sites	• High-risk sites are mostly low-lying coastal sites with more than 70 percent of the areas below one meter above sea level. They run the risks of inundation and damage from exposure to sea water on buildings as well as potential human injury if building maintenance is not kept up.

Map 22: Natural-Hazard Ratings (Including Coastal Vulnerability and Sea-Level Rise) at Identified Sites

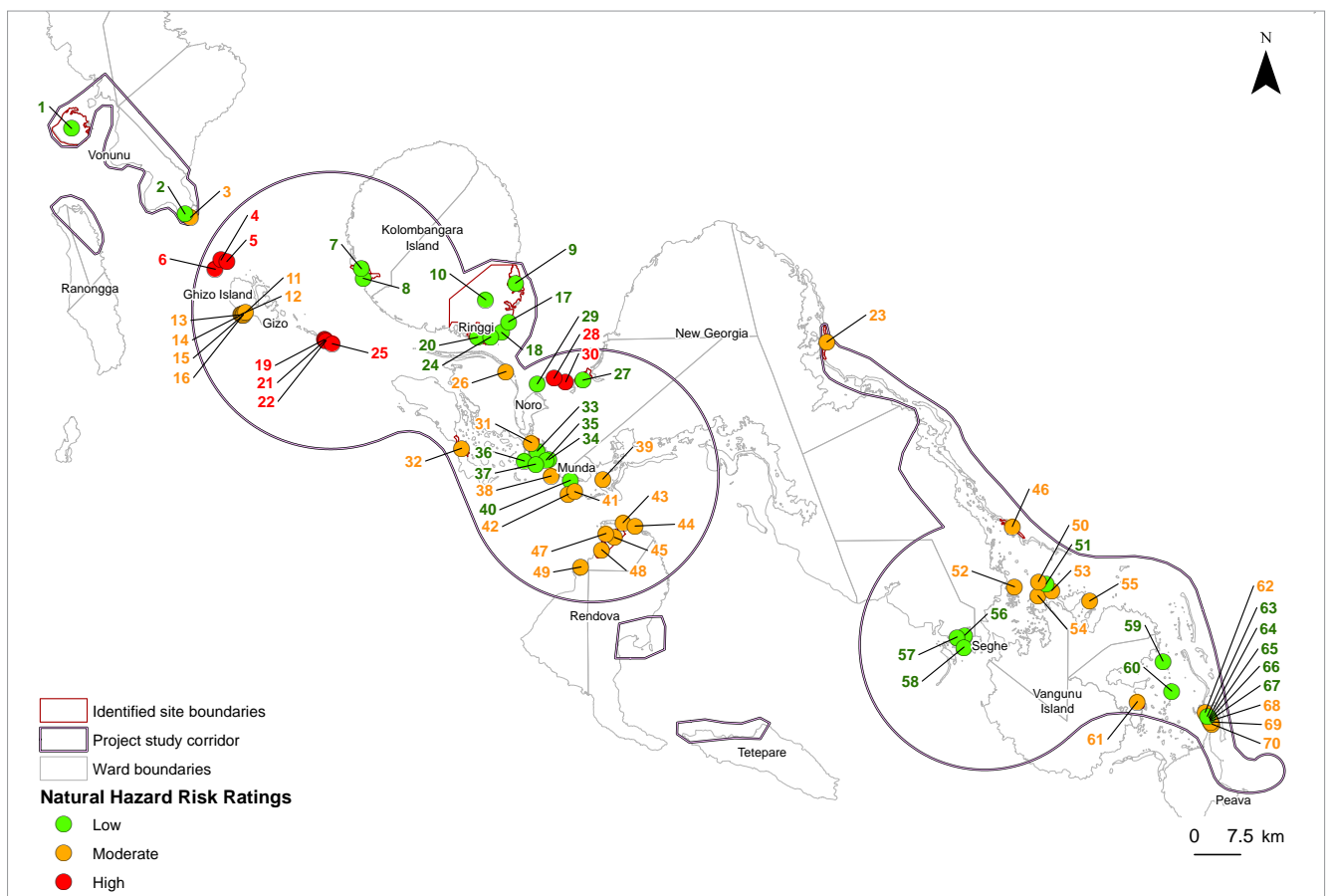




Photo Credit: Becky Last

4.4.4 OVERALL ENVIRONMENTAL, SOCIAL, AND NATURAL-HAZARD RISK MAPPING AT IDENTIFIED SITES

Table 13 and Map 23 below summarize the consolidated ratings of the identified sites using the weightings outlined in section 2.3.3 and Table 3.

Each site has been measured on its own merits using the risk measurements outlined in the Methodology (section 2.3.3). There are 27 low-risk sites, generally clustered around the hubs of Gizo, Munda, and Seghe towns, with some outliers at Rovomburi Passage scattered further from the three hubs. There are 18 high-risk sites around the three hubs and 25 moderate-risk sites located mostly in more exposed and remote areas or densely populated areas of the corridor.

Table 13: Summary of All Identified-Site Rankings

ID	Hub	Site location	Site identifier	RISK RATING			Overall
				Natural hazard	Social	Environmental	
19	GIZO HUB	South of Gizo:	Olasana Island (North West)	High	Low	High	Low
25	GIZO HUB	South of Gizo:	Naru Island: Northern Block	High	Low	High	Low
2	GIZO HUB	Vela Le Vella Island (South):	Rovomburi Passage	Low	Low	Low	Low
21	GIZO HUB	South of Gizo:	Olasana Island (Center)	High	Low	Moderate	Low
22	GIZO HUB	South of Gizo:	Olasana Island (South East)	High	Low	Moderate	Low
31	MUNDA HUB	Vona Vona:	Karapata Islands	Moderate	Low	High	Low
41	MUNDA HUB	In front of Munda:	Hombu Hombu Island	Moderate	Low	Low	Low
44	MUNDA HUB	North Rendova	Mbarambuni Island	Moderate	Low	Low	Low
37	MUNDA HUB	Vona Vona:	Kuri Point	Low	Moderate	Low	Low
34	MUNDA HUB	Vona Vona:	Mbarikihi Islands: east	Low	Low	Moderate	Low
35	MUNDA HUB	Vona Vona:	Mbarikihi Islands: west	Low	Low	Moderate	Low
36	MUNDA HUB	Vona Vona:	Kolohite Island	Low	Low	Moderate	Low
38	MUNDA HUB	In front of Munda:	Nusa Zonga Island	Moderate	Low	Moderate	Low
39	MUNDA HUB	In front of Munda:	Himbi Island	Moderate	Low	Moderate	Low
42	MUNDA HUB	In front of Munda:	Hopei Island	Moderate	Low	Moderate	Low
43	MUNDA HUB	North Rendova	Kukurana Island	Moderate	Low	Moderate	Low
47	MUNDA HUB	North Rendova	Tambusolo Island	Moderate	Low	Moderate	Low
49	MUNDA HUB	North Rendova	Agana & Vangoro Islets	Moderate	Low	Moderate	Low
53	SEGHE HUB:	Marovo:	Veuru	Moderate	Low	High	Low
57	SEGHE HUB:	Seghe and Surrounds:	Tinovili Island	Low	Low	Low	Low
52	SEGHE HUB:	Marovo:	Gharamana Island	Moderate	Low	Low	Low
56	SEGHE HUB:	Seghe and Surrounds:	Mbatubosi Island	Low	Moderate	Low	Low
58	SEGHE HUB:	Seghe and Surrounds:	Lloro Island	Low	Low	Moderate	Low
59	SEGHE HUB:	Marovo:	Mbareho Island	Low	Low	Moderate	Low
23	SEGHE HUB:	Ramata:	Rovana Island	Moderate	Low	Moderate	Low
50	SEGHE HUB:	Marovo:	Mbukimbuki (West)	Moderate	Low	Moderate	Low
54	SEGHE HUB:	Marovo:	Karunohu Island	Moderate	Low	Moderate	Low
4	GIZO HUB	North of Gizo:	Njari Island	High	Low	High	Moderate
3	GIZO HUB	Vela Le Vella Island (South):	Liapari	Moderate	Moderate	Low	Moderate
11	GIZO HUB	Gizo Island:	Pailonge Point 6	Moderate	Moderate	Low	Moderate
12	GIZO HUB	Gizo Island:	Pailonge Point 1	Moderate	Moderate	Low	Moderate
16	GIZO HUB	Gizo Island:	Pailonge Point 3	Moderate	Moderate	Low	Moderate
10	GIZO HUB	Kolombangara (South):	Mbimbu Inlet and Mbarapati Pt	Low	High	Moderate	Moderate
17	GIZO HUB	Kolombangara (South):	Hikuana Point and Mbarati Pt	Low	High	Moderate	Moderate
6	GIZO HUB	North of Gizo:	Njingono Island	High	Low	Moderate	Moderate
1	GIZO HUB	Vela Le Vella Island (South):	Mbava Island	Low	Moderate	Moderate	Moderate
18	GIZO HUB	Kolombangara (South):	Teme Point & Single Mate	Low	Moderate	Moderate	Moderate
20	GIZO HUB	Kolombangara (South):	Kukuli Point	Low	Moderate	Moderate	Moderate
33	MUNDA HUB	Vona Vona:	Mbanga Island - Tabaka	Low	High	Low	Moderate
29	MUNDA HUB	Noro (North):	Tunguivili Point (East)	Low	Moderate	Low	Moderate
40	MUNDA HUB	In front of Munda:	Hombupeka Island	Low	Moderate	Low	Moderate
48	MUNDA HUB	North Rendova	Mandali Point	Moderate	Moderate	Low	Moderate
28	MUNDA HUB	Noro (North):	Lambete Kopi	High	Low	Moderate	Moderate
30	MUNDA HUB	Noro (North):	Niu Kaloka (west):	High	Moderate	Moderate	Moderate
27	MUNDA HUB	Noro (North):	Enogha Point	Low	Moderate	Moderate	Moderate
26	MUNDA HUB	Vona Vona:	Kohingo Island, Ghalughalu Point	Moderate	Moderate	Moderate	Moderate
64	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 4	Low	High	Low	Moderate
67	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 7	Low	High	Low	Moderate
51	SEGHE HUB:	Marovo:	Mbukimbuki (East)	Low	Moderate	Low	Moderate
55	SEGHE HUB:	Marovo:	Mahoro Island	Moderate	Moderate	Low	Moderate
46	SEGHE HUB:	Marovo:	Tatama & Avavasa Islands	Moderate	Moderate	Moderate	Moderate
61	SEGHE HUB:	Marovo:	Lalauru Point incl Islands	Moderate	Moderate	Moderate	Moderate
5	GIZO HUB	North of Gizo:	Varu Island (North of Gizo)	High	Moderate	High	High
13	GIZO HUB	Gizo Island:	Pailonge Point 2	Moderate	High	Low	High
15	GIZO HUB	Gizo Island:	Pailonge Point 4	Moderate	High	Low	High
14	GIZO HUB	Gizo Island:	Pailonge Point 5	Moderate	Moderate	Low	High
7	GIZO HUB	Kolombangara (South):	Kukudu	Low	High	Moderate	High
8	GIZO HUB	Kolombangara (South):	Kukundu	Low	High	Moderate	High
9	GIZO HUB	Kolombangara (South):	Jack Harbour	Low	High	Moderate	High
24	GIZO HUB	Kolombangara (South):	Vila Point	Low	High	Moderate	High
32	MUNDA HUB	Vona Vona:	Buni - Parara Island	Moderate	High	Low	High
45	MUNDA HUB	North Rendova	Rendova harbor	Moderate	High	Moderate	High
60	SEGHE HUB:	Marovo:	Tinge & Karungarao Island	Low	High	Low	High
63	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 2 & 3	Low	High	Low	High
65	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 5	Low	High	Low	High
66	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 6	Low	High	Low	High
62	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 1	Moderate	High	Low	High
68	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 8	Moderate	High	Low	High
69	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 9	Moderate	High	Low	High
70	SEGHE HUB:	Gatokae:	Timbara (Mbunikal) 10	Moderate	High	Low	High

Map 23: Overall Environmental, Social, and Natural-Hazard Risk Ratings at Identified Sites

