

Grupos e Recomendações

CODE	GROUP	RECOMMENDATION	CATEGORY	OFFICIAL FEEDBACK
TR01R01	Comprehensive impact assessment	Prepare a comprehensive assessment of the impacts of the dam failure considering, for each valued environmental and social component, the baseline at some point in the past prior to the failure as well as trends in the state of those valued components.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	The recommendation is in the process of being implemented; Renova Foundation has created an Impact Curatorship department tasked with systematizing the impacts of the Fundão dam failure. The biggest challenge is the lack of data from before the dam failure to use as a baseline. The Impact Curatorship is considering a partnership with a renowned Brazilian university for methodological support and the issue paper published by the Rio Doce Panel (IP04), which recommends a structure for an integrated assessment of the impacts of the dam failure.
TR01R02	Comprehensive impact assessment	Carry out an integrated evaluation of outcomes of the mitigation programs.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	Program integration is already underway, as greater integration across programs is inevitable in order to advance in meeting the requirements set forth by the TTAC and carrying out the repair work. The fact that the TTAC focuses on programs and the way the Governance System is organized, with different Technical Chambers that sometimes deliberate on the same subject, is one of the factors standing in the way of integration. An integrated assessment of program results is also part of the scope of the Impact Curatorship.
TR01R03	Risk assessment, adaptive management	Identify threats to sustainability and resilience of mitigation outcomes and address them.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	Risk management is carried out for the different areas at Renova; the analysis of threats to resilience is a practice that has been adopted by many programs. The Sustainable Land Use Management, for example, has put together a robust agenda devoted to producer engagement and Technical Assistance and Rural Extension (ATER), as well as the implementation of Payment for Environmental Services, which today is of one of the stages of Restoration Programs. Another initiative by the Renova Foundation in this regard refers to the resources made available for basic sanitation works in the municipalities of the Doce River watershed, meant to reduce the volume of untreated sewage released daily into the river, which was compromising water quality even before the dam failed.

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TR01R04	Risk assessment, adaptive management	Review regional climate change models and propose improvements in mitigation programmes to address risks to the achievement of outcomes.	Category A2: The recommendation addresses a gap and Renova Foundation will work to implement what is under its competence	The Renova Foundation understands that not all programs will be impacted by climate change. Programs whose objectives and / or results may be impacted are beginning to determine which actions they will take to mitigate the impacts. Forest restoration programs, for example, are preparing to add specific actions to combat fires (brigades) to their missions and budgets.
TR01R05	Governance	Develop an adaptive management plan.	Categoria A1: A Fundação Renova concorda e a recomendação foi implementada ou está em vias de implementação.	The TTAC provides for regular program reviews to assess objectives, goals and results. This process is the responsibility of the Interfederative Committee (CIF), which benefits from the support / participation of other stakeholders involved in repair works, including the Renova Foundation. The first program review began in 2019.
TR01R06	Knowledge management, communication, information sharing	Develop and implement a data and information-sharing plan.	Categoria A1: A Fundação Renova concorda e a recomendação foi implementada ou está em vias de implementação.	The Renova Foundation recognizes the importance of making all the knowledge produced about the disaster and repair actions in the Rio Doce watershed available to society. Different initiatives are being implemented to that effect.
TR01R07	Knowledge management, communication, information sharing	Initiate and maintain actions to gather and disseminate relevant knowledge and lessons learned.	Categoria A1: A Fundação Renova concorda e a recomendação foi implementada ou está em vias de implementação.	The Renova Foundation has started to systematize the acquired knowledge and plans to release publications on different topics related to repair work. There are publications in the pipeline about lessons learned in the management of tailings and in the recovery of water springs, for example. Participation in events to share this knowledge is also part of the agenda of the technical teams; these events include scientific congresses and discussion forums (example: the case study on Governance organized by Grupo PENSA, with ties to USP).

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TR02R01	Governance	Initiate a dialogue towards the development of a Rio Doce watershed Climate Action Plan.	Category C: This recommendation will not be implemented by Renova Foundation.	With a significant part of the remediation scope judicialized, the Renova Foundation is fully focused on the deliverables under the TTAC. An inter-institutional articulation should start from the states, due to the relevance of the theme, involving the other actors involved in the reparation process and mentioned above.
TR02R02	Governance	Propose that CIF and other entities mainstream climate change within a timely review of relevant TTAC programmes	Category C: This recommendation will not be implemented by Renova Foundation.	The Renova Foundation will provide full support to the CIF so that the reviews of programs provided for in the TTAC contemplate and integrate the perspective of climate change, provided that it is a process led by the Interfederative Committee.
TR02R03	Environmental and Human Health	Adopt Nature-based Solutions when considering technological alternatives for remediation, restoration and compensation.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	Fundação Renova has invested in proposing and implementing Nature-Based Solutions in different actions (tailings management, rural sanitation, etc), to the extent that it gets approval from the governance system for their use in remediation actions.
TR02R04	Governance	Invite state and local governments to build capacity and undertake actions to prepare for adaptation to climate change.	Category C: This recommendation will not be implemented by Renova Foundation.	This theme goes beyond remediation, although it does have an impact on it. However, the Renova Foundation was created to implement the clauses of the TTAC, which does not address this content.

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TR03R01	Governance	Adopt a source-to-sea framework and an integrated landscape approach in the Rio Doce watershed restoration efforts	Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented	<p>The Renova Foundation recognises the importance of a common vision for the source-sea system in the Rio Doce Basin, based on an integrated view of the territory and on the interdependence of the thematic axes that comprise it. Many actions carried out under reparation and compensation programmes seek a broader and more integrated view of the territory, such as programmes devoted to forest restoration and revitalisation of springs, in addition to the Landscape Analysis pilot conducted in partnership with UNESCO. The guidelines for these programmes were based on studies on Water Security, the Forest Code, the Integrated Water Resources Plan for the Rio Doce Basin (under review in 2022), the Mapping of Alternative Watersheds, and the study on the prioritisation of areas for reforestation produced by UFV and UFMG. Currently, programmes devoted to forest restoration and revitalization of springs are under review to prioritise ecological corridors and scale up their results. Monitoring of terrestrial biodiversity assesses whether environmental recovery actions are improving the functioning of ecosystems. The definition of priority areas for biodiversity conservation in the Rio Doce Basin, which is currently in the final stage of procurement, will consider all studies on prioritising areas for restoration produced by the Sustainable Land Use programmes, among other actions and studies produced by Renova in the past. The Biodiversity programmes are in the process of approving the Work Plan for the preparation of an Integrated Action Plan that will unfold into actions integrated with other programmes related to the topic. Environmental recovery actions carried out by the Renova Foundation, such as the stabilisation of river banks and forest restoration, as well as compensatory actions - such as the reforestation of Permanent Protection Areas and recharge areas, recovery of springs and investment in basic sanitation - converge towards a positive impact on water quality and quantity and on terrestrial and aquatic biodiversity. The programmes are making progress on the approvals required within the Governance System (CIF, Basin Committee), but one of the challenges is getting all the stakeholders in the reparation process to incorporate this integrated approach as described in the recommendation.</p>

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TR03R02	Environmental and Human Health	Ensure a long-term comprehensive evaluation of the systematic Quali-Quantitative Monitoring Programme of Water and Sediment of the Rio Doce watershed (PMQQS) data to prioritise actions for the continual improvement of Rio Doce's environmental conditions	Category C: This recommendation will not be implemented by Renova Foundation.	<p>The PMQQS aims to generate a reliable database on the quality and quantity of water and sediments, with physical, chemical and biological parameters, and make it available to the CIF system, to public and private institutions and to the general population. Hence, the PMQQS is not expected to perform an integrated assessment of the data produced.</p> <p>Even so, in this context, it should be noted that the PMQQS data are being considered by the National Water and Basic Sanitation Agency (ANA, Agência Nacional de Águas e Saneamento Básico) in the revision of the Integrated Water Resources Plan (PIRH, Plano Integrado de Recursos Hídricos) for the Rio Doce Basin - which, in a way, should guide the actions not only of the Renova Foundation, but on the basin as a whole, considering that the PIRH is the instrument that underpins and guides policies for, and the management of, water resources.</p>
TR03R03	Governance	Use the existing water monitoring programme to build the capacity in the region to monitor potential impacts on water quality and biota associated with the emergence of synergistic pollutant compounds	Category C: This recommendation will not be implemented by Renova Foundation.	<p>The Renova Foundation recognises the importance of scientific development in terms of water quality assessment. According to current legislation, the evaluation of synergistic effects is not a requirement, and such methodologies are still not well established in Brazil. The Renova Foundation must prioritise efforts to repair the Rio Doce Basin and does not have the scope to promote discussions in this regard.</p> <p>The PMQQS aims to generate a reliable database on the quality and quantity of water and sediments, with physical, chemical and biological parameters, and make it available to the CIF system, to public and private institutions and to the general population. Hence, the PMQQS is not expected to perform an integrated assessment of the data produced.</p>

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TR03R04	Governance	Strengthen technical support to municipalities for the implementation of a comprehensive, innovative and modular basic sanitation programme for the watershed	Category A2: The recommendation addresses a gap and Renova Foundation will work to implement what is under its competence	<p>A key action for the revitalisation of the Doce River stems from the compensatory measure that foresees the allocation, by the Renova Foundation, of resources to the municipalities impacted by the tailings for actions to improve the collection and treatment of sewage and enable the adequate disposal of urban solid waste. The investments can elevate the Rio Doce to a level of de-pollution that has not been seen in years. It is expected to benefit approximately 1.5 million people. More than R\$ 695 million will be available for projects and works geared towards sewage collection and treatment and adequate disposal of urban solid waste in the 39 municipalities. By March 2022, R\$ 42.9 million had been transferred to 32 municipalities and two consortia served by the Sanitation Programme for sewage and solid waste actions. The development banks of Minas Gerais and Espírito Santo (BDMG and Bandes, respectively) are responsible for monitoring the use of such funds.</p> <p>In addition to making funds available, the Renova Foundation also provides technical support services to the municipalities, which consists of a team of sanitation experts who provide technical support and help at every stage, from the preparation of terms of reference for public tender notices to the supervision of the works. Technical support professionals carry out meetings, visits and analyses with the municipalities to assist them in contracting services to make sure sewage and solid waste systems are operational and meet local needs. Training workshops were also held with municipal-level representatives to increase their knowledge of topics such as project preparation, bidding processes, waste consortia and sewage systems.</p> <p>The Panel's recommendation is in line with the Programme's actions in the areas within its scope, but to make it even more comprehensive, innovative and modular, the Municipalities, States and Basin Committees must be involved.</p>

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TR03R05	<p>Environmental and Human Health</p>	<p>Expand the existing monitoring plan in order to inform and prioritise biodiversity restoration activities.</p>	<p>Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented</p>	<p>Assessments of Renova's sampling grid for biodiversity monitoring are carried out periodically and are part of the continuous assessment of the results achieved as activities are carried out. The recommendation to expand the biodiversity monitoring programme, both terrestrial and aquatic, goes against the needs identified so far. In the case of monitoring aquatic biodiversity, after applying a generic methodology with a very extensive sampling grid, which spanned beyond the impacted regions and followed the terms of reference designed and proposed by environmental agencies and members of the CIF system, it was possible to closely characterise the biodiversity in investigated environments in an unprecedented magnitude, in a way that can already be used to assist in the development of a public database to inform and prioritise restoration activities. As for monitoring of terrestrial biodiversity, the results obtained in the first year of execution were evaluated by the specialists involved and the need for a change was detected, but in this case, it was not an expansion but a methodological adaptation to achieve the monitoring objectives, and this change is already under-way. This constant analysis and assessment of the results to find changes that need to be made will be a continuous process throughout the execution of the monitoring process. As such, today the Foundation believes it more suitable to review the scope of the programme by focusing on the various proposed objectives. The cooperation endeavour with UNESCO, aimed at the participatory monitoring of biodiversity for the implementation of citizen science initiatives, is consistent with the recommendation. Alternatives and partnerships for the implementation of a Biodiversity Data Management System are also under consideration.</p>

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TR04R01	Governance	Build a common vision for the Rio Doce source-to-sea system	Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented	The Renova Foundation recognises the importance of a common vision for the source-sea system in the Rio Doce Basin, based on an integrated view of the territory and on the interdependence of the thematic axes that comprise it. Leadership of this construction must be in the hands of a permanent institution operating in the territory. Today, many actions carried out under reparation and compensation programmes directly or indirectly promote the sustainability of the Rio Doce Basin and seek to build a broader and more integrated view of the territory, such as programmes devoted to forest restoration, revitalisation of springs and sanitation, in addition to the Landscape Analysis pilot conducted in partnership with UNESCO. The Renova Foundation monitors the review of the Rio Doce Basin Integrated Water Resources Plan, conducted by the Rio Doce Basin Committee, and provides data derived from the water monitoring programme that contribute to this review. This is a practical example of a multi-stakeholder construction with an integrated view of the source-sea system.
TR04R02	Governance	Prepare for the transition to the post-Renova era	Category C: This recommendation will not be implemented by Renova Foundation.	The Renova Foundation recognises and values long-term planning for the Rio Doce Basin and, since the beginning of its activities, has operated with a clear understanding of its finite nature as an institution. The strategy of working in partnership with permanent local and national institutions is based on the need for the results of actions under reparation and compensation programmes to be continuously monitored and improved by these organisations. In any case, the Renova Foundation does not take part in the renegotiation process, where the future of reparation and compensation programmes is being negotiated by the TTAC signatory institutions.

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TR04R03	Knowledge management, communication, information sharing	Create a repository of data, information and documents	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	It is extremely important that the data, information, results and lessons learned from the Rio Doce Basin reparation process be made available to all stakeholders. The Renova Foundation, through PG 35 and in compliance with Clause 65 of the TTAC, made available on 06/30/2021 an interactive platform that houses a digital repository on the Fundão dam failure (WWW.CITDORIDOCE.ORG). The objective of the platform is to make available all the technical outputs produced under the reparation efforts, in addition to academic studies from various fields of knowledge. At the same time, the programme works to implement the three CIT units planned for Mariana (MG), Governador Valadares (MG) and Regência (ES). Other examples include a cycle of webinars entitled "Conhecimento em Pauta" ("Knowledge on the Agenda") as an initiative to disseminate and share repair experiences in different areas, in addition to a cycle of workshops to collect memories from the territories in workshops that resulted in an e-book compiled directly with affected peoples from different municipalities across the territory. In addition to the projects mentioned, the Reparation Data and Transparency Portal available on the Renova Foundation website are tools that can be used to disseminate information on reparations.
TR04R04	Governance	Further engage the Rio Doce Watershed Committee in the restoration efforts	Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented	The Foundation fully agrees with the importance of CBH Doce in the repair and compensation process, in a cross-cutting and integrated way, and has been seeking to expand the partnership with the committee in different programmes. The committee participates mainly in socio-environmental programmes, such as forest restoration, revitalisation of springs, and sanitation, among others. The Foundation fostered a partnership between CBH Doce and UNESCO to carry out Participatory Monitoring of Water Quality, and monitors the review of the Integrated Water Resources Plan for the Rio Doce Basin, providing data and information for use in the analyses that make up the plan. However, the Foundation is not qualified to coordinate the measures described in the recommendation, so the committee itself and the other stakeholders in the governance system must devise strategies to expand and strengthen the operations.

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IP01R01	Alternative livelihoods, socioeconomic development	Identify opportunities and constraints on rural value chains and production practices, offering the potential for alternative local products and services to gain in scale and generate backward and forward linkages between local economies and employment, with an emphasis on forest restoration, good agriculture and cattle-raising practices, rural tourism, ecotourism and environmental improvement. The analysis should examine factors that will enhance the combined effectiveness of policy instruments, investment strategies and risk-sharing mechanisms, such as price guarantees and institutional purchasing.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	This recommendation is in line with solutions that the Economy and Innovation programs are developing with the Sustainable Land Use programs, because in the work with the rural producers, the opportunity to make a complete reparation that goes from the recovery of the productive capacity of the affected properties to the development of a value chain for the products resulting from this recovery has emerged. It reinforces the need for integration with economic and cultural diversification programs, as reparation should not be detached from actions related to commercialization and value addition that consider cultural aspects and a legacy agenda for the region. The integration of actions between the areas faces challenges posed in the Brazilian context, such as the migration of young people from rural areas to cities and the aging of the rural population. Integrated actions have not yet been established between the program of resumption of agricultural activities and tourism.
IP01R02	Alternative livelihoods, socioeconomic development	Coordinate capacity assessment/training, business planning, credit worthiness and financial instruments among existing institutions through partnerships, including those with whom Renova Foundation is already engaged, such as the microenterprise and small business support agency Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (SEBRAE). In addition, such partnerships could be extended to include local chambers of commerce, rural technical assistance by EMATER, NGOs and the “S” system of vocational training, with an emphasis on initiatives that can train and employ youth.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	Actions for economic diversification, development of the technical capacity of rural and young farmers in the countryside, credit and financing instruments and partnership with some of the institutions mentioned are already underway. The recommendation also reinforces the Renova Foundation's understanding of the importance of Technical Assistance and Rural Extension (ATER) as a pillar of the resumption of agricultural activities program. In rural areas, the creation and development of technical capacity is carried out in partnership with EMATER and NGOs. Partnership with the S education system is most commonly used in urban areas. The suggested chain development plans (Milk and Cocoa) are being developed in a participatory manner, within the Renova Foundation's governance model, and with stakeholder engagement.

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IP01R03	Alternative livelihoods, socioeconomic development	Assess the need for additional policy or financial instruments, such as the creation of a fiduciary fund to stimulate investment in economic alternatives. A forward-looking assessment of synergies between existing and innovative measures, together with approaches to override path dependency and the orchestration of institutional partnerships is required. Among the complementary policy instruments to be prioritized are those which target sustainable rural development, food security, integrated climate mitigation and adaptation, and rural technical assistance to promote associative enterprises and short supply chains for agro-ecological produce and farmbased or ecotourism.	Category A2: The recommendation addresses a gap and Renova Foundation will work to implement what is under its competence	The Renova Foundation is proposing and managing a Technical Assistance and Rural Extension arrangement that needs to be expanded to other programs and territories. This articulation is essential for improving the participation and engagement of the public power in the construction of long-term policies and plans. This recommendation also meets actions being planned by the area of Economy and Innovation. The Investment Funds strategy still needs maturation to fully address rural value chains focusing on family farming. Because it is a population on the fringes of the financial system, predominantly rural and risk-averse, we believe that it is necessary to reinforce the capital instruments already made available by the Renova Foundation. Additional financial instruments ensure sustainability, especially for long term projects.
IP02R01	Governance	Work closely with the Inter-Federative Committee (CIF) to devise a unified decision framework and schedule that would permit removal of fishing bans, including the gathering of freshwater biodiversity and fish toxicity indicators, and an integrated analysis to reflect the concerns of affected parties, regulatory agencies and scientists.	Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented	Indicator collection and integrated data analysis are performed by the Biodiversity Conservation program (PG 28), which produces arsenic and metal concentration data in freshwater, estuarine and marine fish; the Resumption of Aquaculture and Fishing Activities Program (PG 16), which carries out an integrated analysis of the results of the Renova Foundation studies with a recovery of fishing livelihoods point of view; and by the Impact Population's Physical and Mental Health Program (PG 14), through health risk assessment studies. Implementation of this recommendation depends on high-level discussions between the Renova Foundation, CIF and state governments, and better coordination of the Technical Chambers by the CIF to achieve a unified decision and schedule construction. This recommendation raises the issue of overcoming fishing ban to strategic decision-making. This decision-making is not currently in the hands of Renova Foundation - it is diffused in a very broad forum with different actors looking at the issue from different angles, with no clear referrals.

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IP02R02	Environmental and Human Health	Engage women and men fishers as an integral part of the monitoring network to measure the indicators that would permit removal of the fishing bans and the start of a sustainable fishing programme.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	The Resumption of Fisheries and Aquaculture Program (PG 16) provides for the participation of fishermen in fisheries monitoring, as it understands that this participation is essential to ensure representativeness and to ensure the perception of improved water and fish quality. The environmental monitoring programs have already included the participation of affected communities in the eventual monitoring of water quality. Renova Foundation would like to include fishermen in biodiversity monitoring, today largely based on studies conducted by universities.
IP02R03	Knowledge management, communication, information sharing	Communicate the results of the overall assessment on freshwater biodiversity and fish toxicity, and the results of the integrated analysis to affected communities, government authorities and the media.	Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation	The Renova Foundation communication team works closely with the programs to generate results and disseminate information for different audiences - government, communities, the press, the governance system and other stakeholders. The communication of the results of general assessment of aquatic biodiversity and fish toxicity brings the perception of safety for consumption and greater basis for the definition of actions to resume fishing activity.

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IP03R01	Environmental and Human Health	Conduct a permanent monitoring programme for Lake Juparanã. This entails studies describing the impacts on water quality, aquatic communities, local fisheries and natural flows, investigating in detail the synergistic effects of contaminants which can result in 'reactive chemical cocktails' capable of causing further effects on the biota composition and the local environments.	Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented	<p>OThe Systematic Qualitative-Quantitative Monitoring Program provides extensive and detailed monitoring of affected and unaffected watercourses and is accompanied by government agencies responsible for water management and the publicly available database after consistent validation.</p> <p>Studies of the Rio Doce aquatic biota and marine monitoring are conducted to establish guidelines for the conservation of biota and environments along the Doce River in the impacted stretch, including the mouth and coastal zone.</p> <p>Specific environmental studies have also been carried out on the Linhares Lakes, including water quality, environmental impacts, identification and characterization of tailings to support adequate decision making.</p> <p>The concept of "reactive chemical cocktails" is relatively new and still needs further development and examples of large-scale application. Therefore, considering the rich set of technical information being produced by other studies, this concept will not be prioritized.</p>
IP03R02	Environmental and Human Health	Based on the studies mentioned in Recommendation #1, and on the awareness that the risk of lake contamination due to the release of tailings in the Rio Doce is higher than the risk of jeopardizing the source-to-sea system, further research should be conducted to determine the need for and potential location of a dam with floodgates. The ecological conditions of the natural flows, as well as the maintenance of sustainable environmental conditions in Lake Juparanã, Rio Pequeno and its connecting ecosystems with the Rio Doce, should be taken into consideration in any decision-making process.	Category C: This recommendation will not be implemented by Renova Foundation.	<p>Technical studies were developed on the evolution of water quality in the Doce River and Juparanã Lake, hydrological modeling for understanding the hydrodynamic flow and contact between the waters of the two ecosystems, characterization of the tailings, feasibility analysis of permanent alternative solutions, analysis of socio-environmental impacts of the current barrier and technical alternatives. Based on the conclusion of all these studies, Renova Foundation's understands that maintaining the natural flow of Juparanã and Nova lakes towards the Doce River without any device that promotes temporary and / or permanent interruptions, considering the balance of aquatic systems, maintaining their ecological functions and the multiple purposes of these water bodies is the most adequate solution.</p>

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IP03R03	<p>Environmental and Human Health</p>	<p>Should a dam be built, implement a management model for the proposed dam that considers the adjustment of functions of the artificial system, including the definition of clear indicators and triggers for a rapid decisionmaking process, which will guarantee the well-being of the source-to-sea system.⁹ In addition, its supervision should be a part of the terms of reference of the Pontões e Lagoas do Rio Doce Basin Committee.</p>	<p>Category C: This recommendation will not be implemented by Renova Foundation.</p>	<p>The existing temporary structure on Rio Pequeno had the merit of containing the advancement of tailings to the Juparanã Lake. After almost four years after the event, the primary function by which this dam was implemented, to preserve the water quality of the Juparanã Lake, is already overcome and it is understood by Renova Foundation that it should be removed, considering the arguments synthesized in the feedback for recommendation 02 of this same study.</p> <p>Based on this, the Renova Foundation understands that the maintenance of the flow of the Juparanã and Nova lakes towards the Rio Doce without any device that promotes temporary and / or permanent interruptions is the most appropriate technical solution, considering the balance of the aquatic systems, the maintenance of their ecological functions and the multiple purposes of these water bodies. However the final decision involves other stakeholders.</p>

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IP04R01	<p>Comprehensive impact assessment</p>	<p>Adopt a structured and systematic approach for a comprehensive assessment of the environmental and social impacts of the Fundão Dam failure, taking into account the following advice:</p> <ul style="list-style-type: none"> • Impacts should be identified, described and characterized in detail, including information on affected area, estimated temporal scale and an appropriate indicator of impact magnitude, acknowledging uncertainties. • The assessment should consider the cumulative effects of other past and present actions that could affect each valued component. • The selection of valued components for analysis should be conducted by engaging with relevant stakeholders. • For each impact, the following steps should be undertaken: describe ongoing or planned mitigation actions; identify threats to effectiveness; and explain any adverse environmental or social impact of mitigation. • This assessment is not meant to be a one-off exercise, but a living tool to be continuously updated and improved. 	<p>Category A1: The recommendation reinforces current practices of Renova Foundation that will be continued, supported by the recommendation</p>	<p>With support from UNESCO, the Renova Foundation will implement the Impacts and Reparations Management System. The work plan has been finalized and the second stage of the project, which consolidates the concepts, will be completed by April/2022.</p>

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IP05R01	Environmental and Human Health	Build local capacities for monitoring impacts on health and the environment in order to promote a stronger connection between society and the environment, and contribute to the regular collection of information concerning risk-factors for human diseases. In addition, community members who are involved in monitoring activities can contribute to local awareness of the importance of sanitation and the communities' rights to safe water.	Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented	Renova Foundation (RF) keeps an ongoing dialogue with the communities, either through its institutional channels or in the form of teams physically present in the areas impacted by the dam failure. In terms of water monitoring, RF will work in partnership with UNESCO to develop participatory water monitoring methodologies with active participation by impacted communities. It is also essential to ensure the participation of the communities and health actors in the risk assessments and health studies currently under planning. Community participation in the studies to be conducted will ensure integration between communities and researchers, thus helping elucidate the findings of the studies and their implications.
IP05R02	Knowledge management, communication, information sharing	Communicate and promote exchange of data and information on manifestations of health symptoms in community members between formal health providers, such as health agents that are part of the SUS, and members of organisations that address broad health concerns (for example, NGOs, religious organisations, social movements and cultural communities). Such actions would respond to Rio Doce Panel's recommendations 6 and 7 published in the Thematic Report No. 1	Category C: This recommendation will not be implemented by Renova Foundation.	This recommendation comes up against a recurring question: the limitations of Renova Foundation's efforts, which do not overlap with the public authorities in charge of monitoring the health and disease profile of the population and carrying out health promotion and assistance efforts. The mitigation of potential impacts stemming from the failure is aligned with public health policies. The Foundation contributes by bringing forth societal demands, through teams deployed in the regions that receive and analyse the demands of the affected populations and address the issues directly with social and health facilities at the local level.

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IP05R03	<p>Environmental and Human Health</p>	<p>Promote the use of nature-based solutions (NbS) and innovative technologies in sewage and water treatment systems, which are best adapted for management by rural and traditional communities, including the organisation of hands-on capacity-building courses for the users.</p>	<p>Category B: Renova Foundation partially agrees with the recommendation. In consequence, only some aspects of it will be implemented</p>	<p>Any intervention in the field of sewage and water treatment needs to be in line with the public policies currently in effect, as the government is responsible for providing these services. In the case of municipalities, RF has made R\$ 500 million available to local governments in the affected region for investment in sanitation projects. In the case of rural properties, the Sustainable Land Use Management Unit has implemented over 200 sewage treatment systems. They use mini-STP technology, selected for requiring little system maintenance by the families. In the case of Indigenous Peoples and Traditional Communities, any proposal must be coordinated in advance with the public agencies that manage these lands. RF values the involvement of communities in building joint solutions that include the significant body of knowledge held by these populations. This process foresees the accumulation of technical knowledge in a process where communities have a place and a voice, as well as capacity building for both parties involved in the process.</p>