



MuniFin Green Bond Second Opinion

June 20, 2019

Municipality Finance Plc (Kuntarahoitus Oyj; MuniFin) is one of the largest credit institutions in Finland specialized in financing the local government sector and government-subsidized social housing production.

Overall, MuniFin's updated green bond framework from May 2019 provides a clear and sound framework for projects that align with the Green Bond Principles (2018). Eligible project categories are **renewable energy**, **energy efficiency**, **sustainable public transportation**, **sustainable buildings**, **waste management**, **water and waste water management**, as well as **environmental management**. Climate change related projects will make up 80% of the projects, with the remaining up to 20% going to environmental management projects including nature conservation.

The framework states that MuniFin will not finance nuclear or fossil fuel based projects with possible exceptions within the following project categories: energy efficiency, sustainable public transportation and waste management. In such cases, additional screenings will be performed to ensure sustainability. Green bonds can be used to finance both new projects as well as refinance existing eligible projects, though the focus will be on new projects.

MuniFin has in place a sound management and governance structure, as well as regular and transparent reporting about green bond project achievements to investors and the public. The overall assessment of the governance structure to support the implementation of the green bond framework gives it a rating of **Good**.

In this update, MuniFin has, among others, strengthened the project category requirements related to sustainable buildings. The update signals continuous improvement following previous updates of MuniFin's framework (30.08.2017 and 02.11.2018), where MuniFin adjusted the sustainable buildings eligibility requirements and where the selection process was strengthened by including an assessment process. With this update, MuniFin also includes the option to issue category specific green bonds. These category specific green bonds will be issued under the framework in its entirety with reference to this second opinion in its entirety including the overall shading and governance score.

Based on the overall assessment of the project types that will be financed by the green bond and governance and transparency considerations, MuniFin's Green Bond Framework receives a **CICERO Medium Green** shading. To reach a Dark Green level, MuniFin would need a higher ambition for some of the project categories (e.g., complete abandonment of fossil fuel use), a stronger focus on adaptation and resilience, as well as the assessment and reporting of impacts to a larger extent.

SHADES OF GREEN

Based on our review, we rate the MuniFin Green Bond Framework CICERO Medium Green.

Included in the overall shading is an assessment of the governance structure of the green bond framework. CICERO Shades of Green finds the governance procedures in MuniFin's framework to be Good.



GREEN BOND PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.





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1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the MuniFin's Green Bond Framework dated **May 21, 2019.** This second opinion remains relevant to all green bonds issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the issuer's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence with the issuer. Second opinions are restricted to an evaluation of the mechanisms or framework for selecting eligible projects at a general level. CICERO Green is not responsible for an institution's implementation of a framework, nor does it guarantee or certify the climate effects of investments in eligible projects.

Expressing concerns with 'Shades of Green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions of the bonds. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

CICERO Shades of Green Examples Dark green is allocated to projects and solutions that correspond to the long-term Wind energy projects with a strong vision of a low carbon and climate resilient future. Fossil-fueled technologies that governance structure that lock in long-term emissions do not qualify for financing. Ideally, exposure to integrates environmental concerns transitional and physical climate risk is considered or mitigated. Medium green is allocated to projects and solutions that represent steps towards the Bridging technologies such as long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in longplug-in hybrid buses term emissions do not qualify for financing. Physical and transition climate risks might be considered. Light green is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant Efficiency investments for fossil short-term GHG emission reductions, but need to be managed to avoid extension of fuel technologies where clean equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the alternatives are not available physical and transitional climate risk without appropriate strategies in place to protect them. Brown is allocated to projects and solutions that are in opposition to New infrastructure for coal the long-term vision of a low carbon and climate resilient future.

Sound governance and transparency processes facilitate delivery of issuer's climate and environmental ambitions laid out in the framework. Hence, the governance aspects are carefully considered and reflected in the overall shading of the Green Bond Framework. CICERO Green considers four factors in its review of an issuer's governance processes: 1) the policies and goals of relevance to the Green Bond Framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent.



2 Brief description of MuniFin's Green Bond Framework and related policies

Municipality Finance Plc (Kuntarahoitus Oyj; MuniFin) is a credit institution specialized in financing the local government sector and government-subsidized social housing production. MuniFin is Finland's third largest financing institution. MuniFin has the responsibility of securing the availability of competitive funding under all market conditions for its customers. MuniFin's goal is to promote welfare through the financing of local level projects related to infrastructure, healthcare, education and the environment. It provides its customers (municipalities, municipal federations, companies owned and controlled by the municipalities as well as housing corporations) with financing solutions, such as loans and leases for property and equipment management, risk management and debt issuance.

In Finland, there are currently 295 municipalities and 134 joint authorities, which have been set up by two or more local authorities to tend to specific tasks on a permanent basis. MuniFin's ownership structure is as follows:

- 53% owned by municipalities, municipal federations and municipality owned companies
- 31% owned by Keva, a local public sector pension fund
- 16% owned by the Finnish national government.

Environmental Strategies and Policies:

MuniFin acquires its funding in a diversified manner from both international and domestic capital markets. All of its funding is guaranteed by the Municipal Guarantee Board. MuniFin views its responsibility towards society from many perspectives. Social responsibility is considered to be central to the projects that are financed and is further promoted through cooperation and partnerships with educational institutions. In 2018, MuniFin published its first Responsibility Policy relating to corporate social responsibility, including social and environmental responsibility. It is available on its website, along with its Responsibility Report. MuniFin targets a 10% share of green finance out of the total financing portfolio in 2022.

Environmental responsibility can be seen through their WWF Green Office certification, promotion of environmental awareness, green procurement policies, and offering investors sustainable investment options. Furthermore, MuniFin focuses on staff well-being and has been named one of Finland's best workplaces.

MuniFin started its work with green bond activity in 2012 and has continued actively since. MuniFin has experience with green bonds in the domestic market, but project financing has been limited by the small size of the Finnish market. Green bonds enable MuniFin to lend money to their customers for eligible projects. MuniFin published its first Green Bonds Framework in February 2016 and updated it in August 2017 and November 2018. This second opinion is an assessment of a third update of their framework dated 21 May 2019. In the new GBF, MuniFin has adjusted the project category eligibility requirements related to sustainable buildings and included the option of issuing category specific green bonds.

Use of proceeds:

According to the framework, proceeds will be used to promote in part or in whole, "the transition to low carbon and climate resilient growth". They include climate change mitigation projects, climate change adaptation projects,



as well as to a smaller extent (less than 20%) projects which are related to environmental management rather than directly climate related. Green bonds can be used to finance both new projects as well as refinance existing eligible projects. The update allows for category specific green bonds that can be allocated to loans and leases within one of these categories. The issuer informed us that these category specific green bonds may have separate marketing names such as, e.g., Blue Bonds, but will otherwise be presented with a reference to the whole second opinion including the overall Shade of Green rating of the framework as well as the overall governance score and be issued under the green bond framework in its entirety. The focus will be on new projects which are defined as loans and leases to projects that have been completed less than 12 months before the projects' approval date in the Green Evaluation Team (see selection and management of proceeds section below). Proceeds will be used to fund projects in the seven project categories: renewable energy; energy efficiency; sustainable public transportation; sustainable buildings; waste management; water and waste water management; environmental management.

Green bonds will not finance nuclear or fossil fuel-based projects with possible exceptions within the project categories energy efficiency, sustainable public transportation and waste management. The Green Evaluation Team will only approve such projects if it can be shown with a life cycle analysis or in other ways that the long-term net impact on the environment will be positive.

Selection:

Eligible projects will be selected based on initial identification and verification at the customer and potential customer level (municipalities, municipal federations, companies owned and controlled by the municipalities as well as housing corporations) on an ongoing basis. A pre-approval takes place at MuniFin's Customer Finance department. A review and final approval, which is based on consensus, is determined by MuniFin's Green Evaluation Team on a quarterly basis. This team includes at least two members from the environmental departments of MuniFin's customers and/or other environmental experts from relevant public sector entities/organizations. Each loan and lease will be analyzed independently by the Green Evaluation Team and will only be approved if the assessed long-term net environmental impact is positive.

Management of proceeds:

MuniFin will earmark an amount equal to the net proceeds of the issued green bonds. Projects are classified as new if the projects have been completed less than 12 months before the project's approval date in the Green Evaluation Team. The issuer aims to allocate the majority of the net proceeds to fund new eligible projects. Until disbursement to eligible projects the earmarked proceeds will be placed in the liquidity reserves and managed according to the Responsibility Policy of MuniFin.

Reporting:

To enable investors to follow the development and provide insight to prioritized areas, MuniFin will publish an annual Green Bonds Impact Report. Reporting will include a list of projects financed, their ex-ante estimated impacts on a project category level and a summary of MuniFin's Green Bond development. It will also include information about the ratio between new financing and refinancing of eligible projects. The Green Bonds Impact Report will be made publicly available on the MuniFin web page. Third party verification or auditing of the Investor Report is currently not performed.

3 Assessment of MuniFin's Green Bond Framework and policies

The framework and procedures for MuniFin green bond investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where issuers should be aware of potential macrolevel impacts of investment projects.

Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in MuniFin's Green Bond Framework, we rate the framework CICERO Medium Green.

Eligible projects under the MuniFin Green Bond Framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the "overall environmental profile" of a project should be assessed and that the selection process should be "well defined".

Category	Eligible project types	Green Shading and some concerns

Renewable Energy





wind

- solar
- small hydro¹
- geothermal mainly ground heating related to building projects
- bioenergy and biogas from waste

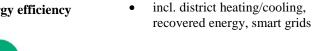
Dark to medium green

- Wind, hydropower, and bioenergy: consider broader impacts, such as potential negative impacts on biodiversity, nature, and local communities.
- ✓ For solar, bioenergy and biogas from waste: consider impacts and emissions over the lifecycle of the (e.g. production and disposal phases of solar; peat).
- ✓ Bioenergy and biogas from waste is rated medium green
- MuniFin has informed us that peat will be treated as an eligible energy

¹ Small scale hydro power is defined as hydropower plants less than 10 megawatts (MW) of generating capacity. Refurbishment of existing hydro power plants (above 10MW generating capacity) without increase in size of impoundment as well as use of existing impoundment for pump and storage technology is regarded as eligible projects to be included in green bonds financing.

- source, though only on very small scale.
- Geothermal: in cases other than building related ground heating, consider broader impacts, such as the potential for heavy metal pollution.

Energy efficiency



Medium green

Be aware of lock-in effects and rebound effects.

Sustainable public transportation



Medium green

- Should consider larger context to ensure potential emissions reductions: aspects of planning, degree of urbanization, vehicle technologies and fuel type utilized,
- Should consider potential lock-in effects and life-cycle analysis.
- Should avoid fossil fuels use.

Sustainable buildings



Buildings (public buildings and social housing) which are in class A (2018) in the Finnish energy classification for buildings are accepted. Additionally, only the best buildings in terms of energy efficiency in class B (2018) may be accepted if a combination of the following is incorporated in or acquired for the building: use of renewable energy, life-cycle analysis, environmental impact analysis, recyclable and low-carbon materials, efficient and smart technology choices, or a certification from Nordic Swan Ecolabel, LEED, BREEAM, or equivalent with high ratings. Overall, prerequisite factors for class B buildings are a willingness to execute the project significantly better, in a more environmentally friendly manner and

Medium green

- Building criteria are considered adequate but may not reflect best available technology nor the highest level of standards possible in Finland.
- 30 percent improvement is in the in line with the International Energy Agency (IEA) suggestion that efficiency of buildings needs to improve by 30% by 2025 in order to reach the Paris Agreement well below 2°C climate goal.
- In addition to climate issues, Nordic Swan, BREEAM and LEED cover a broader set of issues, which is important to overall sustainable development.
- Potential issues with rebound effects.



- more efficiently than average or minimum directives require.
- Major renovations leading to a reduction of energy use per m2 in year of at least 30%
- Should avoid fossil fuels use and include climate screening for resilience.

Waste management

Recycling and re-use

Medium green



- Should consider lifecycle emissions and potential lock-in effects.
- ✓ Should avoid fossil fuel use.
- ✓ Good practices should include recycling of resources and reduction of methane emissions.

Water- and wastewater management



Dark green

- ✓ Key issue for climate adaptation in Finland.
- ✓ Consider utilizing green infrastructure when possible.
- Consider emissions from construction and construction materials.

Environmental management

- Maximum allocation 20%
- incl. nature conservation

Medium green

- Positive sustainability related project.
- ✓ Not necessarily climate related



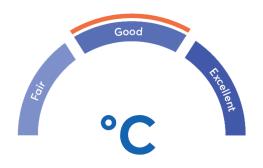
Table 1. Eligible project categories

Governance Assessment

Four aspects are studied when assessing MuniFin's governance procedures: 1) the policies and goals of relevance to the Green bond Framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent.



The MuniFin GBF includes a comprehensive list of project categories that are important for low-carbon and climate change resilient growth. Implementation of EU and national legislation and applicable environmental policies and targets of customers and potential customers, as well as MuniFin's Responsibility Policy (2019) form the basis for MuniFin's GBF. MuniFin has a target of 10% green finance out of the total financing portfolio by 2022, a strong environmental competence, formalized procedures for screening and an



established framework for reporting, all of which help ensure that projects produce long-term positive environmental impacts. It is also encouraging that MuniFin reports results based on the guidance provided in the Position Paper on Green Bond Impact Reporting which it participated in drawing up along with other Nordic public sector issuers. A further step that would strengthen MuniFin's green bond governance system would be specific eligibility criteria and verification of the management of proceeds and Green Bond Impact Report by an internal or external auditor. Also, climate risk screening could be added to relevant project categories to strengthen the overall focus on resilience, e.g., using climate scenario analysis as recommended in the Task Force on Climate-Related Financial Disclosures (TCDF) recommendations (2017). The overall assessment of the governance structure of MuniFin gives it a rating of **Good**.

Strengths

Governance

MuniFin has in place an online application portal through which customers apply for the green financing, proving the requested information and supporting documentation. This standardized procedure ensures a minimum level for applications. Additionally, MuniFin will utilize screenings to ensure that selected projects have high likelihood of long-term positive environmental impacts. Selection will take into account environmental impact assessments when they are available for projects (e.g., transport). Operationalization and documentation of screenings and selection criteria, including formalized thresholds for improvement in all project categories, would further strengthen the overall system. Furthermore, including specific climate risk related assessments to investments in relevant categories, such as water and wastewater management and even environmental management, could potentially identify opportunities for contribution to climate resilience.

MuniFin has a solid structure for approval of projects in place. Eligible projects have to be approved by consensus vote in the Green Evaluation Team, which has at least two environmental experts on it. It is reassuring to see that the Green Evaluation Team reflects strong research and practitioner-based expertise through the Finnish Environment Institute, Association of Finnish Local & Regional Authorities, and a municipality. Furthermore, MuniFin intends to have low turnover in the Green Evaluation Team members, unless change is needed. The team will meet at least quarterly.

Weaknesses

We find no material weaknesses in MuniFin's Green Bond Framework.

Pitfalls

Governance

One way to better ensure long term positive effects is through screenings and impact assessments already at the project planning and selection phase, e.g., to evaluate projects for eligibility. Project categories should be screened



for climate impacts on resilience and mitigation. Such a screening would ensure that categories, such as Environmental management which is currently sustainability focused also promotes the climate related efforts. MuniFin will use the results of ex-ante impact analysis in the project applications, as well as Environmental Impact Assessments, which are mandatory for public transport projects, in project selection. Furthermore, the Green Evaluation Team will conduct special screenings for certain type of projects, such as bioenergy and fossil-fuel related projects, to ensure the broader and longer-term sustainability of the projects. MuniFin will also promote the use of impact reporting (ex-post) and performs its own impact reporting based on the guidance provided in the Position Paper on Green Bond Impact Reporting which it participated in drawing up along with other Nordic public sector issuers. An additional way for MuniFin to promote the use of impact analysis and impact reporting is to clarify that such projects will be prioritized. Impact analysis and a standardized set of indicators against which to assess the projects could help avoid selection of projects that may not represent a significant improvement over status quo.

Project Categories

ENSO takes a long-term view on climate change. One way to better ensure long-term positive effects is through impact assessments and certifications, e.g., in green building. However, these certifications do not necessarily ensure improved energy performance or that resilience aspects are taken into consideration. The buildings sector accounts for 40% of primary energy consumption in most International Energy Agency (IEA) member countries (IEA/UNDP, 2011). Energy efficiency improvements in buildings are thus important building blocks for reaching the 2-degree climate change goal. MuniFin applies criteria for new and existing buildings as well as in renovation of existing buildings with energy efficiency requirements over and above status quo. In some cases, they require that additional steps towards sustainability be taken, ranging from conducting a lifecycle analysis to environmental certification. The GBF would benefit from a clearer requirement that best environmental technology is used in eligible green bond building projects. MuniFin is largely reliant on data provided by applicants that are seeking financing for their investments. It is therefore recommended, that in the absence of compelling evidence of strong environmental performance, MuniFin will exercise caution in project selection to mitigate the risk of investment in projects with questionable "green" credentials.

It is also recommended to exclude projects that support prolonged use of fossil-fuel based infrastructure that will contribute to GHGs in the long run. The MuniFin GBF allows for fossil-fuel investments in the project categories of energy efficiency, public transportation, and waste incineration. In these cases, additional screenings will be conducted to ensure positive long-term environmental effects. However, there is a residual risk of financing of assets that include elements of fossil-fuel based technologies which can, in turn, delay the transition to more climate friendly technologies. It is acknowledged that assessing sustainability in the transport sector is complex.

The largest amount of carbon savings come from switching from inefficient modes of transport (e.g., private cars) to mass transit. Where projects aim at like-for-like replacement of transport infrastructure, the improvements in environmental performance depend on the fuel type and efficiency. As EU policies aim for alternative fuel use, there is a concern related to the inclusion of fossil fuel public transport projects within the GBF. MuniFin has previously informed that fossil-fuel busses will not be considered eligible projects and that the Finnish EIA for public transport projects require statements about the modal shift from private to mass transit. However, as fossil-fuels are eligible for financing in certain categories, it is the responsibility of the Green Evaluation Team to ensure that such projects have long-term positive impacts.

The use of biomass further represents a potential pitfall when it comes to supporting a low carbon and climate resilient future. MuniFin has informed us that peat will be treated as an eligible energy source, though only on very small scale. Despite the small-scale nature of the use, there is a need to minimize and avoid the use of energy sources such as peat, which significantly contribute to greenhouse gas emissions.



Impacts beyond the project boundary

Due to the complexity of how socio-economic activities impact the climate, a specific project is likely to have interactions with the broader community beyond the project borders. These interactions may or may not be climate-friendly, and, thus, need to be considered with regards to the net impact of climate-related investments.

Rebound effects

Efficiency improvements may lead to rebound effects. When the cost of an activity is reduced there will be incentives to do more of the same activity. From the project categories in Table 1, an example is that an unintended result of energy efficiency projects may actually be increased overall energy use or failure to reach the potential reductions. Another example is public support schemes for renewable energy that increase energy supply, leading to reduced energy prices and thus potentially more energy consumption. A third relevant example is waste incineration with energy recovery, which is a sound environmental and climate friendly option to divert waste away from landfills. However, waste incineration is best combined with ambitious recycling policies: if the capacity for waste incineration is too high it might create an incentive to prioritize incineration over recycling. Hence, there is a particular need to continue to improve in this regard, in particular to recycle more fossil fuel waste such as plastics, into new materials. MuniFin should be aware of such effects and possibly avoid green bond funding of projects where the risk of rebound effects is particularly high.



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
0	MuniFin's Green Bonds Framework 21.05.2019	Latest version of the Green Bonds Framework
1	MuniFin's Green Bonds Framework 02.11.2018	Former Green Bonds Framework
2	Strategic Programme of the Finnish Government	Finnish governmental strategy document
3	Association of Municipalities - Study about the climate work in the Finnish Municipalities	Municipality level study
4	National Energy and Climate Strategy (2013)	Finnish governmental strategy document
5	National assessment of sustainable development	Finnish governmental strategy document
6	Ministry of Environment - Annex to the explanatory memorandum for the Ministry of the Environment Decree on improving the energy performance of buildings undergoing renovation or alteration: Calculation	Annex to a Finnish governmental strategy document
7	Example of a Finnish Energy Certificate	Example of Energy Certificate used in Finland

8	Nature Conservation Act	Finnish legislative document
9	Nature Conservation Decree	Finnish legislative document
10	National Waste Plan	Finnish governmental strategy document
11	Oil and chemical spill response in Finland	Memo of 2014 situation by Finnish Environment Institute
12	Environmental Ministry Regulation for energy efficiency in new buildings	Memo of 2017 change in Environmental Ministry Regulation related to the energy efficiency in new buildings
13	MuniFin's Green Bonds Framework Details concerning the changes in Framework	Brief statement describing changes as compared to earlier frameworks and justification
14	Responsibility Policy	MuniFin CSR policy
15	Responsibility Report 2017	MuniFin reporting on CSR
16	Responsibility Report 2018	MuniFin reporting on CSR
17	MuniFin Green Bonds Impact Report 2017	MuniFin reporting on green bonds 2017
18	MuniFin Green Bonds Impact Report 2018	MuniFin reporting on green bonds 2018



Appendix 2:About CICERO Shades of Green

CICERO Shades of Green (CICERO Green) is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).



SEI is an independent international research institute that undertakes policy oriented and applied research on environment and development issues. Our innovative, integrated systems research forms the basis for our work on policy advice, capacity development, decision support and implementation of policy and practice. Our mission is to support decision-making and induce change towards sustainable development around the world by providing integrative knowledge that bridges science and policy in the field of environment and development.

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