

# REPORT REVIEW

## The Swiss Confederation Green Bond Allocation and Impact Report

Green Bond Allocation and Impact Report of the Swiss Confederation

7 September 2023

### VERIFICATION PARAMETERS

<b>Type(s) of reporting</b>	<ul style="list-style-type: none"><li>Green Bond Allocation and Impact Report</li></ul>
<b>Relevant standard(s)</b>	<ul style="list-style-type: none"><li>Harmonized Framework for Impact Reporting (HFIR), updated June 2023, as administered by the International Capital Market Association (ICMA)</li><li>The Swiss Confederation's Green Bond Allocation and Impact Report (as of August 29, 2023)</li></ul>
<b>Scope of verification</b>	<ul style="list-style-type: none"><li>The Swiss Confederation's Green Bond Framework (as of July 7, 2022)</li><li>Bond identification: CH0440081567/ A 16-year bond, which matures on October 26, 2038 (CHF 766.05 million)</li></ul>
<b>Lifecycle</b>	<ul style="list-style-type: none"><li>Post-issuance verification</li></ul>
<b>Validity</b>	<ul style="list-style-type: none"><li>As long as no changes are undertaken by the Issuer to its Green Bond Allocation and Impact Report as of August 29, 2023</li></ul>

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## SCOPE OF WORK

The Swiss Confederation (“the Issuer” or “Switzerland”) commissioned ISS Corporate Solutions (ICS) to provide a Report Review<sup>1</sup> on its Green Bond Allocation and Impact Report by assessing:

1. The alignment of the Swiss Confederation’s Green Bond Allocation and Impact Report with the commitments set forth in the Swiss Confederation’s Green Bond Framework (as of July 7, 2022)<sup>2</sup>.
2. The Swiss Confederation’s Green Bond Allocation and Impact Report- benchmarked against the Harmonized Framework for Impact Reporting (HFIR), updated June 2023 as administered by the International Capital Market Association (ICMA).
3. The disclosure of proceeds allocation and soundness of reporting indicators – whether the impact metrics align with best market practices and are relevant to the Green Bond issued.

<sup>1</sup> A limited or reasonable assurance is not provided on the information presented in the Swiss Confederation’s Green Bond Allocation and Impact Report. A review of the use of proceeds’ allocation and impact reporting is solely conducted against ICMA’s Standards (Green Bond Principles) core principles and recommendations where applicable, and the criteria outlined in the underlying Framework. The assessment is solely based on the information provided in the allocation and impact reporting. The Issuer [or the Swiss Confederation] is responsible for the preparation of the report including the application of methods and internal control procedures designed to ensure that the subject matter information is free from material misstatement.

<sup>2</sup> The Framework was assessed as aligned with the Green Bond Principles as of July 7, 2022.

## ASSESSMENT SUMMARY

REVIEW SECTION	SUMMARY	EVALUATION
<p><b>Part 1.</b></p> <p><b>Alignment with the Issuer's commitments set forth in the Framework</b></p>	<p>The Swiss Confederation's Green Bond Allocation and Impact Report meets the Issuer's commitments set forth in the Green Bond Framework. The proceeds have been used to (re)finance Clean Transportation, Agriculture, Forestry, Natural Landscapes and Biodiversity, Green Buildings and Energy Efficiency, International Cooperation, Research, Innovation, and Awareness Raising and Renewable Energy<sup>3</sup> in accordance with the eligibility criteria defined in the Framework.</p>	<p><b>Aligned</b></p>
<p><b>Part 2.</b></p> <p><b>Alignment with the Harmonized Framework for Impact Reporting (HFIR)</b></p>	<p>The Green Bond Allocation and Impact Report is in line with ICMA's Harmonized Framework for Impact Reporting (HFIR). The Issuer follows core principles and where applicable key recommendations.</p> <p>The report was produced on an annual basis and includes impact indicators for most of the financed eligible expenditure categories. Allocated proceeds are reported in a single currency. ESG risks associated with the expenditure categories are identified and managed through an appropriate process.</p>	<p><b>Aligned</b></p>
<p><b>Part 3.</b></p> <p><b>Disclosure of proceeds allocation and soundness of reporting indicators</b></p>	<p>The allocation of the bond's proceeds has been disclosed with a detailed breakdown across different eligible expenditure categories as proposed in the Framework<sup>4</sup>.</p> <p>The Swiss Confederation's Green Bond Allocation and Impact Report has adopted an appropriate methodology to report the impact generated by providing comprehensive disclosure on data sourcing, calculation methodologies and granularity reflecting best market practices.</p>	<p><b>Positive</b></p>

<sup>3</sup> Renewable Energy project expenditure category is eligible under the Framework, but no proceeds were allocated.

<sup>4</sup> The assessment is based on the information provided in the Issuer's report. The Issuer is responsible for the preparation of the report including the application of methods and procedures designed to ensure that the subject matter information is free from material misstatement.

## REPORT REVIEW ASSESSMENT

### PART I: ALIGNMENT WITH COMMITMENTS SET FORTH IN THE GREEN BOND FRAMEWORK<sup>5</sup>

The following table evaluates the Green Bond Allocation and Impact Report against the commitments set forth in the Swiss Confederation's Framework, which are based on the core requirements of the Green Bond Principles (GBP) as well as best market practices.

GBP	OPINION	ALIGNMENT WITH COMMITMENT
1. Use of Proceeds	<p>The Swiss Confederation confirms to follow the Use of Proceeds' description provided by the Swiss Confederation's Green Bond Framework. The report is in line with the initial commitments set in the Swiss Confederation's Green Bond Framework.</p> <p>The Issuer's green categories align with the expenditure categories and are in accordance with the eligibility criteria set in the Swiss Confederation's Green Bond Framework. The proceeds have been used to (re)finance the following green expenditure categories: Clean Transportation, Agriculture, Forestry, Natural Landscapes and Biodiversity, Green Buildings and Energy Efficiency, International Cooperation, Research, Innovation, and Awareness Raising. Renewable Energy expenditure category is eligible under the Framework, but no proceeds were allocated. Environmental benefits at either category level are described and quantified.</p> <p>The Swiss Confederation respects the defined look-back period of one budget year preceding the Bond issuance, describes the expenditure excluded from financing and states the share of proceeds allocated to financing, in line with best market practice.</p>	✓
2. Process for Project Evaluation and Selection	<p>The Swiss Confederation confirms to follow the Process for Expenditure Evaluation and Selection description provided by the Swiss Confederation's Green Bond Framework. The report is in line with the initial commitments set in the Swiss Confederation's Green Bond Framework: Green Bond Working Group (GWG) consisting of representatives of the Federal Finance Administration and the Federal Office for the Environment (FOEN) was established to ensure the</p>	✓

<sup>5</sup> The Swiss Confederation's Green Bond Framework was assessed as aligned with the GBP (as of June 2021) as of July 7, 2022.

	<p>appropriate evaluation and selection of green expenditures under the Framework.</p> <p>The expenditures selected are defined and structured in a congruous manner. The Issuer ensures compliance with the Eligibility Criteria. ESG risks associated with the expenditure categories are identified and managed through an appropriate process.</p> <p>In the context of the project selection and evaluation, the Swiss Confederation transparently and clearly defines and confirms the responsibilities and the various stakeholders involved in the process. In addition to the GWG, the Issuer has included the Federal Office of Transport, the Federal Office for the Environment, the Swiss Federal Office of Energy, the Federal Office for Agriculture, the State Secretariat for Economic Affairs, the Federal Office for Buildings and Logistics, and the internal expertise as the stakeholders in the process of assessing eligibility and examining the ESG risks, in line with best market practices.</p>	
<p><b>3. Management of Proceeds</b></p>	<p>The Swiss Confederation confirms to follow the Process for Management of Proceeds description provided by the Swiss Confederation’s Green Bond Framework. The report is in line with the initial commitments set in the Swiss Confederation’s Green Bond Framework. The proceeds were monitored and documented by the Federal Finance Administration, and net proceeds were managed within the regular liquidity and debt management.</p> <p>The proceeds collected are equal to the amount allocated to eligible expenditures, with no exceptions. The proceeds are tracked in an appropriate manner and attested in a formal internal process.</p> <p>The Swiss Confederation is transparent about the level of the allocation of proceeds and discloses the balance of unallocated proceeds annually.</p>	<p>✓</p>
<p><b>4. Reporting</b></p>	<p>The Swiss Confederation Impact Report is coherent with the Reporting description provided by the Swiss Confederation’s Green Bond Framework. The report is in line with the initial commitments set in the Swiss Confederation’s Green Bond Framework. The Issuer commits to reporting annually until full allocation and provides information about the issuance of the past year, a breakdown of the allocated proceeds per category, and the share of past and current expenditures,</p>	<p>✓</p>

	<p>Amount of total identified eligible green expenditures and unallocated proceeds.</p> <p>The sections “Allocation reporting” and “Impact Reporting” of the Green Bond Allocation and Impact Report comply with the pre-issuance commitment expressed in the Framework. The report is intended to be publicly available on the Issuer’s website<sup>6</sup>.</p> <p><i>Further analysis of this section is available in Part III of this report.</i></p>	
<b>5. Verification</b>	ISS ESG has provided a Second Party Opinion (SPO) on the Swiss Confederation’s Green Bond Framework in July 2022.	

<sup>6</sup> Switzerland Federal Finance Administration’s website: <https://www.efv.admin.ch/efv/en/home.html>

## PART II: ASSESSMENT AGAINST THE ICMA'S HARMONIZED FRAMEWORK FOR IMPACT REPORTING

### FOR GREEN BONDS

Reporting is a core component of the Green Bond Principles and transparency is of particular value in communicating the expected and/or achieved impact of projects in the form of an annual reporting. Green bond Issuers are required to report on both the use of green bond proceeds, as well as the environmental impacts at least on an annual basis until full allocation or maturity of the bond. Harmonized Framework for Impact Reporting (HFIR) has been chosen as benchmark for this analysis as it represents the most widely adopted standard.

The table below evaluates the Swiss Confederation Green Bond Allocation and Impact Report against ICMA Harmonized Framework for Impact Reporting (HFIR).

CORE PRINCIPLES		
ICMA HFIR	GREEN BOND ALLOCATION AND IMPACT REPORT	ASSESSMENT
Reporting on an annual basis	The Swiss Confederation has reported within one year from issuance and all the proceeds have been fully allocated. The report will be available on the Swiss Confederation's website.	✓
Illustrating the environmental impacts or outcomes	<p>The assessment and measurement of the impacts generated by the Swiss Confederation Green Bond(s) covered the following areas:</p> <p>Clean transportation</p> <ul style="list-style-type: none"> <li>▪ Share of electrified railway (% of the electrified rails compared to the total length of overall lines)</li> <li>▪ Passenger transport performance passenger-kilometer (pkm) of railroad operators (Billion)</li> <li>▪ Freight transport performance tonne kilometer (net Tkm) of railroad operators (Billion)</li> <li>▪ Greenhouse gas emissions from energy consumption (Scope 1 and 2, excluding 3 in tCO<sub>2</sub>)</li> <li>▪ Course km in regional passenger transport Regional Passenger Vehicle (RPV) (Million km)</li> <li>▪ Modal split share of rail in transalpine combined transport (%)</li> </ul>	✓



#### Agriculture, forestry, natural landscapes and biodiversity

- Agricultural land supported with biodiversity contributions in hectares (and % of total agricultural land)
- Number of high trunk field fruit trees
- Greenhouse gas emissions from agriculture tCO<sub>2</sub>e (million)
- Annual change in urban greenery (%)
- Areas designated for biodiversity (%)
- Revitalized watercourse (km)
- Revitalized lakeshore (km)
- Completed revitalization projects (as of April 2023)

#### Green buildings and energy efficiency

- Heat consumption per m<sup>2</sup> (kWh/m<sup>2</sup>)
- Energy demand oil heating (tCO<sub>2</sub>/a)
- Energy demand for natural gas heating systems (tCO<sub>2</sub>/a)
- Energy generated by Photovoltaic (PV) (GWh/a)

#### International cooperation

- Expected CO<sub>2</sub> avoided (million metric tons CO<sub>2</sub>e)
- Total beneficiaries from all five result areas (Conserving and sustainably using biodiversity, sustainable managing and restoring land, reducing GHG emissions, strengthen transboundary water management, and reducing chemical and waste)<sup>7</sup> (million)
- Hectares of natural resources managed with improved low-emission or climate-resilient management practices (million hectares)

#### Research, innovation and awareness raising

- Presentations and posters at events for practitioners
- Presentations and posters at scientific events

<sup>7</sup> The result areas with detail are available as part of GEF-8 Scorecard, November 2022, at [https://www.thegef.org/sites/default/files/documents/2022-11/GEF8\\_Corporate\\_Scorecard\\_November\\_2022.pdf](https://www.thegef.org/sites/default/files/documents/2022-11/GEF8_Corporate_Scorecard_November_2022.pdf)

	<ul style="list-style-type: none"> <li>▪ Practice-oriented publications</li> <li>▪ Scientific publications</li> </ul>	
ESG Risk Management	The Issuer has processes within the Federal Administration and the Swiss legal system, as well as the direct democratic processes in Switzerland, to ensure that all new Federal legislation and expenditure are analyzed in detail. When issuing green bonds, the identification and monitoring of ESG risks are taken into consideration.	✓
Allocation of proceeds – Transparency on the currency	<p>Allocated proceeds have been reported in a single currency, CHF (Swiss francs).</p> <p>Eligible expenditures on which proceeds have been allocated have been disclosed.</p>	✓

## RECOMMENDATIONS

ICMA HFIR	GREEN BOND ALLOCATION AND IMPACT REPORT	ASSESSMENT
Define and disclose period and process for Project Evaluation and Selection	<p>The entirety of proceeds has been allocated to Green Expenditures. No modification (removal or additional projects) of the portfolio is planned.</p> <p>The Issuer followed a transparent process for selection and evaluation of Eligible Green Expenditures. Expenditures financed and/or refinanced through the Green Bond issued under Green Bond Framework were evaluated and selected based on compliance with the Eligibility Criteria as laid out in the Framework.</p>	✓
Disclose the total amount of proceeds allocated to eligible disbursements	A total of 766.05 million Swiss francs has been raised through Issuer's Green Bond. 100% of the proceeds has been allocated to Green Expenditures.	✓
Formal internal process for the allocation of proceeds and to report on the allocation of proceeds	The Issuer followed a transparent process for the allocation of proceeds.	✓

Report at project or portfolio level	The Green Bond Allocation and Impact Report includes the total amount of proceeds allocated per eligible expenditure; impact is reported at portfolio level of the categories.	✓
Describe the approach to impact reporting	The Issuer identifies the specific eligible expenditure category and clearly defines, for each expenditure category, the total allocated proceeds.	✓
Report the estimated lifetime results and/or project economic life (in years)	The Issuer's impact reporting is at portfolio level. Hence, no estimates are provided about lifetime results or economic life (in years) for both the eligible expenditure category and the subcategories.	-
Ex-post verification of specific projects	The Issuer confirms ex-post verification of expenditures within the mandate of the Swiss Federal Audit Office, and it is unclear whether the results are compared to ex-ante assumptions.	-
Report on at least a limited number of sector specific core indicators	<p>Swiss Confederation has reported on at least one sector-specific core impact indicator for all expenditures financed. For example:</p> <p>Clean transportation</p> <ul style="list-style-type: none"> <li>▪ Share of electrified railway</li> <li>▪ Passenger transport performance (pkm) of railroad operators</li> <li>▪ Freight transport performance (net Tkm) of railroad operators</li> <li>▪ Greenhouse gas emissions from energy consumption (Scope 1 and 2, excluding 3)</li> <li>▪ Course km in regional passenger transport (RPV)</li> <li>▪ Modal split share of rail in transalpine combined transport</li> </ul> <p>Agriculture, forestry, natural landscapes, and biodiversity</p> <ul style="list-style-type: none"> <li>▪ Agricultural land supported with biodiversity contributions in hectares (and % of total agricultural land)</li> <li>▪ Number of high-trunk field fruit trees</li> <li>▪ Greenhouse gas emissions from agriculture</li> <li>▪ Annual change in urban greenery</li> <li>▪ Areas designated for biodiversity</li> <li>▪ Revitalized watercourse</li> <li>▪ Revitalized lakeshore</li> </ul>	✓

	<ul style="list-style-type: none"> <li>▪ Completed revitalization projects (as of April 2023)</li> </ul> <p>Green buildings and energy efficiency</p> <ul style="list-style-type: none"> <li>▪ Heat consumption per m<sup>2</sup></li> <li>▪ Energy demand oil heating</li> <li>▪ Energy demand for natural gas heating systems</li> <li>▪ Energy generated by Photovoltaic (PV)</li> </ul> <p>International cooperation</p> <ul style="list-style-type: none"> <li>▪ Expected CO2 avoided</li> <li>▪ Total beneficiaries from all five result areas (Conserving and sustainably using biodiversity, sustainable managing and restoring land, reducing GHG emissions, strengthen transboundary water management, and reducing chemical and waste)</li> <li>▪ Hectares of natural resources managed with improved low-emission or climate-resilient management practices</li> </ul>	
If there is no single commonly-used standard, Issuers may follow and disclose their own calculation methodologies	The Issuer elaborated its own methodologies to calculate or estimate the impacts of the financed expenditures. The calculations are transparently disclosed in the Green Allocation and Impact Report.	✓
Disclosure on the conversion approach	The Issuer has disclosed Swiss Greenhouse Gas Inventory CO <sub>2</sub> emission factors <sup>8</sup> as a conversion approach in the report, however, the conversion approach of CO <sub>2</sub> emission data within the international cooperation category is unclear.	-
Projects with partial eligibility	The Issuer confirms full eligibility of all categories/expenditures financed through the bond proceeds. Therefore, this section with partial eligibility is not applicable.	N/A

<sup>8</sup> Swiss Greenhouse Gas Inventory Fact Sheet, Federal Office for the Environment, January 2023, [https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/CO2\\_Emissionsfaktoren\\_THG\\_Inventar.pdf/download.pdf/Faktenblatt\\_CO2-Emissionsfaktoren\\_01-2023\\_DE.pdf](https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/CO2_Emissionsfaktoren_THG_Inventar.pdf/download.pdf/Faktenblatt_CO2-Emissionsfaktoren_01-2023_DE.pdf)

When the expected impacts of different project components may not be reported separately, Issuers may use (and disclose) the attribution approach

The impact of the Swiss Confederation's green expenditures is reported separately per category and sub-category on an aggregated basis.



#### OPINION

*The Swiss Confederation follows ICMA's Harmonized Framework for Impact Reporting (HFIR)'s core principles and most of the recommendations. The Issuer provides transparency on the level of expected reporting as well as on the frequency, scope, and duration, aligned with best practices.*

## PART III: DISCLOSURE OF PROCEEDS ALLOCATION AND SOUNDNESS OF THE IMPACT REPORTING INDICATORS

### Use of Proceeds Allocation

Use of Proceeds allocation reporting is key to put the impacts into perspective with the number of investments allocated to the respective Use of Proceeds' categories.

The Use of Proceeds allocation reporting occurred within one year from the issuance, after the full allocation of the proceeds. The total eligible expenditures were CHF 4.50 billion. CHF 766.05 million were raised through the Issuer's Green Confederation Bonds and 100% of the proceeds were allocated to eligible green expenditures in 2021.

### Proceeds allocated to eligible expenditure

The proceeds' allocation is broken down at the expenditure category level and by type of expenditure. The Issuer has provided details about the type of expenditure included in the portfolio. The expenditure categories eligible are Clean Transportation, Agriculture, Forestry, Natural Landscapes and Biodiversity, Green Buildings and Energy Efficiency, International Cooperation, Research, Innovation, and Awareness Raising, and Renewable Energy. The proceeds are allocated to public offices, public funds/agencies, and public research institutes.

The allocation report section of the Green Bond Allocation and Impact Report of the Swiss Confederation aligns with best-market practices by providing information on:

- The number of budget items (re-)financed
- The total amount of proceeds in million CHF (divided per expenditure category, project type, expenditure year)
- Information about the issuance of the past year
- A breakdown of the allocated proceeds per eligible expenditure category and SDG mapping in share of total volume
- 766.05 CHF million was allocated to total identified eligible green expenditures in 2021
- Description of the expenditure categories (re)financed

## Impact Reporting Indicators

The table below presents an independent assessment of the Issuer's report and disclosure on the output, outcome, and/or impact of expenditures using impact indicators.

ELEMENT	ASSESSMENT
<p><b>Relevance</b></p>	<p>The impact indicators chosen by the Issuer for this bond is the following:</p> <ul style="list-style-type: none"> <li>a) Clean Transportation <ul style="list-style-type: none"> <li>▪ Share of the electrified railway (% the electrified rails compared to the total length of overall lines)</li> <li>▪ Passenger transport performance (pkm) of railroad operators</li> <li>▪ Freight transport performance (net Tkm) of railroad operators</li> <li>▪ Greenhouse gas emissions from energy consumption (Scope 1 and 2, excluding 3)</li> <li>▪ Course km in regional passenger transport (RPV)</li> <li>▪ Modal split share of rail in transalpine combined transport</li> </ul> </li> <li>b) Agriculture, Forestry, Natural Landscapes and Biodiversity <ul style="list-style-type: none"> <li>▪ Agricultural land supported with biodiversity contributions in hectares (and % of total agricultural land)</li> <li>▪ Number of high-trunk field fruit trees</li> <li>▪ Greenhouse gas emissions from agriculture</li> <li>▪ Annual change in urban greenery</li> <li>▪ Areas designated for biodiversity</li> <li>▪ Revitalized watercourse</li> <li>▪ Revitalized lakeshore</li> <li>▪ Completed revitalization projects (as of April 2023)</li> </ul> </li> <li>c) Green Buildings and Energy Efficiency <ul style="list-style-type: none"> <li>▪ Heat consumption per m<sup>2</sup></li> <li>▪ Energy demand oil heating</li> <li>▪ Energy demand for natural gas heating systems</li> <li>▪ Energy generated by Photovoltaic (PV)</li> </ul> </li> <li>d) International Cooperation <ul style="list-style-type: none"> <li>▪ Expected CO<sub>2</sub> avoided</li> <li>▪ Total beneficiaries from all five result areas (Conserving and sustainably using biodiversity, sustainable managing and restoring land, reducing GHG emissions, strengthen</li> </ul> </li> </ul>

	<p>transboundary water management, and reducing chemical and waste)</p> <ul style="list-style-type: none"> <li>▪ Hectares of natural resources managed with improved low-emission or climate-resilient management practices.</li> </ul> <p>e) Research, Innovation, and Awareness Raising</p> <p>The Issuer notes that due to this category focusing on basic research, indicators include qualitative measures as quantitative measures are not applicable. However, the Issuer disclosed the number of contributions and publications for practice and science using the following indicators:</p> <ul style="list-style-type: none"> <li>▪ Number of presentations and posters at events for practitioners</li> <li>▪ Number of presentations and posters at scientific events</li> <li>▪ Number of practice-oriented publications</li> <li>▪ Number of scientific publications</li> </ul> <p>These indicators are quantitative and material to the Use of Proceeds categories financed through this bond and in line with the Suggested Impact Reporting metrics for Clean Transportation, Agriculture, Forestry, Natural Landscapes and Biodiversity, Green Buildings, and Energy Efficiency, International Cooperation Projects by the ICMA Harmonized Framework for Impact Report. This aligns with best market practices.</p> <p>For the eligible expenditure category Research, Innovation, and Awareness Raising, the Swiss Confederation has chosen alternative indicators to the ICMA Harmonized Framework for Impact Report and uses qualitative impact measures covering four areas, since the expenditure category primarily concerns basic research.</p>
<p><b>Data sourcing and methodologies of quantitative assessment</b></p>	<p>For its impact indicators the methodologies used by the Issuer are as follows:</p> <p>a) Clean Transportation</p> <p>Under the Clean Transportation expenditure category, the Swiss Confederation uses the data from the Swiss Federal Railways (SBB) Statistics Portal to calculate the share of the electrified railway network<sup>9</sup> (percentage of the electrified rails compared to the total length of lines) and to measure greenhouse gas emissions from energy consumption<sup>10</sup> (per tonnes/ CO<sub>2</sub>, covering Scope 1 and 2, excluding 3). To calculate the</p>

<sup>9</sup> SBB Statistics Portal, Infrastructures, [https://reporting.sbb.ch/en/infrastructures?highlighted=b14126b01075779dde615622f8991a57&sv\\_lang=3&sv\\_lang\\_change=true&years=1,4,5,6,7&scroll=0](https://reporting.sbb.ch/en/infrastructures?highlighted=b14126b01075779dde615622f8991a57&sv_lang=3&sv_lang_change=true&years=1,4,5,6,7&scroll=0)

<sup>10</sup> SBB Statistics Portal, Sustainability, [https://reporting.sbb.ch/en/sustainability?highlighted=bfe5ed6f75ad31bc85ae99e5a50e5115&scroll=0&sv\\_lang=3&sv\\_lang\\_change=true&years=1,4,5,6,7](https://reporting.sbb.ch/en/sustainability?highlighted=bfe5ed6f75ad31bc85ae99e5a50e5115&scroll=0&sv_lang=3&sv_lang_change=true&years=1,4,5,6,7)



CO<sub>2</sub> emission, the Issuer uses the emission factors of the Swiss Greenhouse Gas Inventory<sup>11</sup> and determines the carbon content of the fuel. In the case of complete combustion, the entire carbon is released as CO<sub>2</sub>. Based on this weight-related emission factor, the emission factor is derived in tonnes by including the calorific value. The impacts of passenger transport performance (pkm) of railroad operators and freight transport performance (net Tkm) of railroad operators are calculated based on the data from the Federal Statistics Office, using the methodology that includes measurement of railways in millions of tonnes-kilometers, the mass of goods transported excluding the mass of intermodal transport containers, the capacity for heavy vehicles (< 3.5 tonnes), and oil pipes. The methodology of the Federal Statistics Office is also used by the Issuer to calculate the modal split share of rail in transalpine combined transport, based on the percentage of net tonnes between the years 1980 and 2021. Furthermore, to determine the course km in regional passenger transport (per million km), Issuer uses internal data. The data is coming from regional transport companies and is collected electronically.

b) Agriculture, Forestry, Natural Landscapes and Biodiversity

For this expenditure category, the Issuer divided the impact calculation into sub-categories of (i) biodiversity contributions for agriculture, (ii) nature and landscape, and (iii) revitalization.

Under biodiversity contributions for agriculture, the Swiss Confederation uses the data provided by Agrarumweltmonitoring from the Federal Office for Agriculture to calculate the percentage of the agricultural land supported with biodiversity contributions in hectares by comparing it with the total agricultural land and to determine the number of high trunk field fruit trees. The methodology that is used for the measurement of greenhouse gas emissions from agriculture covering million metric tons of CO<sub>2</sub> is also coming from Agrarumweltmonitoring from the Federal Office for Agriculture. Yet additionally, the Issuer uses the data from Switzerland's Greenhouse Gas Inventory and the Federal Office for the Environment<sup>12</sup>. The data that has been used to assess the impact is fed by a network of farms on regional, national, and farm levels. The data is collected from the farmers with the help of the specially adapted AGRO-TECH software, which is owned by Agridea and the Swiss Farmers' Union (SBV).

<sup>11</sup> Swiss Greenhouse Gas Inventory Fact Sheet, Federal Office for the Environment, January 2023, [https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/CO2\\_Emissionsfaktoren\\_THG\\_Inventar.pdf.download.pdf/Faktenblatt\\_CO2-Emissionsfaktoren\\_01-2023\\_DE.pdf](https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/CO2_Emissionsfaktoren_THG_Inventar.pdf.download.pdf/Faktenblatt_CO2-Emissionsfaktoren_01-2023_DE.pdf)

<sup>12</sup> Swiss Greenhouse Gas Inventory Fact Sheet, Federal Office for the Environment, January 2023, [https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/CO2\\_Emissionsfaktoren\\_THG\\_Inventar.pdf.download.pdf/Faktenblatt\\_CO2-Emissionsfaktoren\\_01-2023\\_DE.pdf](https://www.bafu.admin.ch/dam/bafu/en/dokumente/klima/fachinfo-daten/CO2_Emissionsfaktoren_THG_Inventar.pdf.download.pdf/Faktenblatt_CO2-Emissionsfaktoren_01-2023_DE.pdf)

Under nature and landscapes, the Issuer established its methodology in line with the Monitoring Program Landscape Observation Switzerland (LABES) and among its thirty indicators, in order to calculate the percentage of the annual change in urban greenery and the percentage of areas designated for biodiversity compared to the years prior to funding<sup>13</sup>. The data is coming from Environmental Indicators and Biodiversity Indicators of the Federal Office for the Environment. More specifically, the cantons with program agreements report to the federal government. Based on the data, the impact of the measures for the protection of biotopes of national importance is scientifically assessed by means of the Impact Monitoring Biotope Protection Switzerland (WBS). For this purpose, remote sensing and field surveys are carried out cyclically in all types of biotopes of national importance. This enables specific statements to be made about the condition and development of the areas studied. Considering Biodiversity Monitoring Switzerland (BDM) carries out continuous monitoring across the country, the calculation regarding the state and development of biodiversity as a whole is provided based on its results.

Under revitalization, the Issuer uses the data from the Federal Office for the Environment in order to calculate the number of kilometers for the revitalized watercourse, revitalized lake shore, and the number of completed revitalization projects (as of April 2023). The calculations are made based on the information and data provided by the cantons. At the beginning of each year, the Federal Office for the Environment requests information on implemented rehabilitation projects from the cantons. The query is carried out with the aid of a standardized data template. The data includes (i) before/after pictures, (ii) abiotic and biotic indicators, (iii) ecomorphological mapping.

c) Green Buildings and Energy Efficiency

To calculate the heat consumption per m<sup>2</sup> (kWh/m<sup>2</sup>), oil heating (tCO<sub>2</sub>/a), and natural gas heating systems (tCO<sub>2</sub>/a), and the energy generated by PV (GWh/a), the Swiss Confederation uses the data from the Federal Office for Buildings and Logistics (FOBL). For the expenditures funded, FOBL uses internationally recognized standards such as the Sustainable Building Standard Switzerland (SNBS) or Minergie-P/A-ECO® certification for new buildings as the baseline. The calculation methodology for the impacts under this expenditure category, takes into account forty-five indicators covering areas of sustainability in construction projects including PV systems and energy consumption of a building, its life cycle

<sup>13</sup>Indicators for Monitoring Program Landscape Observation Switzerland (LABES), the Federal Office for the Environment, <https://www.bafu.admin.ch/bafu/en/home/topics/landscape/state/indicators.html>

	<p>costs, the flora and fauna of the surrounding area, mobility, or regional value creation.</p> <p>d) International Cooperation</p> <p>Under the International Corporation expenditure category, the impact is measured at the level of the projects financed by the funds. To calculate the expected CO<sub>2</sub> avoided (per million metric tons CO<sub>2</sub>e), the number of total beneficiaries from all five result areas (per millions), and the hectares of natural resources managed with improved low-emission or climate-resilient management practices (per million hectares), the Swiss Confederation uses the data and methodology coming from Green Climate Fund (GCF) and the Global Environmental Facility (GEF). At the GEF, impact measurement is carried out using the GEF-8 Corporate Scorecard, which is a report published semi-annually on the performance and progress of the project<sup>14</sup>. The GCF uses what it calls an "Integrated Results Management Framework (IRMF)" and continuously publishes expected CO<sub>2</sub> reductions and beneficiaries at the overall portfolio level. The related impact measurement is available as part of the GEF-8 Scorecard. The disclosures correspond to the expected values, with granular further data covering sub-indicators such as gender.</p> <p>e) Research, Innovation and Awareness Raising</p> <p>Research, Innovation and Awareness Raising expenditure category primarily focuses on basic research. The Issuer has used quantitative impact indicators as follows: Presentations and posters at events for practitioners, Presentations and posters at scientific events, Practice-oriented publications, and Scientific publications.</p>
<p><b>Baseline selection</b></p>	<p>Baselines were used for the following indicators:</p> <ul style="list-style-type: none"> <li>▪ Avoided CO<sub>2</sub> emissions (International Cooperation): the baseline for avoided CO<sub>2</sub> emissions is million metric tons of CO<sub>2</sub> per year, according to the GEF-8 Scorecard<sup>15</sup> in which the impact is measured by the Global Environmental Facility (GEF) and the Green Climate Fund (GCF).</li> <li>▪ For Agriculture, Forestry, Natural Landscapes, and Biodiversity expenditure category, the baseline refers to the condition of the area in the absence of funding programs. The program's impact is derived from the most recent scientific evaluations conducted in 2021.</li> </ul>

<sup>14</sup> The related impact measurement is available as part of GEF-8 Scorecard, November 2022. Available at [https://www.thegef.org/sites/default/files/documents/2022-11/GEF8\\_Corporate\\_Scorecard\\_November\\_2022.pdf](https://www.thegef.org/sites/default/files/documents/2022-11/GEF8_Corporate_Scorecard_November_2022.pdf)

<sup>15</sup> The GCF uses what it calls an "Integrated Results Management Framework (IRMF)" and continuously publishes expected CO<sub>2</sub> reductions and beneficiaries at the overall portfolio level. The related impact measurement is available as part of GEF-8 Scorecard, November 2022, at [https://www.thegef.org/sites/default/files/documents/2022-11/GEF8\\_Corporate\\_Scorecard\\_November\\_2022.pdf](https://www.thegef.org/sites/default/files/documents/2022-11/GEF8_Corporate_Scorecard_November_2022.pdf)

	<ul style="list-style-type: none"> <li>▪ Under Green Buildings and Energy Efficiency expenditure category, FOBL uses internationally recognized standards such as the Sustainable Building Standard Switzerland (SNBS) or Minergie-P/A-ECO® certification for new buildings as the baseline.</li> </ul> <p>For the following UoP categories the presented figures are performance indicators and absolute figures thus, there is no need for a baseline:</p> <ul style="list-style-type: none"> <li>a) Clean Transportation</li> <li>b) International Cooperation</li> <li>c) Research, Innovation, and Awareness Raising</li> </ul>
<p><b>Scale and granularity</b></p>	<p>The impact data is presented at the Use of Proceed category level for the indicator(s). For Agriculture, Forestry, Natural Landscapes, and Biodiversity expenditure category, the impact data is presented at the sub-category level for the indicators.</p>






## High-level mapping of the impact indicators with the UN Sustainable Development Goals<sup>16</sup>

Based on the expenditure categories financed and refinanced by the bonds as disclosed in the Issuer's Green Bond Allocation and Impact Report, the impact indicator(s) adopted by the Swiss Confederation for its Green Bonds can be mapped to the following SDGs, according to the ICMA "A High -Level Mapping to the Sustainable Development Goals"<sup>17</sup>.

IMPACT INDICATORS	SUSTAINABLE DEVELOPMENT GOALS
<p><b>Clean Transportation</b></p> <ul style="list-style-type: none"> <li>Share of electrified railway</li> <li>Greenhouse gas emissions from energy consumption</li> <li>Passenger transport performance (pkm) of railroad operators</li> <li>Freight transport performance (Tkm) of railroad operators</li> <li>Course km in regional passenger transport (RPV)</li> <li>Modal split share of rail in transalpine combined transport</li> </ul>	
<p><b>Agriculture, Forestry, Natural Landscapes and Biodiversity</b></p> <ul style="list-style-type: none"> <li>Agricultural land supported with biodiversity contributions in hectares (and % of total agricultural land)</li> <li>Number of high-trunk field fruit trees</li> <li>Annual change in urban greenery</li> <li>Areas designated for biodiversity</li> </ul>	
<p><b>Agriculture, Forestry, Natural Landscapes and Biodiversity</b></p> <ul style="list-style-type: none"> <li>Revitalized watercourse</li> <li>Revitalized lakeshore</li> <li>Completed revitalization projects (as of April 2023)</li> </ul>	
<p><b>Agriculture, Forestry, Natural Landscapes and Biodiversity</b></p>	

<sup>16</sup> The impact of the indicators on UN Social Development Goals is assessed with proprietary methodology and may therefore differ from the Issuer's description in the Report or the Framework.

<sup>17</sup> [ICMA's Mapping-SDGs-to-Green-Social-and-Sustainability-Bonds](#)

<ul style="list-style-type: none"> <li>Greenhouse gas emissions from agriculture</li> </ul>	
<p><b>Green Buildings and Energy Efficiency</b></p> <ul style="list-style-type: none"> <li>Heat consumption per m<sup>2</sup></li> <li>Energy demand oil heating</li> <li>Energy demand for natural gas heating systems</li> <li>Energy generated by Photovoltaic (PV)</li> </ul>	
<p><b>International Cooperation</b></p> <ul style="list-style-type: none"> <li>Expected CO<sub>2</sub> avoided</li> </ul>	
<ul style="list-style-type: none"> <li>Hectares of natural resources managed with improved low-emission or climate-resilient management practices</li> </ul>	
<p><b>International Cooperation</b></p> <ul style="list-style-type: none"> <li>Total beneficiaries from all five result areas</li> </ul>	
<p><b>Research, Innovation, and Awareness Raising</b></p> <ul style="list-style-type: none"> <li>Life-cycle analyses with impact assessments regarding all relevant environmental impacts</li> <li>Basics for the reduction of greenhouse gas emissions</li> </ul>	
<p><b>Research, Innovation, and Awareness Raising</b></p> <ul style="list-style-type: none"> <li>Expansion of soil monitoring</li> <li>Biodiversity benefits quantified</li> </ul>	
<p><b>Research, Innovation, and Awareness Raising</b></p> <ul style="list-style-type: none"> <li>Dissemination of new knowledge</li> </ul>	

## OPINION

*The allocation of the bond's proceeds has been disclosed, with a detailed breakdown across different eligible project categories as proposed in the Framework and the Swiss Confederation's Green Bond Framework has adopted an appropriate methodology to report the impact generated by providing comprehensive disclosure on data sourcing, calculations methodologies, and granularity reflecting best market practices. Besides, the impact indicators used align with best market practices using ICMA's recommended metrics in the HFIR.*

## DISCLAIMER

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## ANNEX 1: Methodology

### Review of the post-issuance Reports

The ISS ESG Report Review provides an assessment of labelled transactions reporting against international standards using ISS ESG proprietary methodology. For more information, please visit: <https://www.issgovernance.com/file/publications/SPO-Report-Reviews.pdf>

### High-level mapping to the SDG

The 17 Sustainable Development Goals (SDGs) were endorsed in September 2015 by the United Nations and provide a benchmark for key opportunities and challenges toward a more sustainable future. Using a proprietary method based on ICMA's Green, Social and Sustainability Bonds: A High-Level Mapping to the Sustainable Development Goals, the extent to which Issuers reporting and project categories contribute to related SDGs is identified.

## ANNEX 2: Quality management processes

### ISSUER'S RESPONSIBILITY

Issuer's responsibility was to provide information and documentation on:

- The Swiss Confederation's Green Bond Allocation and Impact Report
- The Swiss Confederation's Green Bond Framework (as of July 7, 2022)
- Proceeds Allocation
- Reporting Impact Indicators
- Methodologies, and assumptions for data gathering and calculation
- ESG Risk Management

### ISS ESG'S VERIFICATION PROCESS

ISS ESG is one of the world's leading independent environmental, social and governance (ESG) research, analysis and rating houses. The company has been actively involved in the sustainable capital markets for over 25 years. Since 2014, ISS ESG has built up a reputation as a highly-reputed thought leader in the green and social bond market and has become one of the first CBI approved verifiers.

This independent Report Review has been conducted by following the ICMA Guidelines for Green, Social, Sustainability and Sustainability-Linked Bonds External Reviews, and its methodology, considering, when relevant, the ISAE 3000 (Revised), Assurance Engagements Other than Audits or Reviews of Historical Financial Information.

The engagement with Issuer Name took place from July to September 2023.

### ISS' BUSINESS PRACTICES

ISS has conducted this verification in strict compliance with the ISS Code of Ethics, which lays out detailed requirements in integrity, transparency, professional competence and due care, professional behavior and objectivity for the ISS business and team members. It is designed to ensure that the verification is conducted independently and without any conflicts of interest with other parts of the ISS Group.

## About this Report Review

ISS ESG is one of the world's leading rating agencies in the field of sustainable investment. The agency analyzes companies and countries regarding their environmental and social performance.

We assess alignment with external principles (e.g. the ICMA Green Bond Principles, Social Bond Principles and Sustainable Bond Guidelines), analyze the sustainability quality of the assets and review the sustainability performance of the Issuer themselves. Following these three steps, we draw up an independent Report Review so that investors are as well informed as possible about the quality of the bond/loan from a sustainability perspective.

Learn more: <https://www.isscorporatesolutions.com/solutions/esg-solutions/green-bond-services/>

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