



IMPACT OF THE FUNDS ISSUED IN 2022

GREEN BOND PROGRAM OF THE KINGDOM OF SPAIN

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1. EXECUTIVE SUMMARY

This **impact report corresponding to the Green Bond issues carried out in 2022** is presented in compliance with the **Green Bond Framework of the Kingdom of Spain**. This report includes the evaluation of the environmental benefit achieved, through the definition of various indicators, with the budget programs selected in the allocation report, published together with this report.

In September 2021, the Public Treasury carried out the first bond issuance under the Green Bond Program, through the syndication of a new reference maturing in July 2042, for an amount of 5,000 million euros. **During 2022, three auctions** of the bond were held, with a total value of **3,207.1 million euros** through the reopening of this reference.

These funds, selected from a **total of 9,793.1 million euros identified as eligible expenditure**, have been **allocated to the clean transport category**, contributing to the objectives of climate change mitigation and pollution prevention and control.

Specifically, and as in 2021, the **rail transport sector** has been chosen for its decisive role in **modal transfer and support in the electrification of transport**. Thus, these amounts have been allocated to the transfers made via the General State Budget to the rail transport infrastructure managers and administrators **Adif** (1,156.4 million euros) and **Adif Alta Velocidad** (430.4 million euros), and to the operator **Renfe Viajeros, S.M.E, S.A.** (1,620.3 million euros). Of these amounts, 30.8% correspond to programs included in the General State Budget for the year 2022 and the remaining 69.2% to the period 2020-2021.

The report summarizes the environmental benefits related to the eligible expenditure category of clean transport, using **sector-specific indicators** and following the **principles of the "Harmonized Framework for Impact Reporting Handbook" published by ICMA¹**. It includes physical performance indicators, such as the construction and renewal of kilometers of rail infrastructure, as well as environmental indicators, such as CO₂, NO_x and PM₁₀ emissions avoided.

Thus, the report provides the impact of the second Green Bond issuance using **physical performance indicators and environmental effectiveness indicators** for the 2020-2022 allocation period. Regarding the former, the following values result:

- **129.8 km constructed or renovated.**
- **1.1 km of electrified lines².**

¹International Capital Markets Association.

² In order to avoid double counting, the electrification of lines included in the track construction or renewal section has not been taken into account in the calculation of emissions reduction. In addition, only the proportional part corresponding to the contribution of MITMA's Green Bonds out of the total financing has been accounted for.

- **14,266,419 train-km** that have used the network in the period and have benefited from compensation to railway managers for current expenditure³.

In terms of **environmental efficiency indicators**, the contributions to the saving of pollutant emissions thanks to the budget items of the program of transfers to railway infrastructure managers (Adif and Adif AV) are as follows:

- **For infrastructure development and sustainability: savings of 1.41 million tons of CO₂, 14.09 thousand tons of NO_x and 407 tons of PM₁₀.**
- **For compensation to railway administrators for current expenses: savings of 1.42 million tons of CO₂, 14.80 thousand tons of NO_x and 417 tons of PM₁₀.**

Finally, as **indicators of environmental efficiency**, according to the calculations made, the allocation of the 2022 Green Bonds to the budget program of transfers to Renfe for compensation of Public Service Obligations has contributed in the period 2020-2021 to a **total saving of 1.78 million tons of CO₂, 5.86 thousand tons of NO_x and 202 tons of small PM₁₀ particles.**

A summary table with both the physical indicators and the environmental indicators obtained is included in the annex.

³ The calculation of emissions reduction takes into account the train-km that have benefited from the compensation to railway managers for current expenditure in 2021 and 2022 (years of allocation in the Green Bonds of the corresponding budget items), taking into account the proportional part corresponding to the MITMA contributions allocated over the total funding and avoiding double counting with the emissions reduced by the construction, renewal and electrification of track.

2. BACKGROUND

Green Bonds are fixed income assets that differ from conventional issuances in the fact that the funds obtained are allocated to "green" expenses, programs and projects with a **positive impact on the environment**, and have experienced significant growth in the last decade.

In March 2021, the **Government's Delegate Commission for Economic Affairs** agreed to create a **Working Group for the Structuring of the Sovereign Green Bond Issues of the Kingdom of Spain and the Promotion of Sustainable Finance** whose fundamental objectives are to promote the work necessary for the issuance of sovereign Green Bonds, develop a stable coordination framework that ensures the correct performance of the same, and to coordinate the development of the National Sustainable Finance Plan.

The **Green Bond Framework of the Kingdom of Spain**, published on July 26th 2021, is the document that **includes the main elements of the Green Bond issuances carried out by the Public Treasury**. The Framework respects the ICMA Principles and has a second party opinion (SPO), prepared by Vigeo Eiris, which has given it the best possible rating. The Framework regulates the **use of revenues**, the **selection of budget items**, the **management of revenues** by the Treasury and the **information provided** to investors.

The **first issuance** of Spanish Green Bonds took place on **September 7th 2021**, with an amount of **5,000 million euros** and maturity in July 2042. As established by the Green Bond Framework of the Kingdom of Spain, in the fourth quarter of 2022, the allocation and impact reports were published in order to comply with the commitments assumed in terms of transparency and information to investors.

Among all the eligible expenditure for this first issuance (period 2018-2021), **it was decided to allocate the issue to transfers to Renfe, Adif and Adif AV**, financed through the General State Budget. Thus, budget items easily recognizable by investors and common in other sovereign Green Bonds were selected, in order to maximize the utility provided to investors.

In **2022**, the **auction system** was chosen to issue **3,207.1 million euros**, through reopenings of the benchmark issued in 2021 and maturing in July 2042. Thus, the bond reached an outstanding volume of 8,207.1 million euros as of December 31, 2022.

The following sections describe the calculation of the environmental benefits associated with the financing received through the Green Bonds corresponding to the 2022 issue, carried out by calculating various indicators of physical performance and environmental efficiency.

3. APPROACH. OBJECTIVES OF THE REPORT

This impact report aims to **synthesize the environmental benefits** linked to the eligible clean transport expenditure category. The indicators used present the evaluation of **sustainable transport spending programs**, both from an economic perspective, using rail sector specific metrics, and an environmental one, using other indicators in line with the basic principles of the **"Harmonized Framework for Impact Reporting Handbook"** (June 2022 edition) **published by ICMA**.

For the purposes of this report, as will be reflected later in the explanation of the **methodology used, the overall impact** approach has been used, based on public spending programs in the railway sector, and not on a project-by-project approach, given the difficulties in reporting at the project level, due to the very nature of the public sector and the large number of actions included in these programs. It is worth mentioning that this reporting at a program level is precisely what has been foreseen in the Proposal for a Regulation of the European Parliament and of the Council on European green bonds⁴ in most cases.

For the drafting of this report, the Green Bonds working group has had the collaboration of environmental experts from RENFE and ADIF, with extensive experience in environmental sustainability, energy efficiency and the fight against climate change. To estimate the **savings in greenhouse gas (GHG) emissions and other atmospheric pollutants**, specific approaches have been adopted for the Spanish case. These approaches or methodologies are aligned with the work of the European Union's Sustainable Finance Platform. Efforts have been made to ensure that **the methodologies are based on standard market practices** and are in line with other impact reports already published by other sovereign issuers. For the sake of clarity and accessibility, the complexity of the assessment has been reduced wherever possible to what is strictly necessary to ensure rigorous results.

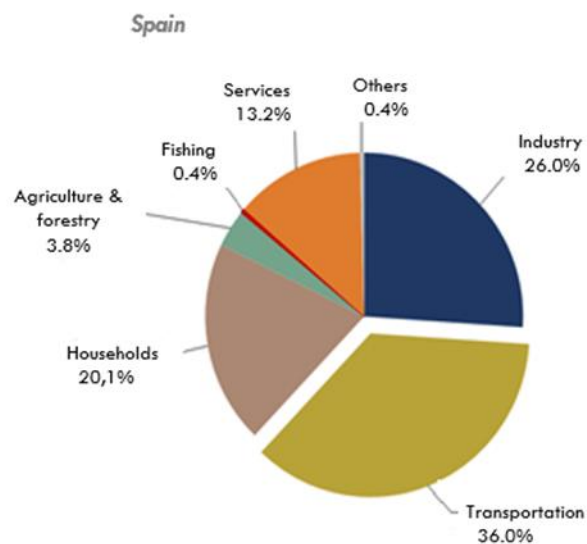
⁴ [EUR-Lex - 52021PC0391 - EN - EUR-Lex \(europa.eu\)](#)

4. ENVIRONMENTAL IMPORTANCE OF THE TRANSPORTATION SECTOR

Currently, **transport** and mobility **policy is** an **essential lever** for achieving the **objective of decarbonizing the Spanish economy**. The transport sector is the most energy-intensive activity and the most important source of greenhouse gas emissions when compared to other economic sectors, as shown by the data from the Observatory of Transport and Logistics in Spain (OTLE) detailed below.

In 2019, according to the latest OTLE annual report published in June 2022, **transportation** is the sector with **the highest energy consumption**, consuming 36% of final energy⁵.

Diagram 1: Final energy consumption

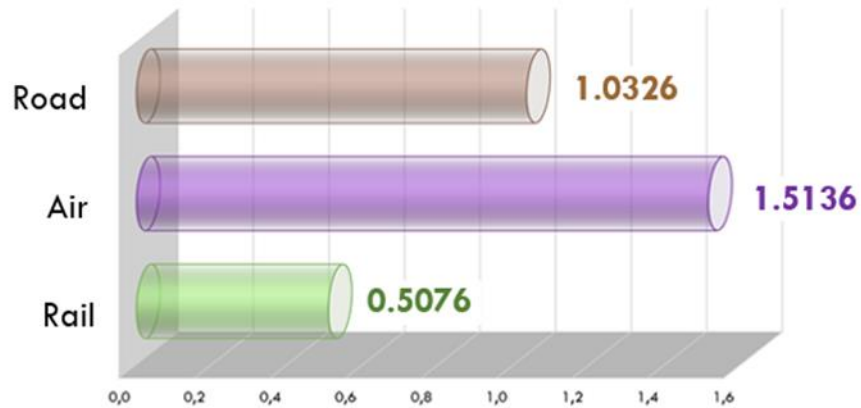


Source: OTLE-2022

Saving energy in such an energy-intensive sector must necessarily involve promoting the most energy-efficient mode of transport, those that have the lowest final energy consumed per unit of transport. Based on this definition, **rail transport** has a clear advantage over the other modes of transportation, since it is more than **3 times as efficient than air or road transport**, as shown in diagram 2, obtained from OTLE-2022:

Diagram 2: energy consumption per unit of traffic (TJ/UT-km) by mode. 2020

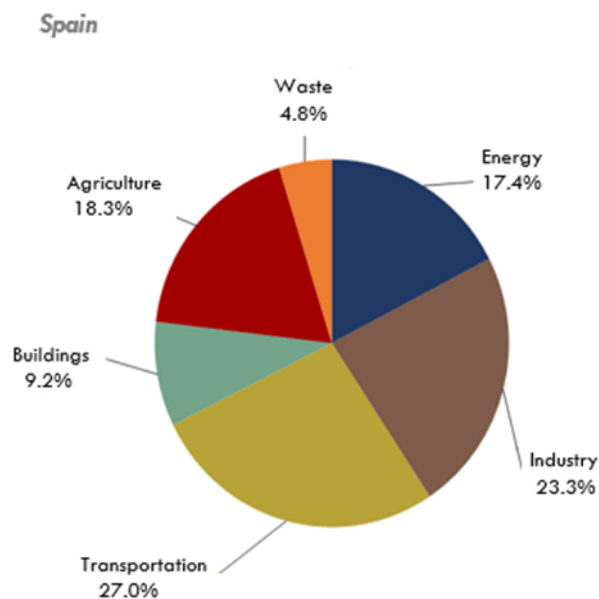
⁵ In the EU-27 countries, transport has a share of 30.8%.



Source: OTLE-2022

On the other hand, **transportation** is the sector with the **highest share of GHG emissions**, with 27%⁶ of the total, ahead of the industrial sector with 23.3%.

Diagram 3: GHG emissions from transportation relative to other sectors. 2020



Source: OTLE-2022

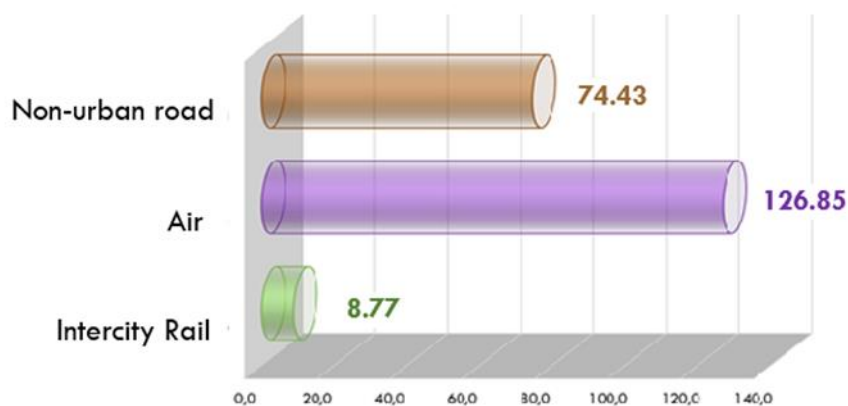
OTLE data indicates that the **total emissions of the transport sector in 2020** reached the magnitude of **74.36 million tons of CO₂ equivalent (CO₂ -eq)**. Of this total amount, road transport alone has a share of 94.4%. However, **rail transport contributes only 0.25%** (0.2 million tons CO₂ -eq), behind air transport with 2.1% and maritime transport with 3.3%.

Analogous to how energy efficiency was defined above, one can speak of environmental efficiency, which consists of the ratio between GHG emissions and unit-kilometers of each mode

⁶ In the EU-27 countries, transport has a share of 23.7%.

of transport. Spanish data confirms that **rail transport has a clear advantage in terms of direct GHG emissions per transport unit-km**, since it emits (according to OTLE-2022 data) approximately thirteen times less GHG than road (in non-urban pattern) and fourteen times less than air transport, as shown in diagram 4:

Diagram 4: GHG emissions per transport unit (kt CO₂-eq/miles UT-km) by mode. 2020



Source: OTLE-2022

Given the weight of transport in both final energy consumption and GHG emissions into the atmosphere, it is clear that this sector is vital to the success of the ecological transition and the long-term decarbonization of the economy. In this sense, in order to achieve environmental sustainability, **Spain considers** the implementation of policies that **increase the modal share of the most sustainable modes of transport a priority**, by promoting public transport and multimodality and taking advantage of the options offered by digitalization.

In this context, **rail transport** is the mode of **collective transport** with the **lowest emissions** and, must therefore play a decisive role in the fight against climate change. The promotion of railroads, the **maintenance and improvement of the infrastructure**, as well as the **support for the public rail operator**, must be the backbone of **sustainable transport and mobility policies** that will contribute to achieve the objectives set by the EU and those established by the international community.

The MITMA **budget programs** that finance the Spanish railway system, "**Subsidies and support for land transport**" and "**Rail Transport Infrastructure**", contribute to meeting the country's environmental challenges. The former finances the Public Service Obligations in the provision of passenger rail transport services, among other items. The latter, on the other hand, brings together transfers to ADIF and ADIF AV, with the aim of improving the conventional network, boosting rail freight transport, completing the high-speed rail network and improving the suburban network.

These MITMA budget programs are also in line with the main policies on sustainable transport, including the **Safe, Sustainable and Connected Mobility Strategy 2030**, and are congruent with the **objectives set out in the program for the issuance of Green Bonds of the Kingdom of Spain**

by the Spanish Treasury. Therefore, they contribute to the **environmental objectives of climate change mitigation and pollution prevention and control**, set both at national and European level, and are expenditure items aligned with the objectives of the **EU Sustainable Finance Taxonomy**⁷. Additionally, they contribute to the following **Sustainable Development Goals of the United Nations 2030 Agenda**:

- N°9: Build resilient infrastructure, promote sustainable industrialization and foster innovation.
- N°11: Making cities inclusive, safe, resilient and sustainable.
- N°13: Take urgent action to combat climate change and its impacts.



In this context, **the allocation of the Kingdom of Spain's sovereign green bond program, for the funding raised in 2022** is focused on the aforementioned budgetary programs, which constitute **public expenditure aimed at developing and maintaining the railway system for the transportation of goods and passengers**. As has been previously highlighted, this expenditure is the most efficient from an environmental point of view and greatly contributes to the **reduction of fossil fuel transportation and its environmental implications**.

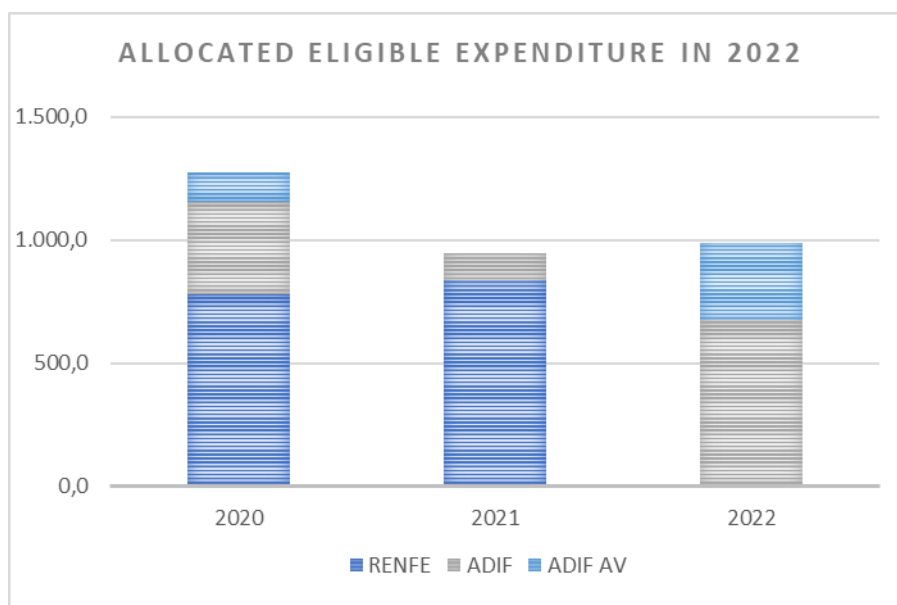
⁷ The six environmental objectives are: mitigation of climate change, adaptation to climate change, protection of water and marine resources, transition to a circular economy, pollution control and protection of ecosystems.

5. ALLOCATION OF EXPENDITURES. GREEN BOND ISSUANCE 2022

Regarding the allocation of the funds corresponding to **green bond issuance in 2021**, it has been decided to **allocate all the** funds to the programs of the **Ministry of Transport and Sustainable Mobility**, and, specifically, to two large groups of transfers made to entities associated with this ministry. These transfers are aimed at **promoting railways as a mode of transportation**, supporting both the deployment of rail infrastructure (ADIF and ADIF AV) and the transport activity itself (RENFE). Thanks to these initiatives, **passengers** in the Kingdom of Spain **have** a safe, efficient and **low-carbon mode of transportation**.

Specifically, **1,620.3 million euros** are allocated to the railway operator to finance the **Public Service Obligations** provided by **RENFE**, whose operating deficit is compensated via the General State Budget, and which essentially affect the commuter and conventional medium distance network. The rest of the allocation is completed with **1,156.4 billion euros for ADIF** and **430.4 million euros for ADIF AV**, both of which are transfers aimed at the **development and sustainability of rail infrastructure and the financing of the administrators' current expenditure in order to promote modal shift**. Out of these amounts, 30.8% correspond to programs included in the General State Budget for the year 2022 and the remaining 69.2% to the period 2020-2021.

Diagram 5: Allocation of eligible expenditure for 2021 emissions (millions of euros)



6. ENVIRONMENTAL IMPACT OF CLEAN TRANSPORTATION

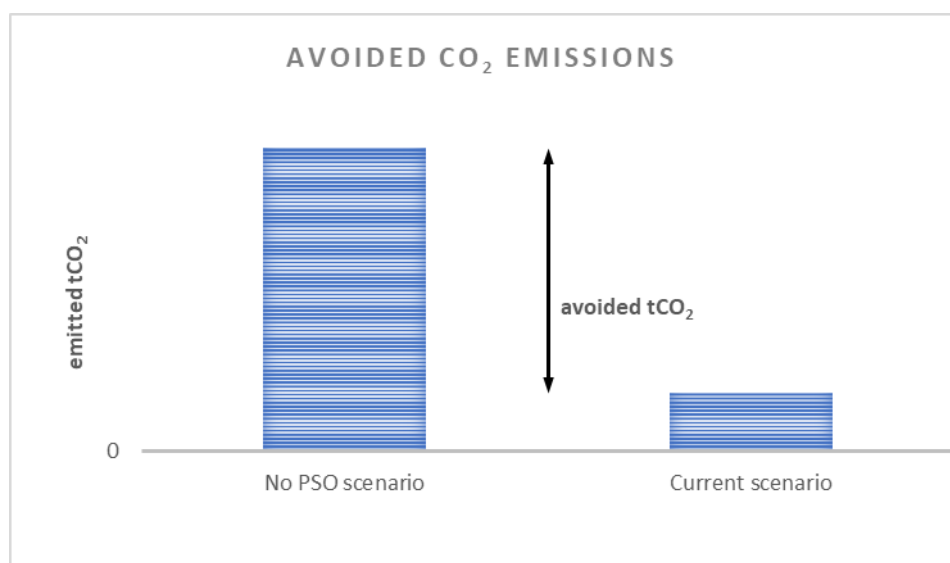
6.1. ALLOCATION TO THE RAILWAY OPERATOR FOR THE FINANCING OF PUBLIC SERVICE OBLIGATIONS.

6.1.1. Methodology

The **environmental benefits** derived from expenditures in the clean transport category are most directly manifested in the significant **savings in atmospheric emissions**, both of **greenhouse gases** (GHG) and local pollutants such as **nitrogen oxides** and **small solid particles**. To calculate the avoided emissions, the methodology- used has been the one applied by RENFE as the operator of the Public Service Obligations.

This methodology is based on **comparing the current real scenario with a hypothetical scenario** in which the railway Public Service Obligations would not exist and there would be a **modal transfer of passengers to private vehicles**. The savings in atmospheric pollutants would be obtained by comparing the emissions of both modes.

Diagram 6: CO₂ emissions avoided with the existence of rail Public Service Obligations



To calculate the environmental indicators, the unit **emission factors** for **CO₂**, **NO_x** and **PM₁₀** obtained in the **2011 Study of External Costs of Transport in Europe**⁸ (CE Delft, INFRAS and Fraunhofer) were used. From these emission factors, measured in grams of CO₂, NO_x and PM₁₀ per vehicle km, and the corresponding occupancy ratios (passengers per vehicle), the values needed to calculate the tons of CO₂, NO_x and PM₁₀ emissions avoided are obtained. These factors are available for each country, differentiated by mode of transport, for goods and passengers.

⁸ External costs of transport in Europe (cedelft.eu)

For the calculation of the savings in tons of CO₂, NO_x and PM₁₀, the **traffic corresponding to the Public Service Obligations** relating to the eligible contributions under the allocation report for the years 2020 and 2021 were used:

Diagram 7: Traffic corresponding to Public Service Obligations 2020-2021⁹

Traffic Million passenger kilometers	2020	2021	TOTAL
RENFE-PSO TOTAL	4.293	5.307	9.600
Commuter	3.152	3.718	6.870
Standard mid-distance	654	940	1.594
High speed mid-distance	417	566	983
Metric Width	70	83	153

6.1.2. Impact indicators

This section values the **savings in pollutant emissions** generated by the **Public Service Obligations, during 2020 and 2021**, since the allocation made in the 2022 Green Bonds issue has considered the transfers made in this period.

Three key indicators were chosen. In the case of GHGs, **CO₂** was chosen; for local pollution, the two most harmful pollutants were chosen, **nitrogen oxides (NO_x)**, which includes NO₂ (linked to gasoline and diesel engines), as well as **small particles smaller than 10 microns (PM₁₀)**.

Diagram 8: Impact indicators

INDICATOR	AVOIDED EMISSION TO THE ATMOSPHERE	UNITS
Sustainability	Greenhouse gases (GHGs)	Million tons of CO ₂
Local pollution	Nitrogen oxides (NO _x)	Thousand tons of NO _x
Local pollution	Small particles (smaller than 10 microns)	Tons of small particles PM ₁₀

By using the methodology described in the previous section, the **emissions avoided** thanks to passenger traffic within the framework of the **Public Service Obligations** are obtained. Diagram 9 shows the emissions savings achieved in the period 2020-2021 (years to which RENFE's allocation refers):

Diagram 9: Emission savings from PSOs 2020-202

⁹ Las cifras reflejan la caída de los tráficos en los ejercicios 2020 y 2021, debido al impacto del COVID-19 sobre los servicios ferroviarios, cuyo uso cayó en torno a un 50% respecto a los años anteriores.

PSO AVOIDED EMISSIONS	2020	2021	TOTAL
CO ₂ (Million tons)	0,80	0,98	1,78
NO _x (Thousand tons)	2,62	3,24	5,86
PM ₁₀ (Tons)	90,20	111,40	201,60

6.2. ASSIGNMENT TO INFRASTRUCTURE MANAGERS FOR THE DEVELOPMENT AND SUSTAINABILITY OF RAIL INFRASTRUCTURE

6.2.1. Methodology

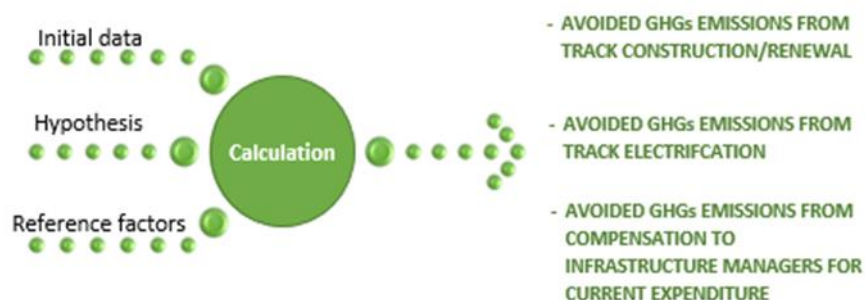
The methodology used by railway managers is based on the calculation of **GHG and local pollutant emissions savings** resulting from the modal shift of passengers and freight from road to rail achieved by several initiatives, in particular the following: the construction of km of new railroad tracks, track renewal, track electrification and the and compensation to railroad managers for current expenses.

The calculation accounts for the modal shift that occurs when **new sections of track** are built, or the use of more polluting modes of transportation if the existing tracks were not renewed. It also considers the **sections that are electrified** and can thus be used by electric traction trains, which are much less polluting. Finally, the **modal shift that allows the financing of current expenditure** to rail infrastructure managers is also considered.

The initial data used is kilometers of track built, renewed, electrified and their associated use in the period of 2020-2022. The train-km that benefit from the financing of current expenditure to rail infrastructure managers are also considered. GHG and local pollutant emission factors (obtained from the EMEP/EEA of the **Emission inventory guidebook 2019¹⁰**) are applied to them, differentiating by mode of transportation, for freight and passengers. Finally, the savings in emissions are obtained from the difference between the current scenario and the hypothetical scenario of modal shift without the use of railways.

Diagram 10: Diagram of the methodology used in calculating avoided emissions

¹⁰ [EMEP/EEA air pollutant emission inventory guidebook 2019 — European Environment Agency \(europa.eu\)](https://www.eea.europa.eu/en/air/quality/assessment/emission-inventory-guidebook-2019)



It is important to highlight three methodological clarifications regarding the results obtained. Firstly, to calculate the environmental benefit of ADIF's actions, train traffic operating under the Public Service Obligations operated by Renfe Viajeros has been excluded, which have already been considered in the calculation of emissions avoided by RENFE in section 6.1.1, in order to avoid double counting emissions savings.

Secondly, all the newly constructed sections are electrified, so there could be a double counting of the environmental benefit obtained by electrification and new track construction actions. To avoid this problem, the electrification has been taken into account when calculating the environmental benefits of newly constructed sections. For these newly constructed sections, the emission factor corresponding to electric traction rolling stock has been used. For sections that were not newly constructed and were only electrified, the environmental benefits have been calculated as the difference between the use of diesel and electric machines.

Lastly, when building and renovating track or electrifying existing track, it must be considered that these are infrastructure investments. This means that the savings that will be made during the lifetime of the investment must be considered. These savings have been estimated over a period of 30 years, in line with the [EU Regulation 480/2014¹¹](#), which is widely used for this type of calculations. For this purpose, the calculation has been based on savings already calculated and it has been assumed that emissions are reduced linearly by 90% until 2052, in line with what is indicated by the European Commission and Spain's long-term decarbonization strategy.

6.2.2. Impact indicators

6.2.2.1. Physical Performance Indicators

In line with the **basic principles of the "Harmonized Framework for Impact Reporting Handbook"** (June 2022 edition) **published by ICMA**, and more specifically those proposed for the evaluation of sustainable transport expenditure programs, the following physical indicators have been established to reflect **the impact** that the Green Bonds have had on the Spanish **railway system**:

¹¹ [EUR-Lex - 32014R0480 - EN - EUR-Lex \(europa.eu\)](#)

- **km of track built or renovated,**
- **km of electrified track,**
- **Trains-km that have used the network in the period and that have benefited from compensation to railway managers for current expenses.**



Km built or renovated

In the case of ADIF, the kilometers renovated have been used, while for ADIF AV, the kilometers of track put into service these past years have been used. Therefore, the kilometers built or renovated are shown in Diagram 11:

Diagram 11: total kilometers built by ADIF and ADIF AV in the period 2020-2022

Manager	2020-2022	% of total network (2022)
ADIF	415.5 km	3,50%
ADIF AV	560.8 km	14,13%
TOTAL km built or renovated	976.3 km	6,16%

It should be noted that this data doesn't include renovations that are considered less than "integral renovation".



Km of electrified track

The km of new electrified tracks are 14.8 km. This number does not take into account the electrification of tracks that are already included in the Km built or renovated section above.



Train-km

Train-km that have benefited from the subsidies to current expenses that allow to promote the use of rail transport made by MITMA to Adif in 2021 and 2022 have been considered as an indicator of the activity, since these are the years with allocations for this purpose in the period 2020-2022.

Trains-km running on Adif's network in 2021 and 2022 amounted to 237,696,465 trains-km.

Out of the total activity of the infrastructure managers, the part corresponding to the items allocated in the period 2020-2022 to the Green Bonds must be considered. Differentiating between financing for investments and other activities, the Green Bonds represent the following percentages of Adif and Adif-AV financing:

Manager	Type of funding	2020 -2022	% of total funding
ADIF	Contributions to ADIF for investments included in Kingdom of Spain's Green Bonds	961.165	20,90%
ADIF	Contributions to ADIF for other activities included in Kingdom of Spain's Green Bonds	195.198	6%*
ADIF AV	Contributions to ADIF-Alta Velocidad for investments included in Kingdom of Spain's Green Bonds	430.421	7,66%

*The value of the years 2021 and 2022 is taken as the funding percentage as there is no contribution allocated for this concept in 2020

Based on these amounts, the impact indicators associated with the contributions of the Ministry of Transport and Sustainable Mobility for the issuance of Green Bonds 2022 are as follows:

- **129.8 km built or renovated.**
- **1.1 km de electrified track.**
- **14,266,419 trains-km benefited from the subsidy to current expenses** that allows to promote the use of rail transport.

6.2.2.2. Environmental indicators

The activity indicators listed in the previous section have an environmental benefit for society, the direct expression of which is the reduction of atmospheric pollution.

To measure this environmental benefit, the same environmental indicators as the railway operator (RENFE) have been used. Specifically, GHG emissions savings in tons of CO₂, nitrogen oxides (NO_x) and small particles smaller than 10 microns (PM₁₀).

As indicated in section 6.2.1, the calculation of emissions avoided with the construction, renovation or electrification of track has been carried out considering the actions executed in the period 2018-2021. For this we have used the real traffic circulating on the track as well as the emission coefficients of the current vehicles. Based on this, a projection has been made for the future, considering a 30 year period as the useful life of these investments, in line with the **EU Regulation 480/2014**.

Diagrams 12 and 13 summarize the emissions savings from ADIF and ADIF AV actions referred to in section 6.2.2.1 of this report:


Diagram 12: Emissions avoided by construction, renovation and electrification of tracks

	tCO ₂	tNO _x	tPM ₁₀
ADIF	1.077.595	10.985	314
ADIF AV	336.478	3.108	93
TOTAL	1.414.073	14.093	407

Diagram 13: emissions avoided by compensating railroad managers for current expenses

	tCO ₂	tNO _x	tPM ₁₀
ADIF	1.416.290	14.799	417
ADIF AV	0	0	0
TOTAL	1.416.290	14.799	417

ANNEX. SUMMARY OF INDICATORS. GREEN BONDS 2022 ISSUANCE OF THE KINGDOM OF SPAIN

Main performance and environmental impact indicators.							
CLEAN TRANSPORTATION 	INDICATORS						
	Physical-Performance				Environmental		
	Built or renovated track (km)	Electrified track (km)	Train-km benefited from current expenditure compensation	Passenger-km (Millions)	Avoided CO ₂ emissions (Million tons)	Avoided NO _x emissions (Thousand tons)	Avoided PM ₁₀ emissions (Tons)
Renfe Viajeros for compensation of Public Service Obligations*	-	-	-	9.600	1,78	5,86	202
Infrastructure managers for development and sustainability of rail infrastructure**	129,8	1,1	-	-	1,41	14,09	407
Compensation to infrastructure managers for current expenditure***	-	-	14.266.419	-	1,42	14,80	417

* The pollutant emissions avoided by the public operator refer to the years 2020 - 2021 (according to section 6.1.2).

** For the emissions of pollutants avoided by the development and sustainability of the infrastructure, a lifetime period of 30 years has been considered, in line with the EU Regulation 480/2014 (according to section 6.2.1).

***The indicators refer to the years 2021 y 2022 (according to section 6.2.2).