



VATICAN CITY STATE'S NATIONAL DETERMINED CONTRIBUTIONS

September 2025

«Environmental justice – implicitly proclaimed by the prophets – can no longer be regarded as an abstract concept or a distant goal. It is an urgent need that involves much more than simply protecting the environment. For it is a matter of justice – social, economic and human. For believers it is also a duty born of faith, since the universe reflects the face of Jesus Christ, in whom all things were created and redeemed. In a world where the most vulnerable of our brothers and sisters are the first to suffer the devastating effects of climate change, deforestation and pollution, care for creation becomes an expression of our faith and humanity»¹.

1. Introduction

The Holy See and the Vatican City State are committed to promoting sustainable development through environmental policies that safeguard all creation, as well as through initiatives in favor of education in integral ecology aimed at stimulating new lifestyles, based on sustainability, fraternity and the covenant between the human person and the environment.

«Creation itself, like humanity, was enslaved, albeit through no fault of its own, and finds itself unable to fulfil the lasting meaning and purpose for which it was designed [...due to] the human abuse of nature. At the same time, the salvation of humanity in Christ is a sure hope also for creation, [... since], thanks to Christ's redemption, it is possible to contemplate in hope the bond of solidarity between human beings and all other creatures [...]. To *hope and act with creation* [...] means above all to join forces and to walk together with all men and women of good will. In this way, we can help to rethink, “among other things, the question of human power, its meaning and its limits. Our power has frenetically increased in a few decades. We have made impressive and awesome technological advances, yet we have not realized that at the same time we have turned into highly dangerous beings, capable of threatening the lives of many beings and our own survival” (Pope Francis, [Apostolic Exhortation *Laudate Deum*](#), 28)»².

From that perspective:

- ❖ On 12 December 2020, Pope Francis announced that the Holy See intended to join others in the effort to reduce net emissions to zero (net-zero emission) by:
 1. committing the Vatican City State to reducing net emissions to zero before 2050 and intensifying efforts at environmental management that have already been in process for some years;
 2. committing to promoting education in integral ecology³.
- ❖ On 4 October 2022, the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement entered into force for the Vatican City State, as a non-Annex I Party.

¹ Pope Leo XIV, [Message for the 10th World Day of Prayer for the Care of Creation](#), 1 September 2025.

² Pope Francis, [Message for the World Day of Prayer for the Care of Creation](#), 1 September 2024, nn. 4 and 6.

³ Cf. Pope Francis, [Video-Message for the Climate Ambition Summit](#), 12 December 2020.

By acceding to both the UNFCCC and the Paris Agreement on behalf of the Vatican City State, the Holy See expressed its intention «to contribute to the efforts of all States to work together in solidarity, in accordance with their common but differentiated responsibilities and respective capabilities, in an effective response to the challenges posed by climate change to humankind and to our common home»⁴.

Such challenges have «not only environmental, but also ethical, social, economic and political relevance, affect[ing] above all the life of the poorest and most fragile. In this way they appeal to our responsibility to promote, through collective and joint commitment, a culture of care, which places human dignity and the common good at the centre»⁵.

These values are at the basis of the implementation of both the Convention and the Paris Agreement and will guide the efforts of the Holy See and the Vatican City State in this process.

The Holy See also ratified, in the name and on behalf of the Vatican City State, the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer with its first four Amendments in 2008, and its Kigali Amendment in 2020.

In May 2023, the Vatican City State published its *First National Determined Contributions* (NDCs). In updating it, it is important to recall Pope Francis' Apostolic Exhortation *Laudate Deum*, published on 4 October 2023, where he launched an appeal for urgent action to address the global climate crisis faced by the entire international community through a renewed «multilateralism for the sake of resolving the real problems of humanity, securing before all else respect for the dignity of persons, in such a way that ethics will prevail over local or contingent interests»⁶.

By communicating herewith its second set of National Determined Contributions (NDCs), as requested by Articles 3 and 4, paragraph 2, of the Paris Agreement, the Vatican City State commits itself to reducing greenhouse gases by 28% compared to the 2011 level by 2035.

Reduction target	Base year	Time Frame
28%	2011	2022-2035

2. National circumstances

The Holy See and the Vatican City State must not be confused. The Holy See is a sovereign subject of international law possessing full international legal personality. Although it is not territorial, it is independent from any territorial authority or jurisdiction and it enjoys the same rights and obligations as all other States under International Law.

The Holy See does not exercise jurisdiction, as that term is understood in international law, over individual Catholics and institutions located outside the territory of the Vatican City State. Each member of the Catholic Church is subject to the laws of the respective State in which he or she lives. Therefore, when the Holy See ratified, in the name and on behalf of the Vatican City State, the United Nations Framework Convention on Climate Change and the Paris Agreement, it undertook to observe their provisions exclusively within the territory of the Vatican City State, as circumscribed by the Leonine Walls⁷.

⁴ [Declaration annexed to the Instrument of Accession of the Holy See, acting in the name and on behalf of Vatican City State, to the United Nations Framework Convention on Climate Change and to the Paris Agreement.](#)

⁵ Pope Francis, [Video-Message for the Climate Ambition Summit](#), 12 December 2020.

⁶ Pope Francis, [Apostolic Exhortation Laudate Deum](#), n. 39.

⁷ [Declaration annexed to the Instrument of Accession of the Holy See, acting in the name and on behalf of Vatican City State, to the United Nations Framework Convention on Climate Change and to the Paris Agreement](#), 4 July 2022.

For its part, the Vatican City State is the smallest State in the world, both in terms of population and territory, consisting of 0.44 square kilometers. It was created in 1929 «for the purpose of assuring the absolute and visible independence of the Holy See» and to «guarantee its indisputable sovereignty in international matters» thus recognizing that the Holy See exercises «full ownership, exclusive and absolute dominion and sovereign jurisdiction» over the State⁸.

The climate in the Vatican City State is temperate, with mild, rainy winters and hot, dry summers. The average annual rainfall, around 750 mm, is distributed on average over 79 days, with a slight peak in summer and an accentuated peak in autumn.

To date, there are 887 people residing in the territory of the Vatican City State. While the number of the residents is not statistically significant, goods and services in the Vatican City State are provided mostly to a large number of non-residents. In addition to residents and citizens who reside there permanently for reasons of work, access is allowed to other people who are not citizens or do not have residence in the State. The transient population of the State is approximately 6.000 people, not counting those (family members, pensioners, beneficiaries of the Health Fund and professional collaborators) who use the goods and services provided by the State.

Unlike other States, the Vatican City State does not have its own productive sector. Due to its peculiar nature, there is no “gross value” of the economic activities carried out within its territory. Its national income is essentially made up of asset management and the income generated by services provided and goods sold to residents, citizens and others.

Energy use in the Vatican City State depends almost entirely on energy imports, as the State has neither fossil fuel sources nor energy production plants, with the exception of a negligible amount of energy produced from renewable sources.

3. National Determined Contributions (NDCs)

Vatican City State is committed to reducing greenhouse gases by **28%** compared to 2011 levels **by 2035**.

3.1 Information to facilitate clarity, transparency and understanding

- *Base year:* Vatican City State’s NDCs objectives will be benchmarked at the year **2011**.
- *Emissions equivalent to CO₂ in base year:* In 2011, CO_{2eq} emissions reached a value of almost **19,3 kt** and are broken down as shown in the table below.

Table - Greenhouse gas emissions in 2011

Sectors		tCO _{2eq} .
1. Energy		
	1.1a Automotive petrol	6.056,75
	1.1b Automotive diesel	6.547,78
	1.2a Heating gas	4.907,43
	1.2b Heating oil	187,31
2. Industrial Processes and other uses		
	2.1 HFC	1.626,41
3. LULUCF		
		-25,31
Total		19.300,37

⁸ Treaty between the Holy See and Italy of 11 of February 1929, preamble.

- *Objective of CO_{2eq} emissions reduction*: By 2035, emissions will be reduced by 28% of the 2011 figure.
- *Assumptions and Methodological Approach*: The methodological approaches used to estimate and account for anthropogenic greenhouse gas emissions and their abatement employ *standard methods*. More specifically, Vatican emissions were calculated using the standard methods and procedures employed by the 2006 IPCC Guidelines for National Greenhouse Gas Inventories as adopted by the UNFCCC and using common metrics considering the Global Warming Potential on a 100 timescale in accordance with IPCC's 5th Assessment Report.
- *Time frames*: The indicated reduction target will be met by the end of the year **2035** through the adoption of a strategy employing a progressive commitment over the indicated period.
- *Scope and coverage*
 - Absolute economy-wide emission reduction target compared with a base year.
 - Geographical scope: Vatican City State.
 - Controlled substances: all greenhouse gases not controlled by the Montreal Protocol (CO₂, CH₄, N₂O, HFC).
 - Sectors involved: energy, and in particular district heating, transportation, industrial processes and product use, land use, land use change and forestry.

The Vatican City State intends to achieve its national emission reduction targets through national measures. However, if domestic reductions prove insufficient to achieve the set objectives the use of international mechanisms is not excluded, as provided for in Article 6 of the Paris Agreement.

4. Planning process, fairness and ambition:

The Vatican's planning processes includes the sectors mentioned in paragraph 3.1.

Several environmental management projects have been planned and implemented within the Vatican City State, each carried out in accordance with the principles and guidelines laid out in the [Encyclical Letter *Laudato Si'* on Care for Our Common Home](#) and the Apostolic Exhortation *Laudate Deum on the Climate Crisis* of Pope Francis. The aim of these projects has been to reduce energy consumption, optimize the management of water resources, reduce emissions of substances harmful to global warming and the ozone layer, manage waste production in a sustainable manner, and encourage recovery and recycling⁹.

In particular, the Vatican has developed additional projects aimed at promoting:

- the rational use of natural resources (water and energy);
- energy efficiency and the improvement of the State's technological assets;
- sustainable mobility;
- diversification and supply of less polluting or alternative energy products for motor vehicles;
- waste disposal;
- the development of reforestation projects.

It should be stressed, nonetheless, that margins for further improvements are minimal when considering the small size of its territory and the fact that the Vatican City State has already made significant progress in the direction of sustainability in the recent past, encouraging mitigation and increasing its energy efficiency.

⁹ Cf. Interdicasterial Working Group of the Holy See on Integral Ecology, *Journeying towards Care for Our Common Home. Five Years after Laudato Si'*. Rome: Libreria Editrice Vaticana, 31 May 2020, pp. 211-215.

Nevertheless, these policies will continue to be pursued in the coming years, focusing on the coordination of climate-relevant measures within the Vatican's current approach to energy, transport and environmental policy. This will allow for:

- addressing the regulation of energy and environmental factors, increasing energy efficiency, the diversification of sources and the adoption of low environmental impact technologies;
- disseminating greater education and awareness related to environmental protection and integral ecology;
- valuing global and synergistic action that is both comprehensive and ambitious in favor of the climate;
- accelerating the energy transition, innovation and technological development in the productive sectors with the greatest negative externalities.

Even if the State's contribution to global emissions in 2022 was **0,0000432%**, the Vatican City State is committed to achieving a reduction in emissions in line with the goal of keeping global warming below 2°C and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, as foreseen in Art. 2 of Paris Agreements.

In line with the objectives that the Vatican City State set out to achieve in the first NDCs, it is possible, as of today, to show the results of what has been a fruitful process toward ecological conversion. For example, the Governorate of the Vatican City State has embarked on a path of sustainable mobility, using electric cars for moving within the Leonine Walls and for official functions, in order not to produce additional environmental pollution. Moreover, from December 2024, access to the Vatican Museums is provided through a glass roof at the *Cortile delle Corazze entrance*. This entrance is totally “green”, thanks to the construction of a photovoltaic system, with which the State continues to support sustainable development through the use of clean and renewable energy.

Although the Vatican City State's contribution to global emissions is negligible, it considers it essential to invest in quality emission-reduction projects as well as in initiatives promoting education in integral ecology, which, in addition to the mitigation of greenhouse gases, also lead to ethical and social benefits.

5. Education in ecology

The Encyclical Letter *Laudato si'* pays special attention to what must be translated into ‘renewed education’, that is, an uplifting approach, toward an “ecological citizenship”, aimed at instilling good habits and at fostering real changes in lifestyles, which are more attentive to the care of all creation¹⁰.

From this perspective, the Vatican City State undertook an outreach project promoting integral ecology awareness amongst its employees and their families, as well as residents within the Leonine Walls, which contributed to a further reduction in greenhouse gas emissions. By way of example, it is worth noting a couple of experiences:

- The family, as the heart of the culture of life, is a particularly apt place to begin efforts in promoting education in integral ecology. For this reason, the Vatican City State focuses on the family as one of the beneficiaries of a program on environmental education. In the summer of 2021, the Vatican Gardens were transformed into a playground and workshop area for young children, where they could learn in a lighthearted way about the importance and positive impact that small daily gestures have on God's creation, by participating, together with employees, in the education of the new generations.

¹⁰ Cf. Pope Francis, [Encyclical Letter *Laudato Si'*](#), n. 211.

- In 2024, the first issue of the publication “*Dal cuore dello Stato il Governatorato si racconta*” (“From the Heart of the State, the Governorate tells its story”), produced by the Governorate, offered readers several practical suggestions for achieving energy savings in everyday uses, and in this way it raised awareness of integral ecology¹¹.

These are just a few examples that demonstrate the commitment and importance that Vatican City State places on integral ecology education as one of the most important tools to foster an ecological conversion, which is fundamental to tackle climate change and achieve the objectives of the UNFCCC and of Paris Agreement.

Last but not least, this ecological conversion, based on education in integral ecology, requires a cooperative approach between States. In the *Bull of Indiction* of the Ordinary Jubilee of the Year 2025, Pope Francis underlined that «the earth is the Lord’s and all of us dwell in it as “aliens and tenants” (*Lev 25:23*)»¹². These words present a clear invitation to all nations to collaborate in this educational journey for the sake of present and future generations.

¹¹ Cf. www.vaticanstate.va, Governatorato dello Stato della Città del Vaticano, *Dal cuore dello Stato il Governatorato si racconta*, Anno I, N. I, Trimestrale – luglio/settembre 2024

¹² Pope Francis, [Bull of Indiction of the Ordinary Jubilee of the Year 2025 *Spes non Confundit*](#), n. 16.