Islamic Republic of Mauritania

Honour – Fraternity – Justice

MINISTRY OF ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

CLIMATE AND GREEN ECONOMY DEPARTMENT

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PNUE

NATIONAL REPORT

ON GREENHOUSE GAS INVENTORIES

EXECUTIVE SUMMARY

FEVRIER 2025

NATIONAL REPORT

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UNITS, ABBREVIATIONS AND MULTIPLICATION FACTORS

Units and abbreviations

cubic meter	:	m 3
hectare	:	Ha
gram	:	g
tonne	:	t
year	:	year
inhabitant	:	hab
dry matter	:	ms

Multiplication factor	Abbreviation	Prefix	Symbol
1,000,000,000,000,000	1015	peta	P
1,000,000,000,000	1012	tera	T
1,000,000,000	109	giga	G
1 000 000	106	méga	M
1 000	103	kilo	k
100	102	hecto	h
10	101	déca	da
0,1	10-1	déci	d
0,01	10-2	centi	c
0,001	10-3	milli	m
0, 000 001	10-6	micro	µ

Unit	Prefix	Multiplication factor	Value
1 tonne of oil equivalent (toe)	1 tep	1 x 10 10 calories	1 x 1010 cal
1 ktep		41,868 terajoules	41,868 TJ
1 short ton	1 sh t	0.9072 tons	0.9072 t
1 ton	1 t	1,1023 short tons	1.1023 sh t
1 ton	1 t	1 megagram	1 Mg
1 kiloton	1 kt	1 gigagram	1 Gg
1 megato	1 Mt	1 teragram	1 Tg
1 gigaton	1 Gt	1 petagram	1 Pg
1 kilogram	1 kg	2,2046 pounds	2,2046 lb
1 hectare	1 ha	104 square meters	104 m2
1 calorieIT	1 calIT	4,1868 Joules	4,1868 J
1 atmosphere	1 atm	101.325 kilopascals	101.325 kPa
1 gram	1 g	0.002205 pounds	0.00205 lb
1 book	1 lb	453.6 grams	453.6 g
1 tera -joule	1 TJ	2.78 x 105 kilowatt-hours	2.78 x 105 kWh
1 kilowatt hour	1 kWh	3.6 x 106 Joules	3.6 x 106 J

NATIONAL REPORT ON GREENHOUSE GAS INVENTORIES

EXECUTIVE SUMMARY

Mauritania has an obligation, as a Party to the United Nations Framework Convention on Climate Change (UNFCCC), to periodically prepare a national inventory of greenhouse gas emissions (IGES) in national communications according to paragraphs 1 of Article 4, and paragraph 1 of Article 12 of the said Convention and the biennial update reports (BURs), following decision 2 CP17. Once completed, the GHG inventory must be in the national communication or the BUR or communicated separately to the Secretariat of the Convention. Under the enhanced transparency framework, the country as a party to the Paris Agreement is required to submit a biennial transparency report every two years, the first to be submitted before December 31, 2024. In accordance with the modalities, procedures and guidelines (MPG) of the enhanced transparency framework (annex to decision 18/CMA.1).

Since its 2012 national inventory report (inventory of the third national communication), Mauritania has launched an ambitious climate change policy focusing mainly on:

- **Renewable energies:** in addition to its OMVS hydroelectricity quota (sub-regional production), Mauritania set up a first 15 MWp solar photovoltaic power plant injected into the grid in 2013, followed by a 30 MW wind turbine in 2015 whose extension to 50 MW is currently under study. In 2017, another 50 MWp solar photovoltaic power plant was also built in Nouakchott with injection into the grid. A 100 MW wind power plant was built in Boulenouar, and is in the process of being injected into the interconnected grid. A new 100 MW IPP power plant is currently being studied and will be installed on the 225 kV line between Nouakchott and Rosso.
- **Conventional energies:** in order to reduce its electricity production costs and at the same time reduce the production of GHGs, the transition from heavy fuel oil to natural gas is an option that was tested with the installation of a dual 120 MW heavy fuel oil - natural gas power plant in 2015 and then its extended in 2016 to 180 MW in Nouakchott. Following the recent gas discoveries of the GTA project, the feasibility study of a 225 MW gas-fired power plant has just been completed.

At the institutional level, Mauritania has proceeded, within the framework of the preparation of its first updated biennial report (BUR, 2015), to the establishment of a network of sectoral focal points for climate change within ministries and other stakeholders to play the role of interface.

This PFS team created, within each of the ministries, a task force (sectoral teams), composed of representatives of different structures, including decentralized institutions and those under the supervision of their ministries. This inventory benefited from the contributions of these sectoral teams.

It covers all the country's emission sources, namely: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), the two families of halogenated substances - hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs) as well as sulfur hexafluoride (SF6). In addition, there are four indirect greenhouse gases: SO2, NOx, NMVOCs and CO.

FRAMEWORK

1. This report deals with Chapter 2 of the Fifth National Communication, relating to the national GHG inventory. It is produced in accordance with the UNFCCC guidelines for the preparation of GHG inventories for non-Annex I countries, in particular those adopted by decisions 17/CP. 8 and 2/CP.17 of the Conference of the Parties.
2. This inventory has been revised and supplemented to take account of improved knowledge, activity data and estimation methods. In this context, data have been processed using the new version of IPCC Software 2006 (2.691).
3. The reference year for this inventory is 2020, covering the period from 1990 to 2020. It is based on the IPCC 2006 guidelines, the UNFCCC GCE 2017 guidelines and the IPCC 2001 and 2003 best practice recommendations.

RE 1. General information on GHG inventories

Mauritania has already completed its first five GHG inventories:

1. *On the occasion of the Initial National Communication (between 1998-2000), the first national inventory was carried out following the IPCC approach, based on the 1996 and revised 1996 guidelines. This inventory had as a reference the year 1994 and was carried out in 1999;*
2. *The second GHG inventory has a reference year of 2000 and a time series of 1995-2004. It was carried out in 2007 within the framework of the NCS, following the revised 1996 IPCC guidelines, as well as the Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (GPG, 2000 and 2003).*
3. *The third inventory was prepared in 2012 as part of the preparation of Mauritania's third national communication. Its reference year is 2012, and it covers the period from 1990 to 2012. This latest inventory was updated as part of Mauritania's initial updated biennial report published in 2015.*
4. *The fourth inventory was developed in 2017 as part of the preparation of the fourth national communication. This inventory has a base year of 1990 and a reference year of 2015 and covers the period from 1990 to 2015.*
5. *The fifth inventory was developed in 2020 as part of the preparation of the second Biannual Updated Report of Mauritania. This inventory has a base year of 1990 and a reference year of 2018 and covers the period from 1990 to 2018.*
6. *This inventory consists of a resumption of the inventory cycle, based on the methodological improvements acquired, as well as the availability of new activity data. It has as its reference the year 2020, for base year 1990, and covers the period from 1990 to 2020.*

RE 2. Major changes in GHG inventories

To perpetuate the process of preparing GHG inventories, Mauritania has set up a sustainable institutional framework with a view to gradually having a national system for managing GHG inventories based on the procedure manuals for the preparation and management of national GHG inventories of countries Parties not included in Annex I of the Convention.

With more involvement of sectoral focal points and their sectoral technical teams in the inventory preparation process [1], led to the improvement of activity data and even for some cases methodological choices (AFAT). These improvements led to recalculations which led to the changes listed below:

[1] *Recommended in the improvement plan prepared in the BUR1 inventory*

- ***Strengthening of activity data due to the discovery and inclusion of new data categories, notably domestic energy, and the structural revision of data from the AFAT and IPPU sectors;***
- ***Filling gaps in time series;***
- ***Taking into account emissions from managed soils which are not taken into account in previous inventories of Mauritania.***
- ***Contribution of Changes in the use of fuel conversion factors and appropriate emission factors due to the involvement of data holding institutions***
- ***Adoption of a new methodology for the collection of new activity data and emission factors;***
- ***Substitution of expert judgment by consensus of sector teams;***
- ***Inclusion of new additional activities in the current inventory: Sectoral workshops, Proof-readings, etc.***

The current inventory covers four source sectors:

1. *Energy;*
2. *Industrial processes;*
3. *Agriculture, Forestry and Land Use (AFOLU);*
4. *Waste.*

RE 3. Overview of GHG emissions estimates

Anthropogenic emissions and removals by sources and sink of GHGs not regulated by the Montreal Protocol estimated in 2020 within the framework of the current inventory, concern direct gases (CO2, CH4, N2O) and indirect gases (NOx, CO, NMVOC and SOx) in the sectors Energy, Industrial Processes and Product Use (IPPU), Agriculture, Forestry and other Land Use (AFOLU) and Waste.

The estimation of GHG emissions in the four sectors indicated was carried out following the methodology of the 2006 IPCC guidelines.

RE3. 1. Emissions by sources and removals by sinks and by sector

In 2020, Mauritania's net greenhouse gas emissions "GHG" are estimated at 10,055.408 Gg Eq-CO2 (based on carbon dioxide "CO2", methane "CH4", nitrous oxide "N2O", and perfluorinated hydrocarbons "HFC"), or 2.41 tones Eq-CO2 per capita.

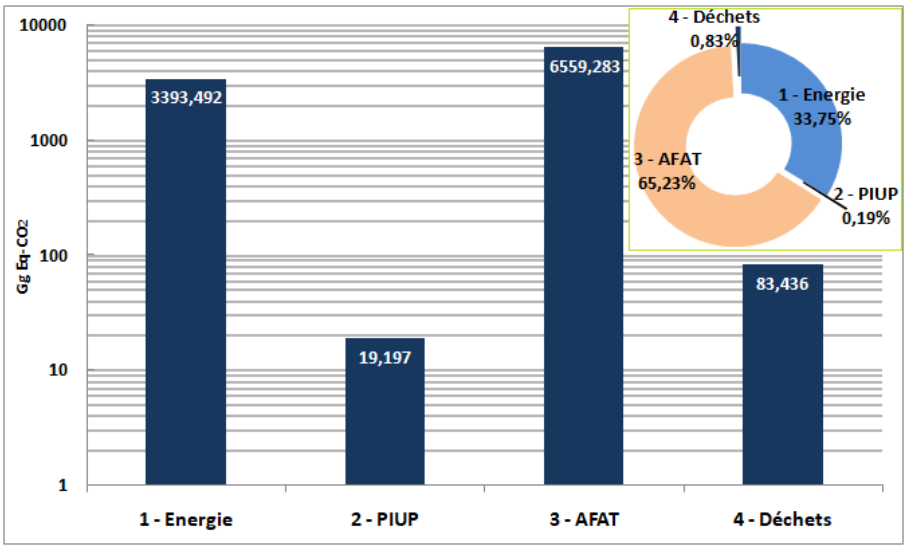
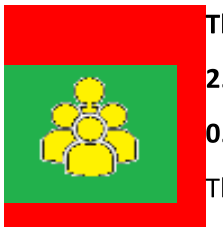


Fig. RE.1. GHG emissions in 2020 by sector in Gg Eq-CO2

Despite the development of emissions from other sectors, the agriculture, forestry and land use sector (AFAT) remain dominant with 6559.283 Gg Eq-CO2 or 65.23%, followed by the energy sector which produces 3393.492 Gg Eq-CO2 or 33.75%. The two sectors total 99% of this emission. As for the industrial processes and product use sectors (IPPU) (approximately 0.19%) and waste [2](approximately 0.83%), they appear as marginal sectors, not comparable with the two previous sectors except on a logarithmic scale (Fig.RE1).

The reference approach method in the energy sector places the level of CO2 emissions at 3306.69 Gg. The relative gap between the results of this method and the detailed calculations is 0.034% in consumption, and 0.153% in emissions. This gap is mainly due to the level of detail of the activity data which does not represent final consumption but rather the allocation.



The Country's GHG emissions per capita in 2020 will be:

2.41 t-Eq-CO2/hab. including emissions from the AFOLU sectors

0.838 t-Eq-CO2/hab. without taking into account emissions from the AFOLU sectors

The average emission in Africa is **0.9 t-Eq-CO2/hab.**

Comparing the results of the reference year with those of the last inventory (corrected data of 2018), shows that emissions have experienced a net increase of 5.503% of total emissions over the two years, and of approximately 0.866% of the emission per capita. This increase is mainly linked to the AFOLU sector and particularly to livestock which has benefited considerably from the sector development program.

Between 2018 and 2020, the energy sector experienced a slight increase in emissions of 2.503%, reducing its share of national emissions from 34.78% in 2018 to 33.75% in 2020. This situation is explained by the rapid development of the national energy mix with the commissioning of the aforementioned renewable energy facilities, as well as the reorganization of the transport subsector and the cessation of fossil fuel subsidies. This slowdown in the growth of emissions from the energy sector confirms an improvement in activity data on avoidance through the energy mix.

Thus, between 2012 and 2020, new solar and wind installations were commissioned, increasing the production of renewable energy from 2.249 GWh in 2012 to 1237.865 GWh in 2020 (excluding hydroelectricity). Using a high-level hypothesis according to which electricity from these sources replaced fuel (fuel oil/diesel), these new energy sources made it possible to avoid an additional emission of 0.824 Gg Eq CO2 in 2012 and 61.356 Gg Eq CO2 in 2020. The 2020 situation represents a reduction in emissions from the energy sector of 1.81%, and from the electricity generation category of 8.98%.

RE3. 2. The GHG emissions by gas

The inclusion of direct N_2O emissions from managed soils and the change in GWP have resulted in a close-to-reality comparability of emissions by gas (see figure RE 2.).

[2] *As a result of the low humidity in waste dumps and the low content of fermentable elements coupled with the country's low level of industrialization*

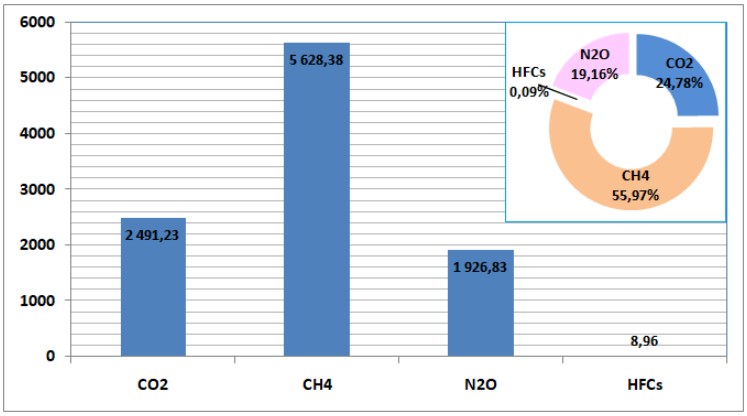


Fig. RE. 2. GHG emissions in 2020, by gas in Gg Eq-CO2

Global 2020 emissions for direct gases are estimated at: 2491.235 Gg CO2; 225.135 Gg CH4 and 6.466 Gg N2O. For the same year, indirect gas emissions are estimated at: 8.962 Gg CO2-e of HFCs; 12.403 Gg of NOx; 47.762 Gg of CO; 0.6539 Gg of SO2 and 25.658 Gg of NMVOCs. Emissions of PFCs, SF6, other CO2 and non-CO2 gases are zero and not applicable (Table RE1).

***Table. RE1.** Abbreviated summary table or Table B (GHG emissions results in 2020)*

Inventory year: 2020

	Les émissions (Gg)			Les émissions Équivalents CO_2 (Gg)			Les émissions (Gg)			
Les catégories	**CO_2 net**	**CH_4**	**N_2O**	**HFCs**	**PFCs**	**SF_6**	**NOx**	**CO**	**NMVOCs**	**SO_2**
Total National Emissions and Removals	2491,235	225,135	6,466	8,962	0	0	12,403	47,762	25,658	0,6539
1 - Energy	3327,160	1,275	0,116	0	0	0	12,038	41,685	25,658	0,1625
1.A - Fuel Combustion Activities	3327,160	1,275	0,116				12,038	41,685	25,658	0,1625
1.B - Fugitive emissions from fuels	0	0	0				0	0	0	0
1.C - Carbon dioxide Transport and Storage	0						0	0	0	0
2 - Industrial Processes and Product Use	10,234	2,2E-05	0	8,962	0	0	0	0	0	0,491
2.A - Mineral Industry	0	0	0				0	0	0	0,491
2.B - Chemical Industry	0	0	0	0	0	0	0	0	0	0
2.C - Metal Industry	2,174	2,2E-05	0	0	0	0	0	0	0	0
2.D - Non-Energy Products from Fuels and Solvent Use	8,060	0	0				0	0	0	0
2.E - Electronics Industry	0	0	0	0	0	0	0	0	0	0
2.F - Product Uses as Substitutes for Ozone Depleting Substances				8,962	0		0	0	0	0
2.G - Other Product Manufacture and Use	0	0	0	0	0	0	0	0	0	0
2.H - Other	0	0	0				0	0	0	0
3 - Agriculture, Forestry, and Other Land Use	-862,965	223,680	6,142	0	0	0	0,365	6,076	0	0
3.A - Livestock		218,603	0				0	0	0	0
3.B - Land	-877,265		0				0	0	0	0

3.C - Aggregate sources and non-CO2 emissions sources on land	14,3	5,077	6,142				0,365	6,076	0	0
3.D - Other	0	0	0				0	0	0	0
4 - Waste	16,806	0,181	0,208	0	0	0	0	0	0	0
4.A - Solid Waste Disposal		0					0	0	0	0
4.B - Biological Treatment of Solid Waste		0	0				0	0	0	0
4.C - Incineration and Open Burning of Waste	16,806	0,181	0,003				0	0	0	0
4.D - Wastewater Treatment and Discharge		0	0,205				0	0	0	0
4.E - Other (please specify)	0	0	0				0	0	0	0
5 - Other	0	0	0	0	0	0	0	0	0	0
5.A - Indirect N2O emissions from the atmospheric deposition of nitrogen in NOx and NH3			0				0	0	0	0
5.B - Other (please specify)	0	0	0	0	0	0	0	0	0	0
Memo Items (5)										
International Bunkers	31,407	0,0003	9E-04	0	0	0	0	0	0	0
1.A.3.a.i - International Aviation (International Bunkers)	30,428	0,0002	9E-04				0	0	0	0
1.A.3.d.i - International water-borne navigation (International bunkers)	0,979	9,3E-05	3E-05				0	0	0	0
1.A.5.c - Multilateral Operations	0	0	0	0	0	0	0	0	0	0

In this context:

- ***Methane (CH4)** occupies by far the first place with 225.135 Gg of CH4, or 5628.384 Gg Eq- CO2, which represents 55.97% of emissions; compared with that of 2018 (207.647 Gg of CH4), the emission of methane has undergone an annual increase of 4.21%. This rapid increase is a consequence of the consideration of the livestock feed component in the contingency plans to combat the impacts of drought, as well as the correction of land data, thus reflecting the impact of recurring droughts.*

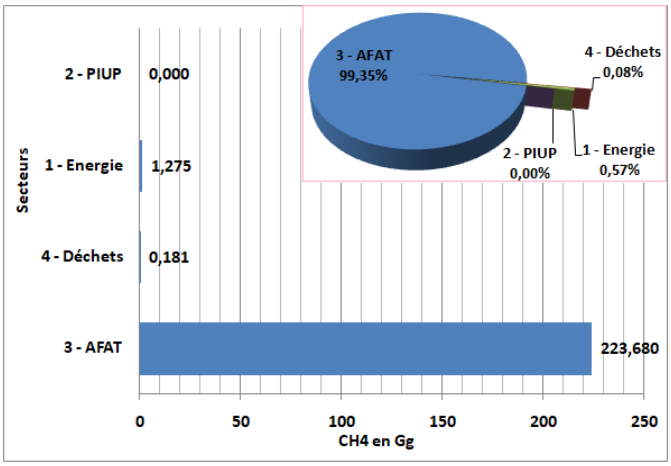


Fig. RE. 3. Methane emissions in 2020, by sector in Gg Eq-CO2

CH4 emissions (Figure RE-3) have as their main sources the AFAT sector with 223.680 Gg or 99.35%, where the livestock subsector alone totals 218.603 Gg, or 97.73% of the methane emissions of the AFAT sector. The other sectors contribute little to CH4 emissions in Mauritania with 1.275 Gg for the energy sector, 0.181 Gg for waste.

- ***Carbon dioxide (CO2)** is the second GHG emitted in Mauritania; in 2020, the net CO2 emission was 2491.235 Gg, or 24.78% of the total emission. This emission has seen a slight decrease compared to that of 2018 corrected with approximately -2.19% following the correction of land data giving a small upward revision of sequestered CO2 which goes from (-719.408 Gg) in 2018 to (-862.965 Gg) in 2020.*

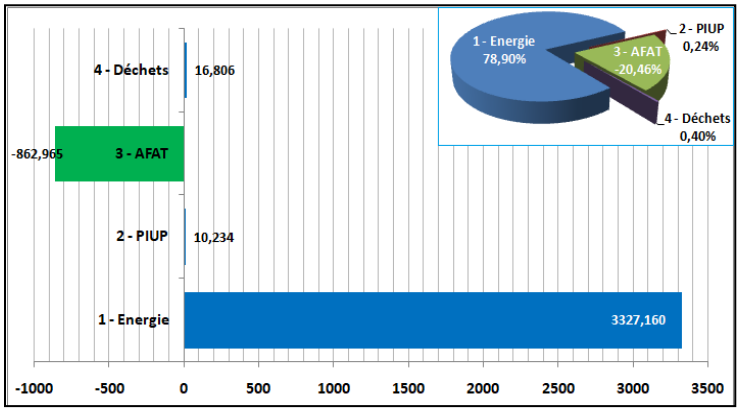


Fig. RE. 4. Carbon dioxide emissions in 2020, by sector in Gg

The Energy sector is the main responsible for CO2 emissions (Figure RF-4) with a total of 3327.160 Gg (87.90%) followed by the AFAT sector with a net sequestration estimated at -862.965 Gg or (-20.46%). The PIUP and Waste sectors represent 0.64% of emissions or 10.234 Gg and 16.806 Gg respectively.

- ***Nitrous oxide (N2O).** The completion of the consideration of direct N2O emissions from managed soils in the AFAT sector and the emissions from human discharges in the waste sector provide a finalization of the compilation of the current inventory. The result of these corrections gives a total emission of 6.466 Gg of N2O or 1926.827 Gg Eq-CO2 or 19.16% of total emissions.*

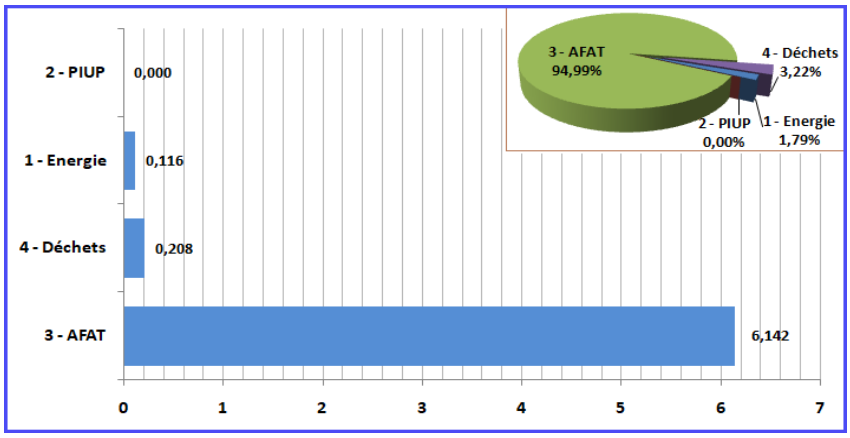


Fig. RE. 5. Nitrous oxide (N2O) emissions in 2020, by sector in Gg

In 2020, the AFAT sector dominates the emission of N_2O with a total of 6.1418 Gg or 94.9882% of the national total, this situation is the direct result of the correction of the emission of land which alone

represents 6.1222 Gg or 99.68% of the total of the sector. The second source of N_2O comes from the waste sector which reaches 3.22% of emissions followed by the energy sector with 1.79%.

- ***HFC.*** *Its emissions remain negligible and totally imported; the consumption of this gas in refrigeration in Mauritania produces an emission of approximately 8.962 Gg Eq-CO2, or 0.09% of the national total of direct emissions.*

RE3. 3. Other gases

Although not considered greenhouse gases, photochemically active gases such as carbon monoxide (CO), nitrogen oxides (NOx) and non-methane volatile organic compounds (NMVOCs) have an indirect effect on global warming.

In 2020, the presence of indirect gases in GHG emissions in Mauritania was as follows:

- *COVNM: 25.658 Gg from the energy sector, particularly from the use of wood and charcoal "residential sector";*
- *NOx: 12.403 Gg mainly from bush fires;*
- *CO: 47.762 Gg mainly from biomass combustion;*
- *SO2: 0.654 Gg mainly attributable to cement production.*

RE3. 4. Key source categories

The analysis of key categories for the year 2020 using the level assessment approach reveals eight (8) key categories which contributed 93.51% to national emissions in 2020 (fig.RE.6).

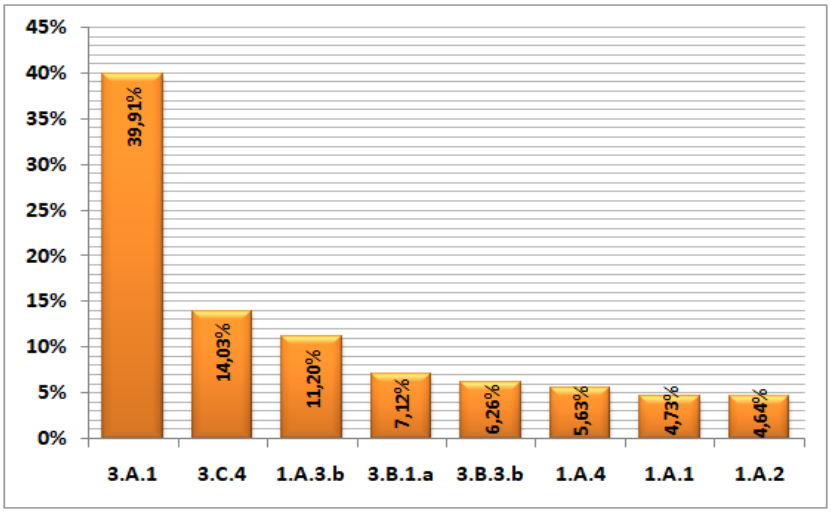


Fig. RE. 6. Ranking of key source categories by level in 2020

3.A.1 = ***Enteric fermentation; 3C4 Direct N2O emissions from managed lands:*** *1.A.3.b =* ***Transportation;*** *3.B.1.a =* ***Forest land;*** *3.B.3.b =* ***Land converted to Grassland;*** *1.A.4 =* ***Other sectors;*** *1.A.1 =* ***Energy industries;*** *1.A.2 =* ***Manufacturing industries.***

In 2020, the key categories at the national level following the level assessment approach are identified with an analysis made with the contribution of the AFAT sector. These are:

1) *3.A.1= Enteric fermentation;*

2) *3C4 Direct N2O emissions from managed soils;*
3) *1.A.3.b= Transport;*
4) *3.B.1.a = Forest lands;*
5) *3.B.3.b = Land converted to Grassland;*
6) *1.A.4= Other sectors;*
7) *1.A.1= Energy industries;*
8) *1.A.2= Manufacturing industries*

However, the analysis of key source categories following the trend assessment method gives nine (09) key categories having contributed to the evolution of emissions with 90.09% (table RE2).

Table. RE2. *Ranking of key source categories according to the trend assessment method in 2020*

IPCC Category code	IPCC Category	GHG	Estimate in 1990 (Gg CO2 Eq)	Estimate in 2020 in (Gg CO2 Eq)	Contribution in the trend (%)	Total Cumulative in % of Contribution
3.A.1	**Enteric fermentation**	CH4	2226,178	4954,776	0.346	28.56%
3.B.1.a	**Forest land remaining forest land**	CO2	-627,476	-883,964	0.310	54.17%
1.A.3.b	**Road transport**	CO2	270,977	1390,554	0.121	64.16%
3.B.3.b	**Land converted to Grasslands**	CO2	132,236	776,815	0.079	70.72%
1.A.1	**Energy industries**	CO2	86,534	587,049	0.068	76.36%
1.A.2	**Manufacturing and construction industries**	CO2	113,528	576,255	0.049	80.44%
3.C.4	**Direct N2O Emissions from managed soils**	N2O	664,301	1741,940	0.049	84.46%
1.A.3.c	**Railways**	CO2	80,295	72,391	0.035	87.31%
1.A.4	**Other sectors - Liquid Fuels**	CO2	289,608	699,105	0.034	90.09%

RE 3.5. Uncertainties

The uncertainties by gas are very high in methane due to its weight in the country's emissions as well as the low level of data quality. This weakness in the quality of activity data is confirmed by the level of uncertainty of N2O $_{which}$ is based mainly on livestock data (main source of methane). The following table presents the uncertainties by GHG.

Table RE3: *Evaluation of uncertainties by gas*

Method	CO2	CH4	N2O	Global
Level	3,611	11,252	15,319	16,486
Tendency	11,039	16,270	12,352	17,285

At the sector level, only the AFAT sector presents very high uncertainties of approximately 16.355% by level and 15.5% by trend. This situation reflects the concordance between the sector and its CH4 and N2O emissions which represent respectively 99.31% and 95.28% of the emissions of these gases in Mauritania.

Table RE4: *Assessment of uncertainties by sector*

Method	Energy	PIUP	AFAT	Waste	Global
Level	2,070	0.069	16,355	0.123	16,486
Tendency	7,667	0.252	15,489	0.135	17,285

RE 4. Trend in GHG emissions

Direct greenhouse gas emissions, expressed in terms of GWP (FAR), are globally increasing significantly, from 3568.868 Gg Eq-CO2 in 1990 to 10055.408 Gg Eq-CO2 in 2020, an increase of 181.75%. This overall evolution is reflected in the detail of the six gases involved by much more contrasting situations.

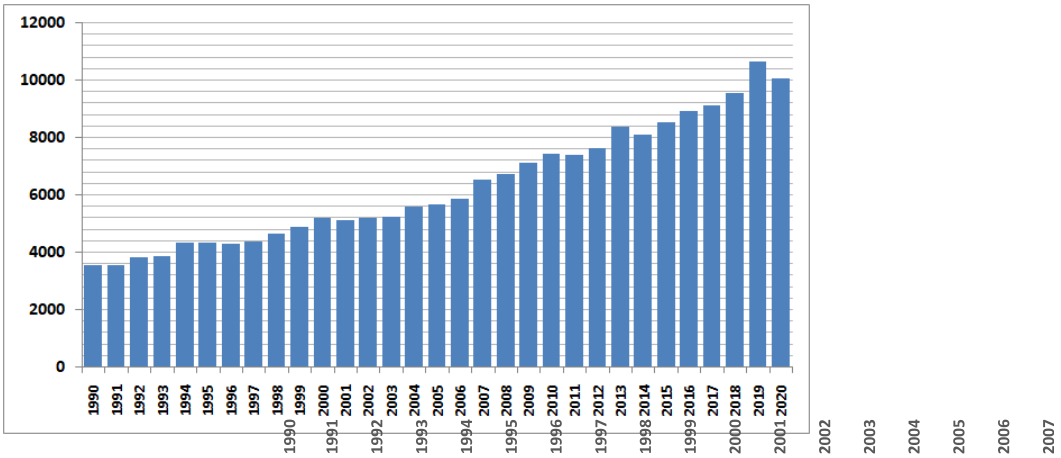


Fig. RE. 7. Trend of total GHG emissions in Gg Eq_CO2

The evolution of carbon dioxide emissions between 1990 and 2020 is the highest with 514.06%, 90% of which originates from the use of fossil fuels. This situation is reflected in the level of access of populations to its fossil energy resources, hence the increase in consumption which goes from 282,920 Tm in 1990 to 999,555.78 Tm in 2000, or 353.30%. In this context, it is noted that the majority of fossil fuel consumption in Mauritania is composed of highly emitting fuels (diesel and fuel oil), hence the sustained increase in emissions from the transport and electricity generation sub-sectors. The emission and sequestration of CO2 from the AFOLU sector significantly influences the trend by faithfully reflecting the after-effects of recurring droughts, particularly those of the 70s and 80s of the last century (Fig. RE.8).

As for methane, a steady increase trend at the rate of the evolution of its main source (livestock) which remains dependent on climate variability (drought). Overall, the gap between 1990 and 2020 was 130.56%. This evolution is totally proportional to that of livestock.

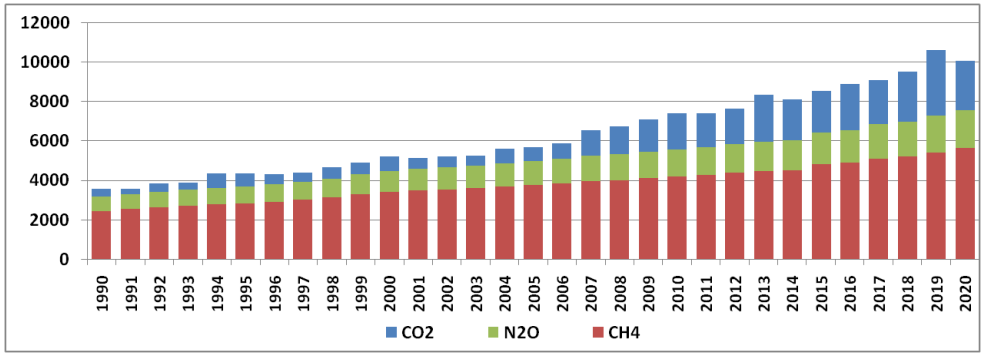


Fig. RE. 8. Trend of GHG emissions by Gas in Gg Eq_CO2

Like methane, nitrous oxide follows a more or less regular rhythm with an overall increase of 166.89% between 1990 and 2020.

On the sectoral scale, the evolution of emissions is dominated by the energy sector which undergoes an increase of 267.11% between 1990 and 2020, following the great expansion of the automobile fleet and the development of the energy industry. This trend was initiated between 2012 and 2015, a period during which its rate recorded its lowest level with 2.95% following the development of the energy mix as well as the new regulations of the transport sector.

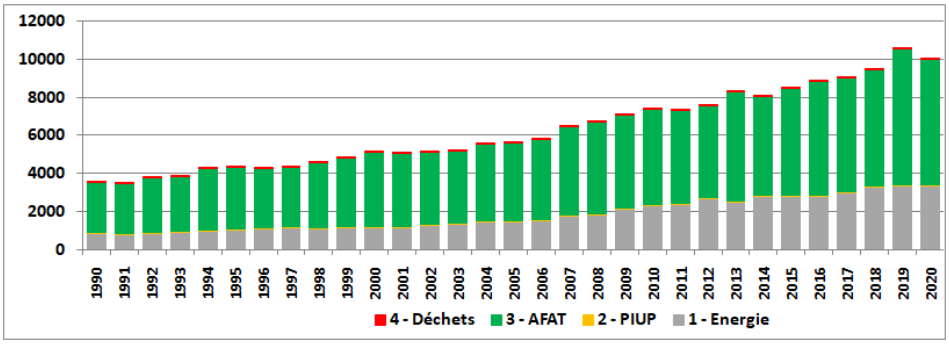


Fig. RE. 9. Trend in total GHG emissions by sector in Gg Eq_CO2

The AFOLU sector ranks second in the evolution of emissions with 153.9% between 1990-2020. This trend is linked to curative programs to reduce the impacts of droughts, as well as to the relative regeneration of ecosystems, particularly rangelands, following the succession of relatively rainy years during the last two decades. The evolution of emissions from the AFAT sector faithfully traces the consequences of the droughts of the 1970s with the considerable losses of carbon stock caused by desertification.

The waste sector ranks third in terms of emissions growth with 141.88% over the period 1990-2020. This growth was moderate during the second decade of the period following the reorganization of the sector introduced between 2007-2013.

The IPPU sector experienced a relatively very weak evolution with 17.35% for the same period. This situation is the result of the abandonment of a large part of the ferroalloy activity (stoppage of the production of reinforcing steel in 2000).

RE 5. Conclusions

The main ideas of this GHG inventory are as follows.

- *Although Mauritania's GHG emissions are very low, the overall trend across all sectors is for emissions to increase rapidly, given the economic outlook and under the demand-side status quo "where more than 50% of the population does not have access to electricity."*
- *Regarding gases, methane ranks first in terms of GHG emission levels in Mauritania, carbon dioxide contributes significantly to these emissions and will continue to do so in the coming years due to the growing demand for energy produced for the needs of the country's economic development.*
- *At the sectoral level, AFOLU and energy are the main sources of emissions and are likely to continue to dominate. Emissions from waste and industrial processes do not have a significant impact on national emissions, due to their level of development in the country. Overall planning for emission mitigation should particularly prioritize its interventions in the energy and AFOLU sectors. For other sectors, special attention should be given to planning their own development.*
- *A large part of emissions remains dependent on weather conditions, particularly in the AFOLU sector which is highly dependent on rainfall.*

The new estimates of GHG emissions, presented in this document, cancel and replace all previous estimates.