

# LAW Nº 5.248 (JANUARY 27TH, 2011) - MUNICIPAL LAW ON CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT

States the Municipal Policy on Climate Change and Sustainable Development, regulates about the establishment of reduction goals for anthropic greenhouse gas emissions in Rio de Janeiro City, among other statements.

Author of the Bill: City Councillor Aspásia Camargo

THE MAYOR OF RIO DE JANEIRO, makes known that the City Hall declares and approve the following Law:

## **CHAPTER I**

## PRELIMINARY ARRANGEMENTS

- **Art.1** This Law states the Municipal Policy on Climate Change and Sustainable Development.
- **Art. 2** For all intents provided in this Law the following concepts are adopted:
- I. Adaptation: Group of initiatives and measures to reduce the vulnerability of natural and human systems in face of the effects of current or expected climate change;
- II. Anthropic: Result from human action;
- III. Carbon dioxide equivalent: Standard measurement unit used for expressing the amount of greenhouse gas emissions, considering that the various gases have different degrees of absorption and reemission of infrared radiation, corresponding to different heating potentials of the planet's atmosphere, with the carbon dioxide heating potential set to 1, and the other gas potentials set as multiples of this unit;
- IV. Adverse effects from climate change: changes in physical environment or in biota, due to climate change that have significant detrimental effects over the composition, resilience or productivity of natural and managed ecosystems, over the functioning of socioeconomic systems or human health and welfare;
- V. Emissions: Releasing of greenhouse gases and/or its precursors in the atmosphere on a specific area on a set period;



- VI. Source: Process or activity which releases greenhouse gases, aerosol or greenhouse gas precursor into the atmosphere;
- VII. Greenhouse gases: Gases belonging to the atmosphere, natural and anthropic, which absorb and re-release infrared radiation, listed on the Kyoto Protocol Annex A, identified by the acronym GHG;
- VIII. Impact: Effects from climate change on human and natural systems;
- IX. Inventory of greenhouse gas emissions: calculation results of all emissions of human activities which have any impact on releasing greenhouse gases, related to a specific territorial unit or institution, during a certain period;
- X. Mitigation: Human intervention for source reduction or strengthening of greenhouse gas sinks;
- XI. Climate change: Changes in climate which can be directly or indirectly attributed to human activity, modifying the global atmosphere composition, and which adds to those caused by natural climate scalability observed during comparable periods;
- XII. Kyoto Protocol: Document approved by the undersigning countries of the Board Convention on Climate Change of the United Nations, including Brazil, which establishes a worldwide goal of a 5 per cent reduction on anthropic greenhouse gas emissions, in comparison with the levels of the 1990 decade, during the agreement period from 2008 to 2012;
- XIII. Sink: Any process, activity or mechanism which removes greenhouse gases, aerosol or greenhouse gas precursor from the atmosphere;
- XIV.- Vulnerability: Degree of susceptibility or inability of a system, due to its sensitivity and adaptation ability, and the character, magnitude and change rate of the climatic variation to which the referred system is exposed, as well as its ability to deal with the adverse effects of climate change, such as climatic variability and extreme natural events.

# **CHAPTER II**

# PRINCIPLES, OBJECTIVES AND GUIDELINES

**Art. 3** The Municipal Policy on Climate Change and Sustainable Development will address the following principles:



- I sustainable development, based on the international agreements undertaken by Brazil, on the state legislation regarding the subject, and on Law nº 12.187, of December 29<sup>th</sup>, 2009, which stated the National Policy of Climate Change;
- II acknowledgement of the existence of global climate change and the urge for a Muni 99 Plan of Climate change and Sustainable Development, as well as programs, projects and actions directly or indirectly related to climate change and its consequences;
- III prevention, which consists on the adoption of measures capable of mitigating or avoid dangerous anthropic interference in the climatic system;
- IV mitigation, which consists on the adoption of measures for the reduction of anthropic emissions of greenhouse gases;
- V polluter-payer, which consists on the acknowledgement that the polluter must be liable for the costs of environmental damage, avoiding these costs of being passed down to society.
- VI equity, according to which all taken measures must consider the different socioeconomic contexts to their application, share the pertaining burdens and charges between the economic sectors and the population in an equal and balanced way;
- VII transparency and stimulation for society to take part in the advising and decisionmaking processes, with access right to information and environmental education, and access to justice regarding themes related to climate change;
- VIII support for study and research about climate change and their impact and for development of sustainable technologies;
- IX eco-efficiency, which consists on the management and reasonable and sustainable use of natural resources;
- X Institutional cooperation on project accomplishment on a regional, national and international scope, seeking to reduce anthropic greenhouse gas emissions and promote sustainable development;
- XI internalization of the ventures' social and environmental costs, taking into account the local, regional, national and global interests, and the rights of future generations.
- Art. 4 The Municipal Policy on Climate Change and Sustainable Development aims at:



- I establishing a strategy for reduction of anthropic emissions of Greenhouse gases on the
  City and an adaptation policy to the effects of climate change;
- II promoting effective actions for the necessary protection of the climatic system;
- III securing the compatibility of social and economic development with protection of the environment and climatic system, in anticipation of sustainable development;
- IV fostering Clean Development Mechanism projects and other instruments and mechanisms for the reduction of emissions or sinks from greenhouse gases;
- V raising population awareness about climate change and the sense of urgency required for the prevention and treatment of its consequences;
- VI establishing mechanisms to stimulate changes in production and consumption patterns, in economical and transport activities, as well as urban and rural land usage, focusing on the environmental sustainability of the processes and mitigation of the emission of greenhouse gases and absorption of these gases by sinks;
- VII taking actions to increase the share of renewable energy sources in the County's energy matrices;
- VIII identifying vulnerabilities and promote effective adaptive actions to the negative impacts of climate change, mainly for protection of more vulnerable populations and ecosystem;
- IX ensuring the participation of civil society in advisory and decision-making processes, related to the climate change;
- X providing broad promotion regarding aspects related to climate change;
- XI stimulating research, development and scientific innovation regarding the climatic system;
- XII supporting the use and exchange of technologies and environmentally responsible practices for mitigation and adaptation to climate change;
- XIII stimulating cooperation with different government levels, non-governmental organizations, the private sector, academy and multilateral agencies for implementation of the climate change policy and support strategies of sustainable development.
- **Art. 5** The Municipal Policy on Climate Change and Sustainable Development has as its guidelines:



- I establish measurable, reportable and verifiable objectives for the reduction of anthropic greenhouse gas emissions in the City;
- II elaborate, update and publish, every four years, the municipal Greenhouse Gas Emissions Inventory;

101

- III promote research, production and reporting of knowledge about the climate change and vulnerabilities thereof, as well as the setting of mitigation and adaptation measures of the greenhouse gas emissions in the City;
- IV promote and support the use of renewable energy sources, such as solar and wind energy, and stimulate the use of natural lighting systems.
- V stimulate gradual substitution of fossil fuels for others with less potential of emission of Greenhouse gases.
- VI stimulate development, application and transference of technologies, practices and processes which reduce or prevent anthropic emissions of Greenhouse gases;
- VII promote and support actions of national and international cooperation and the transference of sustainable technologies;
- VIII stimulate the integration of the municipal government with other governmental levels, civil society organization, and private and academic sectors, in plans projects, programs and actions regarding climate change;
- IX stimulate reasonable use of natural resources, promoting a change in social behavior for the sake of responsible consumption and an incentive to eco-efficiency.

# **CHAPTER III**

#### **GOALS**

- **Art. 6** The goals for reduction of anthropic greenhouse gas emissions GHG, in Rio de Janeiro City, for the years 2012, 2016 and 2020, expressed in equivalent carbon dioxide, in comparison with the City's emission levels in 2005, are determined as follows:
- I 2012 goal: reduction of GHG emissions by eight per cent;
- I 2016 goal: reduction of GHG emissions by sixteen per cent;
- I 2020 goal: reduction of GHG emissions by twenty per cent;



- § 1 The GHG emission level from Rio de Janeiro City in 2005 is based on the information of the first municipal inventory, referring to the year of 1998, and the preliminary projections verified by the inventory updating jobs.
- § 2 The emission volume and GHG reduction goals can be adjusted right after the disclosure of the final numbers of the emissions inventory update in Rio de Janeiro City.
- § 3 The emissions of GHG coming from the companies settled at Complexo Siderúrgico da Zona Oeste will be calculated separately from the other GHG emissions of the City and will receive specific reduction goals, according to Law no 5.133, of December 22nd, 2009.
- § 4 The companies settled at the Complexo Siderúrgico da Zona Oeste must adopt reduction and mitigation measures for GHG emissions, for environmental compensation and transparency of their activities, according to Law no 5.133, of December 22nd, 2009.
- Art. 7 The planning and strategy for the accomplishment of the municipal goals for reduction of GHG emission must consider an effort of emission reduction as a responsibility of the City Hall and Federal and State Government actions, as well as the private sector's initiatives and the City's civil society.
- Art. 8 The works, programs, actions and projects of the City Hall, including urbanization and revitalization, at any time possible, should consider the objectives of fulfillment of the GHG emission reduction goals, and estimate its respective impacts regarding GHG emissions.
- **Art. 9** On the bidding and contracts to be made by the organizations and entities from any of the powers of Rio de Janeiro City, must be taken into account as choosing criteria, whenever possible, the acquisition of products and services which are environmentally and socially sustainable.



# **CHAPTER IV**

#### **WASTE AND ADAPTATION STRATEGIES**

#### Section I

#### **WASTE MANAGEMENT**

- **Art. 10.** Notwithstanding the provisions in special Law, on actions regarding waste management, the following guidelines should be observed:
- I reduction of urban waste, residential wastewater and industrial effluent generation;
- II recycling or reutilization of urban waste, including scrap material from civil construction and tree pruning, residential wastewater and industrial effluents;
- III treatment and final disposition of waste, preserving sanitary conditions and promoting reduction of GHG emissions;
- IV supporting of environmentally sustainable production, trading and consumption standards, in order to prioritize the utilization of materials of lesser environmental impact and the reduction of waste generation;
- V generation of economic receipts and benefits, including exploitation of carbon credits, and warranted proper final disposition of waste, through utilization of environmentally sustainable and energy recycling techniques;
- VI creation of work and income generation mechanisms, directly benefitting more unassisted populations of the City involved with recycling and waste collection;
- VII safeguarding biodiversity and environment and welfare preservation.

#### Section II

# **TRANSPORTS**

**Art. 11.** The transport sector planning and urban mobility in Rio de Janeiro City should incorporate measures to mitigate greenhouse gas emissions, as established in Art. 6.

Sole Paragraph. Among the measures provided in the main section of this article are:

 I – incorporation of climatic dimensioning into road network planning and into offers of different transport modals;



- II suitability of public transport offer in the City and disencouragement of individual motor transport usage;
- III rationalization and redistribution of transport demand throughout the road system, integrating the various modals;
- IV provision of transport model integration and urban mobility in the City;
- V stimulation of non motor transport, with implementation of supporting infrastructure and operational measures for pedestrians and bicycle users, improving its articulation with other means of transport;
- VI traffic flow improvement and reduction of traffic jam peaks;
- VII gradual replacement of fossil fuels for low-carbon ones;
- VIII encouragement to renewable fuel usage in the vehicle fleet, such as biofuels;
- IX campaigns to raise awareness of the reasonable use of automobiles and to provide information regarding the local and global environmental impacts caused by the use of motor vehicles and individual transport;
- X controlling and monitoring the City's vehicle fleet;
- XI reorganization of the road system and traffic lines to encourage the use of public transport;
- XII inclusion of criteria for environmental sustainability and GHG mitigation encouragement to the acquisition of vehicles for the Public Authority fleet and hiring of transport services, encouraging the use of renewable fuel technology;
- XIII elaboration of a Vehicle Pollution Control Program, based on the inventory of emissions from mobile sources and air quality monitoring;
- XIV interaction with the Union and competent authorities in the air sector regulation for the setting of standards and limits to the GHG emissions from air transport activities inside the City.

# Section III

## **ENERGY**

**Art. 12.** The following measures shall be coordinately executed between the bodies of the City's Public Authorities:



- I creation of incentives for decentralized energy production in the City, off of renewable sources;
- II promotion of efforts for the elimination of subsidies to fossil fuels and the creation of incentives to the generation and use of renewable energy;
- III promotion and adoption of energy efficiency programs and renewable energy sources in buildings, industry and transport;
- IV promotion and adoption of a product and process quality labeling program, under the point of view of energy and climate change;
- V creation of tax incentives for research related to energy efficiency and the use of renewable energy sources on energy conversion systems;
- VI promotion of the best standards of energy efficiency and the use of renewable energy sources in street lighting;

#### **Section IV**

#### RESEARCH AND SCIENTIFIC DEVELOPMENT

- **Art. 13.** The Public Authorities should adopt encouragement measures to research and knowledge generation about the climate change, such as:
- I support of scientific research, especially in relevant impact areas regarding climate change and study of climatic vulnerabilities in the City;
- II dissemination of information and the use of applicable technologies in facing climate change;
- III encouragement to the installation of companies, within the City, which work on the development of applicable technologies to combat climate change;
- IV integration of the results of technical and scientific research with governmental actions.

# Section V

## ADAPTATION ACTIONS TO THE IMPACTS OF CLIMATE CHANGE

**Art. 14.** The Municipal Public Authority will adopt a permanent civil defense program focused on damage prevention, relief assistance and reconstruction of areas affected by extreme events due to climate change.



- **Art. 15.** The Municipal Civil Defense Program must keep watch of life and health risk factors in consequence of climate change, as well as implementing necessary prevention and treatment measures, in order to avoid or minimize impact over public health.
- Sole Paragraph. The Municipal Civil Defense Program must include educational actions focused on damage prevention and relief assistance to the most exposed to extreme events due to climate change.

#### Section VI

#### **ECO-EFFICIENCY**

- **Art. 16.** The City Government must implement an Eco-efficiency and Environmental Sustainability Program of resources and consumables of the City Hall of Rio de Janeiro.
- **Art. 17.** The Eco-efficiency and Environmental Sustainability Program must provide for the effective and reasonable consumption of material resources, such as:

I - water;

II – energy;

III – paper;

IV - fuels and gas.

- Sole Paragraph. The Eco-efficiency and Environmental Sustainability Program must encourage the use of recyclable materials and of lesser impact to the environment, of low-carbon consumables and renewable energy sources.
- **Art. 18.** The Municipal Public Authority will adopt the following guidelines for the compliance to the Eco-efficiency and Environmental Sustainability policy:
- I decrease in consumption of services and goods;
- II minimization of waste generation and implementation of selective collection;
- III adoption of less environmentally aggressive technologies;
- IV reduction and compensation of emissions;
- V rationalization of the use of natural resources;
- VI education for sustainability.



# **CHAPTER V**

#### **INSTRUMENTS**

- **Art. 19.** The Municipal Policy on Climate Change and Sustainable Development has as its instruments:
- I Municipal Plan on Climate Change and Sustainable Development;
- II Climate change and Sustainable Development Forum in Rio de Janeiro;
- III Municipal Fund of Climate Change and Sustainable Development;

107

- IV Financial, economic and tax incentives to encourage actions of mitigation and adaptation to climate change;
- **Art. 20.** The Municipal Public Authority will elaborate the Municipal Plan on Climate change and Sustainable Development, which will contain details about the strategies and actions provided in Chapter IV of this Law.
- Art. 21. It is established the Climate Change and Sustainable Development Forum in Rio de Janeiro, an advisory instance, aiming to raise awareness and mobilize society and the government of Rio de Janeiro to discuss the problems derived from climate change and promote sustainable development, contributing to economic growth, environmental preservation and social development.
- **Art. 22.** It is established the Municipal Fund of Climate Change and Sustainable Development, which will direct public and private applications for the development of the following activities:
- I projects which result into mitigation of GHG emissions in Rio de Janeiro City;
- II encouragement and creation of clean energy projects and technologies on the various sectors of economy;
- III environmental education and technical qualification in areas related to climate change;
- IV encouragement and support to sustainable and eco-efficient productive chains;
- V research and creation of project and inventory systems and methodologies that contribute to the reduction of liquid GHG emissions;
- VI projects for adaptation to the impacts of climate change in the City.



- **Art. 23.** The composition of the resources from the Municipal Fund of Climate Change and Sustainable Development will derive from the following sources:
- I generated revenue from fees for environmental offences;
- II revenue from economic compensations generated from activities with significant potential of GHG emissions;
- III revenue generated by the Municipal Environmental Fund and the Federal and State Funds for climate change;
- IV resources generated by partnerships or contracts settled between the City and other entities of the Federation;
- V budget provisions from the City and additional credits;
- VI applications, inversions, donations, loans and transfers from outer sources, national or international, public or private.
- **Art. 24.** The Municipal Public Authority will establish criteria and procedures for the elaboration of carbon neutralization and compensation projects in the City.

## **CHAPTER VI**

# **FINAL PROVISIONS**

- **Art. 25.** Environmental licenses for ventures with significant GHG emission will be subjected to the presentation of an emission mitigation plan and compensational measures, in the form of specific legislation.
- **Art. 26.** The Public Authority will edit the acts deemed necessary for the regulation of the present Law.
- Art. 27. This Law will take effect from the date of its publication.

## **EDUARDO PAES**

Mayor of Rio de Janeiro City

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