

Costa Rica and El Salvador:  
two differentiated but common climate policy strategies

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For years and years, Central America's 48 million people have suffered the impacts due to climate change<sup>1</sup>. Decreasing trends in annual rainfall and increases in temperature extremes have been identified in Central America. In addition, changes in variability and in extreme events have severely affected the region<sup>2</sup>. Costa Rica and El Salvador are no exception. Even though both countries contribute very little to the global GHG emissions (12,274.134 and 12,577.79 kt of CO<sub>2</sub> equivalent on 2012 respectively)<sup>3</sup> they are engaged in taking actions aiming to mitigate climate change, that is why they have submitted their Intended Nationally Determined Contribution (INDC) as requested by the Conference of the Parties to the United Nations Framework Convention on Climate Change in its decision 1/CP.19. This assessment intends to review and compare the climate change laws and policies of these two countries, and how they framed the path towards their INDCs.

#### Costa Rica's National Context

Costa Rica is a country of 4,563,539 inhabitants and 51,100 km<sup>2</sup> of land. It's characterized by a variety of climates. Due to geographic, atmospheric and oceanic influences, the country has been divided into seven climatic regions and has 34 watersheds. The most frequent extreme weather events are due to: tropical cyclones, low pressure systems, troughs and cold fronts. Costa Rica also suffers the consequences of the ENSO (*El Niño* Southern

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<sup>1</sup> Inter Press Service. (2015, October 30). 'Central America seeks recognition of its vulnerability to climate change' [WWW document] URL <http://www.ipsnews.net/2015/10/central-america-seeks-recognition-of-its-vulnerability-to-climate-change/> (visited 2016, November 9)

<sup>2</sup> IPCC, 2014: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 688.

<sup>3</sup> The World Bank. (2016). 'World Bank Open Data'. [WWW document] URL <http://data.worldbank.org/> (visited 2016, November 8)

Oscillation) phenomenon. As for energy, the residents of Costa Rica are among the highest rates of energy supply. The main sources of primary energy used for electricity generation are hydroelectric, geothermal and wind energy<sup>4</sup>. The country ran on 100 % renewable energy for 76 straight days this year; this goal was supported by the heavy rain at the country's four hydroelectric power facilities<sup>5</sup>. The total energy utilization in 2010 was 152, 863 TJ, of which 21.8 % was primary energy and 78.2 % secondary energy. The most important source of energy represented petroleum derivatives, which accounted for 56.9 % of total consumption, followed by biomass with 21.2 % and electricity with 20.2 %. The transport sector represents 46.0 % of total energy consumption, followed by industrial with 24.9 % and residential with 17.8 %. As for productive sectors, tourism is one of the most important and brings the largest inversion to the country. Agriculture is very important too, coffee being the main crop<sup>6</sup>.

#### El Salvador's National Context

El Salvador has an area of 20,7440 km<sup>2</sup> with important geographical and ecological diversity<sup>7</sup>. El Salvador was the world's most at-risk country for climate change in 2009, and fourth most vulnerable in 2011 according to the Climate Change Vulnerability Index<sup>8</sup>. In the period between November 2009 and October 2011, it was stroke by 3 major storms causing damages of about \$1,300 million. It also suffers the consequences of droughts; the 2001 drought generated losses of \$ 31.4 million. The agricultural sector was the most affected, with 81% of total losses. As for GHG emissions, the energy sectors accounts for the majority with 40.9 %, followed by the land use and forestry sector with 23.4 % and agriculture with 21.6 %. The transport sector is the main source of the energy emissions, it contributes to 43 %. In the land use and forestry sector, the main contribution is due to conversion of forests and grasslands with 65 %. In agriculture, the main sources of emissions correspond to

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<sup>4</sup> Costa Rica. Ministerio de Ambiente y Energía. Instituto Meteorológico Nacional. (2014). Tercera comunicación nacional a la Convención Marco de las Naciones Unidas sobre Cambio Climático.

<sup>5</sup> Science Alert. (2016, September 7). 'Costa Rica has been running on 100% renewable energy for 2 months straight'. [WWW document] URL <http://www.sciencealert.com/costa-rica-has-been-running-on-100-renewable-energy-for-2-months-straight> (visited 2016, November 7)

<sup>6</sup> Supra note 4

<sup>7</sup> El Salvador. Ministerio de Medio Ambiente y Recursos Naturales. (2000). First national communication of El Salvador under the United Nations Framework Convention on Climate Change.

<sup>8</sup> The London School of Economics and Political Science. (2016). 'The Global Climate Legislation Study (El Salvador)'. [WWW document] URL <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/el-salvador/> (visited 2016, November 10)

enteric fermentation with 48 % and agricultural soils with 46 %. As for economic circumstances, the armed conflict (1980-1992) and a series of social transformations led to the crisis of the agro-export model. Between 1990 and 2010 the economy had a slow, outsourced, dependent on imports growth and based on remittances; the latter becoming the main source of foreign exchange in the country<sup>9</sup>.

#### Costa Rica Public Policy of Climate Change

Climate change policies in Costa Rica are based on ambitious targets aiming for carbon neutrality. The Climate Change Consultative Committee (OCIC) consists of representatives of government, academia and NGOs that assist in the elaboration of these policies<sup>10</sup>. The National Climate Change Strategy (2008) was very important towards the elaboration of the INDC. The Strategy was provided by the 2006-2010 National Development Plan, which places the climate change agenda as a national and international priority. It was updated for 2015-2018 in November 2014, reaffirming the ambitious goal to be a carbon neutral economy. The 2008-2021 National Energy Plan aspires to diversify the energy matrix, with a sustainable transportation and further support of renewable energy, especially from domestic resources. The energy demand policy is based on the Law on Rational Use of Energy (1994). According to the 2014 Inventory, transport sector is the largest source of GHG emissions. In order to tackle this, Costa Rica submitted the Vehicle Emissions Act in 1996 and its first National Biofuels Programme in 2008. A Biofuels Law was proposed in 2013. Succeeding the 2008 National Climate Strategy, a national carbon market was developed. The National Norm of Carbon Neutrality was adopted in 2011 and sets the conditions for businesses and organizations to receive a carbon neutrality certification. This fits with the 2012 Carbon Neutral Country Programme of the Climate Change Directorate of the Ministry of Environment and Energy. Later in 2013, the decree creating the national Voluntary Carbon Market was approved. As for forestry, the National Forestry Finance Fund (established in 1991) became one of the core elements of the country's forest policy; its main instrument is the Payments for Environmental Services (PES) Programme. The main source of funding for the PES is a fuel tax (defined in the 1996 Forest Code). In 1998 the

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<sup>9</sup> El Salvador. Ministerio de Ambiente y Recursos Naturales. (2013). Segunda comunicación nacional sobre cambio climático.

<sup>10</sup> The London School of Economics and Political Science. (2016). 'The Global Climate Legislation Study (Costa Rica)'. [WWW document] URL <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/costa-rica/> (visited 2016, November 9)

government created the National System of Conservation Areas to administer biodiversity. In 2010 the country developed the first Reduced Emissions from Deforestation and Forest Degradation (REDD+) Plan. See Table 1 for a summary of the Costa Rican legislation<sup>11</sup>.

Table 1 Costa Rica Portfolio of Climate Legislation<sup>12</sup>

	Costa Rica	Year
Executive	7th National Energy Plan 2015–2030	2015
	Ministerial Decree No. 37296-MINAE creating the Voluntary Carbon Market	2013
	Decree No. 36823-MINAET	2012
	Executive Decree No. 37352-MINAET	2012
	Biofuel Regulation (Executive Decree 35091)	2009
	National Climate Change Strategy (NCCS)	2008
	National Energy Plan 2008-2021	2008
Legislative	Law 9366 on Railroad Electrification	2016
	Forest Law (Law No.7575)	1996
	Regulations on the Efficient Use of Energy (Law No. 7447)	1994
	Energy Law (Law No. 7200)	1990

#### El Salvador Public Policy of Climate Change

Recently, El Salvador has made significant progress in climate legislation. Concerns about climate change events and vulnerability have led to the adoption of several policy instruments, focusing on adaptation and mitigation, but especially on risk management. In 2012 the country adopted reforms to the National Environmental Law, which aims to reduce the environmental degradation and the vulnerability to climate change and adds a chapter addressing the need for regulating the preparation of the National Climate Change Plan (NCCP). It requests the NCCP to be updated every 5 years. The first NCCP was scheduled for launch in January 2015. In 2013, the Executive adopted the National Climate Change Strategy setting the bases for a NCCP. Two consecutive national development plans

<sup>11</sup> Ibid

<sup>12</sup> Ibid

have included climate change and risk management as priorities. The 2010-2014 Development Plan also calls for the adoption of a NCCP and the creation of an Environment and Risks Reduction Policy. The 2014-2019 Development Plan improves climate actions by strengthening institutions and fostering inter-institutional coordination. In 2014 a Cabinet of Sustainability was created within seven Ministries, whilst the Civil Protection Agency will guide the process of the NCCP. El Salvador is the largest producer of geothermal energy in Central America but has a strong dependency on fossil fuels for its electricity. As a result, the Electricity Generation Law (2007) fosters investments in renewable energies through fiscal incentives. The 2010-2024 National Energy Policy highlights that climate change should be addressed when defining policies. The National Energy Council and the General Superintendence of Electricity have made efforts to establish long-term contracts for renewable energy production. In 2006 El Salvador, in alliance with Costa Rica, Nicaragua and Panama established its first energy efficiency project to ease the entry of energy-efficient technologies. As for forestry, El Salvador is the second most deforested country in Latin America with only 27 % of forest coverage. For this reason, the 2011-2030 National Forest Policy Proposal intends to recover around 15 % of deforested areas. In addition, in 2012 the Climate Change Mitigation and Adaptation National Strategy for Agriculture, Livestock, Aquaculture and Forest was adopted. Based on this, the Climate Change Policy for Agriculture and Livestock is in process. See Table 2 for a summary of El Salvador legislation<sup>13</sup>.

Table 2 El Salvador Portfolio of Climate Legislation<sup>14</sup>

	El Salvador	Year
Executive	The National Climate Change Strategy (NCCS)	2013
	National Environmental Policy	2012
	2010-2024 National Energy Policy	2010
Legislative	Amendment to General Education Law (Legislative Decree No. 714)	2011
	Amendment to the Law of Superior Education (Decree No. 715)	2011
	Fiscal Incentives for Increased Use of Renewable Energy within the Electricity Generation Law (Law No.462)	2007
	Civil Protection, Disasters Prevention and Mitigation Law (Decree No. 777)	2005

<sup>13</sup> Supra note 8

<sup>14</sup> Supra note 8

## Comparison and conclusions

Costa Rica and El Salvador have many geographical, socioeconomic, and cultural similarities but with regard to coping and adapting to climate change, important differences can be found especially in their laws. The main difference is that the first climate law in Costa Rica is from 1990<sup>15</sup> while in El Salvador is from 15 years afterwards<sup>16</sup>. This implies that Costa Rica's history in climate legislation is longer than El Salvador's, and therefore, it can be said that Costa Rica is more experienced in this aspect. Another is that, on the contrary to Costa Rica, El Salvador has had to focus more on risk management and disaster prevention policies because is more vulnerable to disasters due to e.g. hurricanes than Costa Rica. In that regard, Costa Rica has had a good balance among mitigation, adaptation and disaster approach policies. Nevertheless, both have National Climate Change Strategies and National Energy Plans<sup>17</sup>.

Both countries have outstanding and particular laws that could encourage each other for the establishment of new laws. Costa Rica's 1996 Forest Law<sup>18</sup> has been crucial for the country's remarkable forest coverage (more than 50 per cent<sup>19</sup>). Likewise, El Salvador has done significant efforts in adding climate change in the curricula with the Amendment to General Education Law and the Amendment to the Law of Superior Education (both from 2011)<sup>20</sup>. El Salvador has many new policies such as the 2012 Integral Programme for Fiscal Sustainability and Climate Change Adaptation and the 2012–2022 Climate Change and Risk Management Educational Plan<sup>21</sup>, but not so many laws. Definitely, less than Costa Rica.

The most favorable element of Costa Rica's legislation for its INDC scope is the carbon neutrality goal. Costa Rica's INDC is centered on increasing society's resilience and strengthening the country's capacity for a low emission development. It has a concise goal: a maximum of 9,374,000 T CO<sub>2</sub> equivalent net emissions by 2030 with proposed emissions

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<sup>15</sup> Supra note 10

<sup>16</sup> Supra note 8

<sup>17</sup> Supra note 8; supra note 10

<sup>18</sup> Supra note 10

<sup>19</sup> Arturo Sánchez-Azofeifa et al, 'Cobertura Forestal de Costa Rica' *Ambientico Revista mensual sobre la actualidad ambiental*, 253, (2015), p.8

<sup>20</sup> Supra note 8

<sup>21</sup> Supra note 8

per capita of 1.73 net tons by 2030. These targets are consistent with the necessary compliance path for the 2°C global goal<sup>22</sup>.

In El Salvador, many instruments have highlighted the call for the adoption of the NCCP; this has been very convenient in shaping the INDC. El Salvador's INDC sets adaptation matter as the priority and accentuates the requirement for financial aids from public and private international resources to be able to implement the identified actions. It also emphasizes that the country's commitments must be balanced according to its level of responsibility<sup>23</sup>.

The aforementioned INDCs are very distinct. One has an appointed goal and an overall approach. The other does not have a specific target and its approach is mostly aimed at adaptation issues. One can say that El Salvador could've had a more rigorous INDC, but their reality is not easy and it's reasonable that their priority is not the mitigation of GHG emissions but the protection of its people and territory. After the crisis of 2008-2009, the country's economy has grown slowly. The rate of population living in poverty on 2014 is of 31.8 %. The Economic Commission for Latin America and the Caribbean has pointed out that in El Salvador from 1980 to 2008, an average of 1.5 natural disasters per year resulted in the deaths of almost 7,000 people, and had an estimated cost of US \$ 470 million per year<sup>24</sup>. The mitigation efforts that the country is carrying out should be applauded.

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<sup>22</sup> Costa Rica. Ministry of Environment and Energy. (2015). Costa Rica's Intended Nationally Determined Contribution.

<sup>23</sup> El Salvador. (2015). Ministerio de Medio Ambiente y Recursos Naturales. Contribución Prevista y Determinada a Nivel Nacional de El Salvador.

<sup>24</sup> Ibid

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