### **CLIMATE CHANGE LEGISLATION IN**

## **POLAND**

AN EXCERPT FROM

# The 2015 Global Climate Legislation Study A Review of Climate Change Legislation in 99 Countries



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## **Poland**

## **Legislative Process**

The Polish Parliament consists of two legislative bodies, the Lower House (the Sejm), and the upper house (the Senate). There are 460 elected deputies in the Sejm, and 100 senators in the Senate, in both cases elected for four-year terms. The Polish legislative procedure is described by the Constitution.

Legislation can be initiated by the Cabinet, by the deputies of the Lower House (by a committee or a group of at least 15 deputies); by the Senate (a resolution of the entire Chamber is necessary); by the President of the Republic; or the Council of Ministers. The Constitution also allows citizens to introduce a bill if they gather 100,000 signatures from eligible voters.

Bills are submitted to the Lower House, where they are dealt with in three readings. The Lower House examines the bill and transmits it to the appropriate parliamentary committees for amendment. The bill is then returned to the Lower House, which votes on the amendments and the bill as a whole. The Lower House approves the bill by a simple majority, subject to at least half of the statutory number of members being present. Once it is passed in the Lower House, the bill is transmitted to the Senate, which has one month in which to adopt it without amendment, amend it or discard it. If a bill is amended or thrown out by the Senate, it must be re-examined by the Lower House. The Lower House needs an absolute majority, subject to at least half of the statutory number of Members being present, to override a Senate recommendation.

If the Parliament completes the legislative process, the bill is transmitted to the President, who should sign it and order its publication in the Journal of Laws. Before signing a bill, the President can refer it to the Constitutional Court for constitutional review. If the Constitutional Court deems the bill to be compatible with the Constitution, the President may not refuse to sign it. The President also has the option of not referring a bill to the Constitutional Court but simply refusing to sign the bill and returning it to the Lower House for further consideration ("presidential veto"). However, the Lower House may reject a presidential veto by a three fifths majority, subject to at least half of the statutory number of Members being present. If the bill is once again adopted by the Sejm, the President has one week in which to sign it and order its publication. The last Presidential elections took place in 2010, and the last Parliamentary elections took place in 2011. Next elections for both President and the Parliament will be in 2015.

## **Approach to Climate Change**

The base year for Poland under the UN Climate Change Convention is 1988 rather than 1990. In general, parties with economies in transition were allowed

to choose a base year other than 1990. For Poland, 1988 was the last year of the relatively normal functioning of the economy before the crisis, when GHG emission levels were at their highest level. The EU-wide goal of cutting emissions by 20% from 1990 levels by 2020 translates into a national target for Poland's non-EU-ETS sectors of up to a 14% increase by 2020 compared to 2005. In 2012 total emissions were at the same level as in 2005.

Poland has reduced its GHG emissions substantially since its economic transformation started in 1990. As elsewhere in Central and Eastern Europe, the economic collapse of the former Soviet bloc resulted in a considerable drop in domestic and foreign demand for the country's very energy- and carbon-intensive products. As a result of the structural shift towards less energy-intensive sectors, the country's overall GHG emissions fell by around 24% between 1988, the base year, and 1994. The Polish success in decoupling economic growth from GHG emissions is higher than the European average. The country's GDP grew by more than 200% between 1988 and 2012 while emissions fell by around 31%. Poland is also on track to meet the EU 2020 target for the sectors not included in the EU-ETS, primarily the residential, transportation and agriculture sectors as well as to meet the 15% RES target.

Poland has no single separate policy document setting a comprehensive climate change strategy. The "Climate Policy of Poland: Strategy to reduce greenhouse gas emissions in Poland until 2020" was developed by the Environment Ministry and adopted by the Council of Ministers in 2003, but this Strategy became outdated and is no longer in force.

Instead, climate policy is established in a number of different laws and policies. The Minister of the Environment is responsible for the implementation of climate policies and approves the programme of the State Environmental Monitoring System, which is co-ordinated, pursuant to the Act on the Inspectorate for Environmental Protection, by the Chief Inspector for Environmental Protection. The Minister engages the research and development institutes which are subordinated to him in implementing Poland's tasks under the UNFCCC and the Kyoto Protocol. They include primarily the Institute of Environmental Protection (IOŚ-PIB), the Forest Research Institute (IBL), and the Institute of Meteorology and Waster Management (IMGW-PIB). At the national level, the following Ministers are also responsible for the introduction of the national climate policy into sectoral policies: the Minister of the Economy, the Minister of Agriculture and Rural Areas, and the Minister of Infrastructure and Development. In 2013, the Council of Ministers appointed the Plenipotentiary for Climate Policy at the level of Secretary of State in the Ministry of the Environment.

Poland put in place a national development system, with nine integrated development strategies. Two are directly linked to climate change: the "Strategy for Economic Innovation and Effectiveness" (2012-2020), adopted in 2013, and the "Strategy for Energy Security and Environment" (ESE), adopted by the

Council of Ministers in 2014. The key strategy document dealing with energy and environment is the "Strategy for Energy Security and Environment", adopted in April 2014, which identifies key priorities for environmental policy by 2020.

The country's energy policy strategy, outlined in Energy Policy of Poland until 2030 (EPP 2030), issued by the Ministry of Economy in 2009, is mostly focused on improving energy security, efficiency and competitiveness. It implies a small reduction in overall GHG emissions by 2020, and a 4% increase between 2020 and 2030. The document presents a sectoral strategy aiming to address the key challenges that the Polish power industry faces until 2030, including growing demand for energy, inadequate fuel, energy generation and transmission infrastructure, significant dependence on external supplies of natural gas and almost complete dependence on external supplies of crude oil, as well as commitments in the field of environmental protection, including climate protection. The new Energy Policy for Poland until 2050, which will reflect the decisions made on the EU 2030 climate policy, is under preparation.

#### **Energy supply**

According to the 2009 energy strategy document (EPP 2030), energy supply should consist of a mix between cogeneration, renewables, grid modernisation, and nuclear. With this end, the EPP establishes measurable targets, for example: increase the percentage of renewable energy sources to 15% by 2020 and to 20% by 2030; boost the share of biofuels in transportation fuels to 10%; and build at least one biogas agricultural plant in each commune by 2020.

However, with respect to energy generation, coal remains the dominant source of fuel, while renewables remain at low levels. The share of renewable energy sources in final energy consumption was 10.4% in 2011. Poland must make a considerable effort to ensure continuous growth of the sector to reach renewable energy targets for 2020.

In April 2014, Council of Ministers adopted a long-awaited draft law that lays out long-term subsidies for renewable energy. The draft of the act will implement the provisions of the EU Directive on promoting the use of renewable energy into Polish law. The level of support will differ depending on the source of renewable energy. The draft has been forwarded to Parliament and is at the final stage of deliberations.

#### **Energy demand**

Energy efficiency is a priority in Poland's energy policy. The 2009 Energy Policy of Poland until 2030 (EPP 2030) strategy document establishes a number of measures addressing energy demand, including national energy efficiency targets, energy efficiency performance certificates, minimum standards for power-consuming products, supporting investments in energy saving, and applying demand-side management techniques.

In 2011 the government issued an Energy Efficiency Law, introducing the system of white certificates as support scheme. Following the obligations assumed through this act, as well as the obligations established by the EU's Energy Efficiency Directive and Energy Performance of Buildings Directive, the Polish government has to prepare its National Energy Efficiency Action Plans (EEAP). Poland's second EEAP, issued in 2012, includes measures to improve energy efficiency, focusing on energy end-use efficiency, and calculations concerning energy savings achieved in 2008-2009 and expected in 2016. It shows the energy savings achieved in 2009 (top-down) and expected in 2016 (top-down and bottom-up).

The Strategy for Energy Security and Environment (ESE) identifies key reforms and necessary steps for cleaner energy and to safeguard the security of energy supply up to 2020. The key objectives include sustainable management of the environment through measures like water management, preservation of biodiversity and effective management of mineral resources. The policy strives to ensure competitive energy supply through measures such as better use of domestic energy resources, improved energy efficiency and modernisation of power industry including development of nuclear power. The government estimates that modernisation of the power sector will cut CO<sub>2</sub> emissions by 0.4% annually. The policy document also calls for measures to reduce air pollution, cut industrial sector water use and manage waste better. The government will work towards carbon capture and storage solutions and gasification of coal, which is expected to remain the main source of energy.

#### **Carbon pricing**

The restructuring of the Polish economy in the 1990s focused on reducing the impact of the national economy on the environment and decoupling its GDP growth from GHG emissions. Presently, GHG emissions are below the target established under the Kyoto Protocol and Poland has a surplus of 500m of Assigned Amount Units (AAUs) in the period 2008-2012, the third largest after Russia and Ukraine.

In 2008 Poland became eligible to engage in international emissions trading, including trading of AAUs. The Act on Management of GHG Emissions and Other Substances came into force in 2009 and defines operational rules of the National Green Investment Scheme (GIS). It also addresses the use of proceeds from the transactions on hard and soft greening, and the mechanisms for monitoring, reporting and verification. The Act establishes that the National Fund for Environmental Protection and Water Management is the operating entity for the GIS.

A number of programmes are already being implemented within GIS. Energy management in public buildings (GIS grant budget of PLN650m, USD193m); agricultural biogas plants (PLN50m, USD14.9m); biomass combined heat and power stations (PLN25m, USD7.4m); construction, extension and conversion of electricity networks to enable the connection of wind energy generation sources

(PLN80m, USD23.8m); energy-efficient street lightning (PLN120m, USD35.8m); and low-emission urban transportation (PLN40m, USD11.9m).

#### **Transportation**

The EPP 2030 strategy document establishes the need to gradually increase the share of biofuel in transportation fuels. As a result, the government established differentiated fuel taxes to promote alternative fuels. In 2013 the fuel fees charged to producers or importers of motor fuel were differentiated (PLN103.16, USD30.69) per 1,000 litre petrol; PLN259.92 per 1,000 litre diesel (USD77.34); PLN133.10, USD39.60 per 1,000kg gas). Another measure has been to incentivise the use of rail transport, including the introduction of integrated rail, tramway and bus tickets for selected routes. Regions and cities (Warsaw, Gdansk-Sopot-Gdynia) have introduced integrated ticketing systems and park & ride systems. The public transportation stock was upgraded through the purchase of modern, low- or zero-emission buses, trams and city trains. In addition, a biofuel quota was implemented through the 2006 Act on Biocomponents and Liquid Biofuels as a way to increase the share of biofuels in transport fuels.

#### Adaptation

The basic national strategic document is the Strategic Adaptation Plan for Sectors and Areas Sensitive to Climate Change up to 2020 (SAP 2020). The SAP 2020 was adopted by the Council of Ministers in 2013, and is in line with the EU Strategy on adaptation to climate change. It requires a horizontal approach and an account of the risks posed by climate change, as indicated in the Risk Assessment on Crisis Management, Report on Threats to National Security. The SAP 2020 foresees the mainstreaming of the adaptation programme into sectoral policies, primarily those related to agriculture and forestry, biodiversity, ecosystems and water resources, coastal zones, infrastructure and, subsequently, the preparation of a draft programme for their implementation.

Climate change adaptation is also being mainstreamed into the implementation of the relevant national and sectoral development strategies and policies: the Long-term Development Strategy by 2030; the Medium-term National Development Strategy by 2020; the National Spatial Management Conception by 2030; the Strategy for Economy Innovation and Effectiveness; the Human Capital Development Strategy; Energy Security and Environment Strategy; the National Strategy of Regional Development 2010–2020 for regions, cities and rural areas; the Transport Development Strategy by 2020; the Strategy for Sustainable Development of Rural Areas, Agriculture and Fisheries; the Effective State Strategy 2011–2020; the Social Capital Strategy; and the National Urban Policy.

Flood management is seen as a priority mainly in two strategies — the Energy Security and Environment Strategy and the Sustainable Development of Rural Areas, Agriculture and Fisheries Strategy.

## Poland: Legislative portfolio

Name of Law	Energy Efficiency Law
Date	Adopted 15 April 2011, in force May 2011
Summary	This Act transposes Directive 2006/32/EC into Polish law, establishing the legal framework for stimulating investment in energy efficiency in Poland. The system is based on the obligation of the specified entities to obtain and present for cancellation to the President of the Energy Regulatory Authority specified number of certificates of energy efficiency (the so called white certificates) or the payment of a replacement fee. This obligation has been imposed on energy companies selling electricity, heat and natural gas to end-users connected to the Polish network, as well as end-users of energy and brokerage houses and commodity brokerage houses, conducting transactions on a commodity exchange market.
	Following the issuance of the EEL, the Ministry of Economic Affairs issued secondary legislation to enable the EEL to enter into force: Decree of 10 August 2012 that detailed the procedure of energy efficiency audit and describes the methods of computing energy savings; Decree of 4 September 2012 on computing primary energy savings for the purpose of the White Certificate System (WCS) and the compensation fee in the system; Decree of 23 October 2012 on the procedures of the bid for the White Certificates and listed the eligible energy efficiency means eligible in the WCS.
	The original EEL was amended on 10 October 2012, dropping the articles that defined specific requirements of the energy efficiency auditors. This move was mainly induced by the government's policy to open different occupations to make the market of services they provide more competitive and flexible.
	The extent of the current Energy Efficiency Law (EEL) is limited to 2016 and due to some legal constraints the bill cannot be amended. Therefore the law is planned to be replaced by a new legal act that will extend the duration of energy efficiency law beyond 2016.

Name of Law	Regulation of the Council of Ministers on types of programmes and projects to be implemented under the National Green Investment Scheme (GIS)
Date	3 November 2009
Summary	This implements the Article 22(3) of the Act on the System to Manage the Emissions of GHGs and Other Substances of 17 July 2009. The regulation stipulates the types of programmes and projects to be implemented in the areas referred to in Article 22(2) of the Act on the system to manage the emissions of GHGs and other substances of 17 July 2009.
	It also stipulates the following:  Improvement of energy efficiency in various sectors; Improvement of coal use efficiency including clean coal technologies; The use of low-emission fuels; Avoidance or reduction of GHG emissions in the transportation sector; Use of renewable energy sources; Avoidance or reduction of methane emissions by recycling and use in the mining industry, waste and waste-water disposal and in farming, as well as by use in power generation; actions in relation with GHG sequestration; Other actions to reduce or avoid national emission of GHGs or to absorb CO <sub>2</sub> and adapt to climate change; Research and development works on the use of renewable energy sources and advanced and innovative environmentally friendly technologies; and Educational activities, including training events in support of the national obligations.

Name of Law	Act on the System to Manage the Emissions of Greenhouse Gases and Other Substances
Date	18 September 2009
Summary	This Act introduces the legal basis for the management of national GHG emissions and other substances in order to fulfill Poland's obligations towards the EU and the UNFCCC. It allows pollution to be cut in the cheapest possible way and it introduces into Polish law the three mechanisms under the Kyoto Protocol: Emissions Trading, the Clean Development Mechanism and Joint Implementation
	<ul> <li>This Act sets forth the following:</li> <li>Responsibilities of the National Centre for Emission Balancing and Management;</li> <li>The principles of the operation of the National System for Emission Balancing and Forecasting;</li> <li>The principles of the management of emissions of GHGs and other substances;</li> <li>The principles of the operation of the National Registry of the Kyoto Units and emission allowance;</li> <li>The principles of trading in and managing the Kyoto units;</li> <li>The principles of the operation of the National Green Investment Scheme and the Climate Account;</li> <li>The terms and conditions of the management of the Joint Implementation projects in the territory of the Republic of Poland; and</li> <li>The terms and conditions of the management outside the territory of the Republic of Poland for the Joint Implementation projects, and the Clean Development Mechanism projects.</li> </ul>
	Projects implemented in following areas can be considered for implementation under the GIS Act: (i) energy efficiency; (ii) clean coal technologies; (iii) replacement of high-emission by low-emission fuel; (iv) avoidance or reduction of GHG emissions from the transportation sector; (v) use of renewable energy sources; (vi) avoidance or reduction of methane emissions through recycling and use in power generation; (vii) GHG sequestration; (viii) actions to reduce or avoid GHG emissions, to absorb CO2 and adapt to climate change; (ix) research and development of renewable energy sources and advanced and innovative environmentally-friendly technologies; (x) educational activities.

Name of Law	Act on Biocomponents and Liquid Biofuels
Date	25 August 2006, regulated on 23 July 2013
Summary	This Act establishes that the producers, importers and suppliers of fuels are obliged to meet an annual quota of biofuels in the total amount of liquid fuels produced, supplied an imported. The obligation levels are determined every three years for a period of six year by the Council of Ministers.
	The following biocomponents are eligible: bioethanol, biomethanol, biobutanol, este dimethyl, ether pure vegetable oil, bio liquid hydrocarbons, bio propane-butane, liquefied biomethane, compressed biomethane and biohydrogen, which are produced from biomas for use in the manufacture of liquid fuels or biofuels (art. 2 par. 1 no. 3).
	The Act was detailed by Regulation of 23 July 2013 on the National Indicative Targets for 2013-2018). The Regulation established that the obliged companies have to ensure tha biofuels make up the following quotas of the company's total annual sale or consumption of fuel: 7.10% between 2013 and 2016, 7.80% in 2017 and 8.50% in 2018.

Name of Law	Energy Law
Date	10 April 1997
Summary	This law (with later amendments) established the basis for third party access, independent electricity and gas system, independent power producers, renewable energy sources, least cost planning, integrated resource planning, energy regulatory authority, high efficiency

heat and power production, demand side management and energy efficiency labels.

It facilities the production of electricity from renewable energy sources (up to 5MW), making them eligible to benefit from a reduced grid connection fee and exempt from paying annual licence fees. Energy providers are allowed to incorporate costs of developing renewable energy into their tariff regimes. Since 1 October 2005, energy enterprises that generate, trade or purchase electricity are obliged to purchase or generate a certain amount of electricity from renewable sources of energy. The obligation will be met through the acquisition and redemption of certificates of origin that certify electricity produced from renewable sources. Transmissions and distribution operators are obliged to accept renewable sources of energy. Similar scheme for heat produced from renewable energy sources entered into force on 1 January 2007.

The amendment of 26 July of 2013 simplified the setting up a micro-installation (renewable energy sources with no more than 40kW of total installed electrical capacity, connected to electrical grid of a voltage lower than 110kV or no more than 120 kW of total installed heat capacity). Applications to connect a micro-installation to the grid will no longer be subject to a connection fee nor required to attach documents confirming the admissibility of locating the installation in the investment area. In some cases, there will be no need for an interconnection agreement. It also expands the definition of renewable energy sources to aerothermal and hydrothermal, it provides the protection of vulnerable consumers, as well as support for energy-intensive industries.

In order to make the gas market more transparent and competitive, the Small Tri-Pack imposes the obligation to sell at least 30% (40% since 2014 and 55% since 2015) of the gas at the exchange markets. The Act also exempts people producing energy from renewable resources for their own purposes from the obligation to obtain the license for the power supply.

## Poland: Executive portfolio

Name of Policy	Strategy for Energy Security and Environment (ESE)
Date	15 April 2014
Summary	The 2014 Strategy for Energy Security and Environment (ESE) identifies key reforms and necessary steps for cleaner energy and to safeguard the security of energy supply up to 2020. The key objectives of the strategy include sustainable management of the environment through measures like water management, preservation of biodiversity and effective management of mineral resources. The policy strives to ensure energy supply through measures such as better use of domestic energy resources, improved energy efficiency and modernisation of power industry including development of nuclear power. The policy document also calls for measures to improve the environment through reduction in air pollution, particularly lead, cadmium and particulate matter, cuts in industrial sector water use and better waste management. The government will also work towards carbon capture and storage solutions and gasification of coal, which is expected to remain the nation's main source of energy.

Name of Policy	Polish National Strategy for Adaptation to climate Change (SAP 2020)
Date	29 October 2013
Summary	The SAP 2020 foresees mainstreaming the adaptation programme into sectoral policies, primarily those related to agriculture and forestry, biodiversity, ecosystems and water resources, coastal zones, infrastructure and, subsequently, the preparation of a draft programme for their implementation.

The Strategy presents an analysis of current climate change and the development of future change scenarios for Poland up to the end of the 21<sup>st</sup> century. It also assesses the impact of expected change in the socioeconomic area, and the vulnerability of various sectors of the economy.

The implementation of the SAP 2020 involves 3 stages: the elaboration of the Strategic Adaptation Plan taking into account climate change in the reference period of 1971-2000; the preparation of the Strategic Adaptation Plan for a long-term period, taking into account expected climate change up until 2070-2100; and cost estimation.

Name of Policy	Energy Policy of Poland until 2030 (EPP 2030)
Date	November 2009
Summary	The EPP 2030 was issued by the Ministry of Economy and focuses on improving energy security, efficiency and competitiveness. It implies a small reduction in overall GHG emissions by 2020, and a 4% increase between 2020 and 2030. The document presents a sectoral strategy aiming to address the key challenges that the Polish power industry must faces until 2030, including growing demand for energy, inadequate fuel, energy generation and transmission infrastructure, significant dependence on external supplies of natural gas and almost full complete dependence on external supplies of crude oil, as well as commitments in the field of environmental protection, including climate protection. The new Energy Policy for Poland until 2050, which will reflect the decisions made on the EU 2030 climate policy, is under preparation.
	The document establishes a number of measures addressing energy demand, including national energy efficiency targets, energy efficiency performance certificates, minimum standards for power-consuming products, supporting investments in energy saving, and applying demand-side management techniques.
	It also establishes that energy supply should consist of a mix between cogeneration, renewables, grid modernisation, and nuclear. With this end, the EPP fixes measurable targets, for example: increase the percentage of renewable energy sources to 15% by 2020 and to 20% by 2030; boost the share of biofuels in the transportation fuels market to 10%; and building of at least one biogas agricultural plant in each commune by 2020.
	The EPP 2030 strategy document establishes the need to gradually increase the share of bio-components fuel in transportation fuels so as to meet planned objectives. As a result, the government established differentiated fuel taxes in a way that to promotes alternative

fuels.

#### Sources

- Ecologic Institute and Eclareon (2013). Assessment of climate change policies in the context of the European Semester. Country Report: Poland (2013). Authors team: Eike Dreblow, Matthias Duwe, Tim Wawer, Lena Donat, Elizabeth Zelljadt, Andrew Ayres and Anna Poblocka. Available at: http://ec.europa.eu/clima/policies/g-gas/progress/docs/pl\_2013\_en.pdf. Accessed 15 December 2014.
- Égert, B., 2012. Climate Change Policies in Poland: Minimising Abatement Costs. OECD Economics Department Working Papers, No. 953, 24 April 2012. OECD Publishing [URL: http://dx.doi.org/10.1787/5k9b7bz18m0x-en]. Accessed 15 December 2014.
- Energy Efficiency Directive (EED) (2014). Implementation in Poland. Available at: www.esd-ca.eu/reports/.../national-implementation-report-2014-poland. Accessed 16 December 2014.
- European Climate Adaptation Platform (Climate-ADAPT), 2013. [www.climate-adapt.eea.europa.eu/countries/poland]. Accessed 16 December 2014.
- European Commission, 2013. Assessment of the 2013 national reform programme and convergence programme for Poland. Brussels, May, 2013 [http://ec.europa.eu/europe2020/pdf/nd/swd2013\_poland\_en.pdf]. Accessed 15 December 2014.
- International Energy Agency, 2013. Energy Efficiency Policies and Measures database: Poland [http://www.iea.org/policiesandmeasures/energyefficiency/?country=Poland]. Accessed 14 December 2014.
- KOBiZE, A success story of effective decoupling Costs and benefits of the Polish transformation, November 2013.
- Ministry of Economy, 2012. 2nd National Energy Efficiency Action Plan of Poland 2011 [http://www.mg.gov.pl/files/upload/8134/Polityka%20energetyczna%20ost\_en.pdf]. Accessed 15 December 2014.
- Ministry of Environment, n.d. [URL: http://www.mos.gov.pl]. Accessed 17 December 2014.
- Ministry of the Environment and the Institute of Environmental Protection (2013). The Sixth National Communication and the First Biennial Report to the Conference of the Parties to the UNFCCC.
- PwC (2014). Global Green Policy Insights: environmental tax and regulation update, June 2014. Available at: http://www.pwc.com/en\_GX/gx/tax/newsletters/global-green-policy-insights/assets/pwc-ggpi-june-2014.pdf. Accessed 15 December 2014.
- United Nations, Climate Change Secretariat, n.d. Summary of GHG Emissions for Poland [URL: http://unfccc.int/files/ghg\_emissions\_data/application/pdf/pol\_ghg\_profile.pdf. Accessed 15 December 2014.
- Sixth National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), 2014,
  - http://unfccc.int/files/national\_reports/annex\_i\_natcom/submitted\_natcom/application/pdf /pol\_nc6.pdf. Accessed 16 December 2014.