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**Forming an Intended Nationally  
Determined Contribution:  
Key Considerations for Turkey**

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## Introduction

2015 will be a critical year in determining the shape of the new international climate change regime. After the Kyoto Protocol drew to an end on 2012, the focus of the annual Conferences of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC) has been to reach a new global deal. The 21<sup>st</sup> COP is will be convened between 30 November and 11 December 2015 in Paris and is expected to conclude with a new comprehensive greenhouse gas (GHG) emission mitigation agreement that will replace the Kyoto regime. The ultimate aim of the parties is to limit the increase in global temperature levels below 2 degrees Celsius compared to the pre-industrial levels. Even though the main focus of the agreement will be mitigation, the agreement is also set to cover the adaptation aspect of climate change.

In light of the ongoing negotiations, it seems that the new climate change agreement will bear significant differences from the Kyoto Protocol. While the Kyoto agreement had set emission reduction targets for many of the developed countries in the world, no developing country party had took on pledges to limit their emissions. One of the main goals of the recent climate change negotiations is to ensure that all parties to the UNFCCC take on meaningful GHG reduction pledges regardless of their level of development. Also, the method for determining the contribution of each country will be quite different from that in the Kyoto Protocol. The Kyoto Protocol had utilized a top-down approach in deciding countries' required emission reduction levels, the new agreement will instead utilize a bottom-up approach. Countries will be free to choose the level and the type of their reduction pledges provided that certain principles are followed. Thus, the outcome of the negotiations will include individual country pledges made on a voluntary basis as opposed to the legally binding Kyoto Protocol<sup>1</sup>.

A new concept called the Intended Nationally Determined Contribution (INDC) has been launched in this context. Each party to the conference has to decide its own level of mitigation contribution in line with the agreed basic principles of the conference. This will be done through the submission of official documents called the INDC's. Each party is obligated to submit its INDC to the UNFCCC in advance of COP 21. The aggregation of these individual country pledges will then enable a global outlook to be perceived. So far, several developed country parties and a few developing country parties have already declared their INDC's and several other countries are expected to submit theirs soon.

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<sup>1</sup> Erbach, George, 'Negotiating a new UN climate agreement: Challenges on the Road to Paris' (2015) European Parliamentary Research Service, p.1

In line with these developments, Turkey is also in the preparation stage of its INDC. The final document will be of a significant importance for determining the future of the country's climate change policy. Several issues need to be kept in consideration in preparation of the emission reduction pledge. The INDC's are supposed to provide key information to assess the countries' pledge and be able to demonstrate that the pledge is sufficient in terms of fairness and ambition given the specific characteristics of the country. It is the aim of this paper to highlight some of the important points in fulfilling these requirements and to explore in more detail some of the submitted INDC's of other countries to aid in the preparation of the Turkish INDC.

### **Intended Nationally Determined Contributions**

A new climate change agreement that will cover the post 2020 period is currently being negotiated by the participants of the UNFCCC. The negotiations are taking place through the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) with the target of reaching a finalized deal by the end of 2015. The time scope of the new agreement will cover the post 2020 period and will be ending on 2030. The negotiations will hopefully conclude in an agreement to be reached on December, 2015 at the 21<sup>st</sup> Conference of the Parties in Paris. According to the previously agreed decisions, each country is expected to submit its contribution pledge in advance of the conference. These will be provided in the form of intended nationally determined contributions.

An INDC is a type of pledge all participating countries have to submit prior to the 2015 UNFCCC Conference in Paris. Unlike the Kyoto Protocol, the new climate change agreement will not include legally binding emission ceilings for each participant country. The new Paris deal is expected to be much more inclusive with nearly all of the countries in the world taking on mitigation pledges instead of just the developed countries. There is no mandatory requirements to what the INDC's should include but there is a list of information provided that may be included in an INDC and several principles to guide to parties in preparing their INDC's. According to the decisions at COP 20, the documents should be communicated 'in a manner that facilitates the clarity, transparency and understanding of the INDC's and they should highlight a commitment that is higher than any previous commitments undertaken by the country'<sup>2</sup>. The contributions specified by the INDC's should also be in line with the ultimate goal of limiting the rise in global temperatures under 2 degrees Celsius in comparison to the pre-industrial temperature levels. It is expected that each country will prepare its INDC based on its capabilities and historical responsibility. The phrase 'common but differentiated

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<sup>2</sup> Herold, Anke and Siemons, Anne, 'Up-Front Information for emission reduction contributions in the 2015 Agreement under the UNFCCC'(2014), Institute for Applied Ecology, p.7

responsibilities and respective capabilities' used in the agreement text represents this understanding<sup>3</sup>.

At COP 19 in Warsaw on 2013, all participant countries were invited to intensify the preparation of their intended nationally determined contributions before the COP 21 in Paris<sup>4</sup>. COP 20 in Lima concluded with the adoption of the 'Lima Call for Climate Action' which invited all parties to communicate their intended contributions to post 2020 climate action well before the Paris conference<sup>5</sup>. Although there is no strict deadline for the submission of the INDC's, it was stressed that they should be communicated by the first quarter of 2015 by those parties that are ready to do so. This was thought to mainly include the developed countries and developing countries with relatively large capabilities. The INDC's can be submitted through the UNFCCC submission portal and the submitted INDC's can be viewed in the UNFCCC website. A summary report of the submitted INDC's communicated by 1 October, 2015 will be prepared by 1 November, 2015. Therefore all countries are expected to submit their pledges before October, 2015 for these pledges to be included in the summary report. Currently no formal assessment of the individual INDC's is planned<sup>6</sup>. As of 1 July 2015, 15 different INDC's were submitted to the UNFCCC. The parties that have submitted their INDC's include, Switzerland, European Union (on behalf of all member states), Norway, Mexico, United States of America, Gabon, Russia, Liechtenstein, Andorra, Canada, Morocco, Ethiopia, Serbia, Iceland, China and Korea by the order of submission<sup>7</sup>.

The name Intended Nationally Determined Contribution reveals a lot about the nature of the document. The name itself was agreed at the outcome of a long and arduous discussion process. The word intended implies the non-legally binding status of the agreement and exhibits that the actions put forth by the countries are not final. The term "nationally determined" emphasizes the bottom-up approach of the new agreement. It suggests that each party will be free to determine its own contribution according to its national circumstances, capabilities and responsibilities as opposed to the top-down process in the Kyoto Protocol. The word contribution again solidifies the voluntary nature of the pledges. In the former agreements the word commitments identified the developed

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<sup>3</sup> Lima Call for Climate Action. Rep. no. Decision -/CP.20. Lima: UNFCCC, 2014. Accessed from [https://unfccc.int/files/meetings/lima\\_dec\\_2014/application/pdf/auv\\_cop20\\_lima\\_call\\_for\\_climate\\_action.pdf](https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf)

<sup>4</sup> Report of the Conference of the Parties on its nineteenth session, held in Warsaw from 11 to 23 November 2013, UNFCCC. Accessed from <http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf>

<sup>5</sup> Lima Call for Climate Action. Rep. no. Decision -/CP.20. Lima: UNFCCC, 2014. Accessed from [https://unfccc.int/files/meetings/lima\\_dec\\_2014/application/pdf/auv\\_cop20\\_lima\\_call\\_for\\_climate\\_action.pdf](https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf)

<sup>6</sup> Erbach, George, 'Negotiating a new UN climate agreement: Challenges on the Road to Paris'(2015) European Parliamentary Research Service, p.18

<sup>7</sup> <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>

nations obligations and the word actions was used for any actions of the developing countries. Here the word contribution is used as an alternative for both developing and developed countries and again signifies the non-legally binding nature of the agreement<sup>8</sup>.

However even though the new climate change agreement will not involve legally binding targets, the global consensus and peer pressure will be instrumental in influencing parties to fulfill their undertakings. In that regard, it is thought that the recent US-China climate deal will play an important role. On November 2014, China and the US announced a bilateral agreement they achieved in addressing climate change. China agreed to reach peak carbon emissions in 2030 at the latest and to increase the share the non-fossil fuel energy sources to 20% by 2030 in its energy mix. In turn, the US agreed to reduce its GHG emissions by 26–28% below 2005 levels by 2025. Since the US and China account for a large portion of the global GHG emissions between themselves, the agreement was very significant and was received with much enthusiasm. The two countries previously had opposing views on the issue and resisted taking on mitigation pledges. It is expected that such an understanding between the two largest GHG emitters in the world will make it harder for other developing and developed countries to resist taking on mitigation commitments<sup>9</sup>. Such bilateral and smaller scale agreements may become more important in the near future in climate policy. Therefore, even though the new climate change agreement may not involve legally binding commitments, the changing global perspective towards the issue of climate change and the increasing international pressures will likely force the parties to conform to their stated mitigation goals. The climate change problem is a global problem and therefore it would require a global effort to tackle it. Any party who avoids taking meaningful action would be seen as a free rider and would face international accusations.

As a large developing country, Turkey is also expected to submit its own INDC as soon as it can be prepared. Several decisions will need to be made in terms of the content and the type of the INDC before it can be submitted. Since Turkey is a developing country party, its GHG reduction pledge would not be expected to be at the same level as the developed country parties. On the other hand, pledges made by other developing country parties with similar development levels and characteristics to Turkey can serve as appropriate examples for a future Turkish climate pledge. Aside from the particular level of the pledge and quantified values of commitment, it is important that some basic principles are adhered to in the preparation of the document. The appropriate information should be included in the INDC to enable a proper assessment of the document to be

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<sup>8</sup> Climate Action Network, 'INDC–Intended Nationally Determined Contributions Factsheet' (2015)

<sup>9</sup> Erbach, George, 'Negotiating a new UN climate agreement: Challenges on the Road to Paris' (2015) European Parliamentary Research Service, pp. 15-16

made. One of the main expectations from the INDC's is that they should be able to demonstrate that the mitigation pledges of the country are fair and ambitious given the specific characteristics of the country. These issues should be further investigated before finalizing the Turkish pledge to the UNFCCC.

### **Different types of INDC's**

As stated, the type of the mitigation pledges to be undertaken by the parties is left entirely to the countries. This will cause a wide range of different types of reduction pledges to be made by different countries. This fact will make it hard to aggregate the pledges of different countries into a global outlook. Even though the shape and the scope of different pledges will not be the same, we can identify some of the broad options that countries will be utilizing. The basic types of forms that the country INDC's are expected to take can be divided as such:

#### **-Comprehensive GHG emission reduction plans**

Developed countries and many of the larger developing countries are expected to adopt economy-wide GHG mitigation goals that will cover the post 2020 period. For this, the adoption of a base year is necessary by which the level of GHG emissions will be compared. Using 1990 as a base year can be appropriate especially for those countries that undertook pledges in the Kyoto process where that year was used as a base. Alternatively, 2005 can be used as it was used in the Copenhagen negotiations or a different base year altogether can be decided. Instead of using a base year, a business-as-usual(BAU) scenario can also be set as a base to demonstrate the reduction levels. Another option could be to determine a year on which the emissions will be projected to peak as was adopted by China in its bilateral agreement with the United States. The most ambitious type of commitment could involve a target to achieve carbon neutrality at a certain year or a period. Such targets can also be limited to certain gases, sectors or region inside the country<sup>10</sup>.

In determining a reduction target, a range in reduction can also be targeted instead of using a solid target. Expressing targets as ranges can potentially provide flexibility for countries to deal with uncertainties that can be faced in the future. It can also help spur domestic support for the

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<sup>10</sup> Höhne, Niklas , Ellermann, Christian and Li, Lina, 'Intended Nationally Determined Contributions under the UNFCCC'(2014), Ecofys, pp. 5-7

contribution because of the flexible nature of the commitment, however the outcome of the commitment would naturally be less certain in such commitments<sup>11</sup>.

### **-Energy targets**

Providing energy targets can be an alternative to providing economy wide GHG emission reduction targets. Such targets can include renewable energy targets, energy/carbon intensity targets and fossil fuel targets like a coal cap or control target. A related target that can be included would be to include a target date or range for the removal of fossil fuel subsidies<sup>12</sup>. Forestation and targets related to land use can also be included if so desired. Targets can also be determined individually for specific sectors inside the economy. Energy targets can potentially be used to demonstrate that sufficient effort is being made to reduce the GHG emissions, although such targets would require the quantification of their GHG impact to allow for assessing their impact on global emission levels. Highlighting energy targets can be considered less ambitious than providing economy-wide GHG reduction targets but they would also be relatively easier to achieve and have closer links to the domestic social and environmental issues<sup>13</sup>.

### **- Exhibiting a policy framework**

Parties can also choose to demonstrate a set of policies they are utilizing or will utilize that will be instrumental in reducing the GHG emissions without specifying any kind of GHG reduction or energy target. Such policies could include certain regulations and standards, and also different economic instruments, such as a carbon market, taxes, subsidies and incentives<sup>14</sup>. This kind of pledges would also require quantification of their effects on GHG emissions for allowing the assessment of their global impact.

### **-Underlining specific projects**

Alternatively, some of the least developed countries with small capacities may choose to highlight only a specific project or projects that will bring the GHG emissions of the country down in the near future. These types of pledges would be evaluated as the least ambitious type.

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<sup>11</sup>*ibid.*, p.8

<sup>12</sup> Merrill, Laura, Harris, Melissa, Casier, Liesbeth and M. Bassi, Andrea, 'Fossil-Fuel Subsidies and Climate Change: Options for policy-makers within their Intended Nationally Determined Contributions'(2015), p. 9

<sup>13</sup> Höhne, Niklas, Ellermann, Christian and Li, Lina, 'Intended Nationally Determined Contributions under the UNFCCC'(2014), Ecofys, pp. 5-7

<sup>14</sup>*ibid.*, pp. 5-7

These can be considered as the broad options that can be used as a type of INDC but naturally the utilization of these mitigation commitments are not mutually exclusive. Parties can choose to adopt different types of targets and different elements from all these types of commitments. It can be beneficial to make some of the targets conditional based on international financial support, especially for the developing countries.

Countries can be divided into several categories in terms of their expected level of commitments based on their development status. Every developed country party and those countries with equivalent responsibility and capabilities are expected to take on multi-year economy wide reduction targets. Such countries would also be expected to provide adequate international climate finance support to developing countries that need such support. Developing countries with relatively high capacities and responsibilities among the other developing countries would be expected to make economy wide commitments either based on business-as-usual scenarios or based on intensity. Other developing countries with less responsibility and capability should at least provide policy related goals included in their contributions. The countries with the least level of expected commitments would be the Least Developed Countries(LDC's). These countries with very little capacity and responsibility should in the least provide an indicative plan of their contributions. Developing countries and the LDC's should also communicate their financing needs in their INDC's<sup>15</sup>. In this picture, Turkey can be regarded as a developing country with a relatively large capability and historical responsibility. Thus, one alternative would be an economy wide GHG reduction commitment that extends to 2030. This can be done based on an energy intensity target or a BAU scenario. The policy measures that will be used to achieve the stated targets should be stated. The INDC can for instance mention a proposed scaling down of the fossil fuel subsidies and in particular subsidies provided for coal. If a road map can be demonstrated for the eventual removal of these subsidies, it can be helpful to support the mitigation targets<sup>16</sup>. However the mitigation targets will be formed, one of the most critical issues in forming the INDC would be to provide the necessary information in the INDC to corroborate the target and demonstrate that the commitment is fair and ambitious within the global context.

### **What to include in an INDC?**

Although there aren't specific guidelines in preparing an INDC, there are some basic requirements. The 'Lima Call for Climate Action' leaves it to individual parties to determine the content, time frame

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<sup>15</sup> Climate Action Network, 'Intended Nationally Determined Contribution' (2014), pp. 4-5

<sup>16</sup> Merrill, Laura, Harris, Melissa, Casier, Liesbeth and M. Bassi, Andrea, 'Fossil-Fuel Subsidies and Climate Change: Options for policy-makers within their Intended Nationally Determined Contributions'(2015), p. 9

and format of their INDC's. Some of the elements of an INDC specified by the Lima text include the quantifiable information on the reference point, time frames and/or periods for implementation, scope and coverage across different sectors and gases, planning processes and assumptions and methodological approaches, such as those for estimating and accounting of GHG's. Also, an account is needed of why a party considers its commitment to be fair and ambitious in light of its national circumstances, and how it contributes towards achieving the goal of keeping the rise in global temperatures under 2 degrees Celsius<sup>17</sup>.

Supplying these information will be crucial for the purposes of the UNFCCC. Since all mitigation contributions will be individually decided by the countries and there are no standard formats to use in the formation of these commitments, upfront information becomes crucial to be able to make these pledges quantifiable, transparent and comparable with each other. Only when the relevant information is supplied it can be discerned whether a specific target is in line with the 2 degrees objective of the Convention.

Each specific type of mitigation contribution would necessitate the providing of its own kind of information to be provided. For economy-wide GHG reduction pledges, providing a base year or a base scenario becomes important. For countries that adopt a BAU scenario the specific methodology that have been used to determine the BAU levels should be explained. Additional information on GDP or population should be provided for appropriate intensity targets<sup>18</sup>. Similar types of additional requirements can also be shown for other types of targets.

There are also several other sections that can be added to the INDC's on a voluntary basis. In addition to other mitigation targets, mitigation contributions from forestry and land-use change can also be included in the document to provide a more detailed analysis. Expected use of market mechanisms in fulfilling the targets and the expected use of international finance can also be included. This would enable parties to indicate their financing needs and determine additional mitigation targets conditional to the level of financial assistance received.

Countries are also encouraged to add a section on their adaptation needs and their adaptation plans although it is not compulsory. This would enable a more holistic view of the global climate change problem with both its aspects of mitigation and adaptation included. Highlighting the adaptation

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<sup>17</sup> Lima Call for Climate Action. Rep. no. Decision -/CP.20. Lima: UNFCCC, 2014. Accessed from [https://unfccc.int/files/meetings/lima\\_dec\\_2014/application/pdf/auv\\_cop20\\_lima\\_call\\_for\\_climate\\_action.pdf](https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf)

<sup>18</sup> Herold, Anke and Siemons, Anne, 'Up-Front Information for emission reduction contributions in the 2015 Agreement under the UNFCCC' (2014), Institute for Applied Ecology, p.5

needs would especially be beneficial for those countries that are deemed most vulnerable to the effects of climate change.

The GHG accounting methodology that will be used by the countries should also be clarified in their submissions. It is important for countries to use comparable accounting methods in measuring their emissions to make data provided by each country comparable with each other. Currently the widely accepted methodology for measuring GHG emissions is the methodology adopted by the Intergovernmental Panel on Climate Change (IPCC). Thus, the IPCC methodology should be used by the governments in order for the GHG accounts to be comparable<sup>19</sup>. Measurement, reporting and verification (MRV) stands out as another basic issue for the INDC's, particularly for the developing country parties<sup>20</sup>. MRV capacities of the countries can be highlighted in the INDC's to show that the country will actually have the capacity to measure whether the stated targets are being met or not.

### **How to assess fairness and ambition?**

A critical issue in preparing the INDC's of different countries is the demonstration of fairness and ambition. Among the text of the Lima agreement it states that an INDC should include an account of 'how the Party considers that its intended nationally determined contribution is fair and ambitious, in light of its national circumstances, and how it contributes towards achieving the objective of the Convention as set out in its Article 2'<sup>21</sup>. Although there aren't comprehensive rules for determining what level of a commitment would constitute a fair and ambitious pledge for each country, some basic indicators can be discerned.

In assessing the fairness and ambition of an INDC, two useful concepts to keep in mind are capacity and responsibility. Capacity refers to the ability of a country to limit its future GHG and its levels of development while responsibility refers to the historical and the current role of the country in causing a share of the cumulative GHG emissions in the world<sup>22</sup>. Different indicators can be shown by the parties related to these two concepts that can help them argue why their intended level of commitment should be considered fair and ambitious. For assessing fairness metrics like the historical responsibility of the country, the per capita emissions and GDP per capita can be

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<sup>19</sup> Hood, Christina, Briner, Gregory and Rocha, Marcelo, 'GHG or not GHG: Accounting for Diverse Mitigation Contributions in the Post-2020 Climate Framework' (2014), Climate Change Expert Group, p.9

<sup>20</sup> UNFCCC, 'Handbook on Measurement, Reporting and Verification for Developing Country Parties' (2014)

<sup>21</sup> Lima Call for Climate Action. Rep. no. Decision -/CP.20. Lima: UNFCCC, 2014. Accessed from [https://unfccc.int/files/meetings/lima\\_dec\\_2014/application/pdf/auv\\_cop20\\_lima\\_call\\_for\\_climate\\_action.pdf](https://unfccc.int/files/meetings/lima_dec_2014/application/pdf/auv_cop20_lima_call_for_climate_action.pdf)

<sup>22</sup> Stockholm Environment Institute, 'Discussion Brief, Fair shares and intended nationally determined contributions: What can we learn from an equity review?' (2014), pp. 1-6

highlighted<sup>23</sup>. Countries with relatively lower historical responsibility and relatively lower per capita emissions can justifiably take on commitments at a lesser level. On the other hand, for assessing ambition, indicators like past emission trends, economic trends and population trends can be used<sup>24</sup>. General development indicators of the economy and the society can also be highlighted to demonstrate the levels of capacity.

The Harvard Project on Climate Agreements proposes three basic principles for assessing fairness. They claim that countries that have recently increased their emissions rapidly should bring them back down while rich countries should make larger reduction commitments compared to poorer countries and countries should not accept reductions that could incur substantially large economic costs for them<sup>25</sup>.

While different conceptualizations of the concepts of fairness and ambition can possibly be made, the main arguments usually revolve around the same issues of respective responsibility and capabilities of the parties. At this point it can be useful to investigate how these concepts have so far been utilized in some of the submitted INDC examples.

## **Examples from other Developing Countries**

### **China**

As the largest GHG emitter in the world, any climate action taken by China bears an immense significance for the world. That is why the content of the country's INDC is critical. In its INDC, China highlights four different policy targets it aims to reach by 2030. These involve achieving the peaking of total carbon dioxide emissions by 2030 or earlier, lowering carbon dioxide emissions per unit of GDP by %60 to %65 from the 2005 level, increasing the share of non-fossil fuels in primary energy consumption to around %20 and increasing the forest stock volume by around 4.5 billion cubic meters compared to the 2005 level. The Chinese INDC includes a substantially detailed account of the actions that are planned to be used in achieving these targets. The actions and strategies are divided into several categories and each section is deliberated on with some depth. Improving national and regional strategies on climate change, building a low-carbon energy and industrial system, controlling emissions from the building and transportation sectors, increasing carbon sinks, promoting a low-carbon way of life and enhancing climate resilience are listed among the main

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<sup>23</sup> Emelia Holdaway and Chris Dodwell, 'A Guide to INDC's'(2015), Ricardo-AEA, p.12

<sup>24</sup> *ibid*, p.12

<sup>25</sup> Bosetti, Valentina and Frankel, Jeffrey, 'A Pre-Lima Scorecard for Evaluating which Countries Are Doing their Fair Share in Pledged Carbon Cuts'(2014), Harvard Project on Climate Agreements, pp. 1-6

categories of actions that are planned by the government. Some more specific actions that are mentioned include making changes in the legislation, controlling the consumption of coal, enhancing clean coal usage, further improving energy efficiency and promoting different types of renewable electricity generation sources as well as sources like nuclear and natural gas.

There is also mention of enhancing support for in terms of science and technology, promoting a carbon emissions trading market and improving the GHG emissions accounting system in the country. The need for a broad participation from stakeholders and promoting international cooperation are also depicted as key issues. At the end of the text, there is a chapter which summarizes the position taken by the country in regard to the main issues surrounding the new climate change deal.

The national adaptation plan of the country is also mentioned and the need for capacity building to respond to the adverse effects of climate change such as extreme weather events is underlined. Vulnerabilities in the areas of agriculture, forestry and water resources are highlighted and the need to strengthen disaster prevention, reduction and response mechanisms is also stressed.

The text states that China is currently in the process of rapid industrialization and urbanization and points to the multiple challenges faced by the country such as economic development, poverty eradication, environmental problems and addressing climate change. According to the document, action on climate change is not only a necessity that is dictated by the domestic problems of the country but is also a part of China's responsibility in engaging global governance. It is also emphasized that China has already been taking significant action on climate change. To prove this, a summary of the climate change policies that the country has used have been summarized. Moreover, a list of the main achievements of the country up to 2014 in terms of climate change action are detailed. Some of the achievements that are mentioned include lowering the carbon intensity of the economy, increasing the share of non fossil fuel sources in the primary energy consumption and increasing the forest area and forest stock volume<sup>26</sup>.

## **Korea**

In its submission, Korea pledges to reduce its greenhouse gas emissions by 37% from the BAU level by 2030. The pledge cover all economic sectors but does not include the land-use change and forestry sector. It is stated that a decision regarding this sector will be made at a later time. Using carbon credits from international market mechanisms is mentioned as option that can aid in reaching

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<sup>26</sup>Enhanced Actions on Climate Change: China's Intended Nationally Determined Contributions, accessed from <http://www4.unfccc.int/submissions/INDC/Published%20Documents/China/1/China's%20INDC%20-%20on%2030%20June%202015.pdf>

the 2030 target. A detailed account is also provided that explains the preparation stage of the document and the different government agencies that took part in it. Moreover, a summary of the planned sectorialis included. In the section on adaptation, the main adaptation aims of the country are also briefly mentioned.

It is stated in the document that Korea approximately accounts for %1.4 of the global GHG emissions but 'it has set a fair and ambitious target to the extent possible'. Several factors are listed that limits the GHG mitigation potential of the country. The large share of the manufacturing sector in the economy(%32 as of 2012) is regarded as such a factor that can hinder mitigation efforts. The already high level of energy efficiency in many major industries is also seen as a factor that limits opportunities. Another factor listed is the decreased level of public acceptance toward nuclear energy after the Fukushima incident. Increased utilization of nuclear energy is portrayed as one of the major mitigation measures that the country could utilize and the low public support towards it is seen as an impediment. These factors are all used to highlight that the capacity of the country in combating climate change is limited and the adoption of the proposed target can be seen as fair and ambitious given these considerations<sup>27</sup>.

## **Mexico**

Mexico was the first developing country party to submit its INDC. Its pledge includes an unconditional and a conditional part. Mexico is committed to reduce 25% of its GHG and Short Lived Climate Pollutants(SLCP) emissions below business-as-usual levels for the year 2030. It is stated that conditionally this commitment can increase up to a %40 reduction subject to 'a global agreement addressing important topics including international carbon price, carbon border adjustments, technical cooperation, access to low-cost financial resources and technology transfer'. A target date for an emissions peak is also given as 2026 and a target for reducing the carbon intensity of the economy by %40 is given for the year 2030. Aside from the section on mitigation, there is also a section on adaptation included in the document and a section that points to the role of international finance mechanisms as well as a section on the gender perspective of climate change. It is also stressed that the planning stage of the INDC involved a public participatory process through multiple sectorial meetings and a web based public survey.

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<sup>27</sup>Korean Intended Nationally Determined Contribution, accessed from <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Republic%20of%20Korea/1/INDC%20Submission%20by%20the%20Republic%20of%20Korea%20on%20June%2030.pdf>

In the section on fairness and ambition, it is stressed that Mexico is a developing country and highly vulnerable to the effects of climate change. The two statistics that are highlighted are the share of Mexican national GHG emissions among the world emissions which is 1.4% and the net per capita emissions of the country which are around 5.9 tCO<sub>2</sub>e. The document claims that despite this low level of responsibility for climate change Mexico will act as a responsible party committed to tackling climate change by decoupling carbon emissions from economic development. The fact that Mexico is for the first time taking on an unconditional GHG mitigation commitment and that it includes the SLCP gases are shown as reasons for the fairness and ambition of the INDC. The efforts of the government to establish a synergy between adaptation and mitigation using national resources is also shown as an additional evidence of the ambition in the INDC<sup>28</sup>.

### **Morocco**

The INDC of Morocco involves a conditionality much like in the case of Mexico. It pledges to achieve a %13 reduction in the countries GHG emissions by 2030 compared to a BAU scenario. An additional %19 reduction is stated to be achievable if certain conditions are met that would bring the total GHG reductions to %32. All the policies and plans that will be used to achieve this target are provided in a detailed manner in the document. The INDC also covers a large section on the adaptation action plan of the country. Perspectives on human rights and gender and the potential use of market mechanisms are additional sections of interest in the document.

Morocco offers three reasons to state that its INDC should be considered fair and ambitious. Morocco's marginal share in the global emissions of %0.2 is highlighted and it is stated that it will be the first time the country will take on mitigation pledges despite this figure. As a second reason, the document states that with the conditional target the per capita emissions of the country would be at a relatively low level and the GHG intensity of the economy would be on a decreasing trend. These two reasons refer to the low level of responsibility of the country. Finally, the intense needs of climate change adaptation in the country are shown as a priority for the country as opposed to mitigation. It is argued that minimizing the risk of climate change impacts such as the effects on economic activities like agriculture, fisheries, aquaculture, forestry and tourism and ecosystems like

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<sup>28</sup> Mexico Intended Nationally Determined Contribution, accessed from <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Mexico/1/MEXICO%20INDC%2003.30.2015.pdf>

oases, the coast and mountains would already require a lot of effort<sup>29</sup>. This refers to the relatively lower capabilities of the country.

### **Russian Federation**

Even though Russia's position as a developing country can be debatable, the characteristics of the country bear resemblances with many developing countries. The Russian INDC pledges to limit the GHG emissions in the country to between %70 and %75 of the 1990 levels by the year 2030. A significant emphasis in the Russian INDC is given to the role of forestry in the country in achieving the promised GHG reduction. There is no section on adaptation in the INDC.

In the fairness and ambition section, Russia highlights the past growth trend of the country indicating that while the economy grew around %73 between 2000 and 2012 GHG emissions grew only by %12 in the same period. The document claims that this trend shows that economic growth and GHG emissions can also be delinked in the future. Special focus is given to the role of the Russian forests and their large share among the world forestry. There is also mention of the 2 degrees C target and it is stated that the Russian commitment is in line with that target<sup>30</sup>.

### **Serbia**

In its INDC, Serbia commits to reduce its GHG emissions by %9.8 on 2030 compared to the 1990 baseline. The document suggests that the planning process of the country's action plan is still not finalized and that more precise activities, methods and deadlines for implementation are expected to be defined by 2017. The adaptation plans of the country are not included in the submission but the adaptation needs of the country are highlighted. The negative effects of climate change in the world and in Serbia are summarized and special stress is given to the damage caused by extreme weather events in the recent years.

To demonstrate fairness and ambition, the document states that Serbia had associated with the Copenhagen Accord on 2010 even though it is a developing country. The candidacy of the country to the European Union is also emphasized, stating that the harmonization process with the EU will

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<sup>29</sup> Morocco Intended Nationally Determined Contribution(INDC) under the UNFCCC, accessed from <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Morocco/1/Morocco%20INDC%20submitted%20to%20UNFCCC%20-%205%20june%202015.pdf>

<sup>30</sup> Intended Nationally Determined Contribution of the Russian Federation, accessed from <http://www4.unfccc.int/submissions/indc/Submission%20Pages/submissions.aspx>

further help in reducing the GHG emissions of the country in the future<sup>31</sup>.

### **Least Developed Countries**

So far only two LDC's have submitted their INDC's to the UNFCCC. These are Ethiopia and Gabon.

#### **Ethiopia**

Ethiopia pledged to cut down its emission by %64 for the year 2030 compared to a BAU scenario. A very detailed analysis of different sectors and policies are provided in the INDC that should help corroborate the level of commitment. Adaptation needs of the country are also highlighted along with the international finance mechanisms that the country intends to utilize.

To stress the fairness and ambition of its INDC, Ethiopia iterates that it is considered as an LDC and highlights that its per capita GHG emissions t 1.8 tCO<sub>2</sub>e are well below global averages. If the targets can be achieved, the GHG emissions per capita of the country would be around 1.1 tCO<sub>2</sub>e by 2030 which would 'exceed expectations for both fairness and ambition while contributing towards the achievement of the objective of the Convention', according to the document. Additionally, it is highlighted that the country has already removed the subsidies for fossil fuels. Large development needs of Ethiopia are also mentioned such as the widespread lack of access to modern energy sources. Renewable energy is underlined as a solution to the development problems of the country. The vast needs of climate change adaptation of the country are also highlighted. To tackle these problems, the need for international support is stressed and it is stated that the ambition of Ethiopia's commitments can be improved with the help of international finance<sup>32</sup>. Therefore it can be seen that the lack of capabilities and a small share of responsibility among the world has been emphasized as the main reasons behind the fairness and ambition of the INDC of the country.

#### **Gabon**

Gabon was the first African country and the first among the LDC's to announce its INDC. Its commitment included a %50 reduction in GHG emissions on 2030 in comparison with a BAU scenario, excluding the forestry sector. A detailed analysis across different sectors is also provided in the

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<sup>31</sup>Intended Nationally Determined Contribution of the Republic of Serbia, accessed from [http://www4.unfccc.int/submissions/INDC/Published%20Documents/Serbia/1/Republic\\_of\\_Serbia.pdf](http://www4.unfccc.int/submissions/INDC/Published%20Documents/Serbia/1/Republic_of_Serbia.pdf)

<sup>32</sup> Intended Nationally Determined Contribution (INDC) of the Federal Democratic Republic of Ethiopia, accessed from <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Ethiopia/1/INDC-Ethiopia-100615.pdf>

document and a section on adaptation is included along with a section that highlights the financing needs of the country<sup>33</sup>.

### Other Countries

Two South American countries, Chile and Peru have declared their INDC drafts publicly and started a public consultation process before the finalization of the document.

In the draft put forward by Chile two possible options are included for mitigation commitments<sup>34</sup>. The first option is to reduce the emissions intensity of the economy by %25-30 by 2025 and %35-40 by 2030 and the second option is to reduce the emissions intensity of the economy by %30-35 by 2025 and %40-45 by 2030. The forestry sector is also included as a secondary INDC element.

The vulnerability of Chile to climate change effects has been highlighted in the draft document with a detailed account. The high dependence of the country's economy on the exports of natural resources is also emphasized. It is stated that depending much upon exports of goods such as copper is making the country vulnerable to potential price fluctuations in the international markets. Other economic and developmental indicators are also used such as the high electricity prices in the country to draw attention to the low economic capabilities of the country. It is also stated that the per capita GHG emissions of the country were about the global average levels and well below the levels in the OECD countries. A comparison of GHG emission with other Latin American states is also provided<sup>35</sup>. These figures are basically used to demonstrate the countries level of responsibility in causing climate change. Therefore, we can see that again respective capabilities and responsibilities are used to demonstrate the fairness and ambition in a mitigation commitment.

Peru was the other country that has opened up its INDC draft for the weighing in of its public<sup>36</sup>. The document will be open for comments until mid-July. The draft offers 4 different options which range

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<sup>33</sup> République Gabonaise Contribution prévue déterminée au niveau national, accessed from <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Gabon/1/20150331%20INDC%20Gabon.pdf>

<sup>34</sup> 'Mexico takes steps to cut emissions', Accessed on 10 June 2015 from [http://usa.chinadaily.com.cn/world/2015-04/06/content\\_20006517.htm](http://usa.chinadaily.com.cn/world/2015-04/06/content_20006517.htm)

<sup>35</sup> Draft of the Intended Nationally Determined Contribution (INDC) in the context of the 2015 Climate Agreement to be adopted at the twenty-first Conference of the Parties (COP21) of the United Nations Framework Convention on Climate Change, accessed from <http://portal.mma.gob.cl/wp-content/uploads/2014/12/INDC-Chile-ingles.pdf>

<sup>36</sup> 'Peru's INDC serving', Accessed on June 12 2015 from [http://eco.climatenetwork.org/sb42\\_adp2-9-eco9-8/](http://eco.climatenetwork.org/sb42_adp2-9-eco9-8/)

from a %4 to %42 reduction in emissions from a BAU scenario by 2030<sup>37</sup>. A comprehensive part on adaptation is also included in the draft text<sup>38</sup>.

### **Key Take-aways for Turkey**

Several principles should be kept in mind when preparing the Turkish climate change commitment. The INDC of the country will be an important factor in determining the future of the climate policies. Examining good examples from other countries can help in this regard.

- **Demonstration of Fairness and Ambition**

The target that will be adopted should be on par with the other countries with similar characteristics as Turkey. A proper degree of ambition should be demonstrated in terms of reduction targets. The fairness and ambition can be demonstrated by pointing to some basic indicators of the economy. To demonstrate the level of responsibility of the country, total GHG emissions or GHG emissions per capita can be highlighted and compared with global and developed country averages. The same thing can also be shown by using carbon intensity or energy intensity figures. For demonstrating capacity, figures like per capita GDP can be used in comparison with developed countries. For demonstrating ambition the estimated costs of the anticipated actions and their estimated impacts on the economy can be mentioned. The specific characteristics of the economy such as the high level of dependence on imported energy sources can also be highlighted. An important message that the commitment needs to convey is the intention to decouple economic development from GHG emissions.

- **Determining Realistic Targets**

The target should be achievable and realistic. Committing to unrealistic reduction targets should be avoided. Developing the INDC based on concrete data and analysis can help form realistic and achievable types of commitments that would contribute to the struggle against climate change and also be compatible with the national priorities of the country.

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<sup>37</sup> 'Peru climate pledge hinges on forests wager', Accessed on June 17 2015 from <http://www.rtcc.org/2015/06/16/peru-climate-pledge-hinges-on-forests-wager/>

<sup>38</sup> Peru INDC Draft, accessed from <http://www.minam.gob.pe/wp-content/uploads/2015/06/contribucion-iNDC2.pdf>

- **Flexibility**

Flexibility in terms of the targets and the sectors that will be covered would be a positive attribute in the preparation of the INDC. Adopting a range of targets instead of a solid target could provide some room for miscalculations or unexpected events. As several developing country parties have chosen to do, additional conditional targets can be adopted based on the level of international finance or technology transfer.

- **Comprehensiveness**

Providing a detailed account of the plans to achieve the target would be beneficial. Providing a detailed analysis of different sectors and different policies that will be used would give weight to any reduction commitment that the country will take on and increase the confidence in the commitment. Policies that will be utilized for different sectors can be detailed. Such an approach would make it clear for the specific domestic actors on what their role will be in the mitigation plans of the country<sup>39</sup>. Accounting for the forestry sector and land-use change in determining the GHG reduction target would also be beneficial. It has been an important part of many of the commitments yet undertaken by several different countries. A detailed summary of the accounting methodology should also be provided to enable a quantifiable assessment of the reduction commitments regardless of the type of the pledge.

A section on the adaptation needs of the country and the policy plans to deal with these needs should also be included. Turkey is located in the Mediterranean Basin which will bear significant negative effects of climate change according to the available scientific data. Thus, the adaptation needs of the country are bound to be substantial. Furthermore, one of the main expectations of Turkey from a climate change deal would be to acquire international climate finance. Pointing to the adaptation needs of the country can help acquire such financing and increase the credibility of the country in dealing with the issue of climate change. Including any expected side benefits of the climate plans can also be beneficial, especially to increase domestic support for the emission mitigation commitments.

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<sup>39</sup> Levin, Kelly, Rich, David, 'Ex-ante Clarification, Transparency, and Understanding of Intended Nationally Determined Mitigation Contributions' (2014), World Resources Institute, p.3

- **Transparency and Public Consultation**

The preparation process should be as transparent as possible and the public should be included in the decision-making process. There would be multiple benefits of enabling the public and all stakeholders to share their views and make contributions on the preparation of the document. Ensuring that information and data related to the contribution is accessible and transparent would be critical for both domestic and international audiences. It can help build confidence and predictability<sup>40</sup>.

For enabling public consultation, Chile and Peru constitute very good examples that can be followed. The preparation stage of the document should be as inclusive as possible with different segments of the society being consulted. A similar process can be carried out as the one in Peru and Chile where the draft of the INDC have been made available for public viewing and criticism. Such a process would make it easier for the society to accept the mitigation commitments that will be taken on.

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<sup>40</sup>*ibid.*, p.3