

# **Report on review and revision of the NDC-2015 of Armenia**

**EXPLANATORY NOTE**

**Marzena Chodor, International Expert  
EU4Climate country team of Armenia**



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The process of developing the second NDC was initiated by UNDP Armenia in January 2020, with a roundtable hosting 11 government officials. The first draft of the updated NDC was prepared and submitted to the Ministry of Environment in May 2020 for review. Based on the comments received, the national team of consultants and the international NDC expert continued to work on the development of the NDC draft through 2020. The final draft NDC 2020 has been consulted with the Ministry of Environment in December 2020; draft Decision of the Government of Armenia “On Approval of the Nationally Determined Contribution 2021-2030 of the Republic of Armenia to Paris Agreement” shared among the relevant ministries/agencies and the public for commenting prior the Government approval. NDC consultations are to be continued in 2021 with the current estimation of the approval of the NDC to be completed by the end of Q1 2021.

## **1. The need for update of 2015NDC in 2020**

In 2013, at the COP19 in Warsaw, all countries - parties to the UN Framework Convention on Climate Change (UNFCCC) were asked to prepare their intended Nationally Determined Contributions (INDCs) to the future Paris Agreement (PA).<sup>1</sup> About 180 countries submitted their INDCs in advance of COP21 in Paris, in 2015, or in the course of the year following COP.21. The Republic of Armenia submitted its INDC to the UNFCCC Secretariat in September 2015. Once PA entered into force in November 2016<sup>2</sup>, the INDCs, previously submitted by countries, became their first NDCs (2015NDCs). When countries prepared and first submitted their INDCs, there was yet no UNFCCC agreed guidance for the NDC content and features. In agreeing to submit the INDCs to the future agreement, countries decided that they should reflect „clarity, transparency and understanding”. The intended contributions were to be determined without prejudice to their legal nature, while their scope and content were to be entirely country-driven.

However, the starting year of the first NDCs implementation cycle is 2021, what had given countries time to set up implementation frameworks before the NDC kicks in, and time for a review of their initial NDCs. A global stocktake following

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<sup>1</sup> Decision 1/CP.19 para.2 (b)

<sup>2</sup> PA entered into force earlier than expected, upon reaching the threshold for a number of countries ratifying or accepting the agreement. The 5-year gap between adoption of the Paris Agreement in 2015 and the start of its first implementation cycle in January 2021 results from its early entry into force. By comparison, the Doha Amendment was adopted by COP.18 in 2012 and has not yet entered into force, lacking ratification or acceptance by a sufficient number of countries.

entry into force of the agreement was conducted by parties in 2017 and 2018 (Talanoa Dialogue) As a result, countries declared the need to increase joint ambition under the PA and bridge the ambition gap in the pre-2020 period. Ambition was a guiding theme of the 2019 COP.25 in Madrid. This was preceded by high-level political declarations, such as at the UN Climate Action Summit in September 2019, where many heads of state and heads of governments, including the PM of Armenia, declared their intent to review or enhance their 2015NDCs in 2020.

The political declarations of governments should be one of the drivers for 2020 enhancement of the 2015NDC. It can be argued that for the majority of 2015NDCs which already cover the period to 2030 parties may choose to simply “[re]communicate” the same pledge. The reasons for updates are diverse. It can be the political declaration to increase ambition, or the willingness to adhere to NDC guidelines, adopted in Katowice at COP.24, the need to update the reference data that could have changed since 2015 and to increase clarity, transparency and understanding (ICTU) of the 2015NDCs that are guiding the first round of 2020 NDC updates. There are no compliance costs or penalties. Countries have to make their sovereign decision on whether to update their NDC or not to update it, and consider the reputational costs.

For Armenia, 2020 NDC review is an opportunity to revisit its 2015NDC and to update it, as well as to align it with the negotiations outcomes agreed post 2015.

### Why 2020 NDC review is important for Armenia?

The 2020 NDC review is the first one in the future cycle of regular reviews and updates. Each successive NDCs must “*represent a progression*” and “*reflect the highest possible ambition*”. Each round of NDCs submissions will be followed by a global stocktake taking place every 5 years, after which countries are asked to resubmit their NDCs, or submit new ones, reflecting the outcome and recommendations from the latest global stocktake, in line with the latest science. The timeframe for implementation indicated by the majority of 2015NDCs was 10 years, although a few NDCs, including the NDC of the United States, were designed for 5 years.

The first NDC of Armenia, submitted in September 2016, has a timeframe of 35 years, beginning on 2015 and concluding in 2050. To start with, there is a need to review the start date of the implementation period. NDCs implementation under the Paris Agreement starts only in 2021. Therefore the period between 2015 and

2020 can be considered as an internal preparatory period to the actual NDC implementation, and there is no need to report on activities undertaken in this period. It can also be removed from the 2020NDC.

The 2020 NDC review also presents an opportunity to re-align the timeframe of the NDC of Armenia with that of the majority of countries, including the EU and its Member States which is 10 years, from 2021 till 2030.<sup>3</sup>

By signing up to the Paris Agreement, Parties to the UNFCCC have also agreed to submit to the UNFCCC Secretariat their mid-century, long-term low greenhouse gas emissions development strategies, or LTS by 2020.<sup>4</sup> The timeframe of the 2015NDC of Armenia was 2015-2050. The 2050 goal of 2015NDC of Armenia should inform its LTS, meaning there is no backtracking on the declared goal for 2050.<sup>5</sup>

Another argument behind revision of the 2015NDC is that the UNFCCC approved guidance for NDC preparation has been adopted meanwhile at COP.24 in Katowice, and is available since December 2018. This text builds on the strong commitments provided by the “shall” discourse with regard to the required information facilitating clarity, transparency and understanding (ICTU) of NDCs.

The text of the decision 4/CMA.1 adopted in Katowice contains detailed requirements for communication and tracking progress for the NDCs that shall apply to all Parties. Annex I to Decision 4/CMA.1 contains a list of features guiding the preparation of the NDCs. Countries can use this list in preparing their next NDC update.

Yet another argument supporting the review of the current NDC is the need to update the information and data contained in 2015NDC of Armenia by referring to the latest National Communication and Biennial Update Report, and the latest available National Inventory.

Lastly, it is important to consider the proposed methodology and how this can translate into achievable medium-term goals in the period 2021-2030.

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<sup>3</sup> Negotiations on the common timeframes have not been concluded and will continue in 2020-2021. The common timeframe will become obligatory from 2031, as decided in Katowice. However, it is unlikely that a NDC timeframe longer than 10 years will be agreed.

<sup>4</sup> Article 4, paragraph 19 of the Paris Agreement.

<sup>5</sup> In 2015NDC, Armenia declared the 2050 per capita emission goal of 2.07 tCO<sub>2</sub>e per capita and an intent to achieve ecosystem neutral GHG emissions in 2050 (with the support of adequate international financial, technological and capacity-building assistance).

## 2. 2015 Nationally Determined Contribution of Armenia

Armenia’s first NDC is constructed as a fixed carbon budget in the period 2015-2050 equal to 633 million tonnes of CO<sub>2</sub> equivalent. The proposed contribution was based on a 2015 calculation of a global carbon budget consistent with 66% chance of keeping the increase of global temperature below 2 degrees Celsius (the longterm goal (LTG) of the UNFCCC) and in reference to the IPCC5 AR calculation estimating that global budget in 2015 was 1000 Gt CO<sub>2</sub>e.

It was assumed that Armenia owned a share of the estimated 2015 global carbon budget, the size of which was calculated in reference to the 1990 data on population. Population (global and that of Armenia) was assumed as constant until 2050. In order to calculate Armenia’s share, the 2015 carbon budget was attributed to global population not from 2015 (7.3 billion) but that from 1990 (5.3 billion people). 1000 GtCO<sub>2</sub>e (IPCC 2015 global carbon budget estimate) divided by 5.3 billion people (1990 global population) resulted in per capita allowance of 189 tCO<sub>2</sub>e. The next step was calculation of Armenia’s share based on 1990 population (in 1990 Armenia’s population was 3.35 million. In 2015, it was 3.011 million). This was then interpreted as Armenia’s right to emit thus calculated amount between 2015 (date of global budget calculation and first year of declared NDC implementation period) and 2050 (last year of declared NDC implementation period). It was translated again into per capita allowance for each year of the NDC period, with constant population of 3.35 million in that period (in reality, Armenia’s population has been declining slowly). As a result, Armenia declared its right to emit 5.4 tons CO<sub>2</sub> per capita annually from 2015 to 2050 (a ceiling of emissions per capita by 2050). As a conditional target, subject to international support, Armenia declared the intention to achieve much lower emissions in 2050, that of 2.07 tons per capita. The pathway to 2.07 tons (such as 2020, 2030, 2040 interim targets) was not set out. However, it was noted that per capita emissions of Armenia in 2010 (2.14 tCO<sub>2</sub>e) were well below the 5.4 tCO<sub>2</sub>e per capita threshold proposed annually between 2015 and 2050, thereby indicating that reaching the 2.07 tons per capita was achievable.

The methodology can be questioned by third parties because of an unexplained combination of the 2015 data on carbon budget with 1990 data on population and other assumptions, such as constant population of Armenia, no change in global population between 1990 and 2050, equating ecosystem based neutrality with 2.07

tCO<sub>2</sub>/capita emissions, replacing carbon budget with country level emissions allowances applicable not until the global carbon budget is actually used up but in the period until 2050.

The interpretation of the carbon budget as an amount that can be emitted by the humanity is not that of the IPCC. Carbon budget calculations serve to calculate the time left to the point after which there will be no return to certain levels of global average temperature. According to the IPCC, the humanity is already beyond the 100% certainty of being able to limit the growth of average global temperature to below 2C, even less so to below 1.5C. It cannot be assumed with certainty that it is safe for the humanity for emit the equivalent of the global carbon budget and still achieve the global long term goal of limiting increase in the average global temperature to below 2C. The carbon budget is a simplified way to measure the additional emissions that can enter the atmosphere with a reasonable (66%) chance to stay below a defined threshold (1.5C or another temperature limit such as below 2C).

### **3. Proposed changes in the 2020 NDC**

- Departure from the idea of carbon budget and carbon budget per capita or revise it in line with the latest forecasts of global carbon budget:

The approach to the carbon budget may be seen as controversial. If this approach were to be retained, it would be advisable to use the latest available data (IPCC SR1.5) and corresponding data on global population and Armenia population from the same year, rather than 1990 population data. Carbon budget per capita is strongly opposed by parties and, if used, the expected proceeds from selling the self-determined surplus from Armenia's share of the global budget may not materialise under Article 6 of the PA.

- Consider use of absolute emission reduction single year target with 1990 baseline: 1990 emission levels are used as reference points by many countries, chiefly Kyoto Protocol Annex B countries with quantitative limitations (targets). The EU is using 1990 baseline for its NDC and will continue doing so. Armenia can achieve by 2030 a 40% reduction driven by the energy sector, with a scope for an increase of ambition in time. Other, more ambitious targets may be considered, taking into account that in 2017 Armenia achieved -59% reduction of total emissions compared to 1990 levels. Baseline of, for example the year 2000 would show emissions

increase in 2017 (by 60 %), since after the collapse in early 1990’s, Armenia’s economy rebounded and has been growing on annual basis.

- Consider using other indicators showing that Armenia is reducing its GHG emissions such as GDP energy intensity or GHG emissions per unit of GDP.

GHG emissions per unit of GDP have declined consistently, from 1,953 in 1990 to 0,413 in 2017 (Gg CO<sub>2</sub> eq. per mln. USD). This would require assumptions on GDP growth and will show moderate progress in the coming years as the low hanging fruits have been picked up in the first years of transformation. GDP energy intensity has also declined exponentially since 1990 and can be used in this context.<sup>6</sup>

- Change of the NDC timeframe from 35 to 10 years and dates from 2015-2050 to 2021-2030:

As stated above, by realigning its timeframe with that of the majority of NDCs, the NDC of Armenia will not be confused with the LTS and it will be easier to plan, implement and report on activities undertaken within 10 year period than in 35 year period. The 2030 target can be increased but not lowered, after the 2023 GST at next round of NDC update in 2025.

- Use of guidance contained in Annex I of Decision 4/CMA.1 as a blueprint for NDC structure and content:

For clarity, transparency and understanding, it is advisable to use instructions and a list of features contained in the Decision 4/CMA.1 when preparing the 2020 NDC update.

- Keeping it short, with references to sectoral strategies and programmes, latest available BUR, ND, NIR, the (draft) LTS-LEDS in order to provide access to the latest data and numbers that can be easily checked by the interested experts and the general public.

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<sup>6</sup> BUR3,NC4 – latest available data