WORLD RESOURCES INSTITUTE

WORKING PAPER

SETTING A COMMON TIME FRAME FOR NATIONALLY DETERMINED CONTRIBUTIONS

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EXECUTIVE SUMMARY

Highlights

- Under the Paris Agreement, an agreement within the United Nations Framework Convention on Climate Change (UNFCCC), Parties to the Agreement develop and present nationally determined contributions (NDCs) to describe their domestic efforts to advance climate action and support.
- These NDCs lie at the heart of the Paris Agreement's ambition mechanism—more ambitious individual efforts should be communicated every five years and informed by assessments of collective progress.
- To date, Parties have determined the time frame, or duration, for their NDCs. However, as part of efforts to finalize the guidelines necessary to operationalize the Paris Agreement, Parties are discussing options for aligning all NDCs according to a common time frame.
- This working paper suggests how a decision on common time frames links with other components of the Paris Agreement and could best serve the need for greater climate ambition, by providing the predictability and pace needed, while exploring how domestic systems of various Parties could adjust accordingly.
- After comparing the pros and cons of various options, the paper argues that a five-year time frame with the opportunity to additionally indicate a 10-year time frame would best support the Paris Agreement's ambition cycle and implementation of other elements of the Agreement.

CONTENTS

Executive Summary 1
Introduction 8
Analysis of Potential Common Time Frames 16
What Do Common Time Frames Mean in Country Contexts? 25
Suggestions for Consideration 26
Conclusion 28
Endnotes 30
References 30
Acknowledgments 32
About the Authors 32
About WRI 32

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Context

The Paris Agreement relies on countries developing and preparing their own plans to address climate change, known as NDCs. These NDCs represent a critical component of the efforts to increase ambition over time and to drive a reinforcing cycle of ambition. Building on the assessments of collective progress toward the Agreement's goals, and guided by the latest and best available science and by equity, Parties will utilize their NDCs to communicate their plans for climate action every five years and ensure that each successive NDC is more ambitious than the current one. Under the Paris Agreement, each country will communicate its NDC, pursue efforts to implement and achieve its commitments, and report, track, and then review progress—both individually and collectively—with the view to meeting the Agreement's long-term mitigation, adaptation, and finance goals.

The time frame of NDCs is an important element of successful implementation of the Paris Agreement and its five-year ambition cycle. The ability of the Paris Agreement to achieve its long-term goals by 2050 relies on the effectiveness of its ambition mechanism. Although the five-year cycle of the submission of NDCs and of the assessment of collective process (a process called the global stocktake) are at the heart of the ambition mechanism, other elements of the Paris Agreement contribute to its effective delivery and overall impact. The duration of the implementation of each NDC also contributes to the operationalization of the Paris Agreement as the length of NDC time frames can influence the pace of climate action, bring more or less predictability, encourage near- and longer-term certainty in countries' climate pathways, and can affect the ways in which other requirements and aspects of the Paris Agreement are fulfilled and delivered.

Parties have decided that common time frames should be applicable to the NDCs to be implemented from 2031 onward, but have not yet been able to agree on the length of the time frames. Between 2016 and 2018, Parties debated and negotiated this issue, before finally deciding in December 2018 that NDCs to be implemented from 2031 onward will have common time frames, per decision 6/CMA.1.[1] However, Parties failed to reach a decision on the length of the time frame. This decision is one of the very few outstanding elements of the Paris Agreement's implementing guidelines (also known as the Paris Rulebook). In the absence of guidance from Parties, Box ES-1 provides the authors' interpretation and understanding of what is meant by "common time frames."

Parties should address the question of NDC time frames as soon as possible. Parties should conclude on this overdue issue at the earliest possible opportunity. As Parties begin to think about new or updated NDCs, many may raise the same questions considered in this paper and could benefit from guidance on time frames that is provided sooner rather than later. The sooner a decision is reached (e.g., at the 25th session of the Conference of the Parties [COP25], scheduled for December 2019), the more time Parties have to adjust their domestic planning and review processes before applying common time frames.

Parties can learn from their experiences in communicating their initial NDCs and existing decisions under the UNFCCC, but should do so in the context of climate emergency. Before the Paris Agreement was adopted in 2015, Parties decided to put forward initial NDCs, even with limited guidance. Examining the time frames offered in the initial NDCs provides some insights into Parties' experiences. In addition, some of the decisions adopted with and since the Paris Agreement provide only limited guidance on addressing the question of common time frames. Examining these decisions is important to ensure that the final decision is consistent with and builds on previously agreed upon language. Parties should, however, keep in mind the need for these decisions to accelerate climate actions, the need to fulfill the promise of the Paris Agreement and secure safe, prosperous, climate-resilient, and decarbonized economies.

Box ES-1 | What Do 5-Year and 10-Year Time Frames Mean?

To understand time frames—including what five-year and 10-year time frames refer to—it is important to see time frames in the context of when implementation of an NDC begins and ends. This working paper does not use the term *time frame* to mean the length of time between the NDC's communication and its end or target date (for example, from 2025 to 2035). Rather, *time frame* is used here to refer to the length of time between the beginning and end of the NDC. The period of the time frame is often referred to as an implementation period for the NDC—that is, from its start date to its end date.

For example, for a new NDC communicated in 2025, the time frame would be the period starting following the end date of the previous NDC in 2030, with a duration to the end date of the new NDC.

- If an NDC communicated in 2025 has an end date of 2035, this would imply a five-year time frame—that is, one starting in 2031.
- An NDC communicated in 2025 with an end date of 2040 would have a 10-year time frame—that is, one starting in 2031.
- This means that there is a lag between the communication date and the start of the implementation period, which countries can use for further planning (or extended implementation) of the NDC.

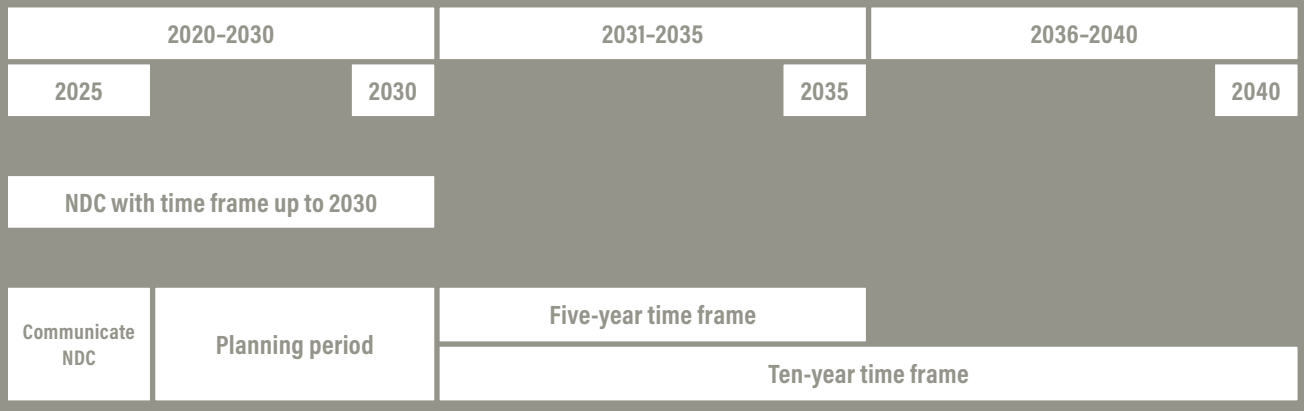
The same approach to five- and 10-year timeframes would hold for NDCs communicated in 2030, 2035, and so on.

This definition of the length of time frames is built from the following points of understanding:

- Parties will communicate a successive NDC every five years, on the basis of reading Article 4.3 and Article 4.9 together.
- NDCs will be communicated five years before they are to be implemented. For example, NDCs communicated in 2025 would be implemented from the end of 2030 onward (2031–2035).

Figure BES1.1 illustrates five- and 10-year NDC time frames for an NDC communicated in 2025.

FIGURE BES1.1 FIVE- AND 10-YEAR TIME FRAMES FOR AN NDC COMMUNICATED IN 2025



Source: WRI authors.

Findings

This working paper provides a thorough assessment of the various options for common time frames currently under negotiation and describes the comparative advantages and risks of adopting a shorter-term, rather than a longer-term, time frame. Each of the following options is being discussed among Parties in the ongoing negotiations:

- A five-year time frame.
- A five-year time frame with an indicative 10-year time frame.
- A 10-year time frame.
- A 10-year time frame with an indicative five-year time frame.
- An option allowing Parties to select either a five-year or a 10-year time frame, reflecting existing practices.

This analysis assesses these options against three criteria: enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement; alignment with and facilitation of the implementation of other elements of the Paris Agreement; and administrative feasibility, including institutional conditions. Table ES-1 summarizes the highlights of the analysis and provides notes about the option according to each of the three criteria.

Table ES-1 | **Summary of Option Analysis**

CRITERION	OPTION 1: FIVE-YEAR TIME FRAME	OPTION 2: FIVE-YEAR TIME FRAME WITH AN INDICATIVE 10-YEAR TIME FRAME	OPTION 3: 10-YEAR TIME FRAME	OPTION 4: 10-YEAR TIME FRAME WITH A FIVE-YEAR MIDPOINT	OPTION 5: FIVE- OR 10-YEAR TIME FRAME (STATUS QUO)
Support for enhanced ambition of climate action and support	Provides a clear signal to mobilize short-term investments. Aligns with five-year ambition cycle. Prevents locking in low ambition for too long. Offers opportunities to leverage technological changes.	Provides both predictability and longer-term certainty. Offers clear short- and midterm signals. Aligns with five-year ambition cycle. Prevents locking in low ambition for too long. Offers opportunities to leverage technological changes.	Provides longer-term certainty. Offers a clear midterm signal. Has the potential to lead to greater ambition.	Provides longer-term certainty. Offers a clear midterm signal. Has the potential to lead to greater ambition.	
	Does not capture drastic technological changes or may not facilitate longer-term investments. May lead political leaders to announce less ambitious policies.		May not offer the detail necessary to drive short-term investments and risks locking in low ambition.	Could encourage later phase-outs of technologies or less efficient practices. Builds from inconclusive experiences with the ratchet-up mechanisms under the Kyoto Protocol.	Provides a confusing signal to the global community.

Table ES-1 | **Summary of Option Analysis (Cont'd)**

CRITERION	OPTION 1: FIVE-YEAR TIME FRAME	OPTION 2: FIVE-YEAR TIME FRAME WITH AN INDICATIVE 10-YEAR TIME FRAME	OPTION 3: 10-YEAR TIME FRAME	OPTION 4: 10-YEAR TIME FRAME WITH A FIVE-YEAR MIDPOINT	OPTION 5: FIVE- OR 10-YEAR TIME FRAME (STATUS QUO)
Alignment with the other elements of the Paris Agreement	Aligns with the global stocktake. Facilitates the tracking and assessment of efforts. Eases accounting and tracking of transfers of credits from market mechanisms.	Aligns with the pace of the global stocktake.	Offers manageable tracking and assessment of countries' efforts. Eases accounting and tracking of transfers of credits generated through the use of market mechanisms. Provides additional information to strengthen the global stocktake.	Offers manageable tracking and assessment of countries' efforts.	
	Does not provide a sense of long-term trajectories.	May not ease accounting and tracking of transfers of credits generated through the use of market mechanisms. May require additional safeguards to facilitate the tracking and assessment of efforts.	Does not align with global stocktake.	May not align with the pace of the global stocktake. May not ease accounting and tracking of transfers of credits generated through the use of market mechanisms. May require additional safeguards to facilitate the tracking and assessment of efforts.	Creates more complicated collective tracking and assessment of efforts. Makes difficult for accounting and tracking of transfers of credits generated through the use of market mechanisms. Does not align with the global stocktake.
Administrative feasibility, including institutional conditions	May already utilize appropriate domestic processes. May build from experiences with five-year time frame under the Kyoto Protocol.	Provides flexibility to include indicative signals to some sectors and drive innovation. May build from experiences with five-year time frame under the Kyoto Protocol.	Provides time for planning and implementation. May already utilize appropriate domestic processes.	Provides time for planning and implementation. May already utilize appropriate domestic processes.	Allows Parties to select the process most compatible with their domestic institutions.
	May require some countries to mobilize additional resources to adjust their institutional setting and decision-making process.	May require an adjustment to domestic processes.	May require an adjustment to domestic processes. Does not build from experiences with five-year or eight-year time frames under the Kyoto Protocol.	May require an adjustment to domestic processes. Does not build from experiences with five-year or eight-year time frames under the Kyoto Protocol.	Represents the initial NDC (status quo).

Note: Shaded text represents arguments against the option.
Source: WRI authors.

A decision on common time frames will have major implications for the implementation of other components of the Paris Agreement, including the enhanced transparency framework, cooperative implementation under Article 6, and the global stocktake. One essential consideration for the adoption of the Paris Agreement implementation guidelines at the 2018 United Nations Climate Change Conference in Katowice, Poland, was ensuring the coherence of the overall rules, in view of the linkages between the various elements of the Paris Agreement. This working paper makes the case for taking these linkages into account when finalizing the implementing guidelines. Under the enhanced transparency framework, reporting and review of progress in implementing and achieving NDCs will take place every two years. These assessments will consider whether the Party has achieved the targets for its NDC following the end of an NDC implementation period, and, as a result, the time frame will have important implications for that assessment process. Having common time frames will facilitate comparability of NDCs. Both the accounting and review of individual countries' efforts mentioned above are critical to facilitate the aggregation of NDCs and assess collective progress toward meeting the Agreement's long-term goals. A decision on common time frames is useful to help define the relevant periods for NDC implementation, trading, and crediting for the ongoing Article 6 negotiations related to cooperative implementation and international carbon markets. Every five years, the global stocktake will assess collective progress toward the Paris Agreement's long-term goals. NDC time frames will define where Parties are in the implementation of their NDCs at the time of the global stocktake.

The decision on common time frames will ultimately have domestic implications for Parties, as they consider how to align domestic processes with the requirements of the Paris Agreement. This paper explores the cases of China, Mexico, Japan, and the European Union to outline some of the considerations and opportunities relevant to aligning domestic processes with a five-year common time frame. These countries were chosen because they provide different domestic planning and review models, with different time lines (ranging from three to 10 years), which allows the paper to illustratively test the feasibility of aligning different domestic processes with time frame options. Although some countries already utilize five-year time frames in domestic policymaking and may be more easily able to adjust to a five-year time frame (e.g., China), other countries, with different planning and review processes, may have to explore ways to adjust their domestic processes (e.g., Japan) or may have existing mechanisms to facilitate that adjustment (e.g., the European Union). The adoption of the common time frame at COP25 can allow Parties to share experiences in adjusting domestic processes, as necessary.

There is no single technical approach to NDC time frames. In reaching a final decision, Parties will have to grapple with the question of how many years they want their NDCs to cover and how this signal can strengthen and accelerate the implementation of their commitments. The analysis and options presented in this working paper aim to support negotiators in finding consensus while ensuring that a decision supports enhanced climate action and support in line with the urgency of addressing climate change and in alignment with the various elements of the Paris Agreement.

Suggestions

This working paper suggests that Parties adopt a five-year time frame while allowing them also to indicate a 10-year time frame, if they desire to do so. This approach is similar to those previously referred to as "5 + 5" or a "dynamic contribution cycle" in the negotiations (Sharma et al. 2019). Such an approach would better synchronize the time frames with the five-year ambition cycle, while combining the benefits of both shorter- and longer-term options. Short-term time frames can indicate Parties' efforts to quickly implement actions and deploy the resources necessary to address the urgency of climate change. It could also prevent locking in low ambition over long periods and allow Parties to capitalize on technological breakthroughs, socioeconomic changes, and scientific updates and recommendations. On the other hand, the option to include an indicative 10-year time frame could allay some of the concerns from Parties about the need for more time to implement policies and actions. It would signal longer-term investment and policy certainty while allowing more time for domestic implementation of policies and actions.

On the basis of this analysis and these findings, this paper does not offer final-decision language but rather suggests several illustrative concepts that Parties could use to operationalize a decision on common time frames. Responding to the need to support the ambition cycle and enhance opportunities for ambitious climate action, Parties may wish to consider the following suggestions for a decision on common time frames. On the basis of past experience, and recognizing the need to foster more ambitious actions at an accelerated speed and bigger scale in a predictable and effective manner, Parties should communicate an NDC with a five-year implementation period.

- **SUGGESTION 1:** Parties are requested to communicate an NDC with a five-year time frame. (For example, in 2025, Parties should communicate an NDC to be implemented from 2031 onward with a time frame up to 2035.)

Parties may also wish to recognize the need for and benefits of longer-term planning and investment certainty. However, these efforts would be in addition to the near-term NDC outlined in Suggestion 1. In this case, Parties could also have an option to indicate potential longer-term contributions.

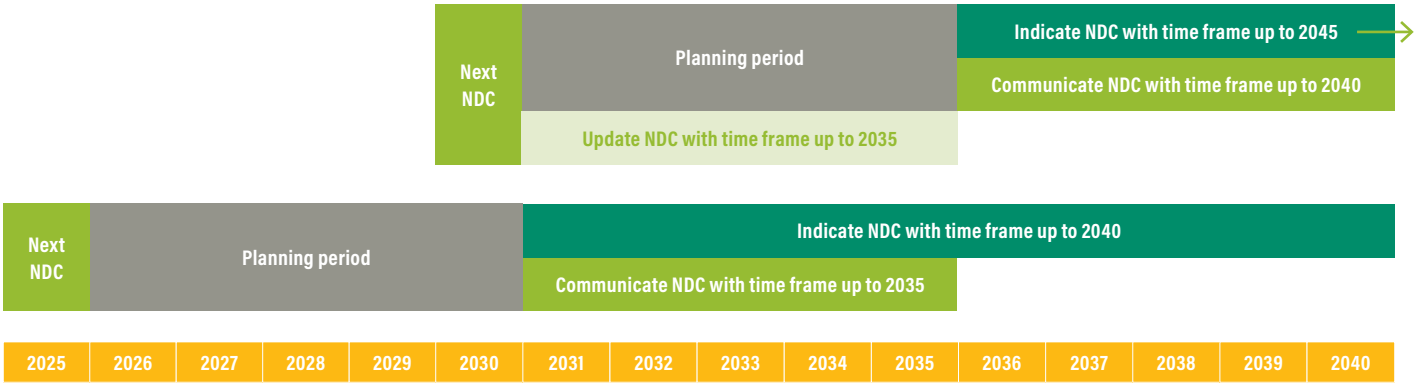
- **SUGGESTION 2:** In addition to communicating an NDC with a five-year time frame, Parties may also indicate a 10-year time frame. (For example, in 2025, Parties that wished to do so could also indicate an NDC to be implemented from 2031 onward with a time frame up to 2040.)

Because the Paris Agreement allows countries to enhance their existing NDCs at any time, Parties willing and able to do so may take the outcomes of the global stocktake into account and consider opportunities to further upgrade their NDCs. Because Parties can update their NDCs at any time, the suggestion below would allow countries to update their NDCs on the basis of the most recent global stocktake.

- **SUGGESTION 3:** Parties could also be invited to update their NDCs five years after their communication on the basis of the outcome of the most recent global stocktake. (For example, in 2030, Parties could update an NDC to be implemented from 2031 onward with a time frame up to 2035, on the basis of the outcome of the 2028 global stocktake.)

Figure ES-1 illustrates these suggestions. The suggestions provided here attempt to bring together a range of options, including those evaluated in this working paper. Options for a five-year time frame beginning five years after communication (Suggestion 1, communicate), for a 10-year time frame beginning five years after communication (Suggestion 2, indicate), and for a five-year time frame beginning immediately after communication (Suggestion 3, update) are all captured in the suggestions above.

Figure ES-1 | **Illustrative Examples of Potential Decision Options**



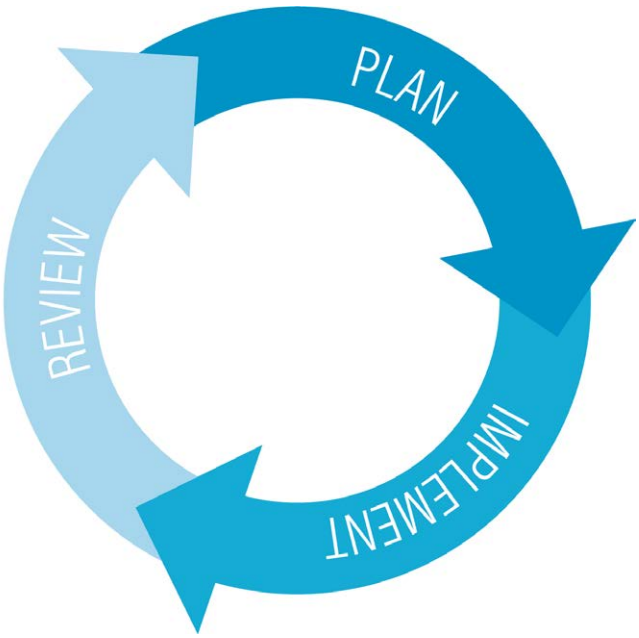
Notes: The dates in the time line cover the period from 2025 to 2040. The pattern established by the decision would repeat every five years. The figure indicates a period between the communication of the NDC and the start of its implementation. Faded area indicate the period for implementation of the NDC.
Source: WRI authors.

INTRODUCTION

The Paris Agreement, an agreement within the United Nations Framework Convention on Climate Change (UNFCCC), took an innovative approach in crafting the global response to climate change. Under the Paris Agreement, countries are asked to prepare their own plans to address climate change, also known as nationally determined contributions (NDCs), where they detail their plans and efforts to address climate change. Each country has to plan its own actions, implement those plans, and then consider how to enhance its plans in an effort to take greater action and provide more support with the goal of collectively achieving the Agreement's long-term goals. Countries will use an assessment of collective progress to inform their future NDCs.

The Paris Agreement has thus created a unique cycle of action in which countries plan their NDCs, implement their NDCs, and then review both individual progress made in implementing and achieving NDCs and collective progress toward achieving the Agreement's long-term goals (Dagnet et al. 2018). Figure 1 illustrates this plan–implement–review cycle, informed by science and conducted on the basis of equity.

Figure 1 | **The Paris Agreement's Cycle of Implementation and Ambition**



Source: Adapted from Dagnet et al. 2018.

NDCs form a central component of the Paris Agreement, around which most of the rest of the Agreement's structure is based. The nationally determined nature of the NDCs is also one of their critical design features, allowing each country to identify its own plans for climate action on the basis of its national circumstances and capabilities. Because of the nationally determined nature of the NDCs, the Agreement does not provide significant guidance on how NDCs should be developed or presented, except for information necessary to facilitate clarity, transparency, and understanding of the NDC itself. The Paris Agreement introduces the concept of common time frames for NDCs but does not provide further definition or guidance on what a common time frame for NDCs is or might be.

What Is a Common Time Frame?

Article 4.10 of the Paris Agreement notes that Parties to the Agreement are to "consider common time frames for [NDCs]" during future negotiating sessions. Parties are now grappling with this mandate, including how to define a common time frame and the length of the time frame. Formal negotiations on this mandate began in 2016 at the 22nd session of the Conference of the Parties (COP) to the UNFCCC. Two years later, at the 24th session of the Conference of the Parties (COP24), the Parties decided that common time frames will be applied without infringing on the nationally determined nature of the NDC; each Party would still make the decisions regarding its actual plans. However, the Parties were unable to reach consensus in defining a set length for the common time frames.

Throughout the discussions on common time frames, there have been different interpretations of the operationalization of time frames (Müller 2018). Some interpret a time frame to refer to the NDC's implementation period, a set period with defined start and end dates during which a Party would implement the actions outlined in its NDC. Others use "time frame" in reference to a target period, where a Party indicates a target to be achieved by a certain point in time. These definitional questions have implications for discussions and decisions by Parties on common time frames. Those who interpret time frames to refer to an implementation period may be inclined to define distinct start and end dates for the time frame; those partial to the target period interpretation may prefer to indicate only an end date. Beyond these questions about defining a start date, ongoing negotiations and discussions about common time frames are also debating five-year over 10-year time frames, with the length of the period implying both a start and an end date.

A relevant point featuring prominently in related discussions is an English-language grammatical nuance in the Paris Agreement decision. The language in Article 4.10 of the Agreement notes "common time frames"—time frames is plural and not singular. Some interpret this language, in the context of the word "common," to suggest that the same time frame would be applicable to all Parties. However, others suggest that the plural "time frames" means that Parties could use different time frames as long as these time frames were selected from a common set of choices. This disagreement is a feature of ongoing discussions and is part of the context for a resolution of the question.

Given that the language of the negotiations has generally focused on five-year or 10-year time frames, this working paper uses five and 10 years when considering various options for time frames. See Box ES-1 in the Executive Summary for a summary of the authors' interpretations and definitions of common time frames.

Methodology, Approach, and Objectives

This working paper is intended to serve as a useful input to the negotiations about the time frames of NDCs under the UNFCCC, including providing additional reflections and considerations for the ongoing debates. To do so, the paper first examines experiences from the initial NDCs communicated in 2015, reflecting upon and providing the authors' interpretations of the existing relevant decision language. Then, the paper offers greater context on how the time frames discussions are linked to other components of the Paris Agreement, including the enhanced transparency framework as defined in Article 13; cooperative implementation, such as market and nonmarket efforts, under Article 6; and Article 14's global stocktake. Decisions should not be taken without considering these linkages (Dagnet et al. 2017; Dagnet et al. 2018). Parties should strive to ensure coherence and consistency in the set of rules, decisions, and procedures agreed upon to ensure the effective implementation of the Paris Agreement. Then, the paper describes the state of play from the latest formal negotiation sessions in June 2019.

This working paper also identifies potential options, defines evaluation criteria, and then assesses various options against identified criteria. Specifically, the paper evaluates five unique options that are currently frequently included in ongoing negotiations. This analysis serves to highlight some of the various strengths and weaknesses of various options in relation to a set of defined criteria.

Because a decision on common time frames will affect the domestic processes that Parties use to develop their NDCs, the paper scans the domestic policy contexts for China, Japan, Mexico, and the European Union and reflects on how various decisions may affect those domestic processes. These countries were chosen because they provide different domestic planning and review models, with different timelines (ranging from three to 10 years), thus offering opportunities to explore potentials to align domestic processes with the suggestions made here.

This paper provides suggested elements for decisions that Parties can consider at the next round of negotiations at the 25th session of the Conference of the Parties (COP25) in December 2019. Brief annotations explain why the suggested language may be helpful to spur conversations among negotiators.

Negotiating Background, Relevant Decisions, and Paris Agreement Linkages

Experiences with the initial NDCs, previous decisions, and linkages with other elements of the Paris Agreement can all inform a decision on common time frames. A section on what can be learned from the initial NDCs submitted in 2015 follows. This paper then turns to the key decisions since the Paris Agreement that are relevant to discussions on common time frames, including the authors' interpretations of these decisions.

Building cohesion within the structure of the Paris Agreement is important to support effective implementation. Thus, this paper explores the linkages between time frames and other elements of the Paris Agreement, including the enhanced transparency framework, cooperative implementation under Article 6, and the global stocktake. This is followed by an update on the current status of the common time frame negotiations heading into COP25.

Experiences from the Initial NDCs

When the concept for initial NDCs was developed before the Paris climate conference in 2015, it was accompanied with only minimum guidelines (UNFCCC 2014).[2] Although these guidelines outlined the information Parties may include in their initial NDCs, it included only "time frames and/or periods for implementation" as one element of information. A specific time frame was not prescribed, leaving the matter essentially nationally determined. As a result, Parties chose different time frames for their first round of initial NDCs in the run up to the 21st session of the Conference of the Parties in Paris. Some adopted a 10-year NDC, with implementation starting in 2021, up to 2030 (i.e., the European

Union, China); others pursued a five-year approach (i.e., the United States); still others went for a "5 + 5" approach, with the first five-year target as a "firm" contribution, whereas the 10-year target was "indicative" (i.e., the dynamic contribution cycle) (Government of Brazil 2014).[3]

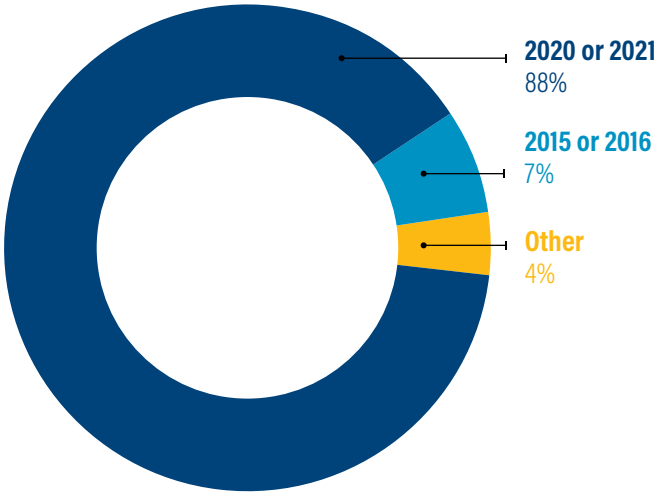
Figure 2 illustrates the starting points of the initial NDCs, as specified by Parties with greenhouse gas (GHG) emissions targets. Only about 40 percent of Parties specified a start date; of those, nearly 90 percent indicated that their start date was in 2020 or 2021. The most commonly identified start date was January 1, 2021. The limited number of Parties specifying a start date for their initial NDCs with GHG targets may stem from an existing understanding that the initial NDCs applied only to the post-2020 period. In 2011, in Durban, South Africa, Parties had decided to begin work to develop a protocol or legal instrument by 2015 that would be implemented from 2020 (UNFCCC 2011, paras. 2–3). That protocol or legal instrument ultimately became the Paris Agreement. Although the Paris Agreement was quickly ratified and entered into force on November 4, 2016—less than a year after its adoption—Parties continued to be informed by the 2011 guidance, which stated that the new legal instrument would be implemented from 2020. It follows that, when developing and submitting their initial NDCs ahead of the Paris Conference in 2015, Parties would have assumed the Agreement would be implemented only from 2020.

Parties may have also assumed that the implementation of the NDCs would begin at the point of the Agreement's entry into force. However, the Paris Agreement is silent on this question. It does not provide guidance as to whether there is a distinction between the date of communication for NDCs and when the implementation of the NDC should begin.

More than three-fourths of all initial NDCs with GHG emissions targets indicated a target year of 2030; a few indicated 2025, and some provided targets for both 2025 and 2030. Figure 3 illustrates the range of target dates included in the initial NDCs.

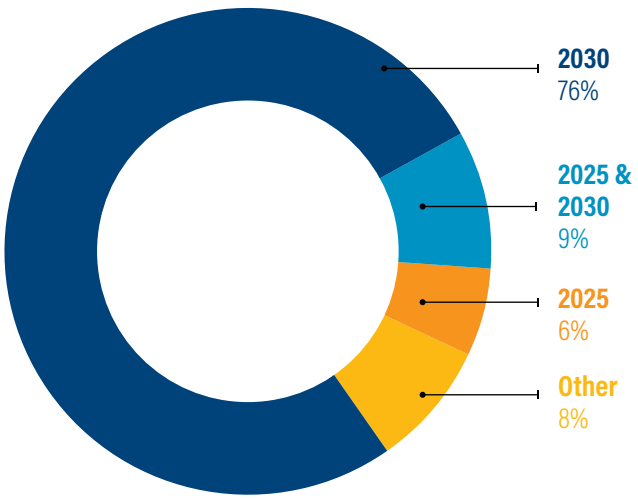
Of the 60 initial NDCs that specified a start date in 2020 or 2021, more than 90 percent also indicated 2030 as their end date. Building on the thinking that initial NDCs would be implemented from 2020, as explored above, and on the basis of the popularity of 2030 targets, most initial NDCs used a 10-year time frame. Although the experience of the initial NDCs that were formulated without specific guidance may be useful to consider in ongoing consideration of common time frames, such experience need not be considered prescriptive or a foreshadowing of a specific decision on common time frames.

Figure 2 | **Start Dates in Initial NDCs, When Specified**



Note: Data from Climate Watch apply only to NDCs with a GHG emissions target. Only one Party did not include a start year of 2015, 2016, 2020, or 2021 and instead indicated 2010.
Source: WRI authors; based on data from Climate Watch NDC Content (2018).

Figure 3 | **End or Target Dates in Initial NDCs, When Specified**



Note: Data from Climate Watch apply only to NDCs with a GHG emissions target. Other end years indicated included 2021, 2035, 2040, 2050, and ongoing.
Source: WRI authors; based on data from Climate Watch NDC Content (2018).

Paris Agreement Text and Related Decisions

In negotiating a decision on common time frames, it is necessary to reflect on and consider previous decisions and adopted language. In the Paris Agreement and the associated decision (decision 1/CP.21), "time frames" are mentioned only four times; each instance is included in Table 1, along with other relevant decision language from decisions 4/CMA.1 and 6/CMA.1. To highlight the existing decision language on common time frames, Table 1 also provides short discussions of the relevance, importance, and interpretations of each decision.

Table 1 | **Interpretations of Relevant Decisions**

RELEVANT DECISION	POSSIBLE IMPLICATIONS
Paris Agreement, Article 4, paragraph 3 "Each Party's successive nationally determined contribution will represent a progress beyond the Party's then current nationally determined contribution and reflect its highest possible ambition . . . " **Paris Agreement, Article 4, paragraph 9** "Each Party shall communicate a nationally determined contribution every five years in accordance with decision 1/CP.21 and any relevant decisions of the [CMA] and be informed by the outcomes of the global stocktake . . . "	Article 4.3 does not specifically address common time frames but does provide important information regarding NDCs. Irrespective of the time frame of the NDC, this paragraph notes that NDCs must be communicated every five years. Although Article 4.9 does not specify whether Parties are required to communicate an NDC every five years, this paragraph should be read in conjunction with Article 4, paragraphs 2 and 3; it can be argued that the NDC communicated every five years is a "successive NDC" representing progression beyond the existing NDC.
Paris Agreement, Article 4, paragraph 10 "The [CMA] shall consider common time frames for nationally determined contributions at its first session."	This paragraph required the CMA to begin negotiations on the issue of common time frames. A year later, at CMA1-1 in Marrakech, Parties decided to refer the topic to the Subsidiary Body for Implementation for consideration and further deliberations. This paragraph did not prejudge any decision to apply common time frames or to define the length of a time frame. The paragraph only noted that Parties needed to consider these questions.
Decision 1/CP.21, paragraph 23 "*Requests* those Parties whose intended nationally determined contribution pursuant to decision 1/CP.20 contains a time frame up to 2025 to communicate by 2020 a new nationally determined contribution and to do so every five years thereafter pursuant to Article 4, paragraph 9 of the Agreement." **Decision 1/CP.21, paragraph 24** "*Also requests* those Parties whose intended nationally determined contribution pursuant to decision 1/CP.20 contains a time frame up to 2030 to communicate or update by 2020 these contributions and to do so every five years thereafter pursuant to Article 4, paragraph 9 of the Agreement."	Paragraphs 23 and 24 have received significant focus in the discussions related to common time frame because of their instructions to Parties on the NDCs to be communicated in 2020 and because of their use of the phrase "time frame." These paragraphs also suggest that time frames have a distinct end date, by noting "a time frame up to" 2025 or 2030. Paragraph 24 asks Parties to "communicate or update" their 2030 contributions. Paragraph 23, though, asks Parties to communicate a new NDC, but does not specify the time frames for this new NDC. Those who, in 2015, communicated a time frame up to 2025 may be inclined to communicate, in 2020, a time frame up to 2030. These Parties could, however, submit an NDC with a different time frame. In the authors' view, the instructions provided in these paragraphs apply only to NDCs communicated in 2020. Further, although these paragraphs may provide some ideas useful to the common time frames discussion, it is not necessary for a substantive decision on the length of a time frame to reference or build from the instructions provided in these paragraph; i.e., a decision on common time frames does not need to follow the same formulation as presented here. In negotiating a decision on common time frames, Parties do not have to follow the pattern described in these paragraphs. Rather, they could choose whether or not to use elements of this language in a decision on common time frames.

Table 1 | **Interpretations of Relevant Decisions (Cont'd)**

RELEVANT DECISION	POSSIBLE IMPLICATIONS
Decision 1/CP.21, paragraph 27 "*Agrees* that the information to be provided by Parties communicating their [NDCs], in order to facilitate clarity, transparency and understanding, may include, as appropriate . . . time frames and/or periods for implementation . . . "	As part of the information necessary for clarity, transparency, and understanding of NDCs, Parties need to provide information on the "time frames and/or periods of implementation." This is critical information to be included with the communication of NDCs.
Decision 4/CMA.1, paragraph 7 "*Decides* that, in communicating their second and subsequent [NDCs], Parties shall provide the information necessary for clarity, transparency and understanding contained in annex I as applicable to their [NDC] . . . "	The decision from CMA1 (2018) provides further guidance than the previous decisions, by noting that Parties should include the start and end dates of their NDCs. This is also the first time that the decision language implies that a time frame has both a start and an end date. Paragraphs 23 and 24 of decision 1/CP.21 had previously indicated that a time frame would have an end date.
Decision 4/CMA.1, Annex, paragraph 2a "Time frame and/or period for implementation, including start and end date, consistent with any further relevant decision adopted by the [CMA]."	The start date, end date, and implementation period are not all independent variables. If the start date and the length of the implementation period are defined, the end date is de facto defined.
Decision 6/CMA.1, paragraph 2 "*Decides* that Parties shall apply common time frames to their nationally determined contributions to be implemented from 2031 onward."	Heading into COP24/CMA1, Parties had three key questions to answer: ■ Whether common time frames should be applied ■ From when the time frames would be applied ■ The length of the time frames This paragraph answered questions 1 and 2 above, noting that Parties will have to apply common time frames and that they will have to be applied beginning with NDCs implemented from 2031 onward. Parties did not take a decision on the length of the time frames during COP24.

Source: WRI authors.

Given the relevant information from the initial NDCs and implications from previous decisions, Figure 4 illustrates the various time frames from the initial NDCs in 2015 through to NDCs communicated in 2035. Because most initial NDCs had time frames up to 2025 or 2030, these are depicted in the figure. For NDCs to be communicated from 2025 onward, the figure illustrates two of the most common time frame options, which are discussed in more detail later: a five-year time frame and a 10-year time frame.

Linkages and the Importance of Common Time Frames for Other Elements of the Paris Agreement

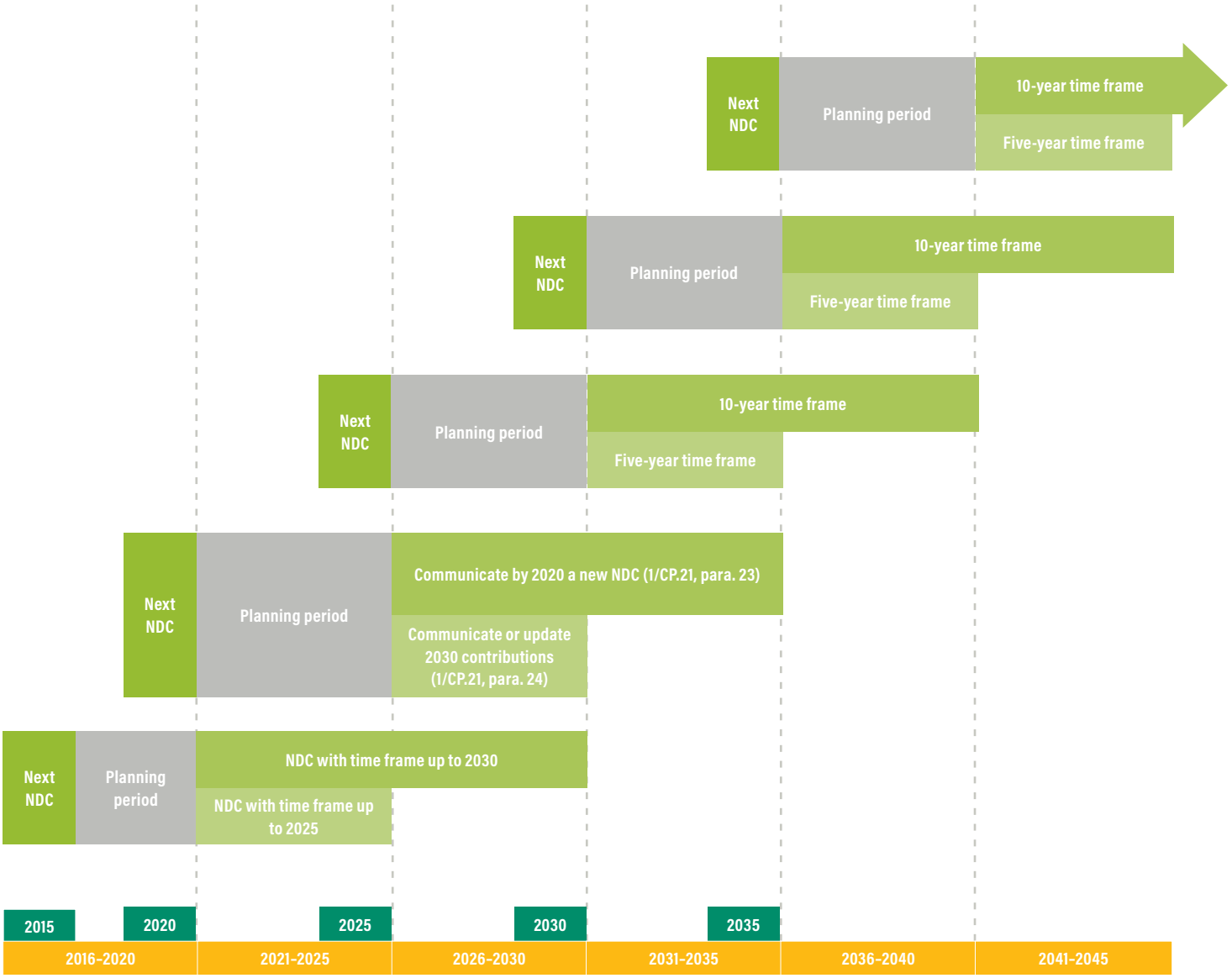
As the central element of the Paris Agreement, NDCs (and their time frames) are linked to other elements of the Paris Agreement. This section explores the connections between the time frames of NDCs and other components central to the success of the Paris Agreement, including the enhanced transparency framework, cooperative implementation under Article 6, and the global stocktake. These linkages are important to inform the negotiations around the time frames and to build cohesion across the package of rules implementing the Paris Agreement.

Enhanced Transparency Framework—Article 13

The Paris Agreement outlined a new enhanced transparency framework with the goal of building trust and mutual confidence and facilitating understanding of countries' climate actions and GHG emissions. Under the enhanced transparency framework, Parties are required to report, using biennial transparency reports (BTRs) (UNFCCC 2018b). The first BTRs are to be submitted no later than December 31, 2024.

One of the key new features under the enhanced transparency framework is obligatory reporting on information necessary to track progress made in implementing and achieving NDCs every two years. As part of the modalities, procedures, and guidelines for the enhanced transparency framework that were adopted during COP24 in December 2018, Parties decided how they would report on achievement of NDCs. Parties noted that they must "provide an assessment of whether it has achieved the target(s) for its NDC" in "the first biennial transparency report that contains information on the end year or end of the period of its NDC" (UNFCCC 2018b, Annex, para. 70).

Figure 4 | **Illustration of NDC Time Frames Emerging from the Paris Agreement**



Note: Given the lessons from the initial NDCs, this figure assumes a built-in five-year period between the communication of the NDCs and the beginning of their implementation. Because decision 1/CP.21, paragraph 23, allows Parties to communicate a new NDC in 2020 without having specified a set time frame for those communications, Parties could communicate any variety of time frames—though it is assumed Parties would continue to communicate primarily either five- or 10-year time frames. NDCs for those Parties communicating NDCs in 2020 based on 1/CP.21, para. 23, are colored purple.
Source: WRI authors.

Because of the mandate for Parties "to provide an assessment of whether it has achieved the target(s) for its NDC" in the "first biennial transparency report that contains information on the end year or end of the period of its NDC," Parties may end up reporting this element in different BTRs, depending on whether flexibility is needed for fulfilling provisions related to the GHG emissions inventory (UNFCCC 2018b, Annex, para. 70).[4] Reviews under the enhanced transparency framework will take place following a biennial transparency report, every two years. However, the review following the end of the NDC time frame will assess achievement of the NDC.

With multiple time frames, some Parties may report on achievement of NDCs every five years, while others may report on achieving NDCs only every 10 years. A single common time frame establishes a level playing field as it means that all Parties will be held accountable for the achievement of their NDCs at the same intervals, because the time frame for all NDCs would align. This reporting would also be a valuable input to the global stocktake, which will assess collective progress toward the Paris Agreement's goals in the light of equity and best available science (Article 14.1).

Cooperative Implementation (Markets and Nonmarkets)—Article 6

Negotiations related to cooperative implementation under Article 6 are ongoing; the Parties were unable to reach consensus at COP24. Instead, Parties aim to reach agreement on these negotiations at COP25 in December 2019. The ongoing negotiations and the latest versions of the text under negotiation for Article 6 from the June 2019 intersessional negotiations do not explicitly refer to the NDC time frames, but reference "NDC implementation periods" and the "period for NDC implementation."

As noted earlier, time frames and implementation periods do, in essence, refer to the same thing. As such, a decision on common time frames would provide guidance toward the implementation period, as relevant for Article 6 carbon emissions trading.

Under the Kyoto Protocol, the periods for national emissions targets and for trading and crediting were synchronized. Over this period, emissions reductions were measured and verified, and, at the end of the period, participants had to demonstrate compliance by surrendering units (Prag et al. 2012). This synchronization prevented introducing an additional level of complexity on top of an already complex accounting of countries' efforts. Some argue that linking different emissions trading schemes over various trading and crediting periods could distort the way the carbon credit allowances are supplied and could jeopardize the robustness and environmental integrity of the process (Ellis and Tirpak 2006).

The same could and should happen with NDCs and the use of market mechanisms under Article 6. Given the experience under the Kyoto Protocol and the challenges in accounting, Parties should decide on a common time frame that aligns the periods for NDC implementation, trading, and crediting under Article 6.

The Kyoto Protocol may also offer interesting lessons regarding the length of implementation periods. The Kyoto Protocol's first commitment period ran for five years (beginning in 2008 and running through 2012) (UNFCCC n.d.). The second commitment period is eight years long, running from 2013 through 2020 (UNFCCC n.d.). Given these commitment periods under the Kyoto Protocol and considering them as appropriate analogues to NDC time frames under the Paris Agreement, some Parties already have experience using a five-year or eight-year period. On the other hand, 10-year implementation periods would represent longer periods than Parties already have experience with. Even though the use of market mechanisms under the Paris Agreement will enter uncharted territory,[5] some experiences under the Kyoto Protocol could be built upon, such as adopting five-year time frames for NDCs.

To build trust among countries on the environmental integrity of GHG units generated through market mechanisms, a robust reporting and review process would be required by the end of the implementing period. The longer time frame could leave the impact of the use of the new and more complex market mechanisms (including the surrender of units to demonstrate compliance) unchecked for a longer period. In view of the complexity of the use of market mechanisms under the Paris Agreement, leaving the transfers of internationally transferable mitigation outcomes (ITMOs) unchecked for too long could undermine the effectiveness of the assessment and affect trust.

Ultimately, a decision on common time frames is relevant as Parties grapple with defining the accounting rules and processes for trading ITMOs. The ongoing Article 6 negotiations are considering how Parties can apply robust accounting in cases where Parties transfer ITMOs across NDC types—when some NDCs have single-year targets while others have multiyear targets (Lo Re and Vaidyula 2019).

A single-year target indicates that the Party intends to "achieve emissions reductions by a single future year" (Greenhouse Gas Protocol 2014). Using a multiyear

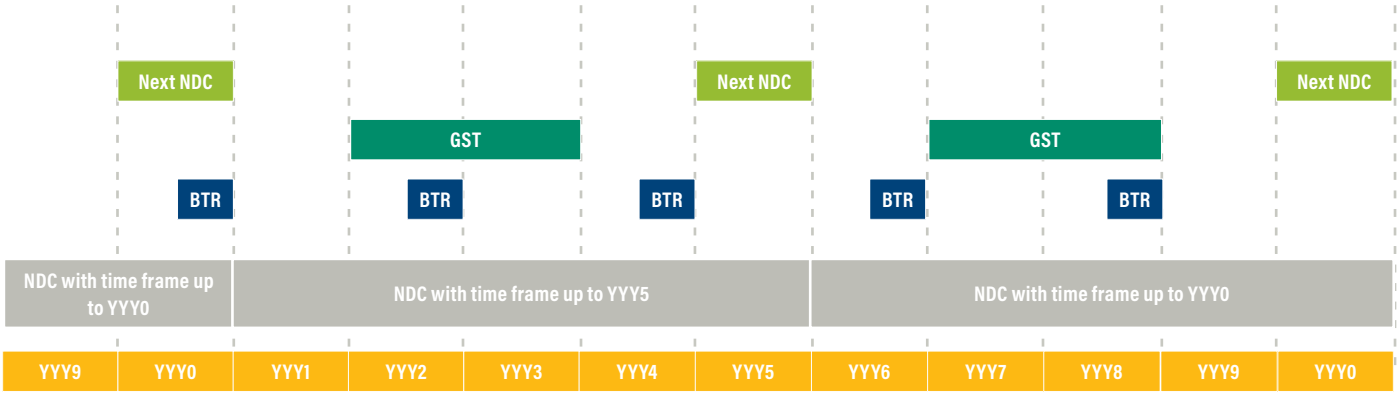
target, the Party aims to "limit cumulative emissions over multiple years" (Greenhouse Gas Protocol 2014). The accounting of efforts in the latter case is more accurate (Levin et al. 2018; Dagnet et al. 2018). The experience under the Kyoto Protocol shows that any market approach would require some translation of the targets and NDCs into a budget (for a single year or for a period). In the absence of a common time frame, such translation would become much more complicated and may affect the ability of the market to deliver clear and sizable emission reductions.

Global Stocktake—Article 14

A critical component of the Paris Agreement's plan–implement–review cycle is the global stocktake, which was established as a mechanism to assess collective progress in achieving the Paris Agreement's long-term goals. The findings of the global stocktake will inform future NDCs in increasing climate action and support.

All Parties report on progress in implementing and achieving NDCs on the same schedule every two years. This ensures comprehensive inputs for the assessments of collective progress under the global stocktake. If all Parties use the same time frame, they will all be at the same point in NDC implementation during the global stocktake. This may facilitate collective understanding on progress made in implementing and achieving NDCs. Otherwise, the global stocktake may be made on the basis of progress in implementing and achieving NDCs that may not be representative of all NDCs. Therefore, common and timely reporting, ensuring that all Parties are at the same point in the NDC cycle, is important to ensure that the global stocktake considers collective progress in light of best available science and equity, as required in Article 14.1. Building on the connection with the enhanced transparency framework, Figure 5 illustrates how the global stocktake relates to NDC time frame periods.

Figure 5 | **Common Time Frames and the Global Stocktake**



Notes: The chart is not intended to represent a specific time frame, but rather to illustrate placeholders for time frames depending on their end date. Given that Parties need to communicate an NDC every five years, per Article 4.9, it is conceivable that, regardless of the length of the time frame, an NDC would end every five years. The figure attempts to illustrate this scenario. In this illustration, BTR means biennial transparency report; GST means global stocktake. The dates in the timeline serve as a representative 12-year period, beginning with a year ending in a nine (YYY9) and ending with a year ending in a zero (YYY0). BTRs are to be submitted every two years beginning not later than December 31, 2024. The global stocktake is depicted over a year-plus period to include the different phases of the GST, such as information collection and preparation, technical assessment, and consideration of outputs.
Source: WRI authors.

Latest Negotiation Updates

At COP24 in Katowice, Poland, the Parties agreed that common time frames shall apply to their NDCs to be implemented from 2031 onward (UNFCCC 2018a). However, the Parties were unable to reach a substantive decision regarding the length of the NDC timeframe, leaving it as one of the few Paris Agreement Work Program issues that were not resolved in 2018.

At the 50th meeting of the Subsidiary Bodies in June 2019, the Parties discussed whether to set a deadline for taking a substantive decision on common time frames. After exchanges in three sessions, the Parties were not able to agree on setting such a deadline. The meeting therefore ended with a procedural conclusion, which simply extended the consideration into the next session, and an informal note, which captured the substantive options discussed (UNFCCC 2019a, 2019b). These documents will serve as the basis of further negotiations when Parties reconvene at COP25 at the end of 2019.

ANALYSIS OF POTENTIAL COMMON TIME FRAMES

This working paper draws from the variety of options currently under discussion within the UNFCCC negotiations to assess various options for common time frames. This section focuses on defining a set of criteria for assessing the options and then applying those criteria systematically across a set of five different options.

Evaluation Criteria

Three criteria were used to evaluate the series of options:

- Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement
- Alignment with the implementation of other elements of the Paris Agreement
- Administrative feasibility, including institutional conditions

The following paragraphs define each of the three criteria to guide how the criteria are applied across the various options.

Support for enhanced ambition of climate action and support. The Paris Agreement operates through a cycle of planning, implementing, and reviewing climate action and support with a goal to reaching the Agreement's long-term goals (Dagnet et al. 2018). NDCs are meant to reflect each Party's highest possible ambition. This criterion considers whether the option supports the plan–implement–review cycle established by the Paris Agreement and whether the option encourages Parties to develop NDCs that reflect their highest possible ambition and for that ambition to reflect a progression beyond previous NDCs.

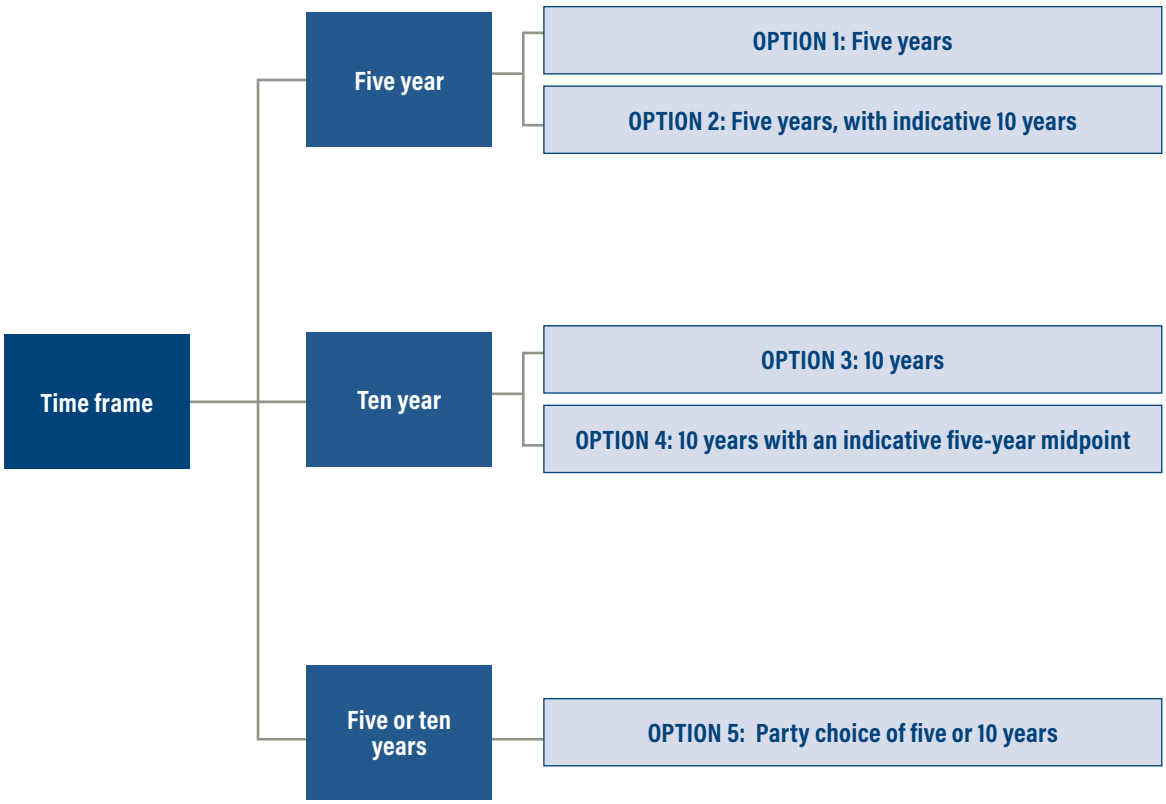
Alignment with the implementation of other elements of the Paris Agreement. This criterion weighs how the option relates to other elements of the Paris Agreement, including the enhanced transparency framework, cooperative implementation under Article 6, and the global stocktake. The most effective options will reflect time frames that complement the other processes under the Paris Agreement.

Administrative feasibility, including institutional conditions. Because each NDC represents the unique decisions and circumstances of each country, a decision on common time frames will impact the national processes of countries. This criterion examines some of the potential impacts on national decision-making in the context of NDC time frames. Some options may leave more flexibility for Parties to develop an NDC that aligns with their existing domestic processes, whereas other options might force Parties to adjust existing domestic processes or architectures.

Evaluation of Potential Options

Current discussions and negotiations for a common time frame are based on two main options—a five-year time frame or a 10-year time frame—with several additional derivatives of those core options. Figure 6 maps the options currently discussed most frequently in the negotiations. These options are not exhaustive as Parties may always bring new ideas or new options to the negotiating table. However, because these options have been most frequently discussed, they will be the basis of analysis here. This section will define each option and then assess each option according to the criteria outlined above.

Figure 6 | **Common Time Frame Options**



Source: WRI authors.

All of the options outlined above and discussed below are based on a five-year or 10-year time frame and were also discussed in the preparations for the Paris Agreement as potential time frames for NDCs.[6] Five-year time frames provide important advantages, such as mobilizing investments and planning over a short time frame, providing greater clarity about emissions trajectories, and encouraging consistent efforts to detail new and more ambitious five-year time frames (Levin and Waskow 2014). On the other hand, 10-year time frames have their own advantages, including facilitating longer-term planning and providing additional time for investments to take hold, particularly in the private sector (Levin and Waskow 2014). The following analysis includes both five- and 10-year time frames as well as a couple of hybrid options, which try to bridge the benefits of both time frames.

Option 1: Five Years

With Option 1, Parties communicate an NDC with a time frame of five years. Table 2 includes an assessment of Option 1 against the defined criteria.

Table 2 | **Analysis of Option 1**

CRITERION	NOTES
Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement	**PRO:** Provides a clear signal to mobilize short-term investments. A five-year time frame provides a short- and near-term signal that Parties are going to take urgent action to address climate change.
	PRO: Aligns better with the Paris Agreement's five-year ambition cycle. The global stocktake's assessment of collective progress will take place every five years and Parties will have to communicate an NDC every five years. Having a five-year common time frame reinforces this cycle and the notion of taking ambitious, short-term actions to achieve the Agreement's long-term goals.
	PRO: Prevents locking in low ambition over the course of a longer time frame. A short time frame can reinforce the need for Parties to put forward more ambitious targets in their next NDCs (Levin and Waskow 2014).
	PRO: Offers opportunities to leverage technological and societal changes and scientific updates. Short time frames can also encourage quicker phase-outs of inefficient technologies (Levin and Waskow 2014). The current NDCs reflect only a portion of the economically beneficial climate actions, so short time frames can encourage the necessary updates to fully embrace new technology and other changes (Dagnet and Mountford 2015).
	CON: May not facilitate longer-term investments in technology and research and development. A shorter time frame may not be able to capture the opportunities for advanced technological changes and may not be able to sufficiently influence longer-term capital investment decisions (Levin and Waskow 2014).
	CON: May lead political leaders to announce less ambitious policies. If political leaders know that they will still be (or potentially still be) in office at the end of the NDC, they may offer low ambition in order to claim political credit for meeting the objective (Levin and Waskow 2014).
Alignment with the implementation of other elements of the Paris Agreement	**PRO:** Aligns with global stocktake. A five-year time frame reinforces the five-year cycle of the global stocktake.
	PRO: Facilitates the tracking and assessment of efforts. As noted earlier about the relationship of common time frames to the enhanced transparency framework and global stocktake, a short time frame supports more frequent and collective assessments of progress in implementing and achieving NDCs and the Agreement's long-term goals.
	PRO: Eases accounting and tracking of transfers of carbon credits generated through the use of market mechanisms. Compared with Option 5, a common time frame ensures that the credits transferred would have all been generated during the same period.
	CON: Does not provide a sense of long-term emissions trajectory. Long-term emissions trajectories provide additional information to strengthen the global stocktake.
Administrative feasibility, including institutional conditions	**PRO:** May already build on appropriate domestic processes. A number of Parties already use five-year planning domestic periods; so, depending on the Party, this option could be either a positive or a risk.
	PRO: May build from experiences with five-year time frame under the Kyoto Protocol. Developed countries have experience under the Kyoto Protocol and the Convention with five-year implementation periods.
	CON: May require some countries to mobilize additional resources to adjust their institutional setting and decision-making process. The national and domestic processes of some Parties may not be suitable for five-year time frames, especially when long-term planning structures have already been institutionalized.

Source: WRI authors.

Option 2: Five-Year, with Indicative 10-Year, Time Frame

Option 2, also known as the dynamic contribution cycle (Müller et al. 2014), builds on Option 1, where all Parties would communicate an NDC with a five-year time frame. However, under Option 2, Parties would also be invited to indicate a 10-year time frame. When communicating their next NDC five years later, it would be expected that the newly adopted five-year time frame would be based on the previously indicated 10-year time frame. For example, in 2025, a Party could communicate a five-year time frame to 2035 and then indicate a 10-year time frame, which would cover up to 2040. In 2030, the Party could update its previously indicated time frame up to 2040 as the five-year time frame to 2040. In this sense, the optional 10-year time frame would be indicative, providing a sense of the Party's longer-term planning. Table 3 assesses this option against the agreed upon criteria.

Table 3 | **Analysis of Option 2**

CRITERION	NOTES
Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement	**PRO:** Offers clear short- and midterm signals. Five- and 10-year time frames are both widely accepted and utilized planning windows (Levin and Waskow 2014). This option would allow Parties to use a five-year time frame to provide short-term signals, while using a 10-year time frame for medium-term signals. **PRO:** Aligns with five-year ambition cycle. As with Option 1, the basis of a five-year time frame aligns well with the ambition cycle created by the Paris Agreement. **PRO:** Prevents locking in low ambition over the course of a longer time frame. Similar to Option 1, using a five-year time frame as the central part of Option 2 supports efforts to prevent locking in low ambition. **PRO:** Offers opportunities to leverage technological and societal changes, and scientific updates. As described under Option 1, a short time frame can more readily adapt to changes in technology, economics, society, and science. However, unlike Option 1, the indicative 10-year time frame may be better able to facilitate longer-term capital investments.
Alignment with the implementation of other elements of the Paris Agreement	**PRO:** Aligns with global stocktake. A five-year time frame reinforces the five-year cycle of the global stocktake. The long-term trajectory of the indicative 10-year NDC provides additional information to strengthen the global stocktake. **CON:** May not ease accounting and tracking of transfers of credits generated through the use of market mechanisms if the period of transfer is not clearly five years. Similarly, because Parties have the option of communicating two different time frames, the transfer of credits across time frames presents additional challenges if, e.g., the selling Party subtracts a credit from its five-year time frame but then the receiving Party applies the credit to its 10-year time frame. **CON:** May not facilitate the tracking and assessment of efforts if it is unclear that the five-year time frame is being assessed. Because Option 2 allows Parties to communicate an indicative 10-year time frame, the tracking and assessment of progress can become complicated if there is not a clear distinction between the five-year time frame and the 10-year time frame. If Parties are clear that they are all tracking progress against a five-year time frame, then this option can support accurate and collective assessments of progress.
Administrative feasibility, including institutional conditions	**PRO:** Provides less time to plan, implement, and demonstrate change but provides flexibility to include indicative signals to some sectors and drive innovation. Although Parties may not have a long time for implementing and demonstrating the impact of the interventions, the opportunity to communicate an indicative 10-year time frame allows the Party to provide signals to sectors and offers a "head start" on the planning for the next time frame. **PRO:** May build from experiences with the five-year time frame under the Kyoto Protocol. Developed countries have experience under the Kyoto Protocol and the Convention with five-year implementation periods. **CON:** Requires some countries to mobilize additional resources to adjust their institutional setting and decision-making processes. The added option to communicate an indicative 10-year time frame allows Parties to utilize existing systems and processes that are designed for 10-year planning, but the option still requires Parties to communicate a five-year time frame, which could require adjustments to domestic processes.

Source: WRI authors.

Option 3: 10-Year Time Frame

Under Option 3, all Parties would communicate an NDC with a 10-year time frame. Table 4 provides an analysis of the option.

Table 4 | **Analysis of Option 3**

CRITERION	NOTES
Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement	**PRO:** Offers a clear midterm signal. Ten years is an accepted time frame for government planning and offers clear signals to business, society, and energy-intensive economic sectors to begin to plan transitions to low-carbon pathways. The longer time frame may provide the opportunity to plan for and capitalize on rapid technological advancements.
	PRO: Has the potential to lead to greater ambition. Some political leaders may be willing to make more ambitious commitments for times further in the future, especially if they may no longer be in office at the end of the longer time frame (Levin and Waskow 2014).
	CON: May not offer the detail necessary to drive short-term investments. A 10-year time frame could encourage later phasing out of technologies or less efficient practices (Levin and Waskow 2014).
Alignment with the implementation of other elements of the Paris Agreement	**PRO:** Offers manageable tracking and assessment of countries' efforts. All Parties will be implementing and achieving their NDCs at the same time, and this can facilitate the collective assessment of progress.
	PRO: Eases accounting and tracking of transfers of credits generated through the use of market mechanisms.
	PRO: Provides additional information to strengthen the global stocktake on the basis of the long-term trajectory that the indicative 10-year NDC provides.
	CON: Does not align with global stocktake. A 10-year time frame does not align well with the global stocktake, which will take place every five years. In this case, two global stocktakes will take place during an NDC time frame.
Administrative feasibility, including institutional conditions	**PRO:** May already use appropriate domestic processes.
	CON: May require some countries to mobilize additional resources to adjust their institutional setting and decision-making processes.
	CON: Does not build from experience with five-year or eight-year time frames under the Kyoto Protocol. Developed countries have experience under the Kyoto Protocol and the Convention with five-year and eight-year implementation periods. With complex market mechanisms under the Paris Agreement, it may be perceived as riskier to utilize a 10-year time frame.

Source: WRI authors.

Option 4: 10-Year Time Frame with an Indicative Five-Year Midpoint

Option 4 is, in some respects, the inverse of Option 2. Under Option 4, all Parties would communicate a 10-year time frame. However, a Party would also be required to provide an indication of the five-year midpoint of its NDC. Table 5 discusses Option 4 in relation to the defined criteria.

Table 5 | **Analysis of Option 4**

CRITERION	NOTES
Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement	**PRO:** Offers a clear midterm signal. Ten years is an accepted time frame for government planning and offers clear signals to business, society, and energy-intensive economic sectors to begin to plan transitions to low-carbon pathways. The longer time frame may offer the opportunity to capitalize on rapid technological advancements.
	PRO: Has the potential to lead to greater ambition. Some policymakers may be willing to make more ambitious commitments for times further in the future (Levin and Waskow 2014).
	CON: Could encourage later phase-outs of technologies or less efficient practices (Levin and Waskow 2014) and run the risk of locking in low ambition.
	CON: Builds on inconclusive experiences with the mechanisms under the Kyoto Protocol. The Kyoto Protocol included a mechanism for Parties to examine their efforts on the basis of a midterm review and target, and the effectiveness of that process is inconclusive (Morgan et al. 2014).
Alignment with the implementation of other elements of the Paris Agreement	**PRO:** Offers manageable tracking and assessment of countries' efforts. All Parties will be implementing and achieving their NDCs at the same time; this can facilitate the collective assessment of progress. In addition, a Party could choose to consider progress made against the five -year midpoint of its NDC.
	CON: May not align with the global stocktake because of the indicative five-year midpoint. The five-year midpoint supports some additional alignment with the global stocktake, where the global stocktake would be able to assess collective progress in achieving the long-term goals of the Paris Agreement.
	CON: May not ease accounting and tracking of transfers of credits generated through the use of market mechanisms if the period of transfer is not clearly defined. Because Parties would be communicating two different time frames, the transfer of credits across time frames presents additional challenges; e.g., if the selling Party subtracts a credit from its five-year time frame but the receiving Party applies the credit to its 10-year time frame.
Administrative feasibility, including institutional conditions	**PRO:** Provides time for planning and implementation. A 10-year time frame provides more time for Parties to implement and achieve their actions.
	PRO: May already use appropriate domestic processes. Because a 10-year period provides more time for Parties to adopt new laws or legal instruments, this time frame may not require Parties to adjust or overhaul their domestic policymaking processes to plan an NDC with a 10-year time frame.
	CON: Some Parties already use five-year planning processes and an adjustment to 10 years may be more difficult for those Parties.
	CON: Does not build from experiences with five-year or eight-year time frames under the Kyoto Protocol. Developed countries have experience under the Kyoto Protocol and the Convention with five-year and eight-year implementation periods. With complex market mechanisms under the Paris Agreement, it may be perceived as riskier to utilize a 10-year time frame.

Source: WRI authors.

Option 5: Party Choice of Five or 10 Years

Option 5 allows for the coexistence of both Options 1 and 3. Under Option 5, Parties would have the opportunity to choose their preferred time frame and to present an NDC with either a five-year or a 10-year time frame. As noted earlier, given that the language of the Paris Agreement says to consider "common time frames," some Parties argue that there could be multiple time frames as long as Parties choose a time frame from a common list of options. Table 6 examines this option against the defined criteria.

Table 6 | **Analysis of Option 5**

CRITERION	NOTES
Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement	**PRO:** May allow Parties to be ambitious because they are able to select the time frame. Parties may be able to plan more meaningful and ambitious actions when working with familiar time frames.
	CON: Provides a confusing signal to the global community. With Parties able to select different time frames, some short-term and others longer-term, there can be confusion for the non-Party stakeholders and private sector as to the scale and pace with which countries are acting.
Alignment with the implementation of other elements of the Paris Agreement	**CON:** Creates more complicated collective tracking and assessment of efforts. With some Parties choosing five-year time frames and others choosing 10-year time frames, collective assessments of progress may be more complex because Parties will be at different stages of implementing their NDCs. **CON:** Makes it difficult to account for and track transfers of credits generated through the use of market mechanisms. A common time frame ensures that the credits transferred would have all been generated during the same period. **CON:** Does not align with the global stocktake. Neither a 10-year time frame nor allowing Parties to choose different time frames aligns with the global stocktake.
Administrative feasibility, including institutional conditions	**PRO:** Allows Parties to select the process most compatible with their domestic institutions.
	CON: Serves to represent the status quo on the basis of initial NDCs. As Parties lacked specific guidance on time frames when developing their intended nationally determined contributions in 2015, Parties often selected either five- or 10-year time frames. Thus, it is the status quo for Parties to choose either a five- or 10-year time frame.

Source: WRI authors.

Analysis and Comparison of Options

After each option is assessed, it ought to be compared with the others on the basis of the defined criteria and approach. Table 7 presents the results of these comparisons, including the authors' assessment of whether the option aligns with the criteria on a high–medium–low scale. The first two criteria reflect environmental integrity and efforts to fulfill the Paris Agreement's long-term goals; the third criterion reflects the political feasibility or willingness of Parties to adjust domestic procedures to align with the Paris Agreement. On this basis, this assessment gives greater weight to the first two criteria. A brief discussion of each criterion follows.

Support for enhanced ambition of climate action and support, in line with the long-term goals of the Paris Agreement. NDCs with a shorter time frame may be able to prevent Parties from "locking in" low ambition over a longer time frame and provide clear near-term signals. On the other hand, longer time frames have the potential to lead to greater ambition, if policy makers are willing to make more ambitious commitments because of the longer time frame they would have to achieve the commitments.

Alignment with the implementation of other elements of the Paris Agreement. Given the five-year cycles of the global stocktake and NDC communication, options with five-year time frames best align with the global stocktake. Options that would prevent Parties from trading and applying market mechanism credits across different time frames also align best with linkages under Article 6. Similarly, these same options also align well with tracking and assessing efforts related to the enhanced transparency framework.

Administrative feasibility, including institutional conditions. Adjusting to shorter time frames may be difficult for some, but not all, Parties; therefore, the option allowing Parties to choose their own time frame or provide opportunities for Parties to take advantage of both five-year and 10-year time frames scores the highest.

On the basis of these assessments, this paper suggests that all Parties should use the same time frame and that allowing Parties to choose their own time frames would not be adequate. A five-year time frame with an indicative 10-year time frame has the highest aggregate benefits because it combines the short-term and longer-term time frames, providing certainty, predictability, and flexibility. Options for only a five-year or only 10-year time frame receive the next highest scores. Ultimately, the challenge is to operationalize the preferred options in decision text proposals so that they can be properly considered by Parties with a view to reaching consensus.

Table 7 | **Summary of Option Analyses**

CRITERION		OPTION 1: FIVE-YEAR TIME FRAME	OPTION 2: FIVE-YEAR, WITH AN INDICATIVE 10-YEAR, TIME FRAME	OPTION 3: 10-YEAR TIME FRAME	OPTION 4: 10-YEAR TIME FRAME WITH A FIVE-YEAR MIDPOINT	OPTION 5: FIVE- OR 10-YEAR TIME FRAME (STATUS QUO)
Support for enhanced ambition of climate action and support	PROS	Provides a clear signal to mobilize short-term investments. Aligns with five-year ambition cycle. Prevents locking in low ambition for too long. Offers opportunities to leverage technological changes.	Provides both predictability and longer-term certainty. Offers clear short- and midterm signals. Aligns with five-year ambition cycle. Prevents locking in low ambition for too long. Offers opportunities to leverage technological changes.	Provides longer-term certainty. Offers a clear midterm signal. Has the potential to lead to greater ambition.	Provides longer-term certainty. Offers a clear midterm signal. Has the potential to lead to greater ambition.	
	CONS	Does not capture drastic technological changes or may not facilitate longer-term investments. May lead political leaders to announce less ambitious policies.		May not offer the detail necessary to drive short-term investments and risks locking in low ambition.	Could encourage later phase-outs of technologies or less efficient practices. Builds from inconclusive experiences with the ratchet-up mechanisms under the Kyoto Protocol.	Provides a confusing signal to the global community.
Assessment		Medium high	High	Medium high	Medium	Low

Table 7 | **Summary of Option Analyses (Cont'd)**

CRITERION		OPTION 1: FIVE-YEAR TIME FRAME	OPTION 2: FIVE-YEAR, WITH AN INDICATIVE 10-YEAR, TIME FRAME	OPTION 3: 10-YEAR TIME FRAME	OPTION 4: 10-YEAR TIME FRAME WITH A FIVE-YEAR MIDPOINT	OPTION 5: FIVE- OR 10-YEAR TIME FRAME (STATUS QUO)
Alignment with the other elements of the Paris Agreement	PROS	Aligns with the global stocktake. Facilitates the tracking and assessment of efforts. Eases accounting and tracking of transfers of credits from market mechanisms.	Aligns with the pace of the global stocktake.	Offers manageable tracking and assessment of countries' efforts. Eases accounting and tracking of transfers of credits generated through the use of market mechanisms. Provides additional information to strengthen the global stocktake.	May not align with the pace of the global stocktake. Offers manageable tracking and assessment of countries' efforts.	
	CONS	Does not provide a sense of long-term trajectories.	May not ease accounting and tracking of transfers of credits generated through the use of market mechanisms. May need additional safeguards to facilitate the tracking and assessment of efforts.	Does not align with global stocktake.	May not align with the global stocktake. May not ease accounting and tracking of transfers of credits generated through the use of market mechanisms. May need additional safeguards to facilitate the tracking and assessment of efforts.	Creates more complicated collective tracking and assessment of efforts. Makes it difficult for accounting and tracking of transfers of credits generated through the use of market mechanisms. Does not align with the global stocktake.
Assessment		High	Medium high	Medium high	Medium	Low
Administrative feasibility, including institutional conditions	PROS	May already utilize appropriate domestic processes. May build from experiences with five-year time frame under the Kyoto Protocol.	Provides flexibility to include indicative signals to some sectors and drive innovation. May build from experiences with five-year time frame under the Kyoto Protocol.	Provides time for planning and implementation. May already utilize appropriate domestic processes.	Provides time for planning and implementation. May already utilize appropriate domestic processes.	Allows Parties to select the process most compatible with their domestic institutions.
	CONS	May require some countries to mobilize additional resources to adjust their institutional setting and decision-making process.	May require an adjustment to domestic processes.	May require an adjustment to domestic processes. Does not build from experiences with five-year or eight-year time frames under the Kyoto Protocol.	May require an adjustment to domestic processes. Does not build from experiences with five-year or eight-year time frames under the Kyoto Protocol.	Represents the initial NDC status quo.
Assessment		Medium	High	Medium	Medium high	High
Overall assessment		**Medium high**	**High**	**Medium high**	**Medium**	**Low**

Note: Shaded text represents arguments against the option.

Source: WRI authors.

WHAT DO COMMON TIME FRAMES MEAN IN COUNTRY CONTEXTS?

Any decision on common time frames will have important impacts on domestic planning and policymaking institutions and processes, as Parties will have to consider how to align their national planning with the time frames required under the Paris Agreement. This chapter briefly scans a few key Parties—China, Japan, Mexico, and the European Union—to see the possible impact of common time frame decisions on domestic policy processes. These were chosen because they provide diverse models and different timing of domestic planning and review processes.

China

China's current NDC has a target year of 2030. The key numerical targets in the NDC, including carbon intensity, non-fossil-fuel energy, forest stock, and peaking of carbon dioxide emissions, are all structured around the year 2030. Two considerations are mentioned as part of why China would take on a 10-year NDC. First, China sees the Copenhagen round of commitments, which were communicated in 2009 and covered the subsequent decade, as a reference. Second, China decided to use 2030 as a reference year for its emissions peaking.

Domestically, China follows five-year plans to set its most important social, economic, and environmental policies. This five-year planning traces its history back to the founding of the People's Republic and is a consecutive exercise that sets the political agenda for the subsequent five years. Conveniently, China's five-year plans match well with the Paris timetable. China's next five-year planning period (the 14th Five-Year Plan) covers from 2021 to 2025. The 16th Five-Year Period (2031–2035) would coincide well with the implementation of a single five-year NDC.

Perhaps most important, the Communist Party of China has set a two-stage development plan to turn China into a "great modern socialist country" by the middle of this century (Xinhua 2017). The first stage of this plan has a target year of 2035, by which time a number of high-level aspirational goals will already have been set. China could align the NDC it communicates in 2025 with the development plan and translate the plan into concrete targets for 2035, which would involve a five-year time frame and implementing period.

Japan

In its NDC, Japan clearly specified its time frames: a time frame that ends at Japan's fiscal year 2030 and a period of implementation from April 1, 2021, to March 31, 2031. The period of implementation then aligns with Japan's fiscal year 2021 through fiscal year 2030. Japan's NDC was developed by compiling sectoral policies and measures and by involving stakeholders throughout the process.

Implementation of Japan's NDC will be informed by the Plan for Global Warming Countermeasures, to which the Cabinet agreed in May 2016. This plan is based on Japan's Act on Promotion of Global Warming Countermeasures of 1998. To manage progress, the plan has built in a review process every three years to revise the plan on the basis of GHG emissions and other developments, with the next review taking place in 2020.

The short domestic review process provides opportunities for Japanese stakeholders to take further actions and encourages the central government to take policies and measures. Japan could consider updating the review timing on the basis of a decision on common time frames. For example, Japan could adjust its review process to take place every five years to support the use of a five-year cycle (or a 10-year cycle, depending on the common time frames decision) and to support the preparation of a new NDC every five years.

Mexico

Mexico's NDC sets the goal of reducing GHGs and short-lived climate pollutants by 26 percent below business-as-usual scenarios by 2030. The NDC also indicates that Mexico will see peak emissions by 2026. Mexico's NDC is informed by the National Strategy on Climate Change, which was first released in 2013 and outlines Mexico's vision over the next 10, 20, and 40 years. On elements related to mitigation, the strategy is reviewed at least once every 10 years; it is reviewed every six years for matters relating to adaptation (Federal Government of Mexico 2013).

Mexico has also developed a Special Program on Climate Change (Programa Especial de Cambio Climático; PECC) to support shorter-term planning. The PECC plans align with Mexico's six-year presidential administrations; new administrations take approximately a year to develop a PECC and implement it over the next five years of the administration. Although the approximate five-year implementation of the PECC may align with components of the discussion on NDC common time frames, the six-year cycle of presidential administrations does not fit with the cycles established under the Paris Agreement. With PECCs running across administrations, Mexico may have to explore ways to ensure consistency with the NDCs.

A decision on common time frames will have implications for Mexico's NDC planning and domestic policymaking. In light of the decision, Mexico will have to explore how best to update existing policy arrangements so that it can continue to meet the requirements of the Paris Agreement. A proposal to align Mexico's domestic climate change policy instruments with the Paris Agreement has been introduced in the national legislature, the Congress of the Union, but has not advanced. However, Mexico's General Law on Climate Change has already been revised to add a commitment to fulfill requirements under the Paris Agreement.[7]

European Union

According to the EU climate and energy governance guidelines, all EU member states are required to produce national energy and climate plans (NECPs) for the period 2021 to 2030 and every 10 years thereafter. The rules insist on efforts to strengthen public participation, with the engagement of non-state actors. Member states were expected to submit their draft plans to the European Commission by December 31, 2018, and their final plans by December 31, 2019. Progress on the implementation of these plans is to be monitored biennially.

These NECPs are supposed to be linked to the European Union and member states' 2050 long-term strategies. Although the NECPs cover a 10-year period, member states can adapt their national integrated climate and energy plans, taking changing circumstances into account, by updating them in 2024 (similar to a midpoint review).

Arguments for the 10-year cycle include ensuring enough time to adapt, improve, and implement the plans on the basis of lessons learned and also providing medium-term certainty for investors. However, because the newly established EU Energy Union Governance Regulation[8] is uncharted territory, flexibility and openness may be required to learn how best to operate in line with the Paris Agreement and keep pace with its established ambition mechanism.

EU member states could explore the possibility of using the 2024 review moment enshrined in the Energy Union Governance Regulation not only to review the NECPs but also to use the reviews' findings to inform the next round of the European Union's NDC, which is to be communicated in 2025 for the implementation period 2031–2035. Such a regular midpoint review could be made systematic and used to trigger the systematic revision or preparation of the new and enhanced NDCs expected for submission a year later. Similarly, the European Union could use a 2029 review to inform the round of EU NDCs to be communicated in 2030 for the 2036–2040 target. Parties do not have to wait until NDC communications are due to begin planning policies and can use existing processes to support NDC planning.

SUGGESTIONS FOR CONSIDERATION

As Parties will continue negotiations on this topic at COP25, this working paper presents potential ideas that Parties may wish to consider and adopt in December 2019. Although the Parties have not yet defined a deadline by which they must reach a decision on common time frames, at a time of climate emergency, as expressed by citizens, the private sector, and governments from across the world, it is important that Parties reach a decision informed by constructive dialogues as early as COP25.

This analysis shows the complications stemming from different time frames. The earlier a decision on the duration of the time frame is taken, the more time will be available for Parties to adjust and align their domestic systems.

In addition, a decision on common time frames would be beneficial this year because it could

- signal Parties' determination to have strong and coherent rules completed by 2020 before elements under the Paris Agreement enter into the implementation phase;

- allow Parties to share experiences and best practices in adapting national processes, as necessary; and
- facilitate the effective implementation of other elements of the Paris Agreement, including the enhanced transparency framework, Article 6, by defining the NDC implementation periods on the basis of which Parties will transfer ITMOs, and the global stocktake.

As Parties work to reach agreement as soon as possible, two of the challenges will be to make operational the agreed upon ideas and to maintain the necessary nuances to secure political agreement. Parties could consider the following paragraphs as illustrations of operationalizing the decision on common time frames.[9] Given the benefits of a shorter time frame, Parties could be requested to communicate a five-year time frame.

- **SUGGESTION 1:** Parties are requested to communicate an NDC with a five-year time frame. (For example, in 2025, Parties should communicate an NDC to be implemented from 2031 onward with a time frame up to 2035.)

However, recognizing that some Parties may wish to communicate their NDCs with a longer time frame, the following language could be added as an additional paragraph.

- **SUGGESTION 2:** In addition to communicating an NDC with a five-year time frame, Parties may also indicate a 10-year time frame. (For example, in 2025, Parties wishing to do so could also indicate an NDC to be implemented from 2031 onward with a time frame up to 2040.)

Some Parties might also both wish and be able to update their immediate NDC in response to the most recent global stocktakes. This could reinforce the dynamic nature of the ambition cycle.

- **SUGGESTION 3:** Parties could also be invited to update their NDCs five years after their communication on the basis of the outcome of the most recent global stocktake. (For example, in 2030, Parties could update their NDCs to be implemented from 2031 onward with a time frame up to 2035, on the basis of the outcome of the 2028 global stocktake.)

Figure 7 provides an illustrative diagram of the above decision language, including the communication of an NDC in 2025 with a time frame up to 2035 and then repeating that pattern in 2030 with the additional opportunity to update the NDC with a time frame up to 2035. The option to update an NDC would allow Parties to be responsive to the preceding global stocktake.

These suggestions for consideration for adoption by Parties provide several benefits and address several concerns raised by Parties through the negotiations:

- Article 4.9 of the Paris Agreement requires Parties to communicate an NDC every five years. With these suggestions, Parties will communicate a new NDC with a five-year time frame.
- Recognizing that Parties may wish to present an NDC with a longer time frame, the suggestion provides Parties the opportunity to indicate an NDC with a longer time frame. The option to indicate an NDC is meant to allow Parties to present their longer-term plans. However, with “indicate” as the operative verb, Parties would be required to communicate the NDC under Article 4.9.

- The suggestion also provides an opportunity for Parties to consider updating the NDCs communicated under Article 4.9 to ensure that the NDCs are responsive to the best available science and collective progress in addressing the Paris Agreement's long-term goals, as assessed in the global stocktake.

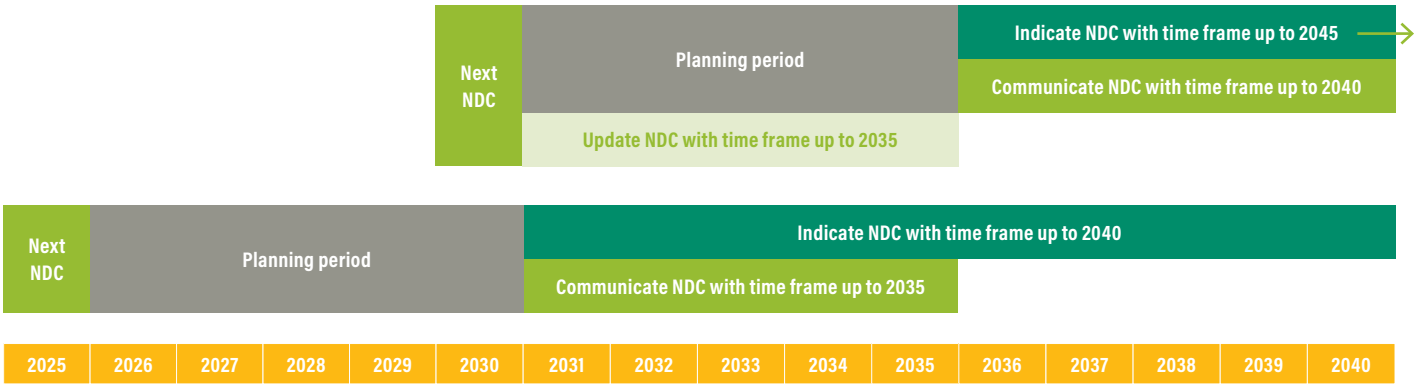
Ultimately, this option tries to bridge the pros and cons of the different options, on the basis of the above assessment and as expressed by Parties throughout the negotiations, including options for a five-year time frame beginning five years after communication ("communicate"), for a 10-year time frame beginning five years after communication ("indicate"), and for a five-year time frame beginning immediately after communication ("update"). Further, by specifying the time frame in the first bulleted paragraph above, this suggestion avoids the confusion caused when Parties are able to select their own time frame of either five or 10 years.

CONCLUSION

NDCs are at the heart of the Paris Agreement and will signal Parties' efforts to address climate change. Although the Paris Agreement established a five-year cycle of ambition with NDCs expected to be submitted every five years and the global stocktake undertaken every five years in between, it did not provide guidance on a key question: what time frame should NDCs have?

Since the adoption of the Paris Agreement in 2015, Parties have debated and negotiated whether they should apply common time frames and what the length of those time frames should be. In 2018, Parties agreed that they would apply common time frames for NDCs to be implemented from 2031 onward but did not agree on the length of the time frames. Instead, Parties will continue negotiations on this question at COP25 in December 2019. This working paper highlights how important it is

Figure 7 | **Illustrative Examples of Potential Decision Options**



Notes: The dates in the timeline cover the period from 2025 to 2040. The pattern established by the decision would repeat every five years. The figure indicates a period between the communication of the NDC and the start of its implementation. Faded area indicate the period for implementation of the NDC.
Source: WRI authors.

to make sure this question is answered adequately and as soon as possible.

At a time when all possible efforts are needed to accelerate action, Parties should not take more time than needed to adopt a decision on common time frames. Parties should leverage the experience gained under the Kyoto Protocol, aim at making accounting and the individual and collective review processes more effective, minimize the risk of locking in low ambition for too long, and avoid jeopardizing environmental integrity.

A decision on common time frames has implications for the implementation of various elements of the Paris Agreement. The outstanding rules and procedures must be conceived in a coherent package. The length of the implementation period of the NDC should be aligned with the implementation, crediting, and trading period to be agreed on under Article 6. The time frame should foster the delivery and outcome of the global stocktake and leverage the enhanced transparency framework.

This working paper assesses five different time frames options against three key criteria: support for enhanced climate action, alignment with other elements of the Paris Agreement, and administrative feasibility. Clearly, both shorter- and longer-term time frames have their own benefits and suggest an option that bridges the two bases to bring the benefits of each. On the basis of this analysis, the authors suggest that a five-year time frame aligns best with the defined criteria, but that Parties could also consider allowing the additional option of indicating a 10-year time frame if that best supports or aligns with domestic policymaking processes.

Parties may be required to adjust their domestic policymaking and planning processes to make them fit with the common time frame. The earlier the decision is taken, the more time countries will have to make any necessary adjustments and share their experiences in doing so. Examples from China, Japan, Mexico, and the European Union illustrate different planning and review processes and timing, and provide some insight into how Parties can consider how their domestic institutions can support collective, multilateral efforts to address climate change.

The world is watching, and science continues to show the direction that must be taken. To use the multilateral process effectively, Parties should not miss the opportunity to make a decision to adopt common time frames at COP25 in December 2019. They have an opportunity to signal their commitment and determination to launch the implementation of the Paris Agreement's ambition cycle in earnest by January 2021.

ENDNOTES

1. When referring to decisions by Parties under the UNFCCC, this working paper follows the UNFCCC's convention in naming decisions. For decisions made by the Conference of the Parties to the UNFCCC (COP), the decision numbering convention is as follows: ##/CP.##, where the first two digits refer to the decision number and the second two digits refer to the meeting of the COP by its number. For example, decision 1/CP.21 is the first decision taken by Parties at the 21st COP (COP21). For decisions made by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), the same decision numbering convention applies except CP becomes CMA. For example, decision 6/CMA.1 is the sixth decision taken by Parties at the first CMA.

2. Ahead of the Paris Agreement, countries submitted intended nationally determined contributions (NDCs). These intended NDCs were meant to represent the contributions of the Party should an agreement be adopted and enter into force. As countries joined the Paris Agreement by signing and ratifying the Agreement, they formally communicated their NDCs—often simply recommunicating their intended NDCs. Northrop (2016) has more on how intended NDCs became NDCs. This paper uses "initial NDCs" to refer to the intended NDCs that became NDCs.

3. Müller et al. (2014) introduced the concept of a dynamic contribution cycle.

4. Parties are required to submit GHG inventories with data from no more than two years prior to the report. Parties that need flexibility in the light of their capacities may submit their GHG inventories with data from no more than three years prior to the report. The provision of flexibility in this case may affect when Parties are able to provide GHG inventories in support of the effort "The provision of flexibility in this case may affect when a Party is able to provide GHG inventories in support of the effort "to provide an assessment of whether it has achieved the target(s) for its NDC." For NDCs with a time frame up to a year ending in a zero (YYY0), BTRs reported in years ending in two (YYY2) will have GHG inventory data through the end of the NDC time frame, unless the Party needs the flexibility provision. In those cases, the GHG inventory data will be included in the BTR reported in years ending in four (YYY4). For NDCs with a time frame up to a year ending in a five (YYY5), all Parties will be able to include information on the NDC on the basis of GHG emissions information in the BTR reported in a year ending in eight (YYY8).

5. The complexity of the market mechanisms under the Paris Agreement arises from the diversity of types of targets, including economy-wide targets, sectoral targets, GHG and non-GHG targets, scenario targets, intensity targets, baseline targets, and others. Dagnet et al. (2018) and Ge and Yuan (2018) have more on these mechanisms.

6. More than a year and a half ahead of the adoption of the Paris Agreement, Levin and Waskow (2014) explicitly discussed the options of a five-year time frame, a 10-year time frame, a five-year time frame with an indicative 10-year time frame, and a 10-year time frame with a five-year midpoint.

7. For Mexico's General Law on Climate Change, see http://www.diputados.gob.mx/LeyesBiblio/pdf/LGCC_130718.pdf.

8. For the EU Energy Union Governance Regulations, see https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2016:759:REV1.

9. Work initially published in Sharma et al. (2019) is the basis of the decision language proposed here.

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ABOUT WRI

World Resources Institute is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity, and human well-being.

Our Challenge

Natural resources are at the foundation of economic opportunity and human well-being. But today, we are depleting Earth's resources at rates that are not sustainable, endangering economies and people's lives. People depend on clean water, fertile land, healthy forests, and a stable climate. Livable cities and clean energy are essential for a sustainable planet. We must address these urgent, global challenges this decade.

Our Vision

We envision an equitable and prosperous planet driven by the wise management of natural resources. We aspire to create a world where the actions of government, business, and communities combine to eliminate poverty and sustain the natural environment for all people.

Our Approach

COUNT IT

We start with data. We conduct independent research and draw on the latest technology to develop new insights and recommendations. Our rigorous analysis identifies risks, unveils opportunities, and informs smart strategies. We focus our efforts on influential and emerging economies where the future of sustainability will be determined.

CHANGE IT

We use our research to influence government policies, business strategies, and civil society action. We test projects with communities, companies, and government agencies to build a strong evidence base. Then, we work with partners to deliver change on the ground that alleviates poverty and strengthens society. We hold ourselves accountable to ensure our outcomes will be bold and enduring.

SCALE IT

We don't think small. Once tested, we work with partners to adopt and expand our efforts regionally and globally. We engage with decision-makers to carry out our ideas and elevate our impact. We measure success through government and business actions that improve people's lives and sustain a healthy environment.

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