

# Greenhouse Gas Protocol Mitigation Goal Standard

## Exercises

### Exercise 1: Choose goal type

Given the example country information below, please select a goal type.

Goal type	Description
Base year emissions goal	Reduce, or control the increase of, emissions by a specified quantity relative to a base year. For example, a 25% reduction from 1990 levels by 2020.
Fixed-level goal	Reduce, or control the increase of, emissions to an absolute emissions level in a target year. One type of fixed-level goal is a carbon-neutrality goal, which is designed to reach zero net emissions by a certain date.
Baseline scenario goal	Reduce emissions by a specified quantity relative to a projected emissions baseline scenario. A baseline scenario is a reference case that represents future events or conditions most likely to occur in the absence of activities taken to meet the mitigation goal. For example, a 30% reduction from baseline scenario emissions in 2020.
Base year intensity goal	Reduce emissions intensity (emissions per unit of another variable, typically GDP) by a specified quantity relative to a base year. For example, a 40% reduction from 1990 base year intensity by 2020.

Data input	Example
Base year	2010
Target year	2030
Percent reduction	20%
Emissions in 2010	1,000 million t CO <sub>2</sub> e
GDP in 2010	1,000 million USD
Projected baseline emissions in 2030	2,000 million t CO <sub>2</sub> e
Projected GDP in 2030	3,000 million USD
Actual emissions in 2030	800 million t CO <sub>2</sub> e
Actual GDP in 2030	2,400 million USD
Offset credits retired in 2030	50 million t CO <sub>2</sub> e
Offset credits sold in 2030	100 million t CO <sub>2</sub> e

The exercise answers here are based on an example NDC with a **BASE YEAR** goal. The goal is based on emissions in 2010 and for the target year 2030. A 20% emissions reduction from 2010 levels by 2030.

**But groups should select their own goal and follow the remaining exercises based on the goal selected.**

## Exercise 2: Select boundary

Given the emission profile and mitigation potentials in the table below, identify which sectors should at least be covered by the goal.

Sector	Emissions 2010	Projected emissions 2030	Mitigation potential 2030	Included?
Energy	350 million tCO <sub>2</sub> e	650 million tCO <sub>2</sub> e	450 million tCO <sub>2</sub> e	<b>Included</b>
IPPU	150 million tCO <sub>2</sub> e	200 million tCO <sub>2</sub> e	70 million tCO <sub>2</sub> e	Excluded
AFOLU	400 million tCO <sub>2</sub> e	900 million tCO <sub>2</sub> e	500 million tCO <sub>2</sub> e	<b>Included</b>
Waste	70 million tCO <sub>2</sub> e	200 million tCO <sub>2</sub> e	150 million tCO <sub>2</sub> e	Excluded
Others	30 million tCO <sub>2</sub> e	50 million tCO <sub>2</sub> e	30 million tCO <sub>2</sub> e	Excluded
<b>Total</b>	<b>1,000 million tCO<sub>2</sub>e</b>	<b>2,000 million tCO<sub>2</sub>e</b>	<b>1,200 million tCO<sub>2</sub>e</b>	

Which other considerations could lead to the selection of a different boundary?

- Development priorities, co-benefits, and cost considerations could influence the boundary. The waste sector, for example, offers usually low cost mitigation with large sustainable development benefits.
- National and international political considerations could further influence the boundary setting. Broader, comprehensive boundaries could enable a larger variety of international support for countries eligible for such support.

### Exercise 3: Estimate base year emissions

Based on the sectors selected in exercise 2, calculate the base year emissions for the goal in 2010.

Sector	Emissions 2010	Emissions included
Energy	350 million tCO <sub>2</sub> e	350 million tCO <sub>2</sub> e
IPPU	150 million tCO <sub>2</sub> e	
AFOLU	400 million tCO <sub>2</sub> e	400 million tCO <sub>2</sub> e
Waste	70 million tCO <sub>2</sub> e	
Others	30 million tCO <sub>2</sub> e	
<b>Total base year emissions within boundary</b>		<b>750 million tCO<sub>2</sub>e</b>

### Exercise 4: Calculate allowable emissions

Based on the base year emissions calculated in exercise 3, calculate allowable emissions for the goal identified in exercise 1:

Goal type	Allowable emissions in the target year (Mt CO <sub>2</sub> e) =
Base year emissions goal	Base year emissions (Mt CO <sub>2</sub> e) – [Base year emissions (Mt CO <sub>2</sub> e) x Percent reduction]
Fixed-level goal	Absolute quantity of emissions specified by the goal level (Mt CO <sub>2</sub> e) [For this example: same as base year emissions goals]
Baseline scenario goal	Projected baseline scenario emissions in the target year (Mt CO <sub>2</sub> e) – [Projected baseline scenario emissions in the target year (Mt CO <sub>2</sub> e) x Percent reduction]
Base year intensity goal	<i>Allowable emissions intensity in the target year (t CO<sub>2</sub>e/level of output) = Base year emissions intensity (t CO<sub>2</sub>e/level of output) – [Base year emissions intensity (t CO<sub>2</sub>e/level of output) x Percent reduction]</i>

Example based on a **20%** reduction below base year

Equation:

$$\text{Allowable emissions} = \text{Base year emissions} - (\text{Base year emissions} \times \text{Percent reduction})$$

$$\begin{aligned} \text{Allowable emissions} &= 750 \text{ million tCO}_2\text{e} - (750 \text{ million tCO}_2\text{e} \times 0.20) \\ &= 750 \text{ million tCO}_2\text{e} - 150 \text{ million tCO}_2\text{e} \\ &= \mathbf{600 \text{ million tCO}_2\text{e}} \end{aligned}$$

## Exercise 5: Calculate accountable emissions

Based on the data provided in the table below, calculate the accountable emissions in the target year.

*Equation:*

$$\begin{aligned}
 \text{Accountable emissions} &= \text{Target year actual emissions} \\
 &+ \text{Offset credits sold in the target year} \\
 &- \text{Offset credits retired in the target year}
 \end{aligned}$$

Data input	Example
Target year actual emissions in 2030	800 million t CO <sub>2</sub> e
Offset credits sold in 2030	100 million t CO <sub>2</sub> e
Offset credits retired in 2030	50 million t CO <sub>2</sub> e

$$\begin{aligned}
 \text{Accountable emissions} &= 800 \text{ million t CO}_2\text{e} \\
 &+ 100 \text{ million t CO}_2\text{e} \\
 &- 50 \text{ million t CO}_2\text{e} \\
 &= \mathbf{850 \text{ million t CO}_2\text{e}}
 \end{aligned}$$

## Exercise 6: Evaluate goal achievement

Based on the results from exercises 4 and 5, please assess, if the goal was achieved or not.

If...	Then...
Accountable emissions ≤ Allowable emissions	Goal is achieved
Accountable emissions > Allowable emissions	Goal is not achieved

$$850 \text{ million t CO}_2\text{e} > 600 \text{ million t CO}_2\text{e} \Rightarrow \text{Goal is not achieved}$$

## Exercise 7: Evaluate goal achievement

Complete the following section of table 4, Structured summary: Tracking progress made in implementing and achieving the NDC under Article 4 of the Paris Agreement (decision 5/CMA.3, Annex).

<b><i>Assessment of the achievement of the Party's NDC under Article 4 of the Paris Agreement (para. 70 of the MPGs):</i></b>
Restate the target of the Party's NDC:
Information for reference point(s), level(s), baseline(s), base year(s), or starting point(s):
Final information for the indicator for the target year/period, including the application of the necessary corresponding adjustments consistent with chapter III, annex, decision 2/CMA.3 (Corresponding adjustments) and consistent with future decisions from the CMA (para. 23(l), annex to decision 2/CMA.3):
Comparison:
Achievement of NDC: {yes/no, explanation}

<b>Assessment of the achievement of the Party's NDC under Article 4 of the Paris Agreement (para. 70 of the MPGs)</b>	
Restate the target of the Party's NDC	20% emissions reduction from 2010 levels by 2030
Information for reference point(s), level(s), baseline(s), base year(s), or starting point(s)	Baseline: 1,000 million t CO <sub>2</sub> e Base year: 2010
Final information for the indicator of the target year/period, including the application of the necessary corresponding adjustments consistent with chapter III, annex, decision 2/CMA.3 (Corresponding adjustments) and consistent with future decisions from the CMA (para. 23(l), annex to decision 2/CMA.3)	Target year emissions: 8000 million t CO <sub>2</sub> e Credits sold: 100 million t CO <sub>2</sub> e Credits retired: 50 million t CO <sub>2</sub> e
Comparison	850 million t CO <sub>2</sub> e > 600 million t CO <sub>2</sub> e
Achievement of NDC	No, the NDC target has not been achieved

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Achievement of NDC	No, the NDC target has not been achieved



**Moderated  
discussion:  
"Reporting  
progress in  
implementing  
NDCs"**



# Reporting areas:

A. Description of NDC

B. Indicators

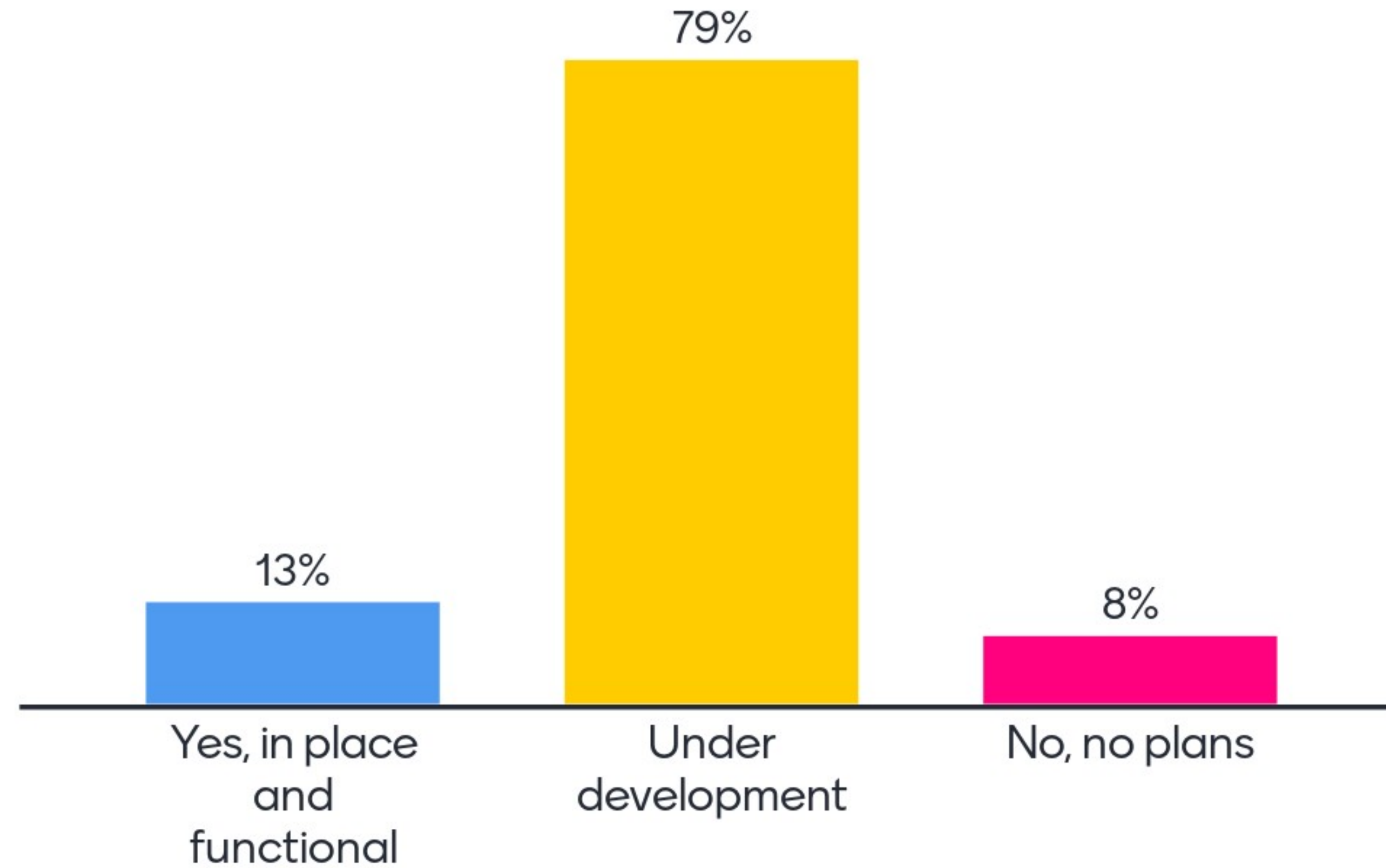
C. Policies and measures

D. Projections

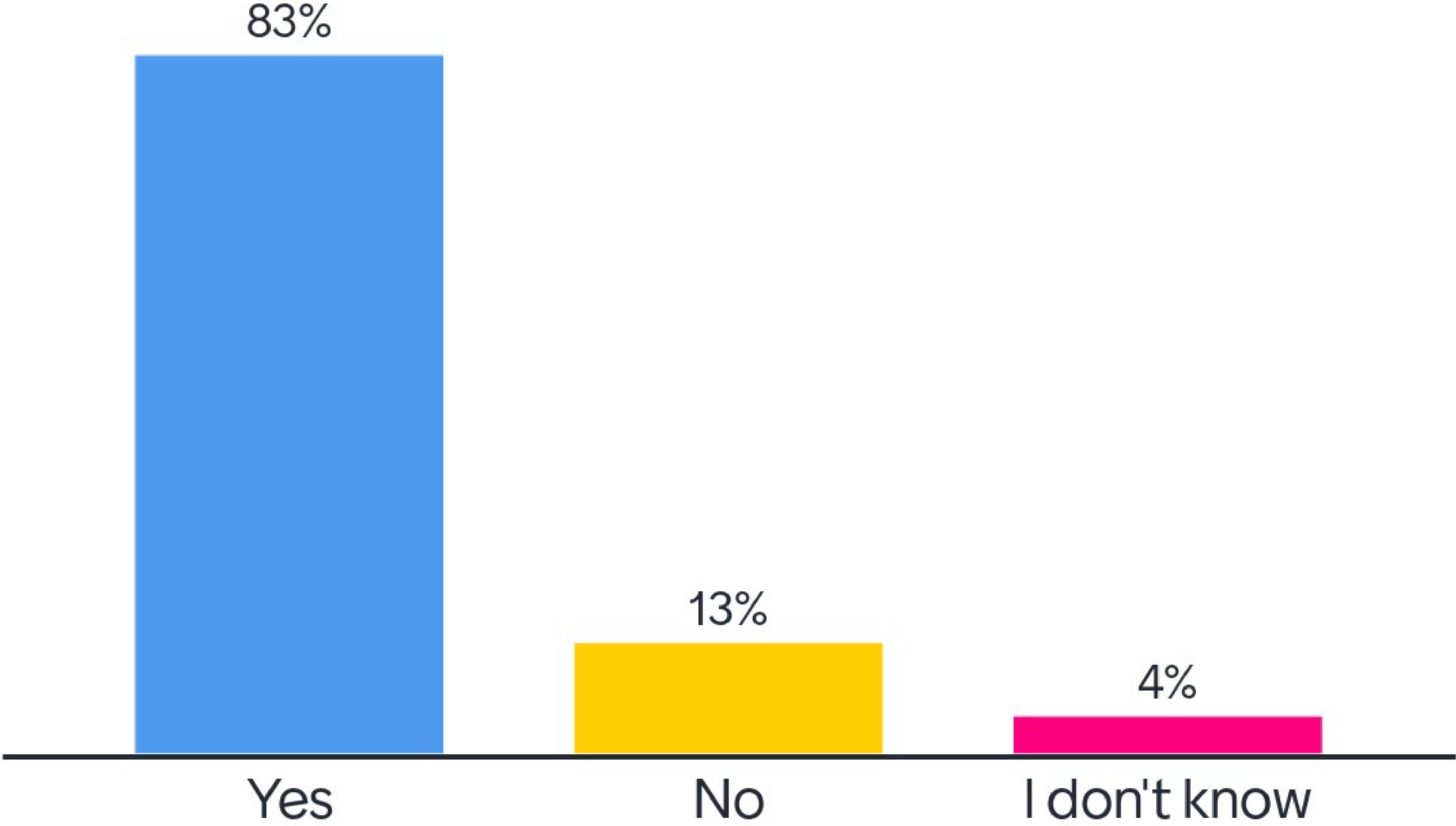
E. Institutional arrangements



# A.1: Do you have a system or process in place to continually update the various elements that make up the description of the NDCs?

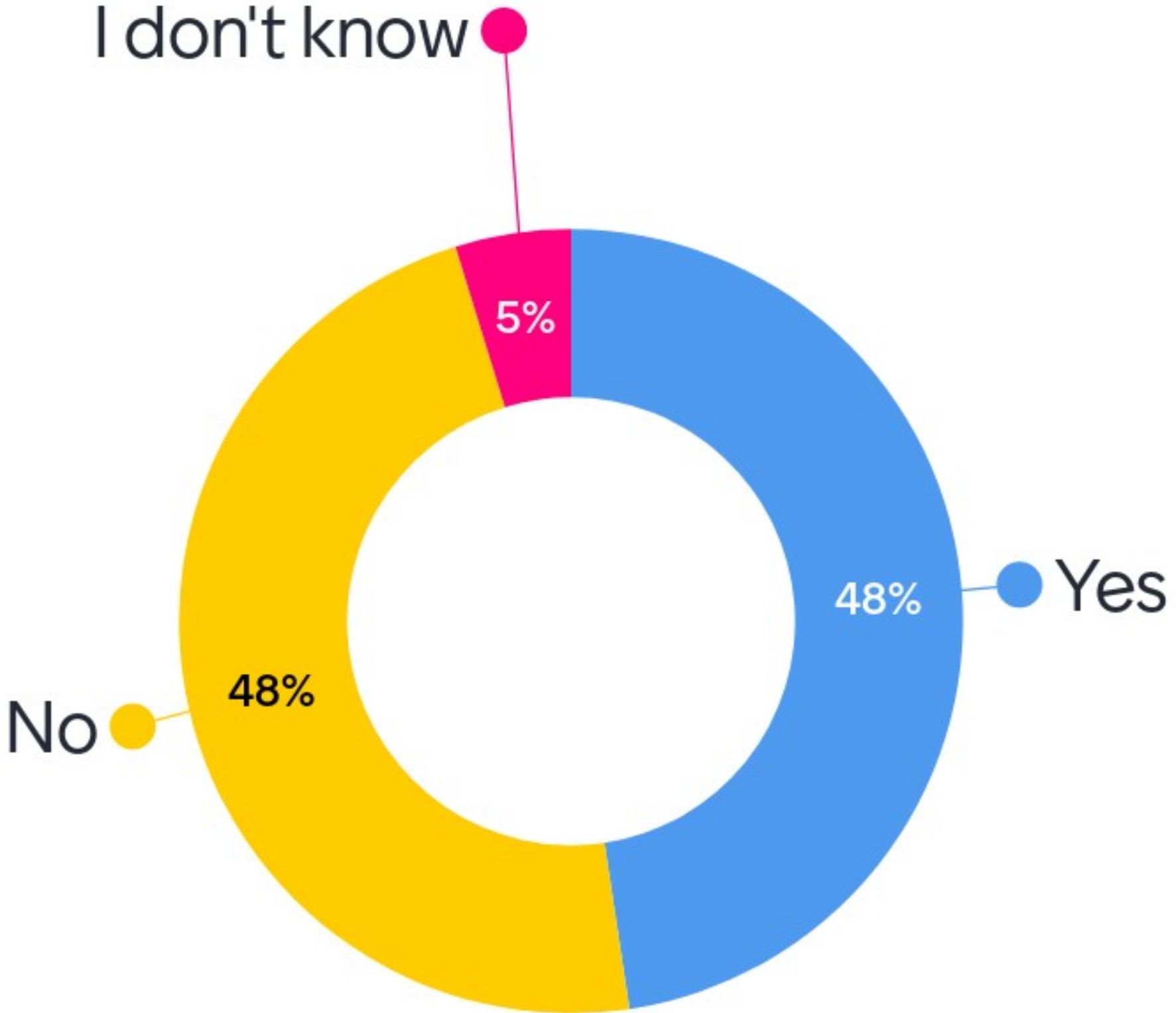


# B.1: Have indicators been formulated for tracking progress of NDC, including setting baselines and target values?

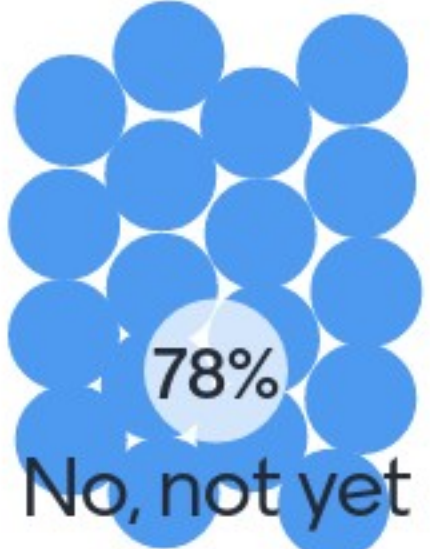




# B.2: Is data/information for monitoring the indicators collected regularly?

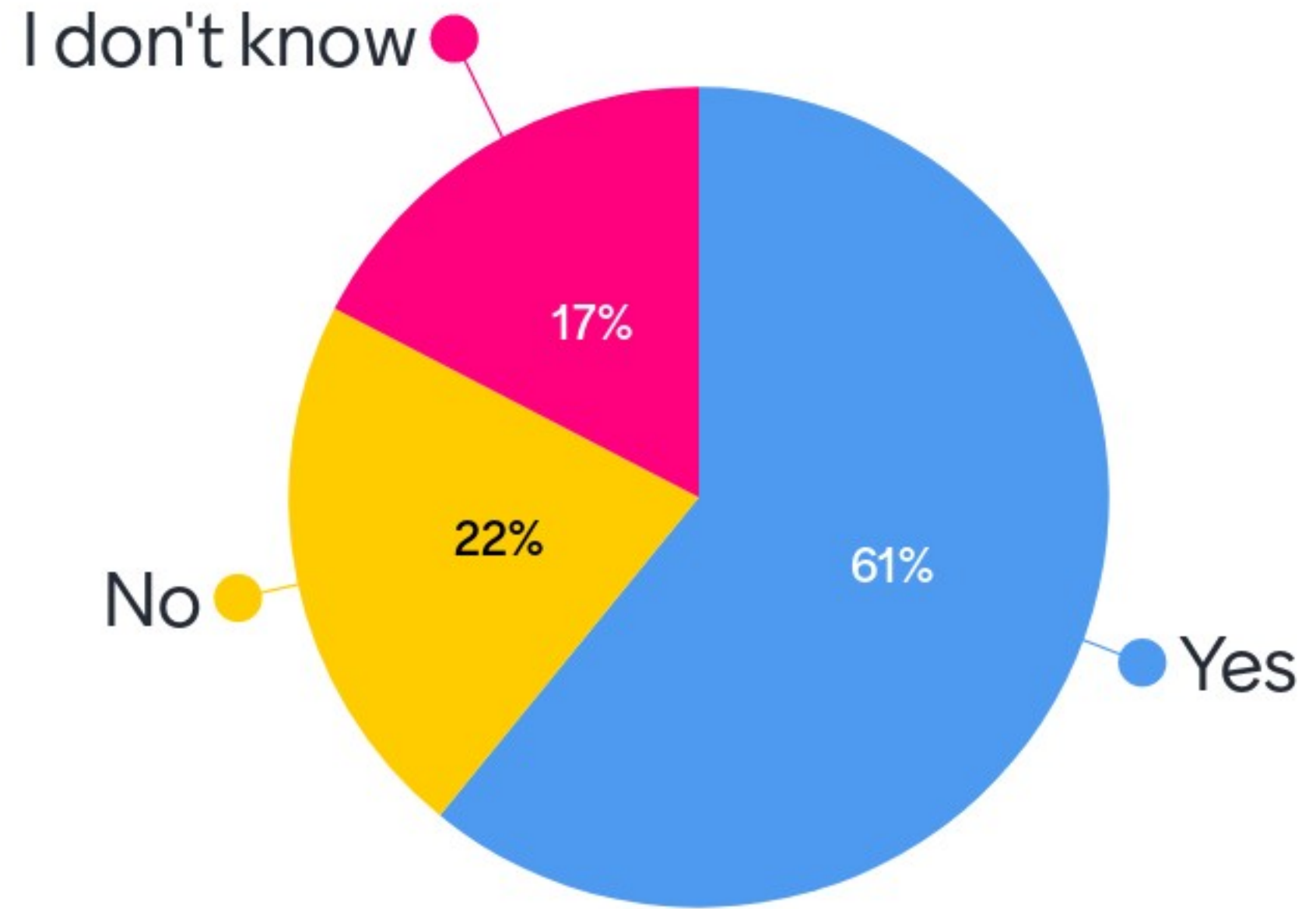


# C.1: Have methods for quantification of direct and indirect effects of mitigation actions been established?

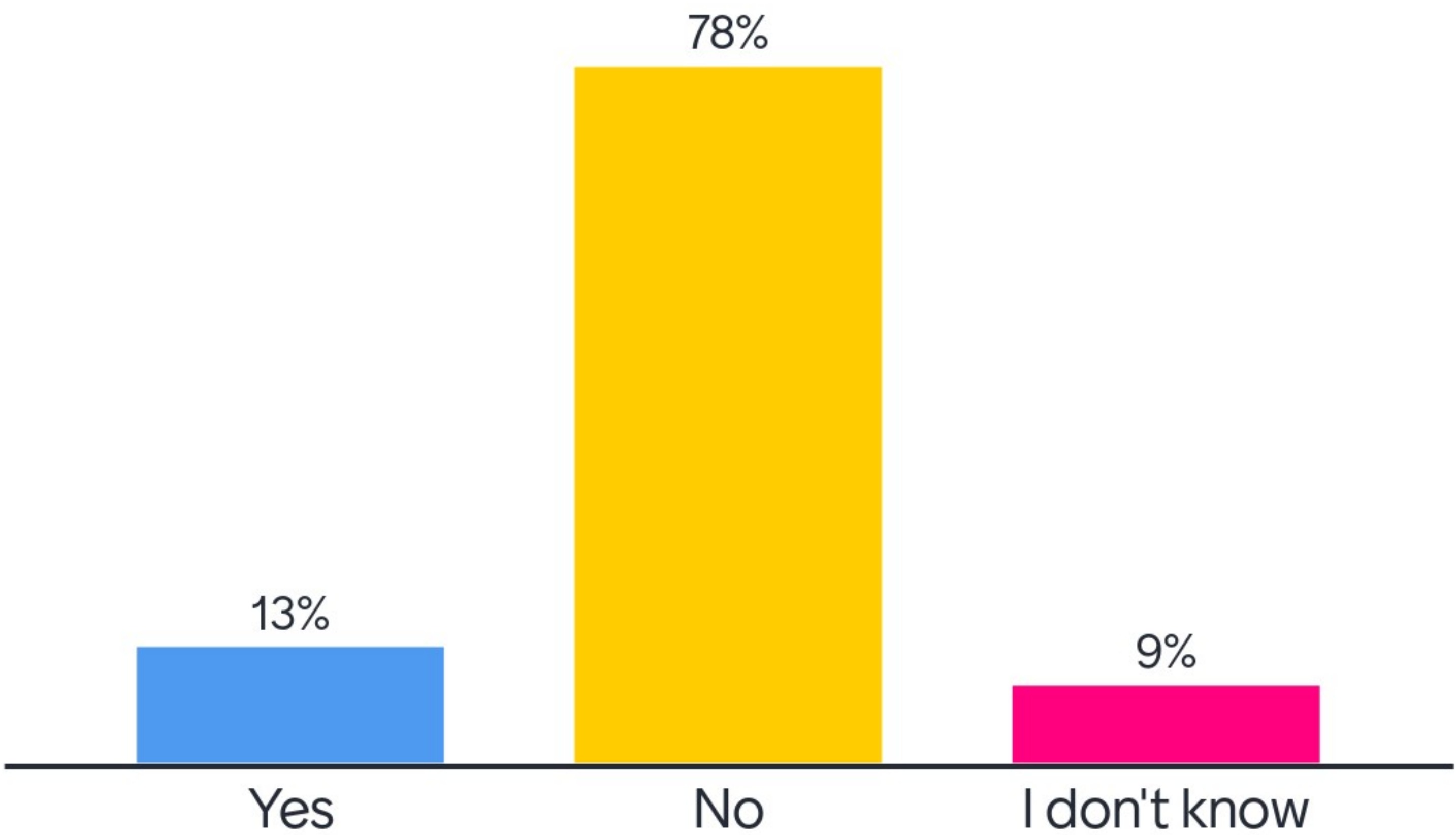




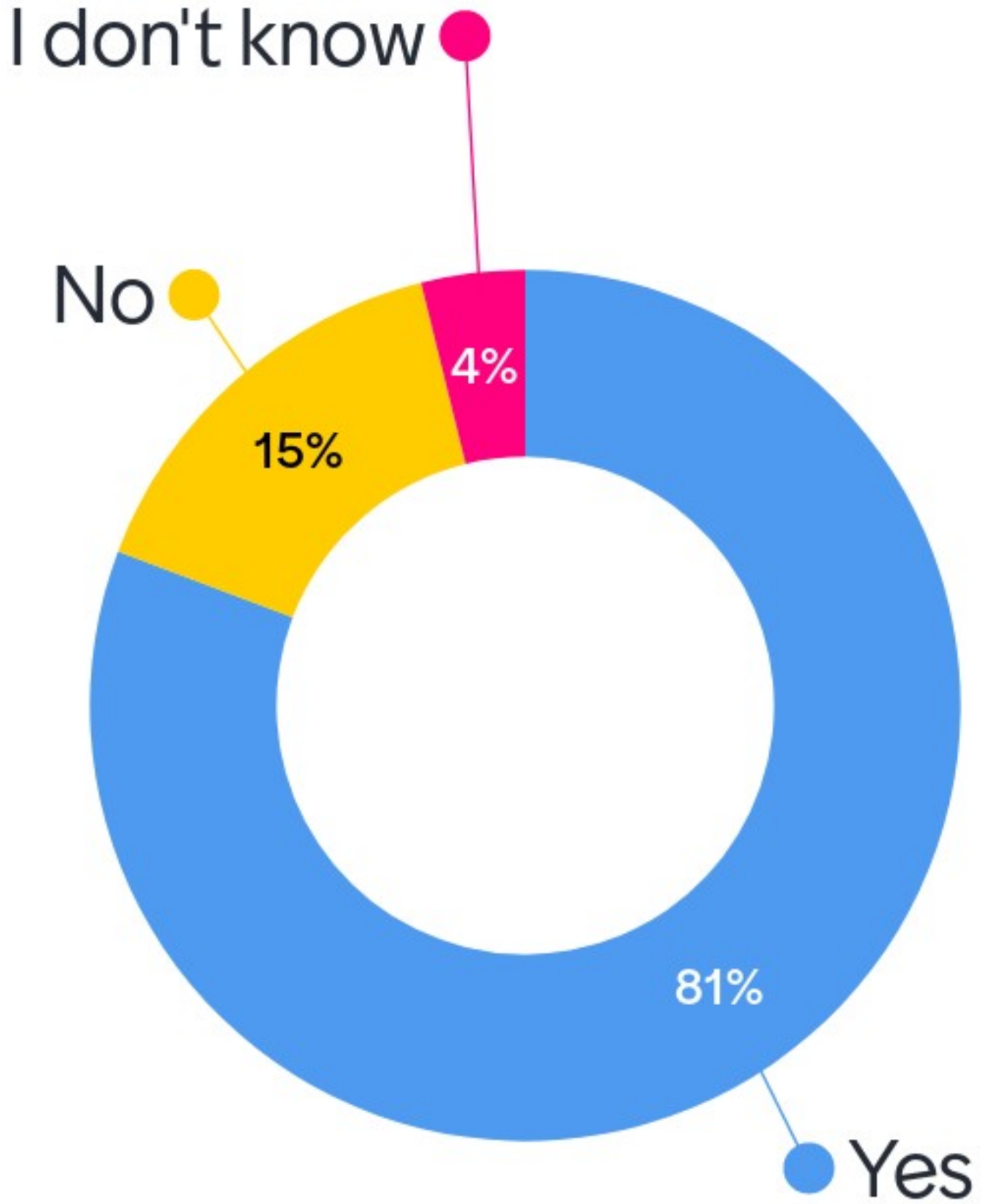
# C.2: Does a process for ensuring coordination for methods to monitor individual actions, policies and measures within a sector exist?



# C.3: Have metrics to capture non-GHG co-benefits been developed? (i.e. health, job creation, etc.)



# D.1: Have projections for key sectors and indicators been developed?

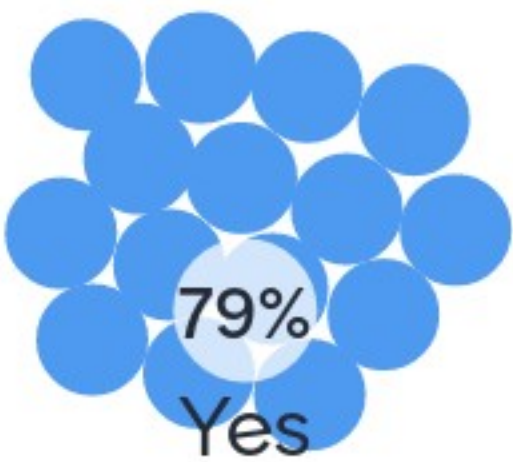




# D.2: Do you foresee any challenge in developing the projections? (Please specify)



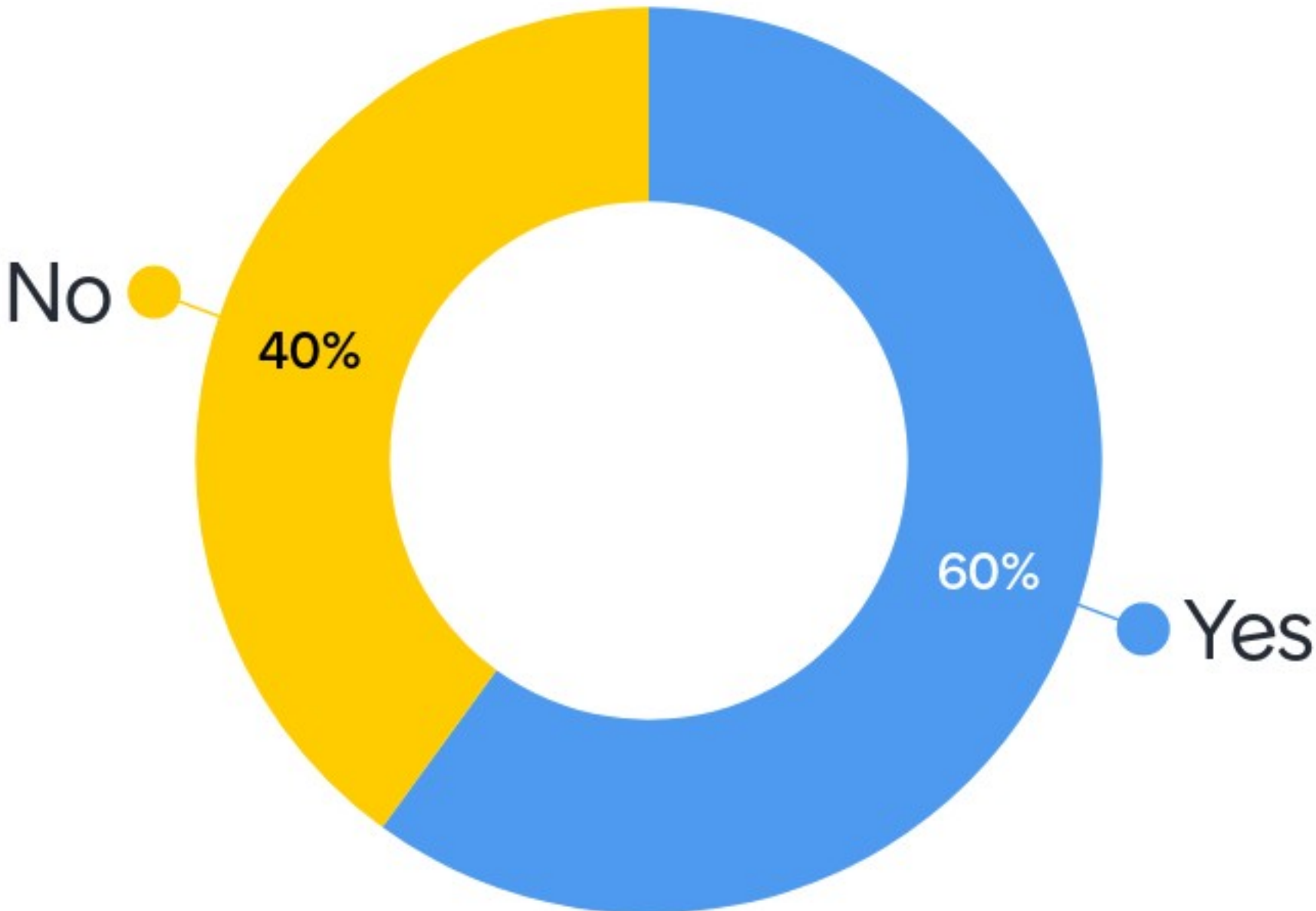
# E.1: Does a coordination team for NDC implementation exist?



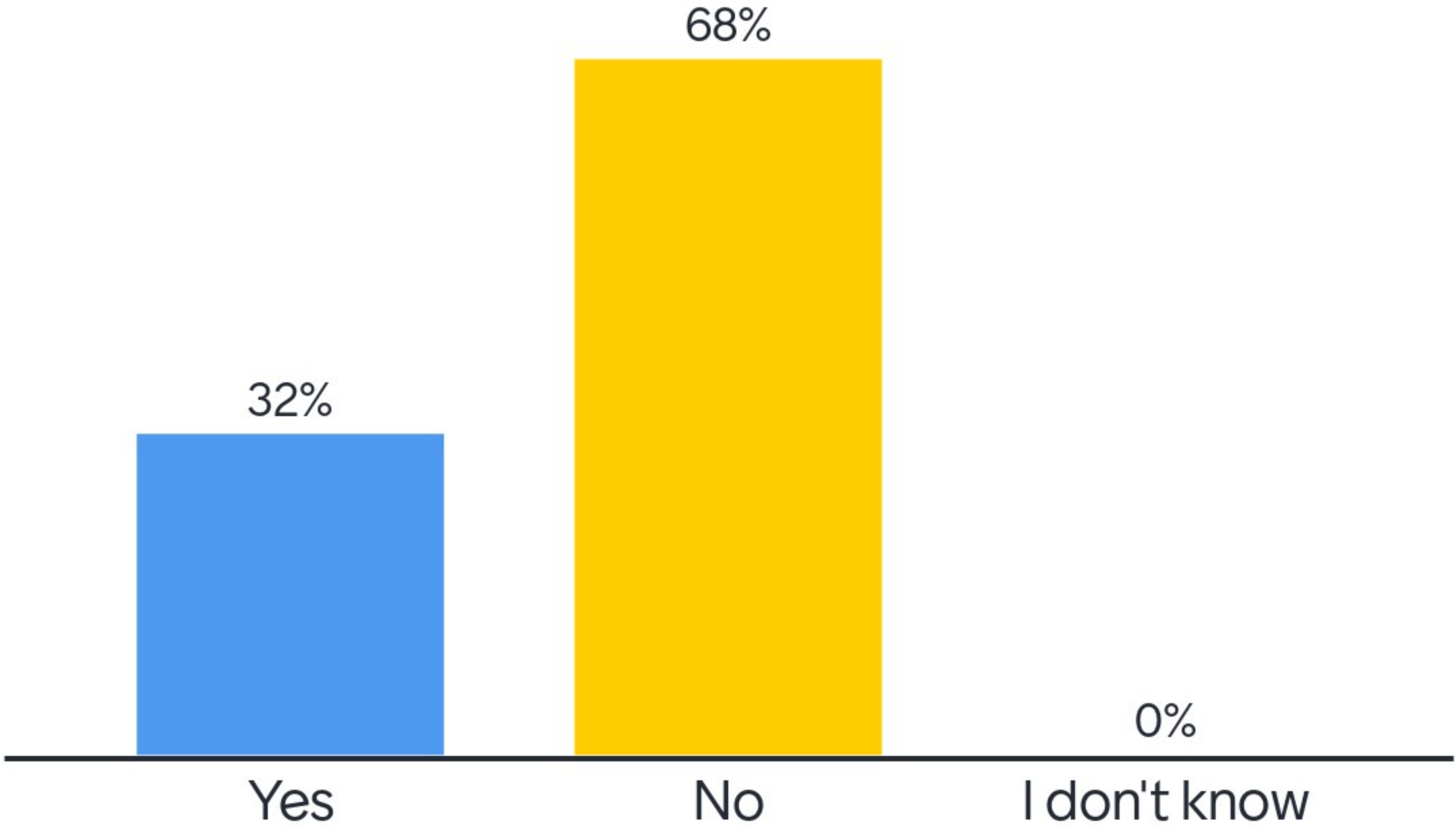
0%  
I don't know



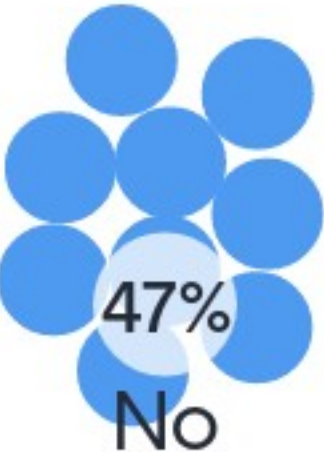
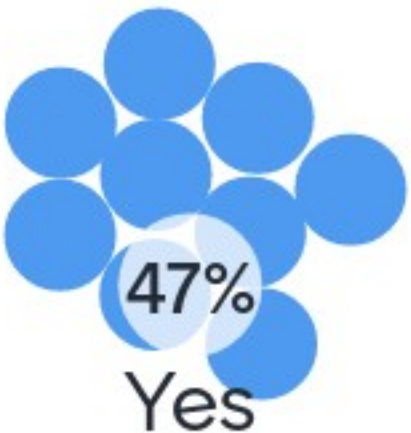
# E.2: Have the roles and responsibilities of line ministries and affiliated institutions for NDC implementation defined?



# E.3: Has a regular process for tracking progress of NDCs been defined?



# E.4: Do legal frameworks for supporting the implementation of NDCs and/or tracking progress of NDCs exist?





# Participants are invited to take to floor to further elaborate:

- Foreseen additional capacity-building needs (in formulating or tracking indicators, developing projections, quantifying effects of PAMs, etc.)
- Experiences and lessons learned to address challenges and needs





# Moderated discussion on institutional arrangements and political buy-in (Live polls and discussion)





# What are the key emerging challenges and needs in setting up robust and sustainable institutional arrangements for implementation of the ETF?

Greatly

Lack of expertise and need public and key decision awareness

Needs for capacity's building and training of experts

# How does domestic political buy-in affect the national efforts to successfully implement the existing MRV arrangements and the ETF?

Makes or breaks it

Greatly

Not enough

It delay the process

Not their priorities

Will efect significantly

They are affected by the political priorities.

stakeholders / secure funding / process of project

No solid long term plans



# How does domestic political buy-in affect the national efforts to successfully implement the existing MRV arrangements and the ETF?

Difficult to implement

Effect to the emission reduction target

It will make easier to develop IA and Data Collection that will be effective

Without political will, expert cannot act

Commitment ture to action and plan

Delay the implementation



# What are the root causes of a weaker domestic political buy-in?

less partnership with re  
less understanding  
close relation with  
politision  
the lack of expertise  
lack of enough experience  
**lack of data**  
financial issues  
**lack of knowledge**  
lack of resources  
framework  
willingness  
resources  
budget  
awerness  
lack of funding  
less of understanding  
lack of expertise  
clear understanding frame  
no alignment with policy



# How can these identified root causes be addressed and who are the key actors?

stakeholders

Active role of NGOs

Collaboration

Capacity building

The key actor should be from the high level such as the prime ministers

Awareness raising

The collaboration program

More resources are needed and hardly will be found

IA



# How can these identified root causes be addressed and who are the key actors?

Integrate actions in development strategies in key sectors and the stakeholders to engage are IOs, NGOs, public sector institutions and local governments

Identify stakeholders engagement

Most importantly decision makers

Awareness

Awareness on the likely international support (funds)

Clear action plan of sectors collaboration clear understanding from central through local and capacity

Strong institutional arrangements

Buy in from the heads of ministries

climate change working group



# How can these identified root causes be addressed and who are the key actors?

Mandated the old laws

Involving the key institutions via approved legal frame; case study

# How do you engage with senior/high-level actors to enhance support climate change reporting (MRV & ETF)?

Consultation meetings

NDC committee

Flooding information to senior high level

Through climate change council

with memorandum and letters  
meetings with stakeholders and  
consultants,

Climate change committee

More opportunities for receiving  
climate finance

National Steering committee

Include them as part of the Working  
group





# How do you engage with senior/high-level actors to enhance support climate change reporting (MRV & ETF)?

Meeting, workshops and enhancing the knowledge

Mou between the ministers of line ministry

Regular updates and meetings

Try to find a link between mtv and etf and their political interests and strategies

Policy brief arrangement on benifit of MRV and ETF

Support the information from consultation meeting and international meeting

Forming the communication channel to keep sharing the info and data needed

Integrating with mandatory plan of activities

Training for Key decision persons; legal arrangment as Național commission





# Interactive Discussion on Institutional Arrangements and Political Buy-in





# Participants are invited to take to floor to respond to following questions:

- Briefly explain a few challenges.
- Briefly share your experiences and lessons learned in addressing these challenges.

# Which emoji represents you at the end of this session?

