



**United Nations**  
Climate Change

# Training Programmes for Experts Participating in Technical Reviews of Information submitted by Annex I Parties, and Technical Analysis of Biennial Update Reports submitted by non-Annex I Parties

Special Event  
SBSTA 50, Bonn  
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Mitigation Data and Analysis Programme

# Presentation Outline

- **History of expert training within the UNFCCC process**
- **Summary of current training programmes:**
  - **Training programme for review experts for the technical review of greenhouse gas inventories included in Annex I to the Convention**
  - **Training programme for members of expert review teams participating in annual reviews under Article 8 of the Kyoto Protocol**
  - **Training programme for review experts for the technical review of biennial reports and national communications of Parties included in Annex I to the Convention**
  - **CGE training programme for technical experts undertaking technical analysis of biennial update reports from Parties not included in Annex I to the Convention**
- **Where do we go from here?**

Review for AI NCs by the ERT  
Invite Parties to nominate experts  
**2/CP.1**

1st pilot course (e-learning courses + training seminar) for experts of AI GHG inventories reviews (Nov-Dec)

1st Overview course for experts of AI GHG inventory reviews (Oct)

Request the Secretariat to develop/implement the training programme for the Kyoto Protocol Art. 8 review (5/CMP.11)  
**24/CMP.1**

Request the secretariat to update Basic course for experts of AI GHG inventory reviews  
**10/CP.15**

Request the secretariat to implement updated Basic Course for reviewers of AI GHG inventories  
**14/CP.20**

Request the secretariat to update training for Art 8 for the 2nd CP of the Kyoto Protocol  
**5/CMP.11**

Updated Basic courses started (Sep)

Updated Kyoto Protocol courses started (Jul)

agreed the consideration at SBSTA50 on further development and enhancement  
**SBSTA 46**



1995 2001 2002 2003 2004 2005 2006 2009 2011 2013 2014 2015 2016 2017 2019

**23/CP.7**

Request SBSTA to elaborate the training...to ensure the competence of reviewers (for Kyoto Protocol Art. 8 review)

**12/CP.9**

Request to develop/implement the training programme for experts of AI GHG inventory reviews (10/CP.15, 14/CP.20)

Basic Course for reviewers of AI GHG inventories started (May)

1<sup>st</sup> KP course started (May)

**2/CP.17**

**20/CP.19**

Request CGE/secretariat to develop/organize training programmes for experts of technical analysis of the BUR

**15/CP.20**

Request the secretariat to develop/implement the training programme for experts of AI Parties BR/NC reviews (19/CP.23)

TTE courses launch (Mar)

BR/NC courses launch (Mar)

**19/CP.23**

Requests the secretariat to enhance the materials of the training BR/NC courses

The secretariat shall design and implement training for experts to ensure their competence  
**13/CP.20**

# Training programme for review experts for the technical review of greenhouse gas inventories included in Annex I to the Convention

## BASIC COURSE

### E-learning Modules

**Overview and cross-cutting issues**

**Energy**

**IPPU**

**Agriculture**

**LULUCF**

**Waste**

Sectoral modules

**Hands-on training seminar on inventory reviews**

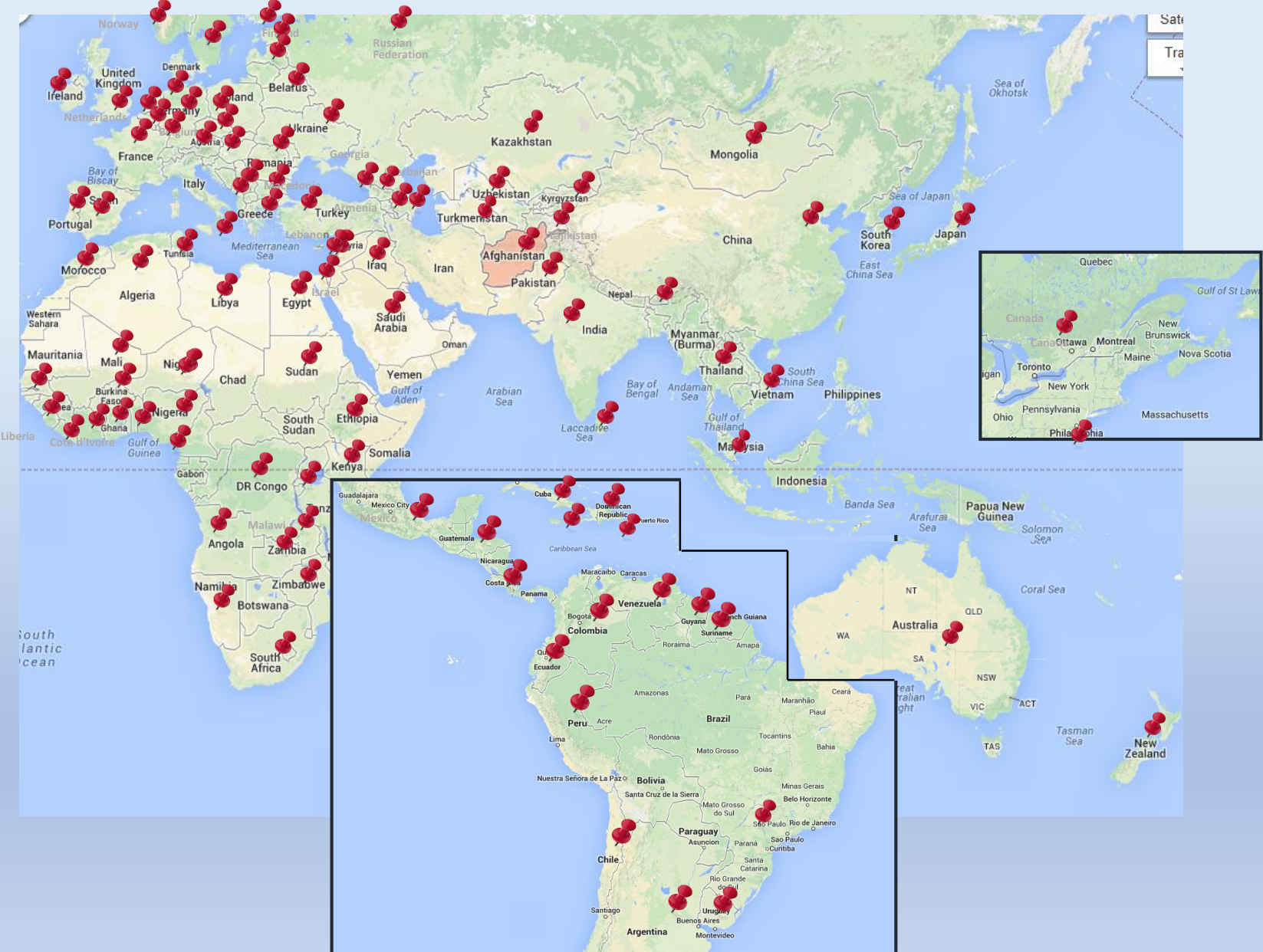
### Non-Mandatory E- Learning Modules

**Review of complex models and higher-tier methods**

**Improving communication and facilitating consensus in expert review teams**

**Refresher Seminar for Experienced Experts**

# Geography of Training Seminar Participants



# Training programme for review experts for the technical review of greenhouse gas inventories included in Annex I to the Convention

## BASIC COURSE

### E-learning Modules

**Overview and cross-cutting issues**

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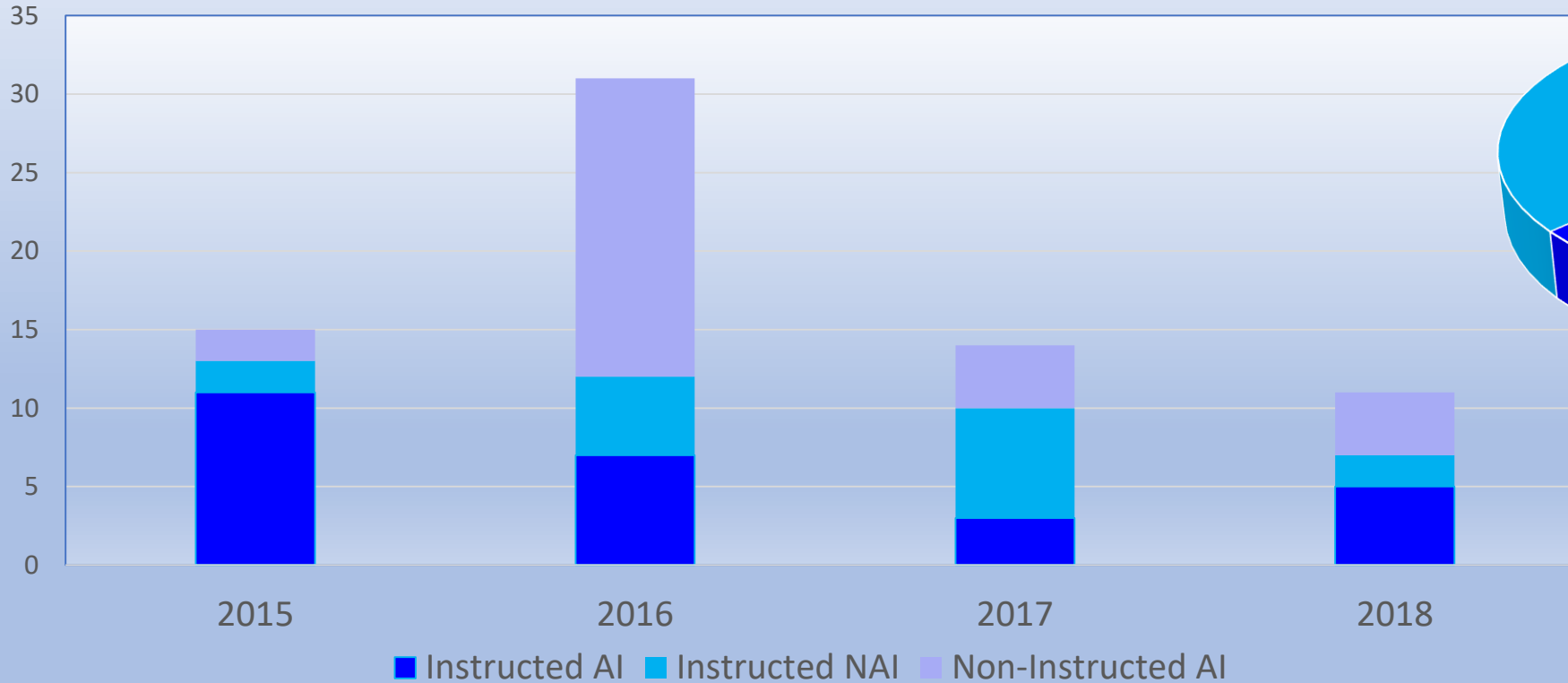
### Non-Mandatory E- Learning Modules

**Review of complex models and higher-tier methods**

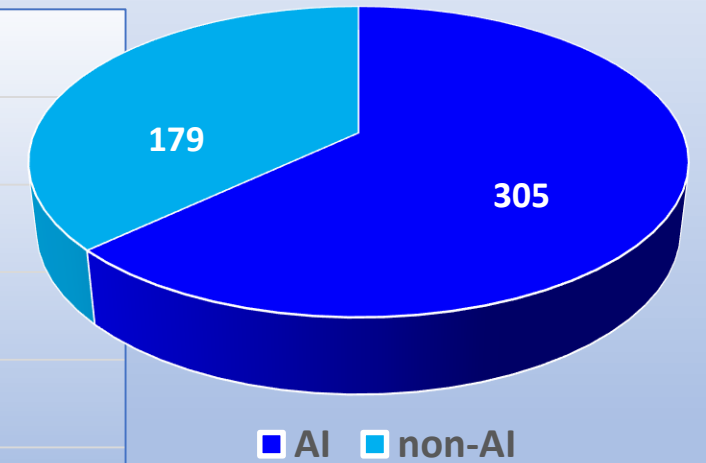
**Improving communication and facilitating consensus in expert review teams**

**Refresher Seminar for Experienced Experts**

## Number of experts who became eligible to participate in the GHG reviews (Convention)



## Total 484 review experts in the ROE



## Pass rate of seminar participants

	2012	2013	2014	2015	2016	2017	2018
Annex I	95%	94%	100%	63%	63%	-	42%
Non-Annex I	54%	42%	50%	19%	26%	32%	13%



# Strengths

- Courses are technically rigorous
- Seminar
  - High competence in experts who participate and subsequently pass exam
  - Participants gain first hand experience working on real submissions/reports; “hands on” training simulating a review
  - Instructors teach experts skills to find review issues and write them clearly
  - Important opportunity to take exams
- Skills acquired strengthens experts capacity to contribute to inventory preparation at the national level
- Some Parties’ GHG inventory teams utilize the course to train new staff

# Challenges

- High cost of training inexperienced experts
- Examinations
  - Handwritten, paper-based (legibility issues)
  - Evaluation is time consuming (manual grading)
  - Few opportunities to take (or retake) exams for experts who do not otherwise come to Bonn
  - Failed exams can only repeated once
- Experts are busy; insufficient time to study (low pass rate)
- Low enrollment for non-mandatory modules



Training programme for members of expert review teams participating in annual reviews under Article 8 of the Kyoto Protocol

National systems

Application of adjustments

Accounting of assigned amounts  
under Art. 7.4

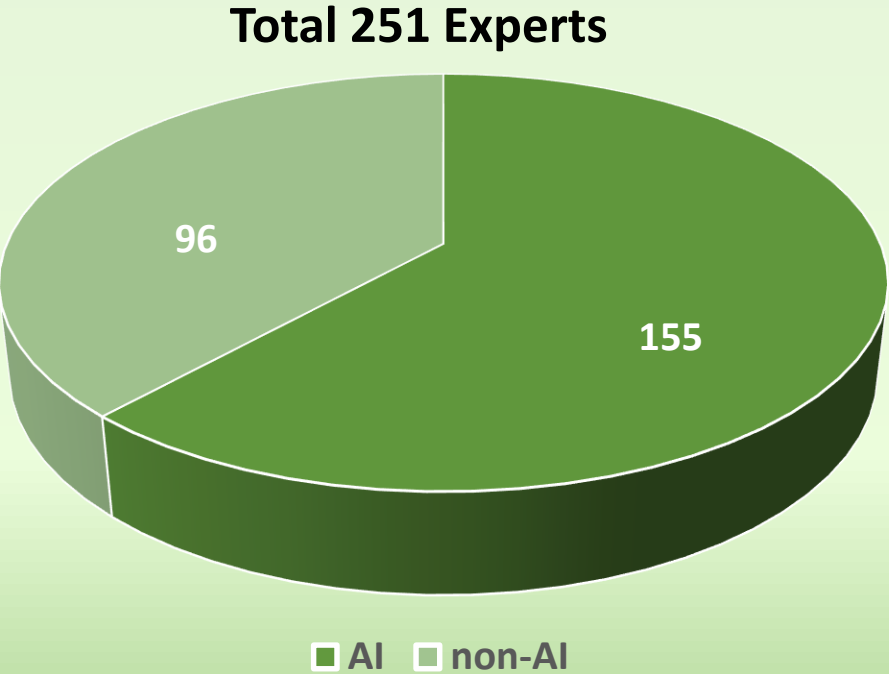
National Registries

Activities under Art. 3.3 and 3.4

# Who should take which course?

	Experienced Expert			New Expert		
	New Lead Reviewer	LULUCF expert	New to the subject	Non-LULUCF expert	LULUCF expert	Generalist
<b>National Systems</b>						
<b>Application of adjustments</b>						
<b>Accounting of assigned amounts</b>						
<b>National registries and ass. amounts</b>						
<b>Review of Articles 3.3 and 3.4 Activities</b>						

# Experts eligible to participate in the reviews under Art. 8 of the Kyoto Protocol



### New experts added since 2015



## Strengths

- Low cost of implementation
- Courses are technically rigorous

## Challenges

- Low enrollment rate of experienced experts to revised courses for the second CP
- Few new eligible experts available for enrolment
- Failed exams can only be repeated once

# Training programme for review experts for the technical review of biennial reports and national communications of Parties included in Annex I to the Convention

**Course 1: General and cross-cutting aspects of the review of BR/NC**

**Course 2: Technical review of targets and PaMs, their effect and contribution to achieving targets**

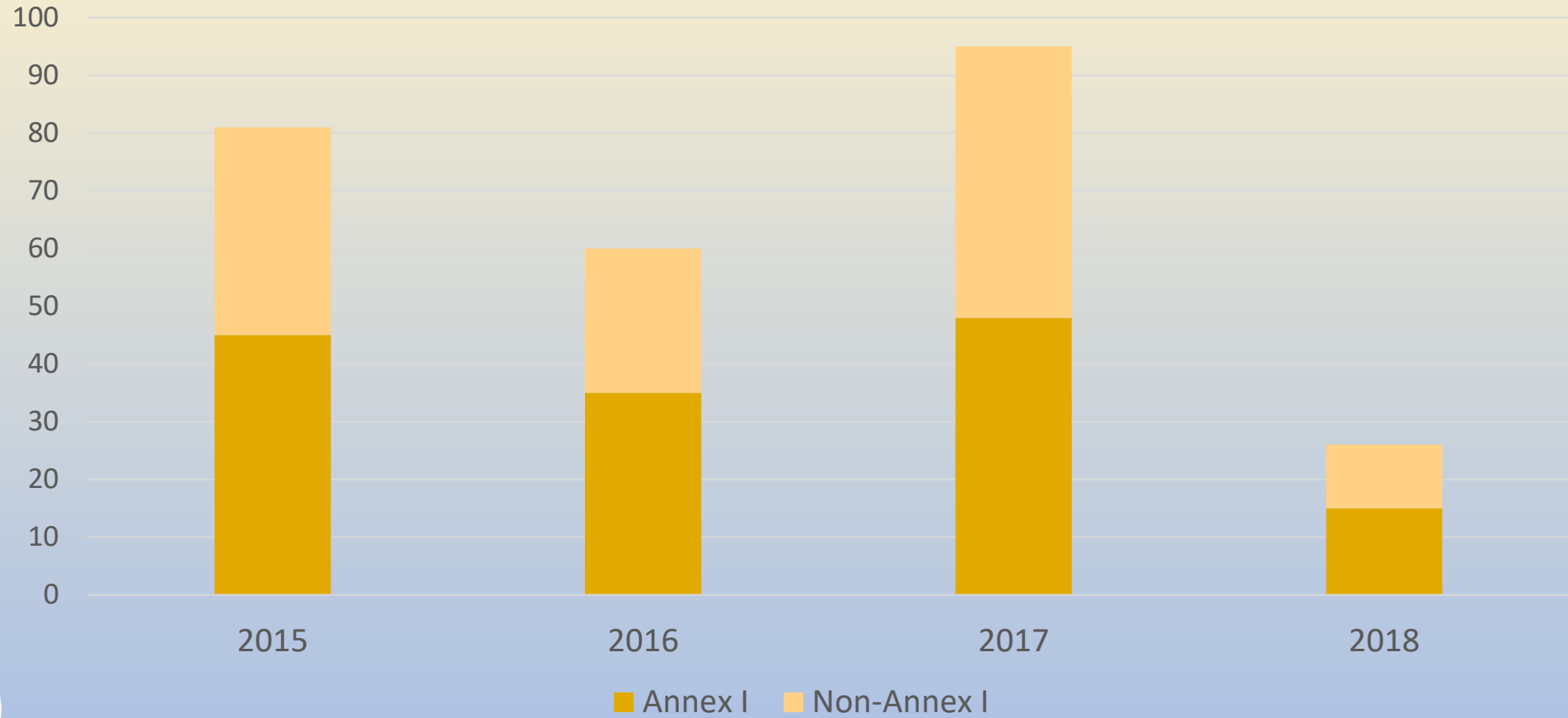
**Course 3: Technical review of GHG emission trends, projections and the total effect of PaMs**

**Course 4: Technical review of the provision of FTC**

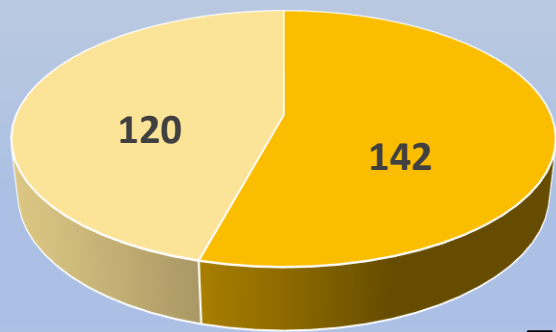
# Who should take which course?

		<b>New Lead reviewers</b>	<b>New Experts targets &amp; PaMs</b>	<b>New Experts trends &amp; projections</b>	<b>New Experts FTC</b>
<b>Course 1: General</b>					
<b>Course 2: Targets &amp; PaMs</b>					
<b>Course 3: Projections</b>					
<b>Course 4: FTC</b>					

# Number of new experts who became eligible to participate in the BR/NC review per year



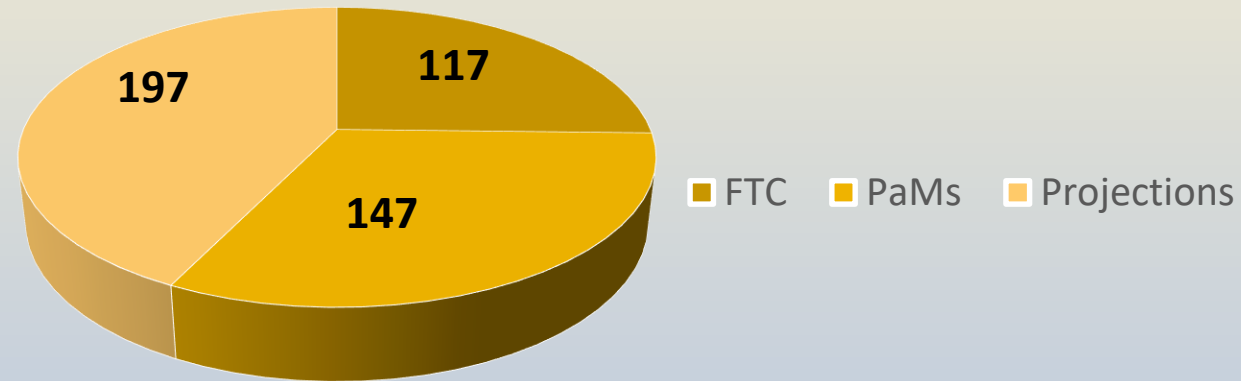
## Total 262 review experts in the ROE



AI non-AI



## Total number of experts per area of expertise (as of 1 June 2019)



## Average scores of the exams

	Original courses 2015-2016	Updated courses 2017-2018
Target, PaMs	68.8	72.9
Projection, GHG	79.6	81.6
FTC	77.4	84.6

## Strengths

- Low cost of implementation
- Straightforward programme requirements (clear who needs to take which module)
- Small number required courses to become eligible to take part in a review
- Experts often take multiple courses- eligible for several ERT roles
- High pass rate
- User-friendly courses due to updates prior to NC7/BR3 review cycle

## Challenges

- Number of new review experts is declining

# CGE training programme for technical experts undertaking technical analysis of biennial update reports from Parties not included in Annex I to the Convention

## Cluster 1 - Technical analysis of BURs

Overview

Thematic modules

2.1 Mitigation Actions and Their Effects

2.2 GHG Inventories

2.3 Needs and Support

## Cluster 2 - Background materials covering methods and science

Module 1: Mitigation actions and their effects

Modules 2: GHG inventories sectoral modules and IPCC Guidelines

Modules 2 a: Energy

Modules 2 b: IPPU

Modules 2 c: Agriculture

Modules 2 d: LULUCF

Modules 2 e: Waste

Modules 2 f: Differences in IPCC Guidelines

Module 3: FTC needs and support received

## Cluster 3 – Technical analysis on REDD-plus

Technical annex on REDD-plus

CGE training programme for technical experts undertaking technical analysis of biennial update reports from Parties not included in Annex I to the Convention

## Cluster 1: Technical Analysis of BURs

**Overview**

**Mitigation actions and their effects**

**GHG Inventories**

**Needs and support**

Thematic Modules

## Cluster 2: Background materials

**Mitigation actions and their effects**

**GHG Inventories**

**Energy**

**Agriculture**

**IPPU**

**LULUCF**

**Waste**

**Differences in IPCC Guidelines**

**Needs and support**



**Cluster 3: Provisions on technical analysis  
of technical annex on REDD-plus**

**The technical annex on results-based  
actions relation to REDD-plus**

# Who should take which module?

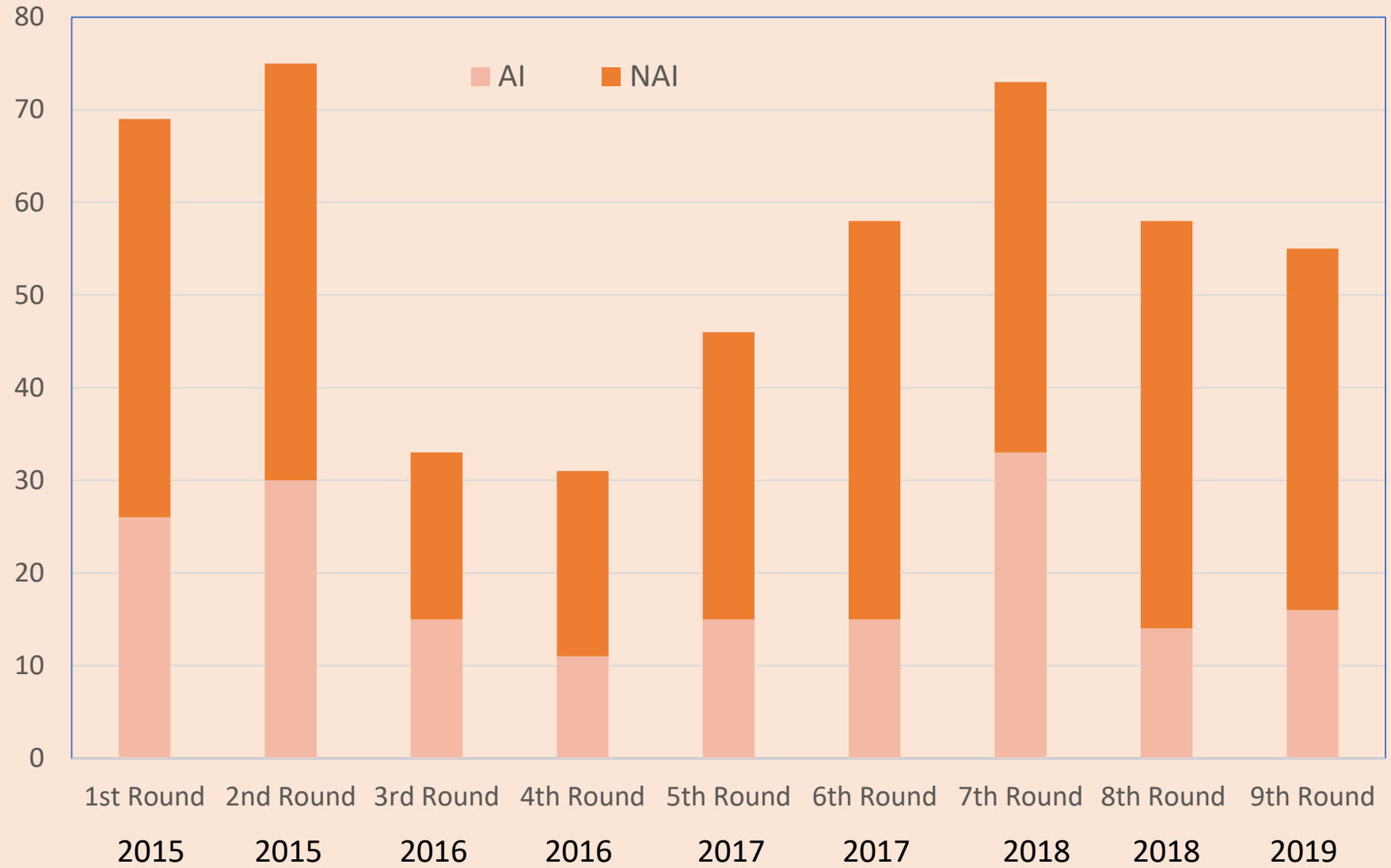
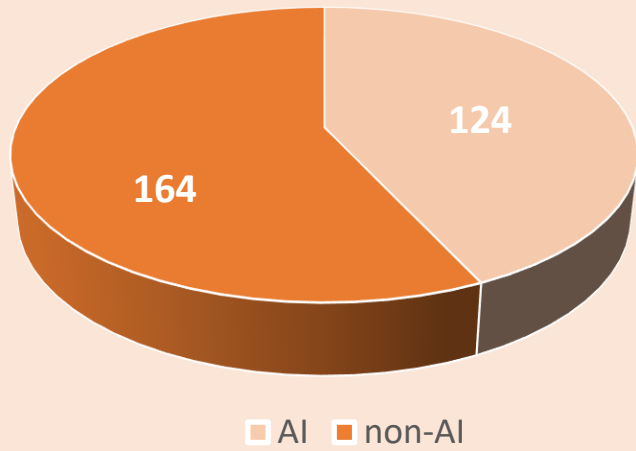
		Mitigation	GHG inventories	FTC support and cross-cutting issues expert	REDD plus experts
	<b>CLUSTER 1</b>	Note: All experts, regardless new or experienced, must study mandatory modules of their expertise and pass their examinations under Cluster 1			
	Module 1 an overview				
Thematic elements:	Module 2.1 Mitigation actions and their effects				
	Module 2.2 National GHG inventories				
	Module 2.3 Needs and support				



		Mitigation	GHG inventories		FTC support and cross-cutting issues expert	REDD plus experts
			Non-AFOLU	AFOLU		
	<b>CLUSTER 2</b>	Less Experienced Experts				
	Module 2.1 Mitigation actions and their effects					
GHG Inventories	Module 2.2a: Energy					
	Modules 2.2b: IPPU					
	Modules 2.2c: Agriculture					
	Modules 2.2d: LULUCF					
	Modules 2.2e: Waste					
	Modules 2.2f Differences in IPCC GLs					
	Module 2.3 Needs and support					
	<b>CLUSTER 3</b>	Experts participating in the Technical Assessment of REDD-plus				
	The technical annex on results-based actions relating to REDD-plus	N/A	N/A	N/A	LESS Experienced	EXPERIENCED

## Number of experts who passed one or more proficiency assessment in each round

### Total 288 experts in the ROE



Examinations in 2018		Registrations received	Exams taken	exams enroll rate
<b>Cluster 1 - provisions on the technical analysis of BURs</b>				
Module 1	Overview	242	110	45 %
Module 2.1	Mitigation actions and their effects	194	62	32 %
Module 2.2	National GHG inventories	231	99	43 %
Module 2.3	FTC needs and support received	146	37	25 %
<b>Cluster 2 - background materials covering methods and science</b>				
Module 2.1	Mitigation actions and their effects	197	57	29 %
Modules 2.2	National GHG inventories			
Module 2.2a	energy	128	37	29 %
Module 2.2b	Industrial processes	99	31	31 %
Module 2.2c	Agriculture	120	33	28 %
Module 2.2d	LUCF/LULUCF	125	41	33 %
Module 2.2e	Waste	106	29	27 %
Module 2.2f	1996 and 2006 IPCC guidelines	168	58	35 %
Module 2.3	FTC needs and support received	132	32	24 %
<b>Cluster 3 – technical analysis of technical annex on REDD+</b>				
Module 3	REDD-plus	115	44	38 %
<b>Total</b>		<b>2003</b>	<b>670</b>	<b>33.4 %</b>

## Strengths

- Large number of registrations received
- Equally distributed AI/NAI participation
- Streamlined course requirements for experienced experts
- Unlimited attempts to pass examinations

## Challenges

- Many combinations of courses can be confusing for experts
- Administration of courses is very time intensive
- Low examination attempt rate (vs registration rate)

# Where do we go from here?

- Decision 18/CMA.1, para 12, SBSTA to develop a training programme for technical experts participating in the technical expert reviews
- Foundation exists within the current training programmes to support development of future training programme
- Elements to operationalize the training programme may include:
  - ✓ Type of course (e.g., in person, e-learning, hands-on training, seminars)
  - ✓ Implementation dates (particularly start date)
  - ✓ Target audience
  - ✓ Examination requirements and format
  - ✓ Availability of courses, frequency, venues
  - ✓ Procedures for implementation of the programme



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Climate Change

**Thank you**

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