United Nations Framework Convention on Climate Change

Agenda item 4.c.i

Preliminary Survey Report on Endogenous Capacities and Technologies

TEC/2020/21/8

Technology Executive Committee, 21st meeting
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Taskforce Enabling Environment & Capacity-building /
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Background

- Task for 2020 (Actv. 2 Enabling environment & capacity-building):
  - *To analyse measures that facilitate countries in enhancing enabling environments to promote endogenous capacities and technologies*
- Build on previous work by TEC, CTCN, PCCB
- Produce a working paper related to needs, challenges and gaps and measures to develop and enhance endogenous capacities and technologies

Process and timelines

- January 2020: Kicked off the work
- February/March: Task force reviewed previous work and discussed methodology/approach for surveys, developed draft questionnaire
- April: Presented approach and draft questionnaire at TEC 20
- April: Finalized surveys, identify respondents, and draft cover letters
- May-August: Secretariat distributed surveys and sent reminders
- September-October: Analyzed results
- October: Task force reviewed preliminary findings
- November: Present preliminary findings at TEC 21

Questionnaires and target groups

Three surveys were developed for and distributed to the three target groups:

- **Survey 1**: NDEs and TNA focal points– knowledgeable about national efforts relating to climate capacities and technologies
- **Survey 2**: TEC, CTCN, and PCCB members and observers– strong understanding of endogenous capacities and technologies in general
- **Survey 3**: Practitioners who have worked on projects on the ground—best understanding of actual use of technologies in climate-related projects

Definitions: Derived from TEC 2018 surveys and as reported to COP25

- "**Endogenous technologies**" are those that have been:
  - Developed within the country or by a team of in-country and external people, or
  - Developed elsewhere but modified and adapted within the country or by a team of in-country and external people to meet the country's needs and conditions

- "**Endogenous capacities**" include the capacities to:
  - Assess climate-related technology needs from the individual to the national level,
  - Identify appropriate technologies to assist in meeting identified needs,
  - Adapt technologies to local needs and conditions

"**In-country**" skills, knowledge, and practices include those contributed by people from governments at all levels, local communities and indigenous groups with traditional knowledge, academia, businesses, and others located within the country.

Responses

- Survey 1: NDEs and TNAFPs
  - Number of responses: 46
  - Number of countries: 39

- Survey 2: Members and Observers
  - Number of responses: 34
  - Number of countries: 25 (only 31 provided)

- Survey 3: Practitioners
  - Number of responses: 28
  - Number of countries: 19 (only 27 provided)

Preliminary report sections

- Introduction
- Respondent characteristics
- Needs and gaps: Capacities and Skills and knowledge
- Stakeholder participation
- Enabling environments and challenges
- Measures to enhance endogenous capacities to: Develop new technologies and Adapt existing technologies
- Cross-cutting issues

Respondent characteristics: Regions

Regions	*Survey 1*	*Survey 2*	*Survey 3*
African States	44%	12%	35%
Asian States	26%	32%	31%
Eastern European States	12%	9%	4%
Latin American and Caribbean States	14%	12%	12%
Western Europe and Other States	5%	35%	19%
Number responding to question	43	34	26
Number of countries	39	25	19

Respondent characteristics: Languages

- Surveys were distributed in English only

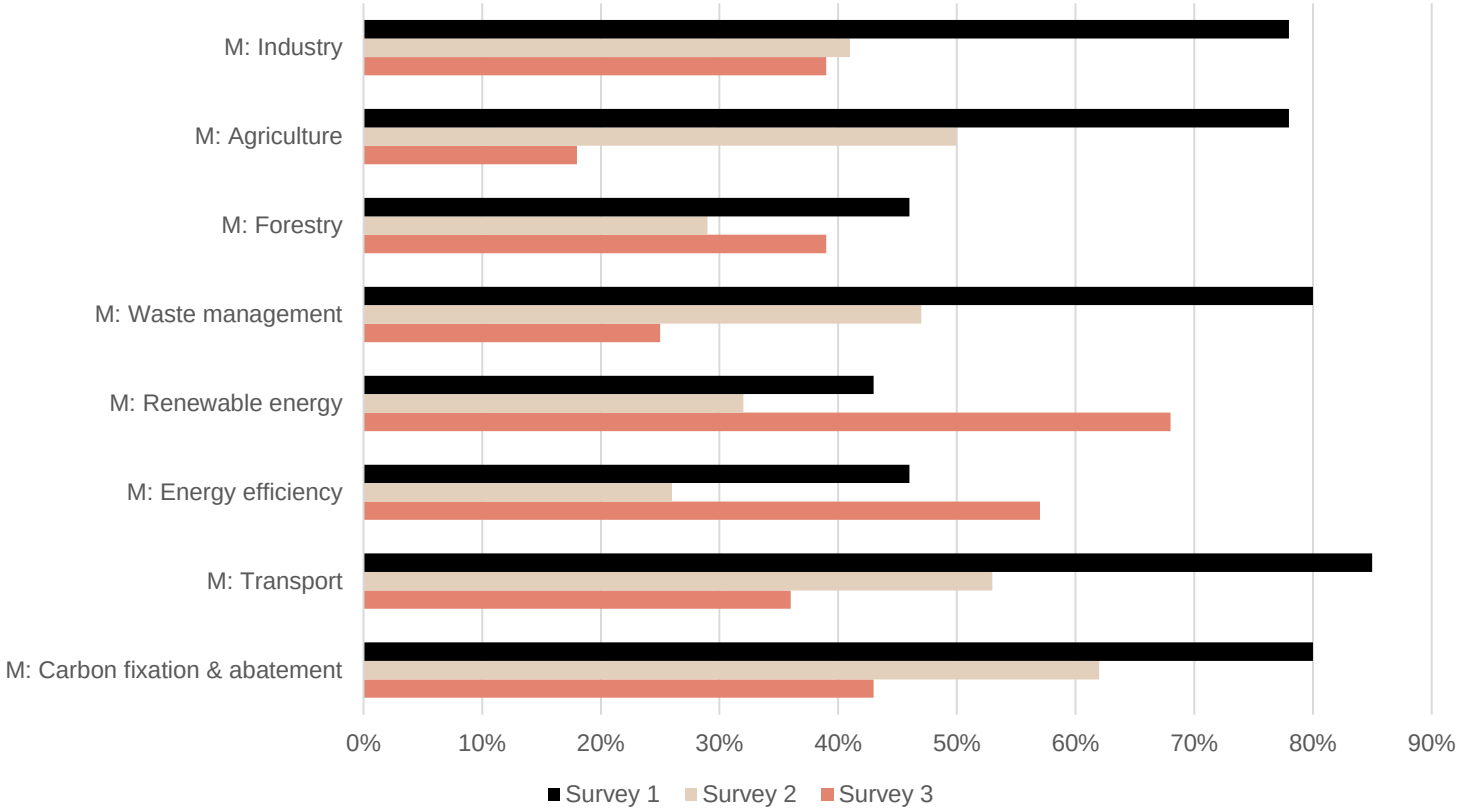
- Languages spoken
  - At least 9 of 10 respondents of all groups speak English
  - No other language is spoken by more than a third

- Comfort in using UN languages
  - At least 2 of 3 in each group reported they were most comfortable with English
  - People comfortable with English more likely to complete the survey

Needs and gaps: Capacities

- Purpose: Collect perceptions about strengths and weaknesses in general climate technology capacities in mitigation, adaptation, and cross-cutting issues
- Scale: “Very weak” to “Very strong”
- Results: Percentages choosing “Weak” or “Very weak”
  - Perceptions differed across the three surveys
  - National entities reported highest levels of weakness

Figure 1
Mitigation Capacity Weaknesses



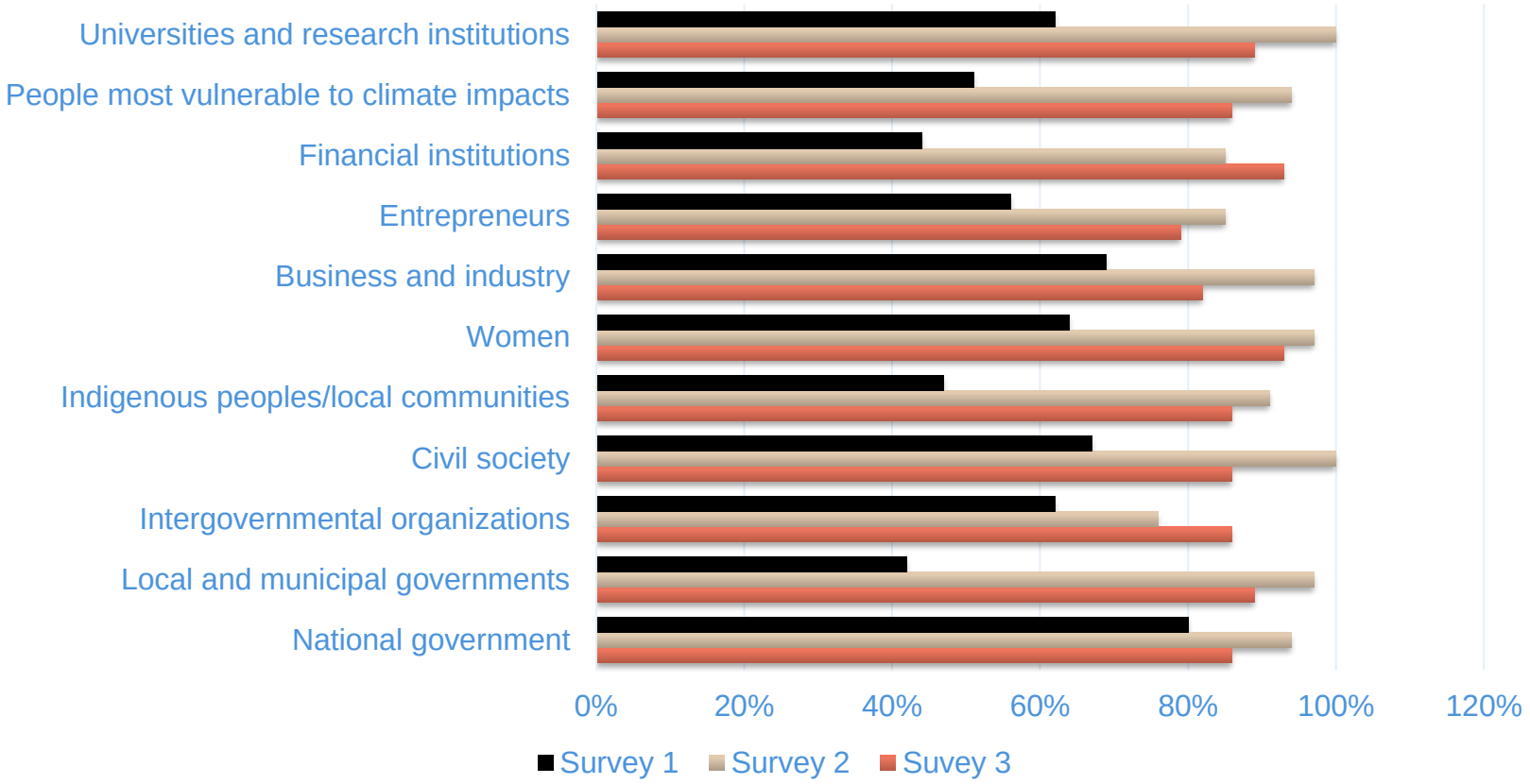
Needs and gaps: Skills and knowledge

- Purpose: Collect perceptions about skills and knowledge that could help countries to develop endogenous capacities and technologies
- Scale: “Very helpful” to “Not at all helpful”
- Focus: Specific areas of skills and knowledge
- Results: Percentage choosing “Strong” or “Very strong” needs
  - Percentages ranged from 18% to 91%
  - Making development more sustainable was highest or second highest need in all three groups

Stakeholder participation

- Purpose: To determine levels of participation of different stakeholder groups in projects involving climate technologies
  - Survey 1: Who was involved?
  - Surveys 2 and 3: Who should be involved?
- Scale: “Not at all involved” to “Heavily involved”
- Results: Percentage choosing “Somewhat” or “Significantly involved”
  - Reports of who *was* involved were consistently much lower than opinions about who *should be* involved
  - Local and municipal governments and financial institutions were least likely to have been involved

Figure 4
Stakeholder Participation



Enabling environments

- Purpose: Identify strategies that are perceived to contribute to environments that can enhance endogenous capacities and technologies
- Scale: “Does not enable” to “Enables significantly”
- Results: Percentage choosing “Enables moderately” or “Significantly”
  - Internal collaboration was rated as most or second most enabling by all groups; external collaboration was first or third with all but practitioners
  - Communication was tied with internal collaboration for most enabling on Survey 1

Challenges

- Purpose: To identify specific areas that countries find challenging to their efforts to develop or modify climate technologies
- Open-ended question asking for list of up to five challenges
- Grouped according to the enabler items, with three additional categories for responses that did not fit
- Results: 402 challenges listed
  - No consensus on challenges of concern
  - No one category contained more than 19% of the challenges listed by respondents to that survey

Measures to enhance endogenous capacities

- Purpose: To determine perceived importance of various measures to develop new or modify existing technologies (2 questions)
- Scale: “Very important” to “Not at all important”
- Results: Percentages choosing “Moderately” or “Very important”
  - Ratings were similar for the importance of measures to develop new technologies and measures to adapt existing technologies to local needs and conditions
  - Access to funding; training in research, development and implementation; educational programs; and collaboration were seen as highly important by all three groups

Cross-cutting issues

- Follows a single topic throughout the three surveys
- Allows for deeper discussion of issues
- Topics covered in the preliminary report:
    - Collaboration and partnerships
    - Research and innovation systems

TEC consideration

TEC is invited to provide guidance on:

- Feedback on the report
  - Is there anything missing?
  - Which areas need clarification?
  - What additional tables or charts would be useful?
- Suggestions for additional cross-cutting issues
  - Possibilities include but are not limited to financing, evaluating technology impacts, legal and regulatory issues (including intellectual property), education, and stakeholder engagement (including gender and indigenous and local communities)

Next steps

- Revise preliminary report, incorporating:
  - Feedback from TEC21
  - Analysis of remaining open-ended questions
  - Reports on additional cross-cutting issues of interest
  - Links to related work from TEC, CTCN, PCCB, and others
  - Discussion of implications of findings
  - Recommendations
- Present final report at first TEC meeting in 2021

Thank you!

Figure 2
Adaptation Capacity Weaknesses

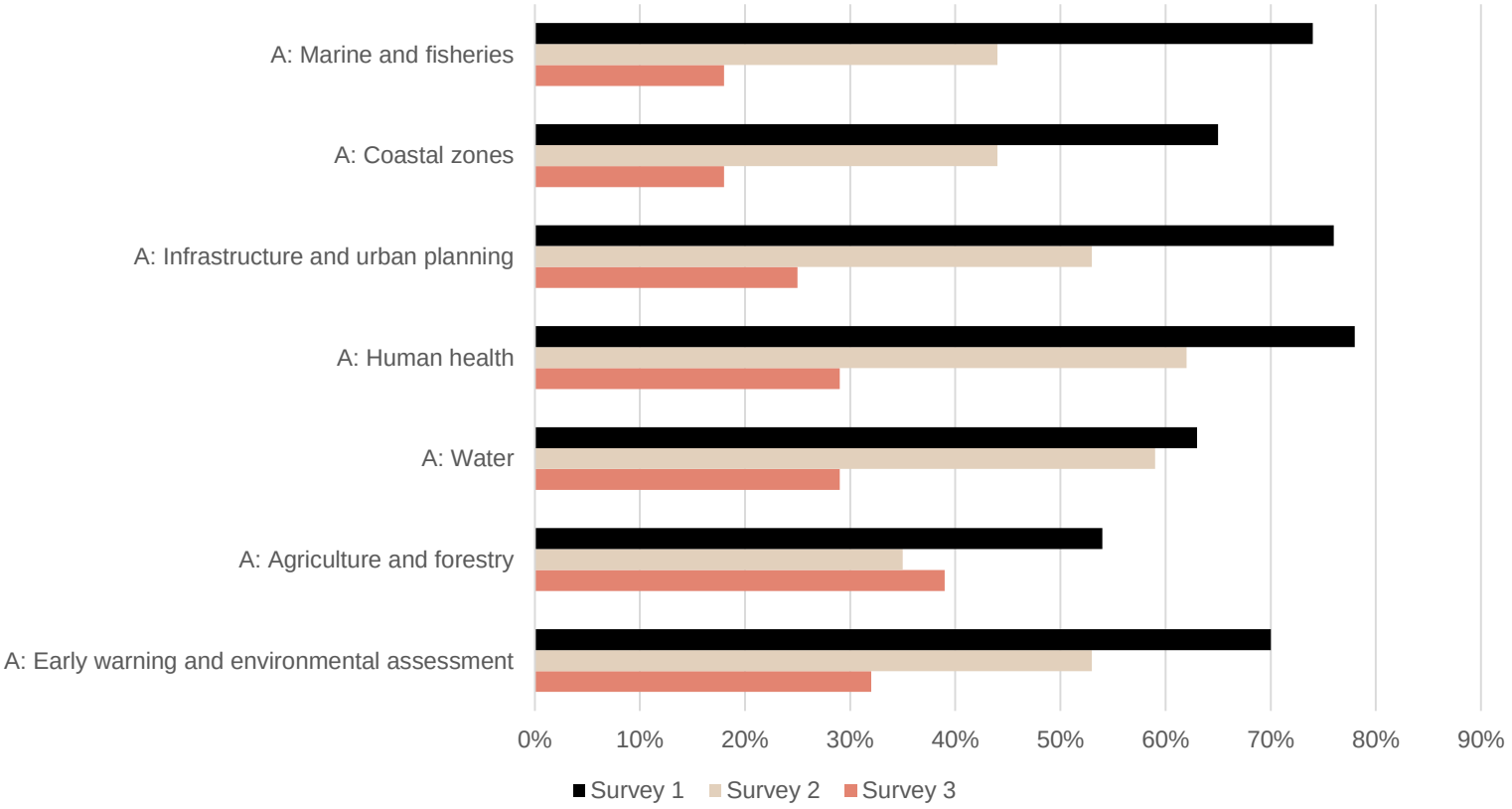


Figure 3
Cross-cutting Weaknesses