STRATEGY DEVELOPMENT SOLUTIONS

Cooling for All
Evaluation
Period of Programme Evaluated: July 2017 – May 2021

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1 Executive Summary

Cooling for All is a programme within SEforALL which has the mission of generating the evidence, partnerships, policy and business solutions necessary to provide sustainable cooling for all and to reduce the energy demand needed to achieve this.

This evaluation investigated the four stages of the programme from its inception in July 2017 to May 2021, with the aim of generating learning about what has worked well and what has been more challenging together with understanding Cooling for All's contribution to SEforALL's outcomes.

The evaluation addressed three high level questions drawing on interviews with 28 stakeholders and a web survey of 132 users. Those questions were:

- Is Cooling for All doing what was intended? Has it got the balance of activities right?
- Has Cooling for All influenced investment in access to cooling solutions? Do the solutions address gender inequalities effectively? What outcomes have there been?
- Has Cooling for All supported the development of new access to cooling solutions by the supply chain?

The key findings and conclusions from the evaluation were:

- Cooling for All has **transformed the environment for energy policymaking and investment in sustainable cooling**. Cooling had previously been seen as a problem of consumption by the privileged and is now seen as a basic right.
- Cooling for All has contributed to **strengthened energy efficiency and refrigerant standards for cooling** in at least 4 developing countries, to the **investment of over US$100m** and the potential investment of a further US$1.4 billion in sustainable cooling.
- By **working with partners who provide direct support to policymakers in developing countries Cooling for All is able to influence policy more widely**. This may be more effective than providing in-country support themselves.
- The data and evidence provided by the **Chilling Prospects[1] series and the advocacy of SEforALL's previous chief executive were particularly effective** in supporting policy change and the mobilisation of finance for sustainable cooling.
- **Policymakers, investors and suppliers of sustainable cooling solutions trust Cooling for All** as an authoritative, impartial body. This gives Cooling for All the ability to convene stakeholders and to work in partnership with a wide range of other bodies.
- **Suppliers use Cooling for All data and evidence to assess opportunities** and to inform their research and due diligence.
- The **technical expertise of Cooling for All's staff is recognised and valued** by policymakers, investors, suppliers and partners.

Areas for improvement were:

- There is currently **little engagement with food, agriculture and health policymakers** and their advisors. Cooling for All's messages are not currently tailored for these groups who have significant opportunities to implement sustainable cooling.

[1] https://www.seforall.org/chilling-prospects-2021

- Similarly there is an **opportunity for Cooling for All to increase their engagement with development professionals and financial institutions involved in food, agriculture and health**.
- When Cooling for All was established, there were few organisations and initiatives involved in sustainable cooling. The space has now become more crowded, with an increased number of cooling programmes and projects, a development which was a primary goal of SEforALL. But there is a **risk that potential users do not find Cooling for All's unique purpose and messages** distinct enough from the messages generated by others.
- Cooling for All's **work on gender has not had a significant impact**. There is an opportunity to mainstream gender considerations throughout, for example in Chilling Prospects, which might be more effective.

Our recommendations are summarised as headlines below. More details are at section 6.

1. Strengthen niche
2. Engage with food, agriculture and health policymakers and investors
3. Target Chilling Prospects
4. Reconsider in-country direct support
5. Provide case studies
6. Mainstream gender in Chilling Prospects and other activities
7. Encourage Global Panel networking
8. Increase high level advocacy for sustainable cooling
9. Increase convening
10. Conduct wider, regular and sector specific research and evaluation

2 Introduction

2.1 Background

Extreme heat is increasing as a result of climate change leading to a range of cooling-related challenges for developing and emerging economies:

- Around 1 billion rural and urban poor without access to cooling are at risk from over-heating in their homes, schools and workplaces and, because they do not have refrigeration, cannot rely on safe food and medicine.
- Over 2 billion people are able, or will soon be able, to purchase refrigerators or air conditioners but they may not have access to affordable, energy efficient products leading to increased carbon emissions and higher lifetime costs.
- Heat stress reduces productivity and could cost the global economy more than USD2 trillion a year by 2030.

These challenges are magnified by COVID 19 which has hit the incomes and health of the poorest and most vulnerable. Reliable cold chains are required to provide vaccines and there is a need to ensure that recovery programmes incorporate sustainable measures to increase access to sustainable cooling.

The Cooling for All programme has the mission of generating the evidence, partnerships, policy and business solutions necessary to provide sustainable cooling for all and to reduce the energy demand needed to achieve this.

This evaluation investigated the four stages of the programme since 2017 with the aim of generating learning about what has worked well and what has been more challenging together with understanding Cooling for All's contribution to SEforALL's outcomes. The four stages are:

1. Phase 1: July 2017 to July 2018
    a. Launch of Global Panel on Access to Cooling
    b. Access to Cooling, first of its kind research and analysis
    c. Launch of Chilling Prospects (1st edition)
2. Phase 2, stage 1: July 2018 to November 2019
    a. Launch of Cooling for All Needs Assessment
    b. Chilling Prospects (2nd edition)
3. Phase 2, stage 2: November 2019 to July 2020
    a. Launch of #ThisIsCool
    b. Chilling Prospects (3rd edition)
    c. End of SEforALL 2.0
4. Phase 2, stage 3: July 2020 to May 2021
    a. Launch of Cooling for All Solutions Assessment
    b. Chilling Prospects (4th edition)
    c. SEforALL 3.0

The programme has evolved purposefully over the four years of its life, adapting to changing attitudes and needs in the sector. This is the first evaluation of the programme. In its early phases, it was breaking new ground, bringing the issue of access to cooling to the attention

of new audiences. The messages have been developed over following years, with more evidence being made available and the approach being refined. In addition, Cooling for All has launched new campaigns and tools to refresh and strengthen their engagement at many levels. There is an opportunity now to consider where Cooling for All's work is best directed for the future. This evaluation forms part of that consideration and our recommendations can contribute to decisions on priorities.

The intention is that the evaluation will be used by SEforALL's management and staff to identify changes in design and/or implementation to optimise achievements over the next few years as well as for reporting to stakeholders and contributing to the Cooling for All evidence base.

The evaluation questions address 4 of the OECD-DAC criteria: relevance, effectiveness, impact and coherence.

2.2 Methodology

The evaluation adopted a theory-based approach, using a combination of realist evaluation and contribution analysis.

- Realist evaluation recognises that no intervention works in the same way or achieves the same result in every situation and so aims to provide understanding about what works, in what respects, for whom, to what extent, in what contexts and how. It particularly supports the learning purposes of this evaluation.
- Contribution analysis unpacks the factors that have contributed to observed changes and establishes the role of the intervention in those changes. It particularly supports the aim of understanding Cooling for All's contribution to SEforALL's outcomes.

We worked with the Cooling for All team and the SEforALL MEL team to develop an initial Theory of Change for the purpose of this evaluation which was then tested through the research and analysis. We then produced a revised Theory of Change which reflected the evidence from the evaluation. The Theory of Change development process and the complete Theories of Change are in Appendix A.

2.3 Evaluation questions

During the inception stage of the evaluation we reviewed the evaluation questions with the Cooling for All team and SEforALL MEL team and adapted some to adopt more of a learning focus. This approach was agreed with both teams.

We grouped the original 15 questions into three areas and this report is structured around these areas. The table below explains how the original questions in the Request for Proposals (RFP) fit into the three question areas:

Question Area	Original Questions	Number from RFP
Is Cooling for All doing what was intended? Has it got the balance right?	To what extent are Cooling for All's activities aligned with SEforALL's 3-year Business Plan? What are the reasons for any divergence? To what extent are Cooling for All's tools and data used, by whom and with what result?	 15
Has Cooling for All influenced investment in access to cooling solutions? Do the solutions address gender inequalities effectively? What outcomes have there been?	To what extent, how and in what circumstances did Cooling for All's work influence or is it on track to influence: • Investment (financial/other) in access to cooling? Did those investments lead to change in the number of people at risk of heat related stresses, including the categories of: thermal comfort, food supply chains and medical supply chains? • The opinions or perspectives of senior leaders in the development space on the issue of cooling? Did that lead to changes in policy or the enabling environment for access to cooling solutions? • Any other positive or negative changes that can be plausibly linked to Cooling for All activities? What worked well and what was less successful in contributing to these outcomes? What else contributed to the outcomes? Why? To what extent, how and in what circumstances has gender been addressed as a cross-cutting issue?	 5 10 11 12 3, 4 7
Has Cooling for All supported the development of new access to cooling solutions by the supply chain?	To what extent, how and in what circumstances did Cooling for All catalyse new access to cooling solutions? • How well did the programme align with the needs of the sector/other initiatives? Were there any synergies? If so, with which initiatives, how did this work and what were the benefits? • Were the outputs of the Cooling for All programme (e.g. tools and data) helpful to other organizations in fundraising, technical justification, development, and implementation of other initiatives? Where the programme outputs were helpful in fundraising, how much finance was leveraged? What worked well and what was less successful in contributing to these outcomes? What else contributed to the outcomes? Why?	8 1, 13 14 2 9 6 3, 4

2.4 Data collection

The aim of the data collection was to test, refine or refute our theories and to explore the contribution which Cooling for All has made to the sector. Data for the evaluation came from 3 main sources:

1. Cooling for All and SEforALL's monitoring data together with relevant published data
2. Qualitative interviews with 28 key stakeholders.
3. An online survey of users of Cooling for All's resources which attracted 132 responses.

2.4.1 Monitoring data

Cooling for All and SEforALL's MEL Team provided a copy of their KPI Management Tool which is regularly updated with performance information from 2020 forward. Where relevant we have used this data alongside the findings from the interviews and survey.

SEforALL monitor changes in the key global indicators for sustainable cooling and so these indicators are valuable in understanding the overall progress towards SDG7. However, these data do not attempt to determine whether any observed outcomes are caused by Cooling for All's activities and so have limited value in evaluating the initiative.

The monitoring data is collected by Cooling for All from their contacts and in the course of their activities. Therefore they tell us little about areas where Cooling for All is not well connected or has not been involved.

2.4.2 Qualitative interviews

The Cooing for All team identified an initial list of around 28 stakeholders with varied areas of interest and expertise, and with a range of levels of engagement with SEforALL. These were supplemented by additional interviewees whom we identified through our own knowledge of the sector. Towards the end of the data collection period, we were able to interview an additional 4 respondents who had completed the online survey (see below) and whose survey answers raised particular aspects of interest.

The stakeholders were contacted by the Cooling for All team to introduce the evaluation and our role, and we were very pleased with the willingness and swift response we received from the potential interviewees.

A total of 28 video interviews were conducted over the second two weeks in May 2021. Most lasted between 45 minutes and one hour. They were recorded and transcribed for analysis.

Interviewees were from other UN bodies, NGOs, professional associations, academic institutions, funders, private and multilateral investment organisations, DFIs, access to cooling solutions providers, partner governments and in-country implementation partners. Interviews were conducted under conditions of anonymity, and quotes and references are not attributed to individual respondents in this report.

The discussion guide used in the interviews was designed to address the evaluation questions and refine the initial theories of change and contribution story. The full discussion guide is at

Appendix B. We explored respondents' roles and their involvement with and perceptions of Cooling for All. Based on their responses, and what we already knew about them, we discussed whether they had done anything differently as a result of their use of resources or support. If so, what was the outcome of this action? How did Cooling for All help and in what circumstances? What aspects of Cooling for All were important to them? If they had not done anything differently, why not? What were the barriers to taking action and how could they be overcome? We also probed for unintended consequences and/or other influences and sources of support, and explored the implications for gender. Finally, we discussed what more Cooling for All could be doing to improve access to sustainable cooling.

2.4.3 Online survey

We designed an online survey using SurveyMonkey. The Cooling for All team sent an introductory email including links to the survey to four audiences. The table below lists the total invited to participate and the number of people who completed the survey:

Source	**Invited**	**Completed survey**
Partners and other organisations working closely with Cooling for All	87	17
Known organisations on Cooling for All mailing list	755	47
Longer list of other Cooling for All contacts	1048	66
Twitter		2
Total (excluding Twitter)	**1890**	**132**

Question areas included:

- Organisation
- Job role in terms of decision making capacity
- Geographical area for focus of work
- Type/history/level of involvement with Cooling for All
- Level of satisfaction and further engagement. If they have not engaged further, why not?
- Outcome of involvement – have they done anything differently as a result, and if so, what? Have these actions made a difference to respondent's work and/or understanding of cooling?
- Outstanding support needs
- What other support they have had and from where

See full online survey questionnaire and results at
https://www.surveymonkey.com/stories/SM-KT3SX8KJ/

2.5 Limitations

The table below sets out the limitations of this evaluation, alongside our comments, explanations, and the mitigation strategies we adopted.

Limitation	Comment
Positivity bias There is a tendency for people to share success stories only, particularly if they have received support. They are also likely to speak positively about a partner organisation.	Respondents proved to be very willing to share both positive and negative views and stories, and spoke openly about their perceptions.
Response rate Although the response rate to our request for interviews was very good from partner organisations, there were not as many in-country implementing partners as we had hoped.	Respondents who support in-country implementation work spoke to us and were very helpful. Some were able to talk about several countries. We also recruited some in-country officials from amongst the survey responders.
Health and nutrition policymakers We did not speak to health and nutrition policymakers. So we do not know whether these policymakers are accessing Cooling for All data and resources.	Cooling for All has confirmed that there is less engagement with the health and nutrition sector than with energy.
Direct causality Respondents were not always able to recall exactly what influenced their actions, nor to remember what other sources of support they used for what purposes.	Our interviews explored this carefully and discussed other sources of support. We were also alert to other external factors which may have influenced respondents' actions.
Extrapolation Most of the qualitative findings in section 3.2 and 3.3 draw on the 28 interviews with Cooling for All stakeholders (including four who were identified through the survey) many of whom are likely to be highly motivated to take action on access to sustainable cooling.	These findings should not be seen as representative of the experience and actions of all Cooling for All users. It would also not be appropriate to extrapolate from reported amounts of funding leveraged in some examples, to estimate total funds leveraged by Cooling for All's work.
Energy Efficiency and Appliances It is common for the industry to focus on energy efficiency and appliances rather than passive cooling, nutrition, and health. This may have biased the discussion during interviews.	We tried to ensure that all areas were explored during our interviews, asking specific questions to probe on topics if they were not raised by respondents themselves.
Non-response bias Those who agreed to be interviewed or who completed the survey may be more	The response rate for the interviews was sufficiently high to provide confidence that a full range of views and experiences have been obtained. The survey respondents

interested in Cooling for All than others and may not represent the full picture.	appear to have made more use of Cooling for All resources than average.
Confidentiality Because of the confidentiality which our interviewees were promised, it is not possible to include some specific details of their responses in our report.	We have made recommendations about future collection of evidence which could allow evaluations to share more detail.
Timing/age of programme We looked at the four years of Cooling for All since 2017. There have been many changes within the organisations we spoke to so some information was no longer available and/or our interviewees may not have recalled the full details.	We listened to our interviewees carefully and probed for further information where appropriate about past activity. Our report is written in a transparent way so that it is clear if the information is incomplete.

3 Findings

In the following sections, we set out our findings and the evidence which supports it. Quotations from interviewees and survey respondents have been anonymised by removing both names and organisations, together with references which would enable identification of the source. Direct speech is indented, and is distinguished from the text of the report by *"italics"* in inverted commas.

Each of the following three sections (3.1, 3.2 and 3.3) is prefaced by the key findings as bullet points. Our findings and analysis follow, with quotations as supporting evidence, divided by evaluation question. Where appropriate, we give our thoughts on the implications of what we have found, which lead to the conclusions and recommendations which follow in chapters 5 and 6.

3.1 Is Cooling for All doing what was intended? Has it got the balance right?

Key findings

Cooling for All activities are well aligned with SEforALL's 3-year Business Plan.

- Data and evidence, primarily Chilling Prospects, is well respected and informs policy, funding, product development and marketing. This is the most effective activity.
- The website and advice from the team provide valued and trusted support for policymakers and result in a better understanding of access to cooling
- Tools and data are used by government, academics, consultants and advisors
- Capacity building and events lead to action by some
- Most users who responded to the survey are satisfied or very satisfied with resources and agree that Cooling for All keeps access to cooling at the top of the agenda
- There is scope for more high-level strategic work with other organisations and sectors, and at country level. Direct support and tools may be less effective.

3.1.1 To what extent are Cooling for All's activities aligned with SEforALL's 3-year Business Plan? What are the reasons for any divergence?

The Sustainable Cooling for All section of SEforALL's 3-year Business Plan describes five activities that Cooling for All will undertake:

- advice and policy progress
- tools and resources
- capacity building and events
- data and evidence
- communication

We found that Cooling for All's activities are well aligned with SEforALL's 3-year Business Plan. It is carrying out the specified activities effectively, though there is scope for more targeting of its data and evidence to a variety of audiences. It is not clear that SEforALL's future priority on in-country implementation work will be practicable for Cooling for All.

The foreword to SEforALL's 3-year Business Plan says that *"SEforALL has strategically chosen to strengthen global agenda-setting while expanding its activities to an engagement model that prioritizes data-driven decision-making, partnerships with high-impact countries and implementation on the ground."*

Taking each of these elements in turn:

- In the past Cooling for All had been very strong in agenda-setting but is now perceived to be less vocal and to be undertaking less high-level advocacy for access to sustainable cooling.
- Cooling for All sets a high priority on data-driven decision making. Chilling Prospects is widely trusted and used to inform decisions by governments, investors and suppliers of access to cooling solutions.
- There is little evidence from our interviews of Cooling for All establishing partnerships with high-impact countries or supporting implementation on the ground directly. This was in line with SEforALL's plans up to late 2020 and with funders' expectations. However, Cooling for All does provide support to partners who are working closely with high-impact countries and supporting implementation on the ground directly. This support is highly valued by those partners (see below).

We asked interviewees questions about their thoughts on the five activity areas and established whether they had used or benefitted from them, and if so, to what extent they had been helpful. We also used the responses to the online survey to analyse usage and satisfaction levels.

1. **Advice and policy progress: Support countries developing and enhancing national cooling action plans (NCAP) and strategies such as the development of cold chain strategies and National Sustainable Cooling Commitments.**

   We interviewed one policymaker in a country where Cooling for All worked directly and two in other countries. We also interviewed people at three organisations which provide support for policymakers in high-impact countries. We were unable to secure interviews with all the policymakers suggested by Cooling for All because of pressure of work in those countries due to the pandemic. We identified several examples where Cooling for All resources, particularly Chilling Prospects, are used by policymakers and their advisors to support their work on NCAPs and cooling aspects of NDCs.

   The website was described as useful, providing up to date and authoritative information on a variety of topics, including links between cooling and SDGs, current technologies, developments in refrigerants. Advice had helped improve the quality of one National Cooling Action Plan.

   > *"I thoroughly endorse the website because it has good information. And I would pull information from it. If I needed information on SDGs, I can look at that. And I can, you know what I mean, see the nexus between cooling and other SDGs, gender etc. So I would say that the website is informative and influential on up to date information on what's going on within my particular field.*"

"So for example, in terms of what technologies were being developed, what refrigerants are being introduced, this information was very helpful for us because we are currently updating our regulations in terms of the refrigerators and air conditioners."

"If he [Cooling for All team member] has not commented on the [NCAP] document, we would have been completed a document, which is not up to the standard perhaps. I think that his comment was very important - even the local consultant, appreciated his comment."

Interaction with the Cooling for All team, together with use of the website, appears to be highly valued, though our evidence was based on only three interviews with policymakers themselves. Respondents in organisations which support policymakers spoke positively about the advice and service they received.

2. **Tools and resources: Assess partners' sustainable cooling needs (Cooling for All Solutions Assessment toolkit) and offer potential solutions at country and city levels (urban and rural).**

Cooling for All has made tools available, but their level of use seems to be low. Only one of the interviewees or survey respondents mentioned them and when asked most interviewees were unaware of them. The one person who spoke of using a tool was providing support for implementation in several countries and the availability of data on access had been important in receiving funding for this work.

The low level of awareness is unsurprising for several reasons. SEforALL tools include methodologies which users may well encounter only while they are receiving advice from Cooling for All, so they may not recognise them as tools. Some other tools have been recently launched, including the online toolkit, which was only made available after the survey.

''In the national cooling action plans ……. it's kind of like a very general toolkit that has received input and we have received funding to develop these methodologies to pilot these methodologies in [countries]. And one of the most important components that was very attractive was that it included the unmet demand."

Some interviewees questioned Cooling for All's role supporting solutions providers, suggesting that resources were better used at strategic level, to help develop the enabling political and investment environment. We were told that manufacturers will by themselves move into potentially profitable markets once it becomes clear that conditions are favourable.

"Is it that SEforALL need to be going to the industry and making the case that they need to be developing the technology in a way that addresses access to cooling challenges with certain communities, geographies, people, etc? Or SEforALL making the case to the funders, whether they're the development bank, or whether the

governments that are providing the funding for the technologies? I'd say it's probably the latter. I don't think they have to necessarily be at the coalface. But they can be influencing the people who are giving the money. That's probably a more appropriate role."

"I would strongly urge the policy side. I mean, one good thing about cooling and cooling equipment is especially when you're talking about building efficiency, as well as refrigeration and even HVAC, developers, once they know what the technology is available, they will actually gravitate towards that, if there's some financial mechanisms that are in place."

It is not clear to us that providing tools is the best use of Cooling for All's resources. Respondents told us of tools available from other organisations which meet their needs. If resources are stretched, this may be better left to others.

3. **Capacity building and events: Deliver access to sustainable cooling training to equip practitioners with new policy, planning and implementation skills and host the Global Panel on Access to Cooling.**

Cooling for All hosts a wide variety of training events and webinars, often timed around the launch of its reports. Our online survey asked whether respondents had attended one, but did not ask which. Satisfaction appears high and the events are well attended.

All 8 respondents among the survey respondents who had accessed training were satisfied (6 of them very satisfied) and 5 of them had done something differently as a result, a higher proportion than for users overall.

59% of users who responded to the survey had attended a webinar or an event. 86% of these were satisfied or very satisfied and none were dissatisfied. 52% of this group had done something differently as a result of using these resources, a similar proportion to the overall rate for respondents to the survey.

This shows that training and attendance at events does precipitate action and that Cooling for All providing training and organising events and webinars is useful.

In addition, many of our interviewees commented positively about Cooling for All's strong convening power and described networking opportunities which had been facilitated through such events and meetings.

"So I think it's also bringing these organizations together around specific discussion points, and introducing the different members in a way that we see the synergies and we have, it generates interest to actually go and talk with these people."

One significant and regular meeting which Cooling for All hosts is of the Global Panel on Access to Cooling, which was established in 2017 to guide the work of Cooling for All. It guided the production of Chilling Prospects, which is a sector-wide, highly respected publication, viewed as comprehensive and valuable, and much used.

"It's been extremely useful data to make the case writ large, that this is affecting billions of people in an acute way. And being able to point to that with actual numbers is very helpful."

"I think the team did a very good job of writing a very comprehensive, you know, robust report that we could stand up in front of everybody and say there's a solid piece of evidence here."

The Global Panel's members are intended to serve as ambassadors for the programme, and work to establish links with other leaders in business, philanthropy, policy and academia. When it was first set up, the Global Panel was the first of its kind. Since then, multiple similar advisory boards have been established, and some members serve on more than one such body. Although the panel members that we interviewed appear willing to engage, they may not have the time to devote to active promotion of Cooling for All. Appointing a specialist in a particular topic (e.g. food, health, gender) to the panel does not seem to be enough to ensure that the topic is being covered. We suggest that there is scope to define a clearer brief for panel members, setting out appropriate expectations of their role.

Cooling for All's status as a trusted convener suggests to us that work could focus on bringing together key players in sectors which are so far not well engaged with access to cooling. We suggest that convening meetings with stakeholders in nutrition, health and agriculture, and with DFIs and MDBs, could play to Cooling for All's strengths and niche positions better than more granular training and events.

4. **Data and evidence: Track access to cooling gaps annually and provide data, stories and knowledge, including finance for access to cooling and cold chains.**

The main way which our interviewees and survey respondents had accessed this data was through Chilling Prospects, which was frequently cited. They were aware of it through multiple sources, including the launches and webinars. Annual updates of Chilling Prospects are issued and serve as hooks for drawing attention to the issues.

25% of survey respondents had accessed the Chilling Prospects analysis and 91% of that group were satisfied or very satisfied, none were dissatisfied. 50% of this group had done something differently as a result, a similar proportion to respondents overall.

Interviewees were very positive about the value of Chilling Prospects to policymakers, investors and solutions providers, describing it as innovative and authoritative. It has helped them to understand and explain to others the scope and scale of the issues around access to cooling.

"I think it's been an amazing publication. I don't think there was anything out there like that at the time."

"I think that the Chilling Prospects reports are very valuable, and that you know, that you put a handle on the size of the problem."

Other respondents felt that since the analysis and stories are currently heavily focused on energy policymakers and investors, it could usefully be adapted to be relevant to different user groups (e.g. health, food) and in language that resonated with them. This would encourage more use by these groups who would more easily latch on to issues that affected them directly.

"You could take the same content and repackage it in five different boxes. And it would become much more useful."

"It's very hard to convince people to use data and much easier to figure out what are the questions that people are already asking, and figure out how to answer those questions with the data you've got."

"My experience has been the policymakers that you have to use certain catchphrases with them to get their attention, because there's a billion other things going on. So electricity for agriculture, fine, not that catchy. Enough cooling for agriculture, cold storage is for agriculture, you know, preservation for agriculture - becomes a little more catchy, right?"

Some respondents argued that the data as it stands is enough - there is no need for exhaustive detail in the data, although keeping it up to date is important.

"My view of the data is, it's good. It's good enough. It's not brilliant. I think it's good enough. I don't think more precision would be helpful, that key element of the work has been done. And I guess it's important to keep it up to date. You know, and continue to work on refining the data set and extracting any new learnings that may come. But the data has been good enough to help all of those working within this space to frame the messaging in a way that people care."

Several respondents requested more examples, and suggested that they could be more diverse, to demonstrate what is working at scale around the world. This included examples of financing schemes.

"And we have seen a lot of very interesting financing schemes that bring down the cost like major bulk procurement processes, or maybe financing for consumers on bill schemes and there are examples. But there are few examples. And we need to show that these can be deployed at a scale."

Some respondents felt that Cooling for All could have a role in encouraging the development of innovative financial products for access to cooling and cold chains which would bring more private sector organisations into the field as they saw that it could be profitable. Cooling for All could use its convening power to reach key players, for example in the insurance market, to suggest that they could work on these ideas.

"I think SEforALL, especially Cooling for All should build is the whole idea, not so much the technical technicalities of cooling, but the economics of it, affordability of it, how to have companies or because in the end, all of this will be done by private sector companies, governments will not supply cold storage, this will be a market-based thing."

"Something for them to consider is the insurance, reinsurance and credit risk markets are going to be hugely important in getting this actually deployed in, you know, in the private sector. ..... I think they're starting to put numbers on that in a way that's important. But I think there's a long way they could go, and I would love to see them start to do lead some more outreach into those communities, they're traditional hard non-profit to work with because they're looking to make a new product rather than, you know, have a policy answer. But I think having a group like SEforALL and its position, especially given what some of the things that like SwissRE and MunichRE are saying these days, it can be really, I think they can be a really interesting addition to Cooling for All would be to bring a more explicitly bring those communities to the table."

Cooling for All's work on data and evidence is highly regarded and much used, particularly Chilling Prospects, the flagship report, which is seen as ground-breaking. It has reached wide audiences and helps to underpin work by others in a variety of contexts. We suggest that there is scope to provide more examples and for these to be more targeted to users in different sectors, particularly health, nutrition and agriculture. The content needs to be kept fresh, though not necessarily by annual updates. More attention could also usefully be directed to promoting development of the financial instruments to facilitate access to cooling.

5. Communication: Develop the #ThisisCool communication campaign and organize global meetings, workshops and webinars on access to cooling.

Cooling for All's #ThisIsCool campaign was launched in November 2019 and is prominent on its website. 79% of survey respondents agreed that Cooling for All has persuasive graphics and communications material. We did not ask specific questions on the campaign in our interviews.

Cooling for All has been highly active in convening meetings and drawing key players' attention to access to cooling issues. We heard from many of our interviewees that acceptance and understanding of the messages it promotes is growing.

Since Cooling for All was established, however, several new cooling organisations and programmes have been established including the Cool Coalition. These have a broader message than access to sustainable cooling and Cooling for All works hard to be collaborative with and complementary to the work of other bodies. However, users can be confused by the variety of messages and organisations. Several commented that they would like Cooling for All to confirm more clearly its position as the "go-to" organisation on access to cooling.

"The more I dug into, who was doing what and who was funding whom and who was related and coalition with whom, the more labyrinthine it appeared and I found it quite hard to really differentiate because a lot of the same characters appear in different initiatives and in my head they're not very clear."

Several interviewees argued that Cooling for All should focus more tightly on its core message of access to sustainable cooling. This would differentiate them from others in what is now a crowded space.

"Either they manage to differentiate in a more concise way from the others, and then put more power behind it. Or they will be I don't know squeezed in a corner, which is probably what is happening at the moment a bit…… I think it's really important to pass the message that they need to differentiate. I mean, they need to really carve their niche and maybe not aspire to do a super huge thing because others are doing that already, but rather focus on what makes them special."

"They have a specific angle that they're looking at this so really focusing on access to cooling. And this is something that not necessarily many entities do, many tend to or the ones I know will focus more on the efficiency of energy efficiency of cooling and the clean refrigerants, which is very important. But which is only one aspect of the issue. One is making sure that the cooling is used is clean. The other aspect is making sure that those who need cooling can access cooling. And I see that this is something that SEforALL focuses on."

"My take is I think SEforALL will really [have to work] out that do they want to continue to compete with I think with some of these organisations, or do they want to carve out I think a piece where not many organisations are working and then kind of focus there and then that will probably be I think which will make you want to work more with SEforALL. And that's the social message, the thermal comfort for all message, the cold chain message combined."

Areas of divergence

Most of Cooling for All's activities are well-aligned with the SEforALL business plan, but the team pointed out that one reason for an occasional divergence is that funders sometimes request particular activities, often Knowledge Briefs of topics of importance to them. Such requests are hard to resist but they can result in a dilution of Cooling for All's unique message. One respondent commented on this.

"And are they honest with themselves about we're only doing this [knowledge brief] because the funder has come to us and said we'd love you to do this. And rather than there's definitely a gap in the market, and where the best place to address that gap and my services, it's been driven by here's more money, will you do it? "

3.1.2 To what extent are Cooling for All's tools and data used, by whom and with what result?

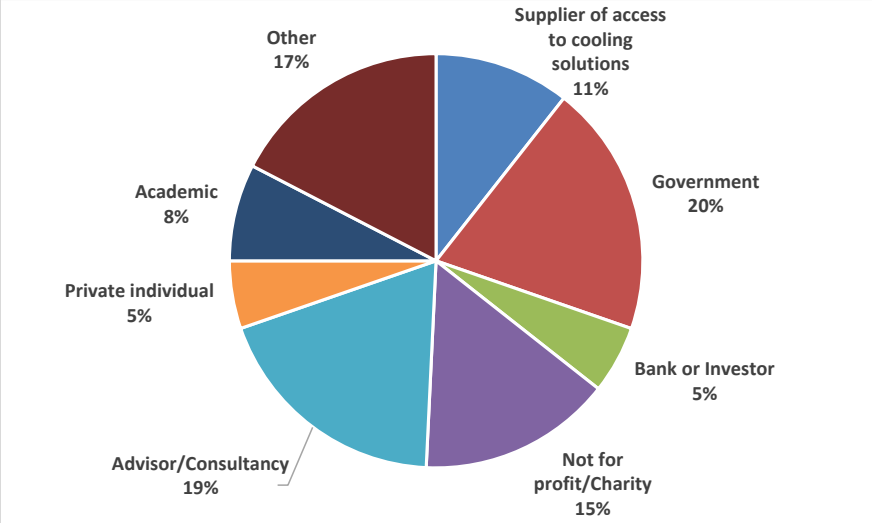
Our key findings were:

- The majority of users who responded to the survey are governments, advisors/consultants, not-for-profit and international organisations.
- Most are in the energy field
- Over three quarters are involved in decision making or developing proposals
- 70% work globally or in more than one country
- 75% are satisfied or very satisfied with resources or support
- 85% agreed that Cooling for All keeps access to cooling at the top of the agenda
- Nearly half have done something differently as a result of using Cooling for All resources
- There is an opportunity to do more on promoting understanding of the multiple benefits of access to cooling

Many of our interviewees and 25% of survey respondents had used Chilling Prospects and the associated data, and value it highly. These included policymakers, those who advise them, funders and DFIs. This is discussed elsewhere in this report, particularly 3.1.1.

132 Cooling for All users responded to the online survey; the types of organisation they came from are shown in figure 1 below:

Figure 1: Respondents' organisations (n=132)



11 of the respondents in the 'Other' category came from international organisations such as the UN or multilateral development banks.

It appears that most of Cooling for All's users are in the energy field rather than food, agriculture or health. Nearly all interviewees were energy specialists or manufacturers of cold chain products and it was not possible to identify any non-energy specialists from the 68 survey respondents who provided their organisation name. We were also unable to identify

any actions taken by Cooling for All users to improve access to sustainable cooling in the food, agriculture or health sectors.

Thus it appears that Cooling for All focuses on energy policymakers, investors, suppliers and their advisors. This is also evidenced in Cooling for All materials which use the language and priorities of the energy sector. This, in turn, raises two possibilities:

- That an opportunity is being missed to mainstream access to sustainable cooling in the work of food, agriculture and health policymakers and investors, or
- That the food, agriculture and health sector already have a good understanding of the need for access to sustainable cooling and the work of Cooling for All would not add anything to their work.

Assuming survey respondents are representative[2] of Cooling for All's user base it appears that:

- Energy policymakers and energy specialists in DFIs are well represented. However, other investors and solutions suppliers who are essential to action on access to sustainable cooling represent a relatively small proportion of the user base.
- Advisors, academics and consultants form just over a quarter of users who responded to the survey. Many of these are likely to be working with governments, investors or suppliers on developing policies and solutions for access to sustainable cooling.

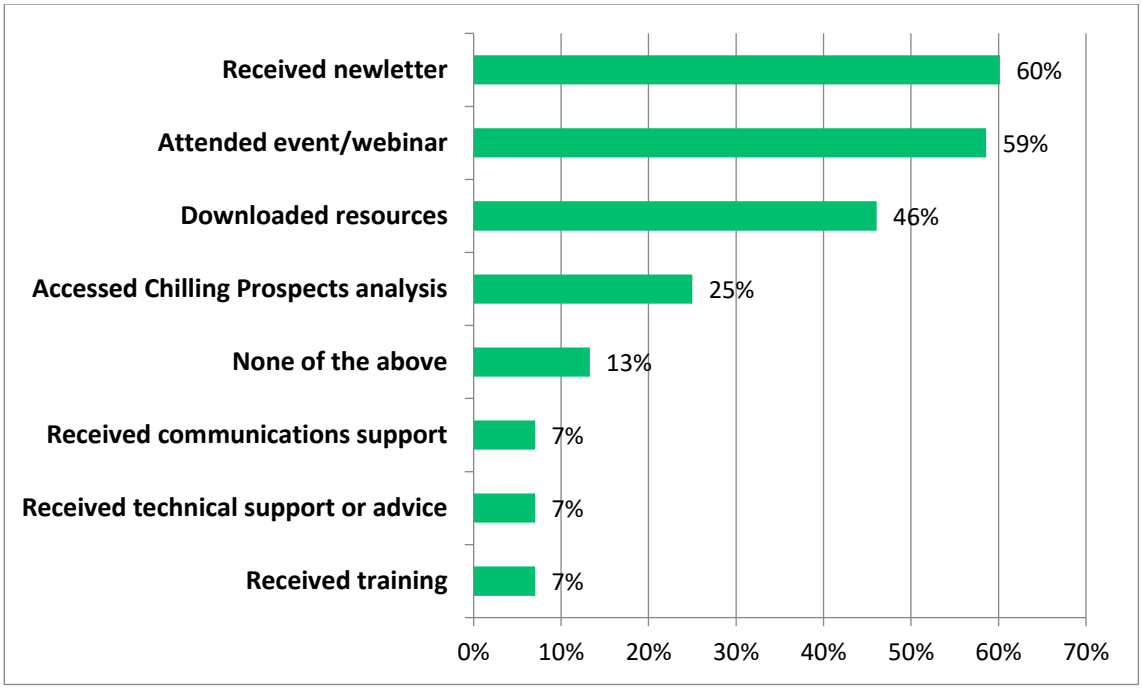
40% of respondents do not focus on one particular country in their work and 30% have a global focus. Where respondents focus on a region the most common are Southeast Asia (28%), South Asia (20%) and West Africa (17%). Where respondents focus on a particular country the most common are India (10%) the Philippines (8%) and Indonesia, Mexico, Nepal, Nigeria and Trinidad and Tobago (all 3%).

64% of the 132 respondents describe themselves as making proposals about access to cooling which others decide upon, 20% are decision makers and 24% are not involved in decisions. This suggests that Cooling for All has been effective in reaching people who can influence decisions that could result in greater access to sustainable cooling.

The Cooling for All resources that have been used by respondents are shown in figure 2 below:

[2] It is possible that some users who did not complete the survey are particularly busy; however, there is no reason to think that this would affect some types of respondent more than others and therefore it is likely that the respondents are reasonably representative of users as a whole.

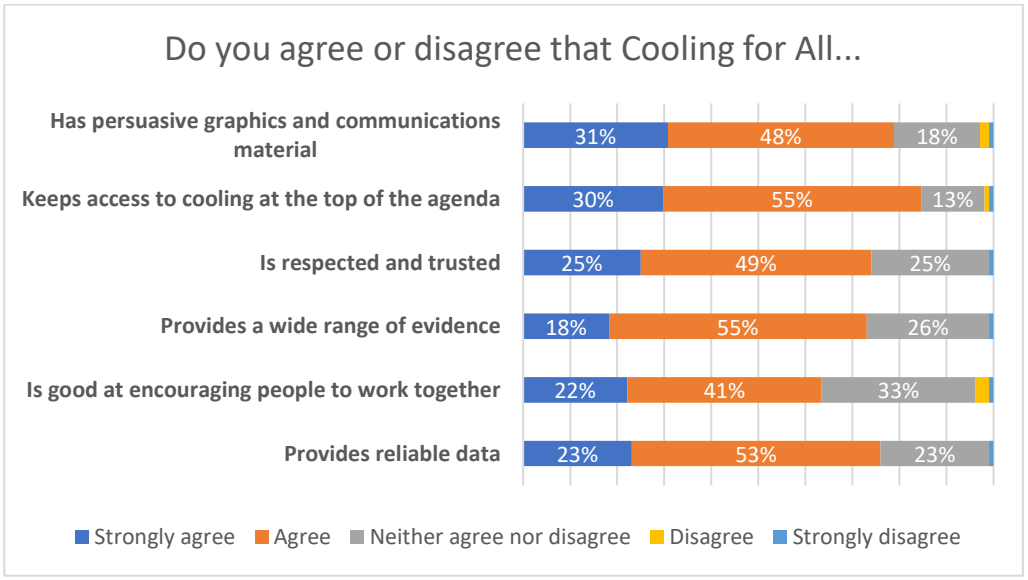
Figure 2: Cooling for All resources used by survey respondents (n=128)



Many respondents had engaged fairly intensively with Cooling for All's resources, attending events or downloading resources. This suggests that respondents to the survey may not have been typical of the programme's more casual users. 75% of respondents described themselves as satisfied or very satisfied with Cooling for All's resources or support and only 3% were dissatisfied or very dissatisfied.

Users were asked whether they agreed or disagreed with a series of statements about Cooling for All. Their responses are summarised in figure 3 below:

Figure 3: Cooling for All statements (n=104)



Around three quarters agreed with each statement with three exceptions:

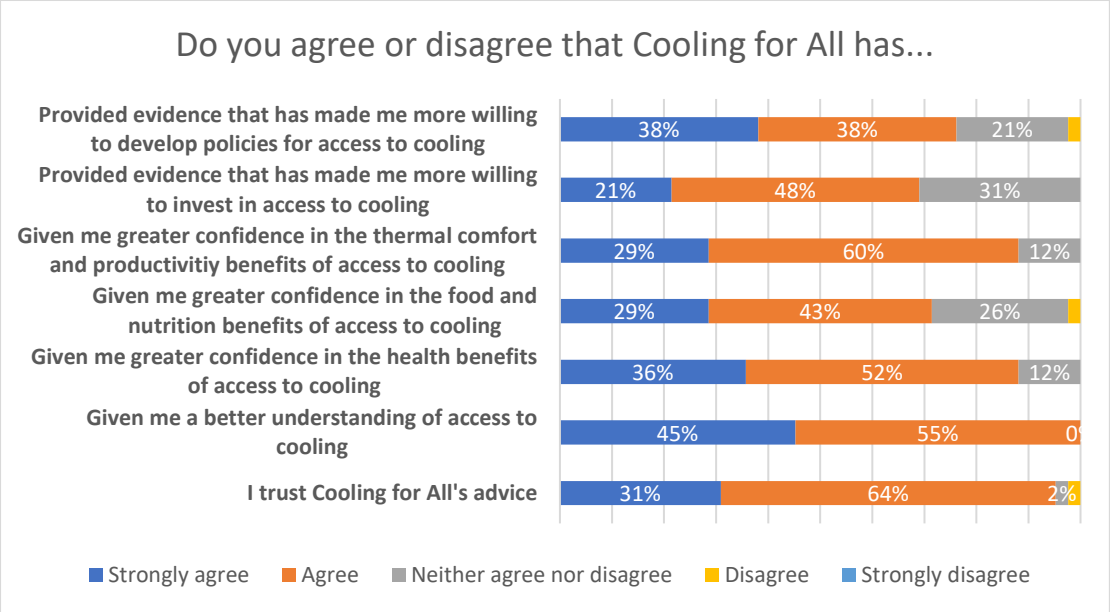
- 85% agreed that Cooling for All keeps access to cooling at the top of the agenda and 79% agreed that Cooling for All has persuasive communications. There were high levels of agreement among users of all services.
- 63% of respondents agreed with the statement that Cooling for All encourages people to work together. This was lowest among respondents that had used the newsletter or accessed Chilling Prospects.

Among the 47 respondents that had done something differently as a result of using Cooling for All resources:

- 8 respondents had used them to inform policy such as minimum energy performance standards for cooling appliances or the integration of action on ozone-depleting gases in National Determined Contributions.
- 8 respondents involved in supplying cooling products had used the resources to inform their work
- 2 respondents had used them to help to develop funding programmes for access to cooling solutions.
- 1 respondent had used it to inform marketing plans for a cooling appliance.

42 respondents who had taken action were asked to respond to a set of statements about Cooling for All. Their responses are shown in figure 4 below:

Figure 4: Responses to statements about Cooling for All (n=42)



It can be seen that there is a high level of agreement with each statement. There appears to be an opportunity, however, to do more in promoting understanding of the multiple benefits of access to cooling.

51 respondents had not acted as a result of using Cooling for All's resources:

- 9 respondents did not feel it had told them anything they didn't already know.
- 9 respondents had not used Cooling for All sufficiently to inform their actions.

- 8 respondents had not had an opportunity to act. Some of these were confident that they would get opportunities at some stage.
- 5 respondents did not have enough time or financial resources to act.
- The resources were not relevant to 8 respondents and 5 were hoping for something else when they accessed Cooling for All resources.

Lastly, respondents were asked whether they had used other sources of support or advice relating to access to cooling. 41 people responded. The main sources of support mentioned were KCEP (mentioned by 10 respondents), UN bodies (mentioned by 7 respondents) and the Rocky Mountain Institute (mentioned by 4).

3.1.3 Has it got the balance right?

We have seen the range of Cooling for All's activities in the previous sections, and examined the use of its tools and resources. Some areas of work appear to be more effective and to make best use of Cooling for All's credibility, its niche status and the key skills of the team.

Cooling for All has been very effective at establishing and maintaining high-level partnerships. Engagement at strategic level could be prioritised in new areas, including the development community, DFIs and MDBs. This strategic level approach appears also to be more effective in-country than direct engagement with policymakers at technical support level. We believe that the team's expertise and resources may be better deployed supporting implementing partners who are delivering direct support, rather than delivering direct support themselves.

Chilling Prospects is a cornerstone of Cooling for All's work. The considerable value placed on it by multiple users justifies the work involved. Cooling for All is well positioned to spread the messages it contains to key audiences. We believe there is scope to extend, refresh, segment and target the data and evidence still further to engage more beyond the energy sector, particularly to policymakers in nutrition, health and agriculture.

It is not clear to us that the provision of tools and resources or the communications campaign draw on Cooling for All's unique strengths or that they are as valuable to users as the more strategic activities.

3.2 Has Cooling for All influenced investment in access to cooling solutions? Do the solutions address gender inequalities effectively? What outcomes have there been?

Key findings

SEforALL was the first organisation to identify access to cooling as a development and equity issue. This has now become broadly accepted by energy policymakers and donors and DFIs involved in energy. This has transformed the environment for energy policymaking and investment where cooling had been seen as a problem of consumption by the privileged and is now seen as a basic right.

- Cooling for All has a unique message, supported by evidence which senior leaders find credible
- Its high-level perspective is valuable in making the case at strategic level
- The SEforALL brand is strong and carries weight
- High-level advocacy from SEforALL leadership was important, but this is perceived as less strong recently
- Evidence of multiple benefits, particularly social and development benefits is important for policymakers.
- Data is used by policymaking staff to gain support of senior people for inclusion of access to sustainable cooling in NCAPs and NDCs
- Individuals in DFIs use Cooling for All data to make the case for investment by their organisations in access to sustainable cooling because of development benefits
- Cooling for All contributed to the mobilisation of US$100 million of investment and potential investment of a further US$1.4 billion in sustainable cooling
- There is scope to do more to mainstream gender throughout Cooling for All's work and publications

3.2.1 To what extent, how and in what circumstances did Cooling for All's work influence or is it on track to influence investment in access to cooling and the opinions of senior leaders?

Influence on senior leaders

Cooling for All was instrumental in establishing access to sustainable cooling as a development and equity issue among senior energy policy makers and investors. Interviewees described Cooling for All as being the first organisation to raise this issue and explained that through Cooling for All's work, access to sustainable cooling has now become broadly accepted as a development issue and an area where development finance is required.

> *"SEforALL and specifically Cooling for All was probably the first partner that clearly articulated the cooling challenge in the form of access. So it was not only the climate benefits, but it was also having cooling as a critical component of what should be part of, you know, the goals and the government priorities and plans, not only from the climate perspective from access, as well. And they basically created this framework where they talk about cooling in three pillars, which is comfort, health, and food."*

> *"It has gained in mainstream and people are aware of this issue. And so when I presented to our donors who come from mostly foreign ministries of, you know, the whatever the 20 governments that we work with, it's not a shock. It's not like where does this come from? Many of them have heard about it. I mean, it may not be their top priority each of them because everyone has their priorities. But I think I think Cooling for All have done a good job in disseminating it and craft the message in a balanced way. They have some quantitative data that is really important as well."*

Cooling for All achieved this by developing a unique message about the importance of access to sustainable cooling and the equity implications of failing to ensure access for all. They

supported this message with credible evidence about the scale of the issue and the potential benefits of taking action.

> *"It's been extremely useful data to make the case writ large, that this is affecting billions of people in an acute way. And being able to point to that with actual numbers is very helpful."*

Prior to Cooling for All's work, cooling was widely perceived by senior leaders as something that was only relevant to better off people who can afford air conditioning. Our interviewees reported that Chilling Prospects was instrumental in changing that perspective and providing an understanding of the potential suffering caused by lack of access to sustainable cooling.

> *"We were able to bring in this whole point about where the lack of cooling and then how the cooling affects the most vulnerable people in different strata and different categories. I think that was really an eye-opening thing for me. And then the second even to our managers, like, oh, geez, you know, so we're not just talking about, you know, some rich guy putting up ACs. It's about a regular person trying to get some cooling benefits done."*

SEforALL has a strong brand and a good reputation and Cooling for All's technical experts are highly regarded by senior energy policy and decision makers which gives them confidence in the reliability of the message.

> *"When you get something from someone, like SEforALL, Cooling for All then we know that they put in that effort, and they are the people that have the knowledge to do it. So it's a reliable report for us."*

SEforALL is able to access senior decision makers and many remarked on SEforALL's previous chief executive's energetic and persuasive advocacy for action on access to sustainable cooling which helped to engage senior decision makers with the issue.

> *"I think it's the relationships is the big piece of it. I mean, and this started under Rachel, before the current iteration, I mean, she's well connected, she, you know, was well respected, and brought SEforALL as an organisation and put it kind of front and centre in this issue in a way that it hadn't been before."*

However, respondents also mentioned that SEforALL is conducting less high-level advocacy about cooling currently which they felt could reduce the focus and attention paid to Cooling for All. Some questioned what they understood to be the new strategy of working in-country on implementation and direct support.

> *"And I have to say, Rachel Kyte in particular, as a stakeholder, and as a spoke woman, or spokesperson for this work was just incredible. She really carried that, you know, carry that message very strongly and I think, held stakeholders' attention to the importance of this issue, in a way that I actually haven't seen since she left SEforALL, which I think it's important to know."*

Although most of our interviewees said that Cooling for All co-ordinates well with technical experts in implementation teams, one respondent felt there was a tension between the two areas of work.

> *"And I think one of the things we're also seeing is some real struggles with how SEforALL's team can integrate on the ground with partners trying to implement national cooling or not implement, develop national cooling action plans. There's just some tensions there, I think between the more kind of technical experts working on HFC phase down and energy efficiency, and then SEforALL are just coming in, who are more from development, equity and access angle."*

Influence on policy

The online survey of Cooling for All users found that 8 respondents had taken action relating to policy as a result of using Cooling for All's resources. Those actions included:

- Changing refrigerant policy
- Changing regulations relating to energy efficiency for appliances
- Supporting green cities policies

Cooling for All's work, specifically Chilling Prospects and the associated data are also used by technical staff within governments and external NGOs and technical specialists to help them to gain the support of senior energy policymakers for the inclusion of access to sustainable cooling in policies such as National Cooling Action Plans (NCAPs) and Nationally Determined Contributions (NDCs).

Cooling for All's KPI Management Tool reports that India and China already have access to cooling in their NCAP and NDC. It does not attempt to establish whether Cooling for All contributed to this inclusion.

We spoke to advisors who were working with three other large economies to support the development of National Cooling Action Plans. The focus was on energy efficiency rather than access to cooling and the work involved strengthening Minimum Energy Performance Standards (MEPS). The advisors had used Cooling for All's evidence of the social benefits from increased access to sustainable cooling to build on their own analysis of the impact on the electricity grid and the energy and emissions benefits from stronger MEPS. This was more effective in engaging senior policy makers than a purely technical focus.

> *"I tend to focus more on the benefit in terms of energy savings, you know, emission reductions, and then working with them was helpful to bring other types of benefits that are more broader."*

> *"I've been also, you know, like talking a lot about the economic benefits, and, you know, obviously, environmental benefits. But now, we can talk about the social benefits, still, to be defined and but I think that's, and that's where this organization, especially SEforALL is very important."*

> *"Cooling for All they're sitting on a 30,000 feet point of view. And that's very important because a lot of the partners, you know, work closer to the ground. And sometimes we miss to that, to have that high level view."*

We also spoke to three policymakers in smaller countries. One was using Cooling for All's evidence on what other countries are doing, to build the case for including cooling in their NDCs. Another had used Cooling for All information about technical developments to update their MEPS and to keep abreast of global trends and best practice, especially for S&L regulations. A third had received input from SEforALL on their draft NCAP and said it would have been a less good plan and therefore less likely to secure donor funding without this support. All spoke positively about Cooling for All being a credible source of good, reliable information and a website which they consult frequently.

> *"So for example, in terms of what technologies were being developed, what refrigerants are being introduced, this information was very helpful for us because we are currently updating our regulations in terms of the refrigerators and air conditioners….. we have a policy on the minimum performance standards of these appliances that are being imported. So the information there has actually helped us in upgrading the content of our regulation."*

> *"So basically, in terms of the climate change, we have agreed within ….our NDC that we will reduce 15% overall reduction within our power generation, transportation, and industry sectors, those three sectors. So now by including cooling as an aspect of the NDC I'm kind of marrying the Montreal Protocol within this, you know, it kind of strengthens and builds and helps us reach the whole race to net zero in a nutshell. I use these resources to see like what's being done, like how in turn other countries are advancing to see how I can attribute to the overall development versus the SDGs, sustainable development so I can have some part to play within the overall movement in that direction."*

Influence on financial institutions

2 survey respondents had taken action on investment including one example where Cooling for All influenced the development of policy at a Multilateral Development Bank.

We interviewed energy specialists within Development Finance Institutions (DFIs) who have used Chilling Prospects and the associated data as evidence to make the case within their organisations for funding to be allocated for investment in energy efficient cooling because of the development benefits that can be obtained.

> *"And in terms of Cooling for All, I mean, I have seen some of the reports that Cooling for All put out. So there's that Chilling Prospects report, and the tracking one, and I think they're quite useful for us to try and articulate. You know, why does this topic deserve attention on a standalone basis? Yeah. So I think that's, you know, they put out high quality data, we use that internally, to build our case, for promoting this area of business."*

> *"… having access to independent work, that looked at this issue specifically really helped us, we need to do concept notes whenever we start new programmes, and it gave us the references. And for management, the confidence that others had looked at, it confirmed that this is an issue that really is hampering development."*

> *"SEforALL has drawn sort of multiple funders into the space, so they're not just reliant on K-CEP. And for me, that's always a good indicator that you've done something well, is that other people are coming in and trying to put their money behind it, too."*

There were several calls for more work on drawing the links between cooling and development work.

> *"If you talk to most people who work in the development community, very rarely will they talk about the importance of cooling. And I feel like more could be done there to make sure that there's an awareness of the benefits that come from cooling, whether that's in reducing food loss and waste and medicines and so forth and education and concentration, but also that when cooling is part of these projects, but it's part of them in an invisible way, that someone's thinking about making sure it's climate friendly."*

The one private investor that we interviewed also reported that they had used Chilling Prospects to make the case for investment in sustainable cooling.

> *"We're trying to highlight to this particular company…we've got a situation where you have an enormous exposure to Indonesia, Indonesia needs to address cooling efficiency in a much more meaningful way. And here's statistics to show you that. So then we turn around to you know, any investor so if it's ADB, or, you know, philanthropic capital out of the United States or money managers in Switzerland, what we want to do is say, here's the data, here's what's going on in Southeast Asia."*

Funding made available for access to cooling

Cooling for All's KPI Management Tool information reports that US$33.5m has been raised by partners to deliver sustainable cooling solutions and incentives. In the course of our research we identified a further US$100 million that has been allocated to investment in sustainable cooling by organisations and where evidence from Cooling for All has influenced that decision.

We were unable to obtain data on whether those investments have led to changes in the number of people at risk of heat related stresses through improvements in thermal comfort, food supply chains or medical supply chains.

We also identified programmes for investment in energy efficient cooling totalling a further US$1.4 billion which investors are currently developing and which have been influenced by evidence from Cooling for All.

We also learned that the UK's Ayrton Fund which allocates over £1 billion to scientific initiatives to address climate change referenced evidence from Chilling Prospects in its decision to address cooling as one of its priority areas.

> *"… cooling was identified as one of the key issues that needed to be focused on by this Ayrton Fund, which is about Innovation and Science and Technology…And then Chilling Prospects being referenced in there as providing the evidence that helped them to pin that strategic decision."*

Challenges and opportunities

One respondent expressed reservations about using Cooling for All to support policy change because they felt that there was a reluctance in their government to use external advisors to support policy change. In this and similar contexts, Cooling for All needs a long-term approach and cannot expect quick results.

> *"I think the government or policymakers are a little suspicious of the international community right now. So, the politics of this is that I think any international or foreign entity coming and saying that hey, we want to offer a, they need to win the trust, it will take time and I think there is always this thing that is there a hidden agenda?"*

Another respondent felt that Cooling for All was navigating a difficult path in their message that *"Cooling for All does not mean an air-conditioner or refrigerator in every home"*. They felt that this risked alienating people in developing countries who would feel they were being offered a second-class option with fewer benefits.

> *"…they're saying "don't tell me I've just got to have, you know, a painted roof and I can't have air conditioning". There's a potential for a very big backlash on that...we want them to have the same type of benefits, the same coolness, if you will, that the developed world experiences."*

A third respondent felt there were tensions between technical aspects of cooling and SEforALL's focus on development and equity. This is despite the strong connections that Cooling for All works to foster with those working in these areas.

> *"There's just some tensions there, I think between the more kind of technical experts working on HFC phase down and energy efficiency, and then SEforALL are just coming in, who are more from the development, equity and access angle."*

Although the #ThisIsCool campaign does focus on showcasing successful solutions, some respondents felt that Cooling for All could do more to promote successful actions taken by others and that, in turn, would help to convince more senior leaders. They wanted to see a range of examples of good practice which had produced the desired results, in countries in which they could point to parallels with their own situations.

> *"What has been working, how have the NCAPs been going on and then really kind of putting all of those methodologies a little bit more into the public domain would be very helpful because I mean, I refer my countries to SEforALL and then they're like, Oh,*

we don't see it on the website. It's like, okay, talk to please talk to Brian Dean about this and then Brian sends them, but if a couple of those case studies were present….."

"It would be helpful as well, if they can identify what works, I think the framework already has some information into those solutions. And I think bringing more of that to the conversation. And again, this is coming from my close relationship with policymakers, they're always asking us, what are other countries doing, what is working in other countries?"

3.2.2 To what extent, how and in what circumstances has gender been addressed as a cross-cutting issue?

It does not appear that Cooling for All has succeeded in addressing gender as a cross-cutting issue in its own work or in encouraging others to do so. Some stakeholders believe that Cooling for All should be more active in mainstreaming gender issues throughout their work, rather than addressing gender as a separate issue. We recommend this course of action for the future.

According to SEforALL's Business Plan 3.0 "*SEforALL mainstreams an inclusive and gender lens in all that we do"* and in March 2021 Cooling for All published a Knowledge Brief *"Cooling for All and Gender: Towards Inclusive, Sustainable Cooling Solutions"*.

The Chilling Prospects report is Cooling for All's most widely read and respected publication. It mentions gender in the discussion of Covid 19 and it mentions the creation of jobs for women in the Bisolar Tech Fridge case study. However, significantly more could be done to mainstream gender considerations through Chilling Prospects which may be more effective than a separate publication in raising awareness of the impact of lack of access to cooling on women and girls and motivating policymakers and investors to take action. Gender could be mainstreamed in Chilling Prospects by disaggregating the data in populations at risk by gender and exploring the different benefits of access to cooling for women and men.

Several of the interviewees that we spoke to were unaware of Cooling for All's work on gender. Perhaps this is unsurprising as the Knowledge Brief was only published 3 months before the interviews took place. Those that were aware of the work were split; some felt that it was a valuable contribution to an important topic (although they may not have read the Knowledge Brief yet). Others felt that although the topic was important it was not really Cooling for All's role to address it.

"I saw that they just published a report on gender equity, on equity. And yeah, I'm very excited to look at what they're saying, this is another topic that I think is very important now."

"Gender is a very important issue, I get that. Why has cooling suddenly become a gender issue, because gender is important, but cooling is important to society…….should a cooling project to help farmers in Africa? Should it help all farmers? Or should it specifically help female farmers?"

Some interviewees suggested that gender issues are particularly topical at the moment. They felt that that having separate guidance on gender is unhelpful and that instead it should be mainstreamed

> *"I think sometimes we, as a sector try to adopt the in vogue lens or terminology or framing to our detriment…let's make sure that we're taking into account equity and gender. But when we start doing things, like having separate reports, like this is the cooling and equity report, and this is the cooling and gender report. I'm just kind of like, it feels very forced to me and artificial."*

Another respondent felt that the focus should be firmly on equity

> *"If you really want to reach out to policymakers. I know that equity is a major concern right now. Not so much gender, especially from the governments that we're working in, in Southeast Asia and in Africa. You know, there, there has never been a conversation where a government or stakeholder talks to me about gender, but equity, yes. "*

3.3 Has Cooling for All supported the development of new access to cooling solutions by the supply chain?

- Solutions suppliers find it easier to get their messages heard by senior leaders because Cooling for All's work raises the priority of access to cooling amongst policymakers
- Chilling Prospects helps suppliers assess the size of potential markets
- Supply-side initiatives gain credibility from links to Cooling for All
- The number of organisations in the cooling sector can cause confusion

3.3.1 To what extent, how and in what circumstances did Cooling for All catalyse new access to cooling solutions (Q8)?

The access to cooling sector consists of a range of different actors; providers of cooling products and services, researchers and academics, NGOs, and a variety of other bodies supporting the sector by providing advocacy, grants, information and wider communications.

Cooling for All's work is appreciated by the supply sector and none of our interviewees suggested that the programme was unnecessary. One interviewee summed up the wide role which Cooling for All plays in supporting suppliers by spreading the message that cooling is not a luxury, that it requires energy use, and that energy efficient technologies can make cooling sustainable.

> *"The idea was really to have a vector or an amplifier, if you like, who helps, making it clear that one, cooling is not a luxury, but cooling is really something that societies need. That's very often a wrong perception. Second, to also draw the attention to the fact that cooling requires energy, electricity in most of the cases, and that in a lot of developing countries, it's not a given that they all have access to electricity, whereas they need access to cooling. So if it was to draw attention to that in the hope that this would perhaps accelerate certain things at political level. And also they could draw*

attention to all the technologies that are out there because there are a lot of energy efficient technologies which helped make cooling sustainable. So it was these three, so one, the awareness and two, the technologies and three, the access to cooling in the developing world."

Cooling for All has set an agenda of cooling as a development and equity issue and has drawn the attention of senior policymakers and investors to the need for access to sustainable cooling. This has an effect across the sector with actors finding it easier to get their message heard by policymakers, management and senior leaders because they now understand how important access to sustainable cooling is. Cooling for All was described as a centre of energy for the cooling agenda, amplifying the messages at strategic levels with governments and policymakers. Several survey respondents from supply-side organisations commented proactively on the vital nature of Cooling for All's work in emphasising the importance of access to sustainable cooling.

"And so they've come at this from a whole different perspective, which has really helped those of us that are working, whether that be on the technology side, or the solutions side, as to the importance of this work."

"I think they've been sort of a champion from a communications perspective, which I think has been important, because, you know, I think SEforALL, Cooling for All does have, it does have an audience. And so they are able to amplify messages and, and sort of gain publicity and recognition for things."

"I think that the fact that it's a kind of a centre of effort is really good. If you think of having to understand the new agenda, and give it prominence, then Cooling for All has definitely been a centre of energy, you know, for this agenda. So, and I'm sure that they have done a lot of that kind of global, more systemic level, to advance the agenda and help governments and policymakers think about cooling within their NDCs, and this kind of thing."

"SEforALL resources and webinars/events have been very useful for emphasising the importance of access to cooling and urging actors to take rapid action to make this cooling sustainable. Thanks!"

"SEforALL is playing crucial role in making voice of access to cooling heard by policy makers."

Chilling Prospects data and evidence are widely used as an authoritative source of evidence by other initiatives. They are also used by suppliers to establish that there is a significant potential market for access to cooling products and services. These suppliers see the data and evidence as more credible and robust than analysis they might have carried out themselves. One supplier had adjusted a marketing plan to meet cold chain needs in developing countries as a result of using Cooling for All resources.

"The robustness of what they did came with a lot of credibility. It would have been different if we [supply side support organisation] if we'd done the whole analysis of access, I don't think it would have had the credibility that the SEforALL team brought."

"For me, it's been a great tool to learn. And I use it as a resource to do research, and look at what's happening in the marketplace. And also what people actually need, and where we can take our products".

"Adjusted the marketing plan for the heat pump we are developing so that it is more likely to serve the cold chain needs of food and medical distribution in the developing world."

Some of the data and evidence which Cooling for All provides includes details about new solutions and how they have been used elsewhere. Suppliers and their advisors use this to compare with their own situations and follow best practice. This also helps to keep users up to date with trends in the sector.

"If we were looking at certain countries you go into, but you could look at that action pattern. And from that gauge, how switched on each government we're talking to is into the importance of cooling."

"They …… draw attention to all the technologies that are out there because there are a lot of energy efficient technologies which helped make cooling also sustainable."

3.3.2 How well did the programme align with the needs of the sector/other initiatives (Q1, Q13)? Were there any synergies (Q14)? If so, with which initiatives, how did this work and what were the benefits (Q2)?

Cooling for All was the first to provide data and evidence on access to sustainable cooling needs – prior to 2017, the information was not available to the sector, and the issue was not on the agenda. Cooling for All's work has promoted this new area and has supplied the credible data and evidence for decision making that was needed. As an umbrella body, K-CEP has been successful in mobilising funds and getting cooling onto the agenda in other organisations.

The number of initiatives supporting sustainable cooling has grown markedly over the four years that Cooling for All has been in operation. Some put it down to Cooling for All's efforts, that so many players have entered the space, intent on similar goals.

"The space [is] getting more crowded, which is actually a testimony to SEforALL's good work."

However, there is some perceived overlap between the work of Cooling for All and other initiatives which can confuse stakeholders. Particular overlaps are between Cooling for All and the IEA's work on the Future of Cooling and between Cooling for All and KCEP and the Cool

Coalition. There is scope for the sector to recognise these overlaps and look for further collaboration opportunities.

It is important to acknowledge, though, that there are distinct differences between the organisations, which may not be well understood in the sector. For example, IEA focusses heaving on cooling technologies and projected energy impact, K-CEP facilitates and promotes work from IEA, SEforALL, the Cool Coalition and other organisations, and the Cool Coalition is a global partnership effort in which SEforALL brings the access to cooling perspective. SEforALL's angle is on risk associated with lack of access to cooling, cooling needs, equity and the broad range of solutions across comfort, food and health. There is scope for Cooling for All and partner organisations to communicate this distinction more clearly to the sector.

> *"I think all our [industry body] members are really concerned about the number of different initiatives. And they are scratching their heads where they should put resources basically. …. Now that the difficulty is that, in the beginning, cooling didn't get any attention at all. And then everybody jumped on. So now you've got loads of initiatives, which is not necessarily a good thing, either, because they compete with each other. And then you don't know, who should you have? Where should you focus your resources as industry for example? You can't work with everybody in the same way."*

> *"On the topic of cooling, there are so many actors now, because it seems like, I mean, K-CEP has been very successful and has so many people. And sometimes, you know, you're kind of lost, all the people who work on cooling you know, NGOs and others. So, yeah, sometimes I wish they were, you know, like, OK, who's doing what, and who's, you know, the person."*

The comment "*You can't work with everybody in the same way"* above supports other comments that Cooling for All's work would have more impact if it were more closely tailored to the specific needs of particular types of user or particular sectors.

Several stakeholders told us that Cooling for All's particular area of expertise, namely access to cooling, is one which they should occupy exclusively and exploit, since there are very few others working in that space. This is seen as extremely valuable to many other organisations, as a backdrop to their own work. Evidence of this can be found throughout this report.

> *"And the work of the Cooling for All initiative has really kind of shone a spotlight on the whole access issue, and the equity issue associated with access to cooling, and kind of framing cooling."*

> *"They have a specific angle that they're looking at this so really focusing on access to cooling. And this is something that not necessarily many entities do."*

One respondent called for increased effort on providing supply side data.

> *"I would put on the to do list…think about the sort of supply side data, you know, what, what are people selling? What are people doing? We've got to start measuring action, not just the scale of the problem."*

Another asked for more detailed answers and examples on refrigerant replacement.

> *"When the stakeholders question us how they can shift …to other alternative refrigerant and we don't have an answer. .....those issues are .... not only for us, those are common for everywhere where we gave them this questions are not only for [country] These questions are common for everywhere in the world. So where is the answer with this?"*

3.3.3 Were the outputs of the Cooling for All programme (e.g. tools and data) helpful to other organisations in fundraising, technical justification (Q9), development, and implementation of other initiatives?

Cooling for All's network has helped developers of new solutions to communicate their offer. Because Cooling for All is seen as authoritative, those organisations can gain credibility by association with Cooling for All.

> *"SEforALL's involvement [gives] us a lot of visibility. So having SEforALL referencing our work, and emphasizing the case studies, provides a lot of visibility, because they have a very strong outreach they have a lot of people recognize SEforALL as a reference for, for any updates with regard to sustainable energy."*

Cooling for All's ability to act as a convener and networker is powerful. They link organisations and individuals to facilitate productive discussions which might otherwise not happen. Organisations which support suppliers appreciate Cooling for All's willingness to work collaboratively, not dominating or manipulating others. See the section above for discussion of the perceived overlap between organisations.

> *"SEforALL in the beginning hosted this event and helped us to launch it there. And also inspired us in the way on the way they do this. And I think many of the entities, that partner would not necessarily be rival or competitors, because most of us are still in the not for profit space. So we would tend to seek collaboration. But I don't think we would necessarily meet around these topics and discuss these topics. So I think they, these partnerships, give the space to have conversations with other organisations and we might have met but we might not have gone into such deep conversations or we might not even have thought that these organisations touch on the same topics. So I think that's always really important because with there's many parallel, or many of these organizations work on similar topics. And in that sense, it just makes so much sense to try to learn what are the others doing. And bringing them together in alliances or in groups, working groups, brings a lot of value."*

> *"There's been some squirrely politics in the background of different groups being a little more rival than cooperative. And there's always some of that in all institutional settings, but I can say in my experience, at least the Cooling for All team was not in that, they were, they were*

moving ahead on their own without playing any games that might have slowed other folks down."

Several organisations which support suppliers have used Cooling for All's network to reach out to new suppliers. They valued the breadth of Cooling for All's contacts, and believe that they have the ability to bring together and speak to the key players in the sector.

"Definitely it would have been much harder, more disparate and less strategic had we just been you know saving time and having to do all our own mapping and network connecting."

"I think they have the right profile folks at the table, and they have the right network through the Cool Coalition to have that be part of what they're doing going forward."

"SEforALL, Cooling for All does have, it does have an audience. And so they are able to amplify messages and, and sort of gain sort of publicity and recognition for things. So I think that's an important role that they can play."

One supplier requested more help with networking and getting their product in front of Cooling for All's partners who might be interested in taking up the new technology.

"Another aspect possibly could be how we can link up with some of your partners who could be quite influential, and enable them to be really switched on to how much of an impact that we could make."

4 Theory of Change

We worked with SEforALL to review the Cooling for All Theory of Change building on the Logframe set out in the SEforALL Business Plan 2021-2023. We have used the findings from this evaluation to add more detail to how and in what contexts Cooling for All secures change. The development of the Theory of Change is described in detail in Appendix A and summarised in this section.

The Cooling for All Logframe is shown below:

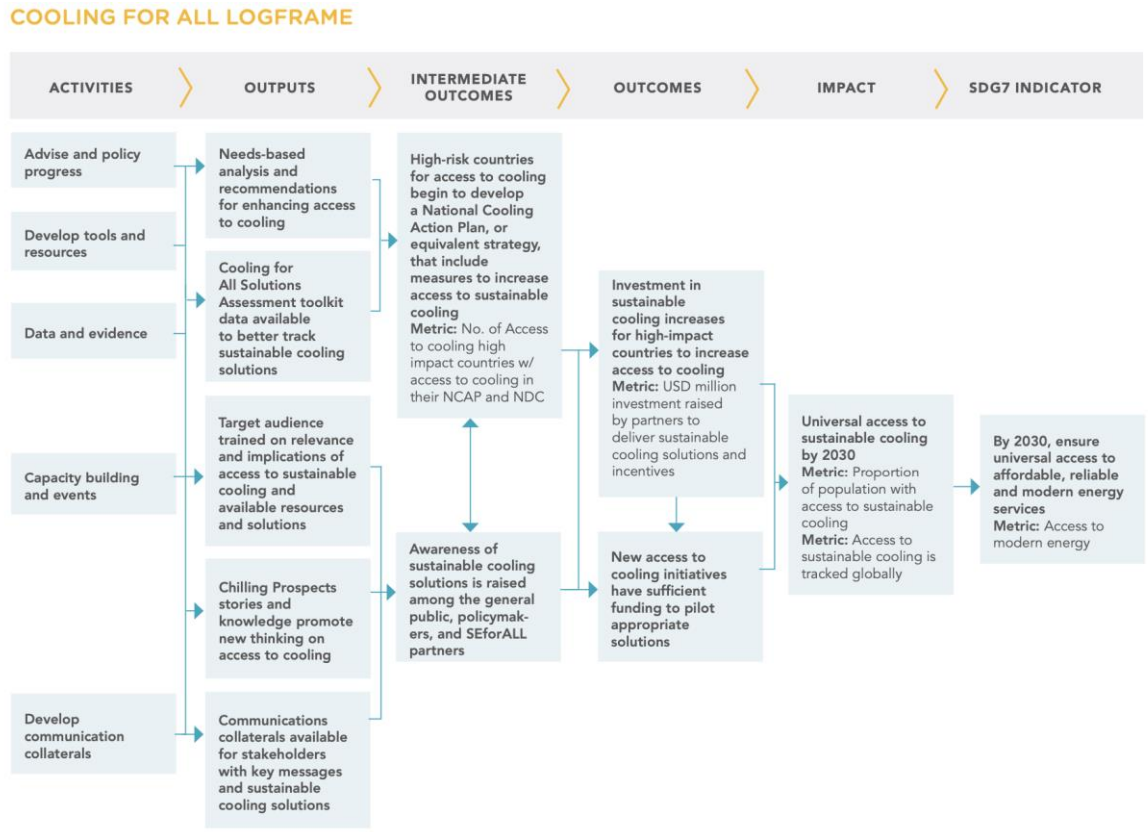


Figure 5: Cooling for All Logframe in SEforALL Business Plan 2021-2023

The Theories of Change show the mechanisms that cause outcomes in specific contexts and the role of Cooling for All interventions in those mechanisms. We have developed Theories of Change for the three outcomes that the evaluation identified:

1. Cooling for All has credibility with policymakers, donors, DFIs and private investors.
2. Cooling for All contributes to innovation and investment by suppliers of sustainable cooling solutions.
3. Cooling for All contributes to greater, faster take up of sustainable access to cooling solutions than would otherwise have been achieved.

4.1 Cooling for All has credibility

Drawing on the findings from this evaluation we found that Cooling for All has authority and credibility with providers of technology and service solutions because it is an SEforALL programme, because of the quality of their work and the authority and responsiveness of individual staff which have built trust and confidence. This is shown in figure 6 below:

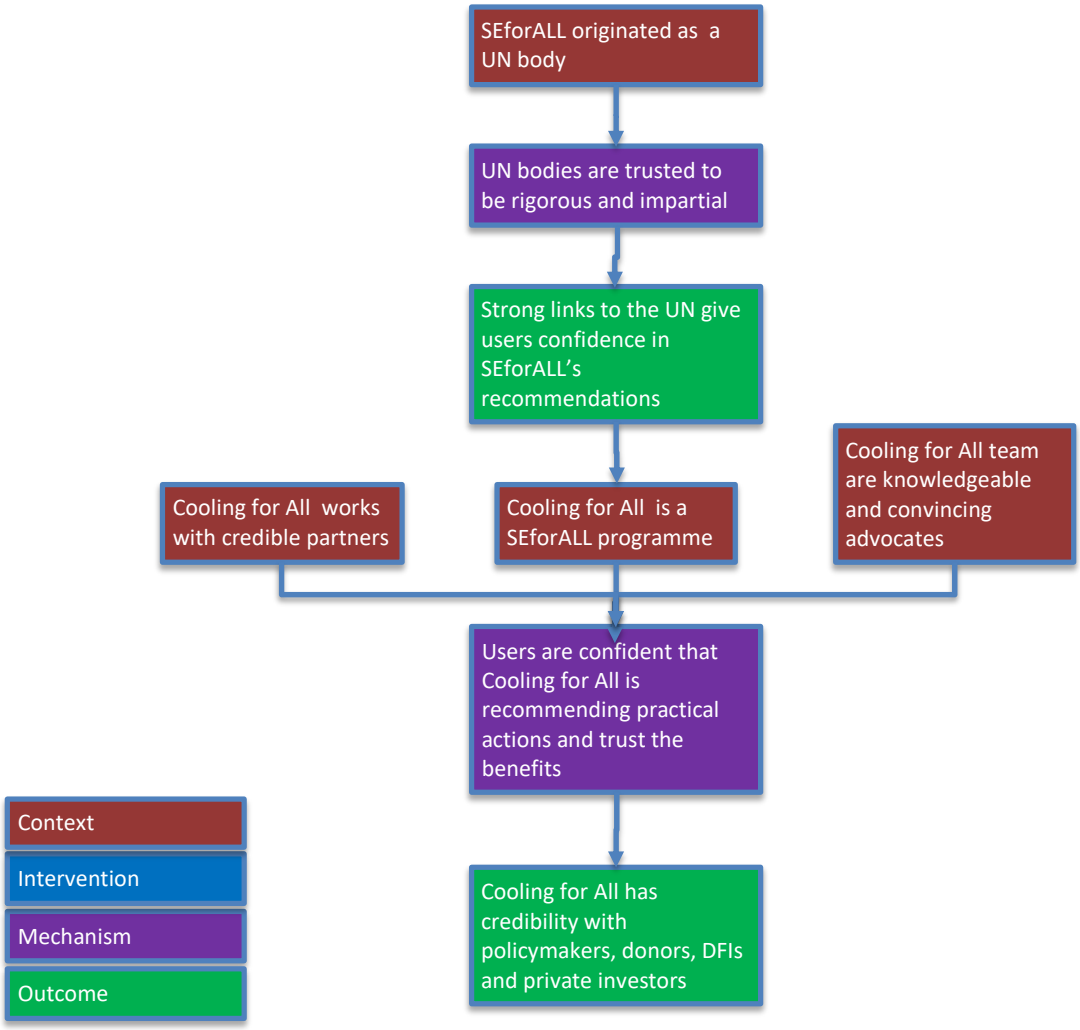


Figure 6: Cooling for All has credibility

4.2 Cooling for all contributes to innovation and investment by suppliers

Drawing on the findings from this evaluation we found that Cooling for All contributes to innovation and investment by suppliers of sustainable cooling solutions because:

- Cooling for All provides up to date evidence about access to cooling. The evidence is used by providers of technology and service solutions to help them to assess the commercial opportunities for their cooling solutions and to inform their further research and due diligence because they have confidence in Cooling for All's technical knowledge and understanding of the policy environment. This approach is effective because Cooling for All staff have strong technical skills and good relationships with policy makers and the bodies that influence them.

- Cooling for All assesses the market for cooling and makes those data freely available. Private investors trust these data because SEforALL is an authoritative body and understand that there is a significant market opportunity which helps to mobilise private finance.
- SEforALL is a UN body and UN bodies are trusted to be rigorous and impartial which means users have confidence in their recommendations.

This is shown in figure 7 below:

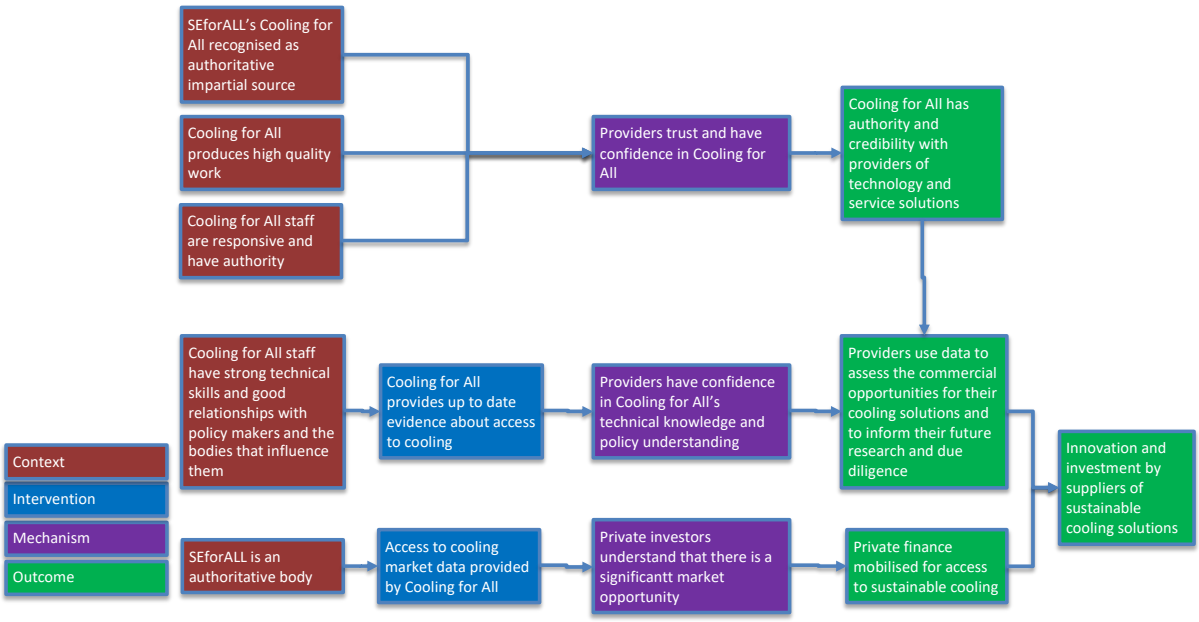


Figure 7: Cooling for All contributes to innovation and investment

4.3 Cooling for All contributes to greater faster take up of access to sustainable cooling

Drawing on the findings from this evaluation we found that Cooling for All contributes to greater faster take up of access to sustainable cooling because:

- There is innovation and investment by suppliers (see section 3.2 above).
- Cooling for All tracks access to cooling activity and provides that data to energy policymakers through Chilling Prospects. Chilling Prospects helps to make the case for energy efficient cooling policy because energy policymakers understand the likely increased electricity demand. This approach is effective because Cooling for All data are good enough, they are communicated effectively by a credible team and because SEforALL is an authoritative body.
- Where advocates for sustainable cooling want to engage policymakers Cooling for All provides credible evidence for the need for sustainable cooling, the development benefits and examples of others taking action which interests energy policymakers as they see the benefits to their population and are then willing to engage with advocates to develop policy for access to sustainable cooling.

- Cooling for All has credibility with policymakers, donors, DFIs and private investors because it is a SEforALL programme, because the team are knowledgeable and convincing advocates and because they work with credible partners. This gives them confidence that Cooling for All is recommending practical actions that will benefit their populations.

The areas combine to secure a supportive policy environment and the availability of concessionary finance resulting, in part from Cooling for All's work. Together with innovation and investment by suppliers of sustainable cooling solutions this results in greater, faster take-up of sustainable access to cooling solutions than would otherwise be achieved because market actors are confident in the scale of the opportunity and the stability of the enabling environment.

This is shown in figure 8 below:

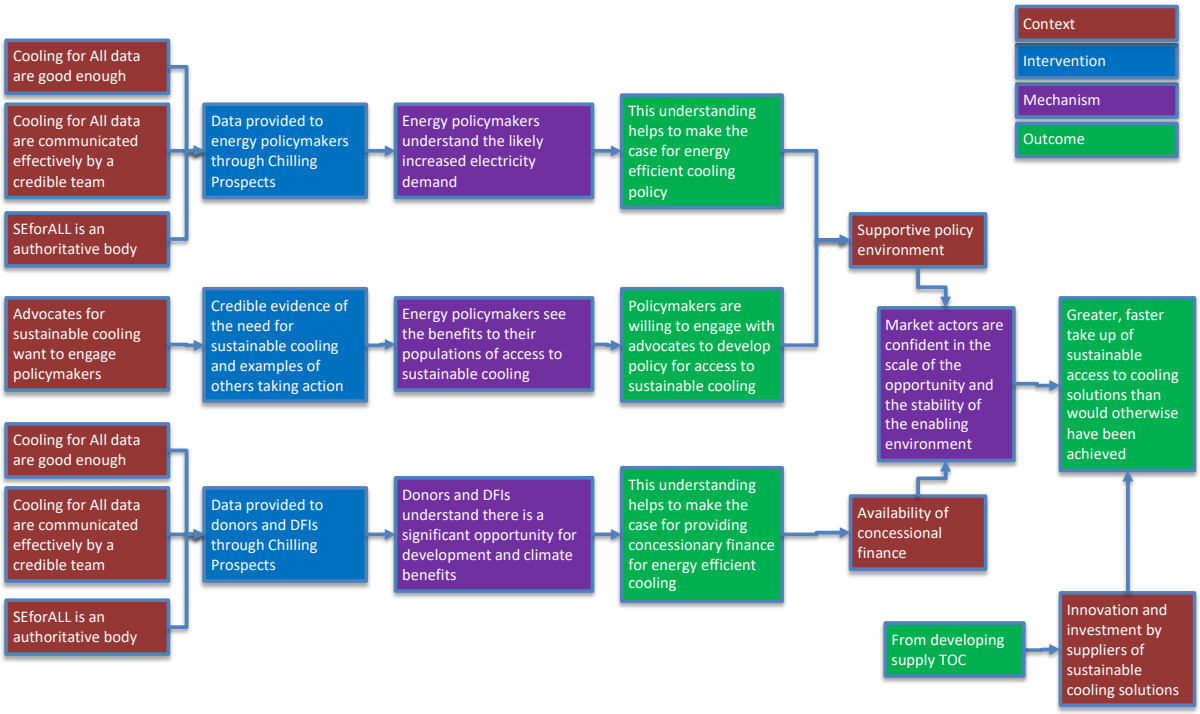


Figure 8: Cooling for All contributes to greater, faster take up of access to sustainable cooling

5 Conclusions

5.1 What has worked well

In 2017, SEforALL was the first organisation to identify access to cooling as a development and equity issue. This has now become broadly accepted by energy policymakers and donors and DFIs involved in energy. This has transformed the environment for energy policymaking and investment where cooling had been seen as a problem of consumption by the privileged and is now seen as a basic right.

Cooling for All occupies a niche position and is seen by energy specialists as the go-to expert on access to sustainable cooling. Their knowledge and understanding of the social and wellbeing aspects is respected and trusted by stakeholders and their unique status as "guardian" of access issues is recognised, though there is scope to make this and the associated messaging clearer. This is particularly important in what is now a crowded space, where differentiation between organisations and clarity over who does what is needed.

The Cooling for All team is highly regarded for their specialist expertise, technical knowledge, and understanding of the policy environment. They provide a high-quality service which is professional and responsive. This has built trust and confidence amongst users.

Cooling for All does some direct in-country implementation work on NCAPs and NDCs. But much of this support is provided to and through other bodies who may be better placed to do this and have more resources.

In some countries, where cooling policy has been developed, Cooling for All has made a particular contribution to the development of policy relating to energy efficient cooling and refrigerants. It has also contributed to significant investment in projects for sustainable cooling. It has achieved this through its authority and credibility and the quality of the data and evidence that it provides.

SEforALL and Cooling for All are seen by many as part of the UN. This adds to their credibility and authority. They have strong convening power, using it effectively to gather stakeholders, establish links and provide valuable outreach for other organisations to their own network.

The data and evidence provided by Cooling for All is viewed as rigorous and impartial. Chilling Prospects is widely accessed and is relied on by many energy policymakers and the organisations which support them, to help make the case for sustainable cooling policy. Examples and case studies are particularly valued and there are calls to make more of these available.

The programme was highly praised by many of our interviewees and survey respondents, who were keen to engage with this evaluation. We heard few criticisms, though there were some constructive suggestions, the most frequent of which are reflected in the recommendations. Many urged the Cooling for All team to keep up the good work, and offered thanks for the support they have provided so far, which appears to have made and be making a real difference.

5.2 Opportunities for improvement

Cooling for All does not appear to have engaged with health, food or agriculture policymakers or investors and consequently we have been unable to find evidence that they have influenced access to sustainable cooling in those sectors. There is scope to target Cooling for All's messaging, in particular Chilling Prospects, more specifically to appeal to users with these particular interests.

We found little evidence of people using the other tools and training available beyond Chilling Prospects. There is scope to promote these resources further. There is also an opportunity to develop and refresh the content and targeting of Chilling Prospects, to avoid a risk that it becomes stale and repetitive.

Although the Global Panel has been responsible for guiding Cooling for All's strategy and producing Chilling Prospects, its members' ambassadorial role in promoting the messages more widely beyond the cooling sector is unclear. There is scope for the Panel to add more value by adopting a more outward-facing approach. Recruiting high level stakeholders from the food, agriculture and health areas and giving them a specific brief would support the development of Cooling for All's offer to those sectors and assist in outreach.

Although Cooling for All has recently published a knowledge brief on gender, we found that it has so far reached few people. There is scope for Cooling for All to mainstream gender considerations in its work more effectively. However, some stakeholders argue that gender is merely one of many equity issues.

5.3 Key progress towards SEforALL's Theory of Change

This evaluation has identified areas where Cooling for All has contributed to the current SEforALL Theory of Change. Because of the confidentiality commitment made to respondents we are not able to identify specific outcomes here.

5.3.1 Outcome 1: Inclusive and gender-sensitive action mainstreamed

SEforALL was the first organisation to identify access to cooling as a development and equity issue. This has now become broadly accepted by energy policymakers and donors and DFIs involved in energy. This has transformed the environment for energy policymaking and investment where cooling had been seen as a problem of consumption by the privileged and is now seen as a basic right.

Cooling for All's work was crucial to this change in perceptions and to the support of senior leaders. Chilling Prospects and Rachel Kyte's advocacy were the most important elements of this.

5.3.2 Outcome 2: Global commitments to implement action to meet SDG7

We have not identified any global commitments to implement action to meet SDG7 resulting from Cooling for All's work.

5.3.3 Outcome 3: Enabling policy and regulatory standards implemented for sustainable energy sector

Cooling for All made some contribution to the policy changes alongside consultants supporting policymakers and K-CEP who provided funding in several cases. Cooling for All's contribution came from the influence on senior leaders mentioned above and the Chilling Prospects evidence base which is used by those involved in policy change to justify and inform their decisions.

Cooling for All has contributed to policy and regulatory standards being implemented for sustainable cooling in 8 countries. Cooling for All data and evidence is being used by policymakers, NGOs and technical specialists to support the inclusion of access to sustainable cooling in the NCAP or NDC of at least six countries. These countries are in addition to India and China whose action to include cooling in their NCAPs and NDCs have already been reported in the KPI Management Tool.

5.3.4 Outcome 4: Significant and appropriate finance for SDG7 flowing globally

Cooling for All's KPI Management Tool information reports that US$33.5m has been raised by partners to deliver sustainable cooling solutions and incentives. In the course of our research we identified a further US$100 million that has been allocated to investment in sustainable cooling by organisations and where evidence from Cooling for All has influenced that decision.

We also identified programmes for investment in sustainable cooling totalling a further US$1.4 billion which investors are currently developing, and which have been influenced by evidence from Cooling for All.

UK's Ayrton Fund which allocates over £1 billion to scientific initiatives to address climate change referenced evidence from Chilling Prospects in its decision to address cooling as one of its priority areas.

Cooling for All made a significant contribution to the mobilisation of investment in sustainable cooling both through its influence on senior leaders and by providing data on the scale and importance of the need for energy efficiency in cooling which was used to support the business case for investment.

5.3.5 Outcome 5: Significant increase in energy connections, installations and energy transitions to meet SDG7

We have not identified any significant increase in energy connections, installations or energy transitions resulting from Cooling for All's work.

6 Recommendations

1. **Strengthen niche**
   Strengthen and focus Cooling for All's messaging to confirm its niche position as the expert on access to sustainable cooling and the gateway to more specialist or hands-on expertise. There is a need to differentiate Cooling for All from other bodies in the sector in a way which is both concise and easy to explain.

2. **Engage with food, agriculture and health policymakers and investors**
   Engage and convene more actively at strategic level with food, agriculture and health policymakers, their umbrella bodies and advisors. This could particularly include working with those responsible for these areas at DFIs, to encourage mainstreaming of access to cooling in development projects.

3. **Target Chilling Prospects**
   Target and segment the Chilling Prospects data and other messaging to appeal to specific sectors, for example food, agriculture and health, using language and examples which policymakers in those sectors will relate to. Consider how to use the content, format and frequency of Chilling Prospects to ensure the message stays fresh and engaging.

4. **Reconsider in-country direct support**
   Consider whether Cooling for All has the resources to provide direct support for in country implementation or whether its efforts are more appropriately directed through supporting partners. This could relieve Cooling for All's already stretched resources to allow for more work at inter-agency and global level.

5. **Provide case studies**
   Provide more examples and case studies of successful access to cooling policy in a variety of countries and contexts. These should be as diverse as possible, and packaged in varying ways so that they are useful to many audiences who have different needs. Cooling for All should also review how users are directed to the case studies that are currently available to ensure that they can easily access this information.

6. **Mainstream gender**
   Mainstream gender considerations as an equity issue throughout Chilling Prospects and more widely through Cooling for All's work. This may be more effective than a separate publication in raising awareness of the impact of lack of access to cooling on women and girls and motivating policymakers and investors to take action.

7. **Encourage Global Panel networking**
   Consider defining a role specification for Global Panel members, if it does not already exist, to explain the pro-active networking and ambassadorship involved and the time commitment expected. Alongside this recruit Global Panel members who would be able to facilitate access to the food, agriculture and health sectors.

8. **Increase high level advocacy for sustainable cooling**
   Encourage the SEforALL CEO to increase the amount of high-level strategic advocacy she directs towards access to cooling, to drive government commitments to include access to cooling in NCAPs and NDCs particularly in high-impact countries. This would capitalise on the earlier agenda-setting messages which were very strong in the early years of Cooling for All and would promote the data, evidence and best practice which has become available since then.

9. **Increase convening**
   Cooling for All is a trusted partner to policymakers, investors, suppliers and NGOs involved in access to cooling. They already play a unique role in convening stakeholders and encouraging them to work together. However, some respondents said they would like to see more of this and Cooling for All should consider whether they are including all stakeholders and, if not what they can do to widen their reach.

10. **Conduct wider, regular and sector specific research and evaluation**
    This evaluation has provided evidence about how Cooling for All has delivered outcomes and the opportunities for the initiative to achieve more. SEforALL has a highly experienced MEL team and are well placed to build on this evaluation by:
    - Conducting more outreach to a wider range of users and potential users to understand who activities are reaching and whether they are having an impact. We recommend similar light touch evaluations to this are conducted every two years. This would also provide an opportunity for more systematic data capture for KPI monitoring.
    - In addition to monitoring progress towards SDG7 through the KPI Monitoring tool it would be valuable to capture Cooling for All's role, if any, in that progress and to learn about opportunities for faster progress or wider take up.
    - Researching the health, food and agriculture sectors to understand the current position on access to sustainable cooling, to identify where Cooling for All can best contribute to progress in those sectors and to explore what messages resonate with policymakers, investors and suppliers.
    - Respondents participating in this evaluation were assured that their responses would be treated in confidence. This helped to ensure frank feedback was obtained and we recommend that future research and evaluations are conducted on a similar confidential basis.

7 Appendix A Theories of Change

In developing our theory of change (ToC) for the purpose of this evaluation, we drew on:

- SEforALL business plan (2021-23)
- Cooling for All mission
- Cooling for All Logframe under SEforALL 3.0 (2021-23)
- Cooling for All Theory of Change
- Results frameworks from Swiss Agency for Development Cooperation 2020 and K-CEP reporting 2017
- Discussions with the Cooling for All and SEforALL MEL team

The Cooling for All Logframe in the SEforALL business plan 2021-23 is shown in figure 9 below:

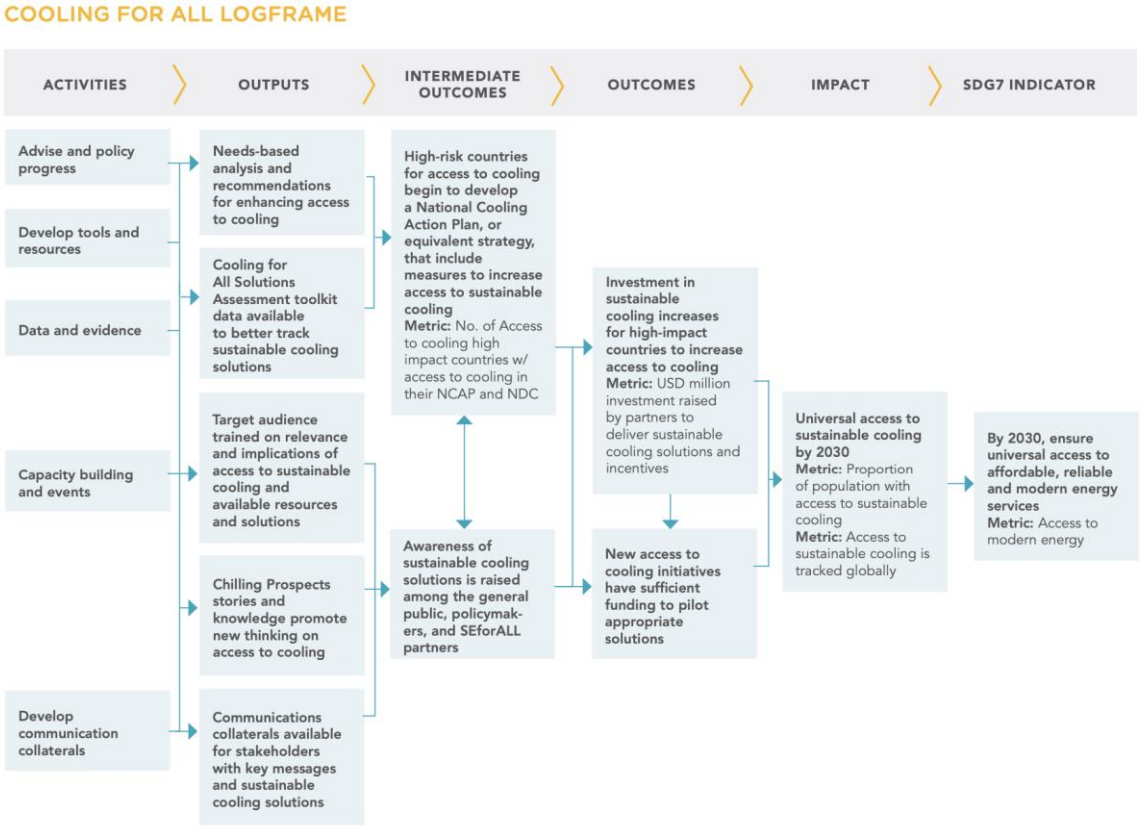


Figure 9: Cooling for All Logframe from SEforALL Business Plan 2021-23

Two aspects of the Cooling for All pathway of change emerged clearly from the analysis and discussions:

- Stimulating access for cooling initiatives which generate affordable, sustainable solutions
- Supporting the development of an enabling policy and investment environment for the development, deployment and scaling of those solutions

We reflected these two aspects in our initial theories of change which reflected and elaborated on the Cooling for All theory of changes under SEforALL 3.0. We have also now numbered each theory, although this was not done at the time.

The ToCs which we developed use realist terminology **(intervention, context, mechanism, outcomes – I,C,M,O)** to explain how change is secured, for whom and in what circumstances.

This was to help ensure that the evaluation design explored how outcomes are caused in different circumstances and to provide transparency for technical reviewers.

The interventions are described as activities in the Cooling for All ToC. Apart from interventions the other elements do not map neatly onto the terminology used in the Cooling for All ToC although some of the mechanisms (awareness, confidence, understanding) can be seen in the Cooling for All intermediate outcomes and some of the outcomes can be seen in the Cooling for All external outcomes.

At this stage, we had no evidence to support the hypothesised explanations so everything could be considered to have been an assumption. The evaluation collected evidence to test these ToCs, and confirm, refine or refute them. The resulting refined or new theories form the foundation for our conclusions and recommendations. Our initial theories are listed below.

7.1 Initial theory - developing the supply of access to cooling solutions

Figure 10 below illustrates the initial theory by which Cooling for All contributes to the development of access to cooling solutions.

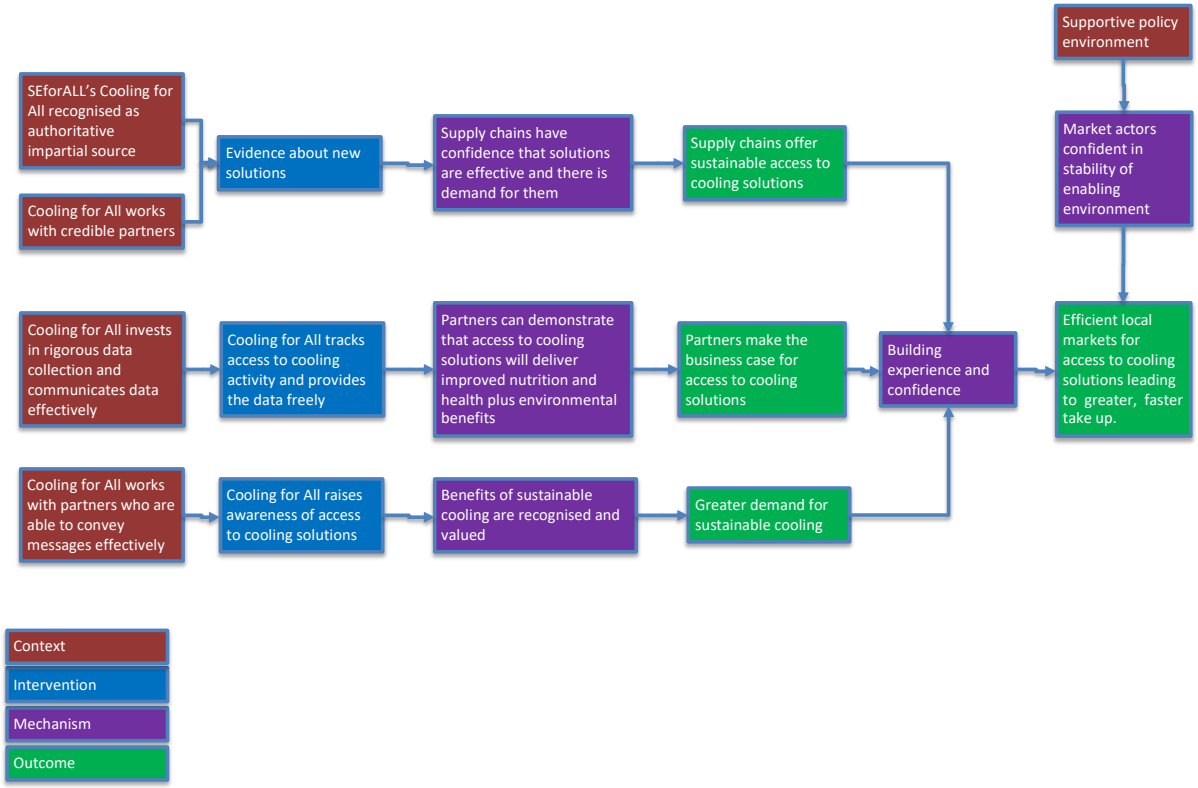


Figure 10: Initial theory; Cooling for All contributes to the development of access to cooling solutions

This theory is described in more detail below (the numbers, 1A, 1B, etc. refer to the analysis later in this appendix which tracks the changes in theory through the evaluation):

1A. Cooling for All works with partners to develop evidence about new solutions through research and pilots (I). That evidence is used by partners to convince the supply chain to offer

sustainable access to cooling solutions (O) because they have confidence (M) that the solutions are effective and that there is demand for them. The approach is effective because Cooling for All is recognised as an authoritative, impartial source and works with credible partners (C).

1B. Cooling for All has authority and credibility (O) because it is provided by SEforALL (C) which is trusted by stakeholders in the cooling supply chain (M).

1C. Cooling for All tracks access to cooling activity and provides that data freely (I). The tracking data is used by partners and others to help them to make the business case for access to cooling solutions (O) because they can demonstrate that the solutions will deliver improved nutrition and health together with environmental benefits (M). This approach is effective because Cooling for All invests in rigorous collection of data about relevant indicators and communicates that data effectively (C).

1D. Cooling for All works with partners to raise awareness about access to cooling solutions among policymakers, investors, suppliers and the public (I). That awareness leads to greater demand for sustainable cooling (O) because the benefits are recognised and valued by stakeholders (M). This approach is effective because Cooling for All works with partners who are able to convey the messages effectively (C).

1E. The combination of supply chain offers, a strong business case and greater demand (C) builds efficient local markets which grow (O) as experience and confidence builds (M).

1F. A supportive policy and investment environment (C) resulting, in part from Cooling for All's work described in Theory of Change 3 (I) results in greater, faster take-up of sustainable access to cooling solutions than would otherwise be achieved (O) because market actors are confident in the stability of the enabling environment (M).

7.2 Initial theory - enabling policy and investment environment for access to cooling solutions

Figure 11 below illustrates the initial theory by which Cooling for All contributes to the development of an enabling investment environment for access to cooling solutions.

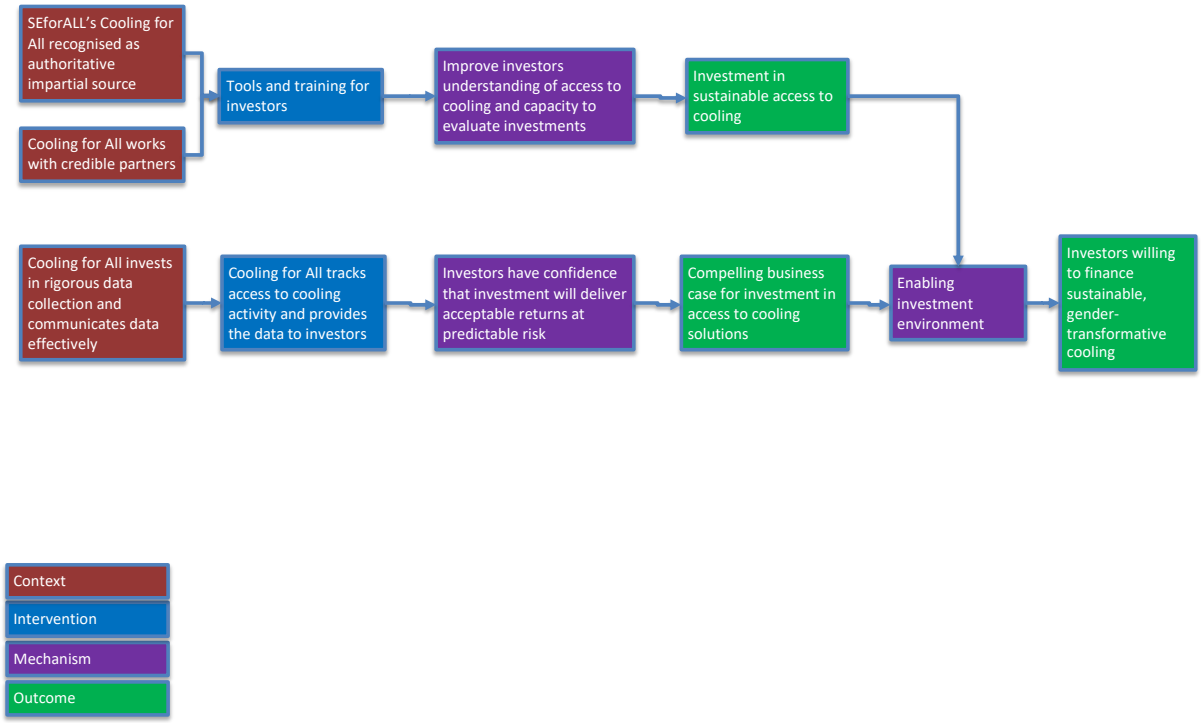


Figure 11 Initial theory; Cooling for All contributes to an enabling investment environment for access to cooling solutions

This theory is described in more detail below (the numbers 2F and 2G refer to the analysis later in this appendix which tracks the changes in theory through the evaluation):

2F. Cooling for All tracks access to cooling activity and provides that data to investors (I). The tracking data helps to make the business case for investment in access to cooling solutions (O) because they can provide confidence that the investment will deliver acceptable returns at predictable risk (M). This approach is effective because Cooling for All invests in rigorous collection of data about relevant indicators and communicates that data effectively (C).

2G. Cooling for All provides tools and training to investors to support them in developing products to invest in access to cooling (I). Those tools and trainings lead to investment (O) because they improve investors' understanding of access to cooling (M) and capacity to evaluate investments (M). The approach is effective because Cooling for All is recognised as an authoritative, impartial source and works with credible partners to provide relevant support at the appropriate level (C).

Figure 12 below illustrates the initial theory by which Cooling for All contributes to the development of an enabling policy environment for access to cooling solutions which together with the enabling investment environment and development of access to cooling solutions described above lead to investment in sustainable, gender-transformative cooling.

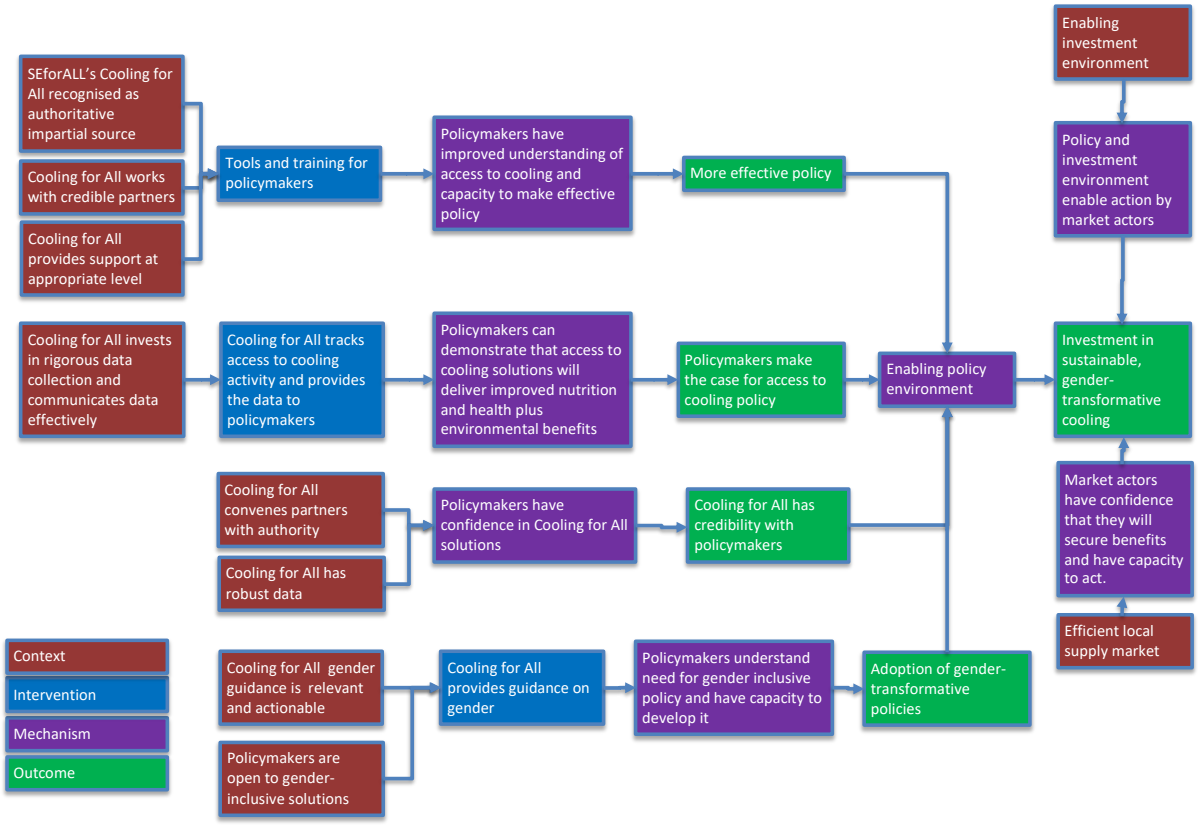


Figure 12 Initial theory; Cooling for All contributes to investment in sustainable gender transformative cooling

This theory is described in more detail below (the numbers, 2A, 2B, etc. refer to the analysis later in this appendix which tracks the changes in theory through the evaluation):

2A. Cooling for All provides tools and training to policymakers to support them in establishing an enabling environment for access to cooling(I). Those tools and trainings lead to more effective policy including National Cooling Action Plans (O) because they improve policymakers understanding of access to cooling (M) and capacity to make effective policy (M). The approach is effective because Cooling for All is recognised as an authoritative, impartial source and works with credible partners to provide relevant support at the appropriate level (C).

2B. Cooling for All tracks access to cooling activity and provides that data to policymakers (I). The tracking data helps to make the case for access to cooling policy (O) because policymakers can demonstrate that the solutions will deliver improved nutrition and health together with environmental benefits (M). This approach is effective because Cooling for All invests in rigorous collection of data about relevant indicators and communicates that data effectively (C).

2C. Cooling for All has credibility with policymakers (O) because it is able to convene a wide range of partners with authority in access to cooling solutions (C), because it has robust data on access to cooling (C). This gives policymakers confidence that Cooling for All is recommending practical, realistic solutions (M).

2D. Cooling for All has authority and credibility (O) because it is provided by SEforALL (C) which is trusted by policymakers and investors (M).

2E. Cooling for All provides guidance on gender (I) which builds policymakers' understanding of the need for gender inclusive policy and their capacity to develop it (M) which results in the adoption of gender-transformative policies (O). This is effective because policymakers are open to gender inclusive solutions (C) and the guidance is relevant and actionable (C).

2H. This policy and investment environment together (C) work alongside the presence of an efficient local supply market (C) resulting, in part, from Cooling for All's work described in Theory of Change 1 to increase investment in gender-transformative access to cooling solutions (O) because market actors have greater confidence that they will secure benefits that are of value to them (M) along with the capacity to take action (M).

7.3 Testing and refining the theories of change

The table below summarises what we found about our initial theories and how the refined and new theories relate to the initial ones. A complete list of the new theories is given at the end of this section.

Initial theory	Development	New theory
1A	No evidence	
1B	Refined	1Bi
1C	Refined	1Ci
1D	No evidence	
1F	Incorporated with 2H	2Hi
2A	No evidence	
2B	Refined	2Bi and 2Bii
2C	Refined with 2D	2Ci and 2Di
2D	Refined with 2C	2Ci and 2Di
2E	Evidence to refute	
2F	Refined	2Fi and 2Fii
2G	No evidence	
2H	Refined with 1F	2Hi

The following sections examine each proposition in turn, explaining how it evolved during our interviews and providing evidence to support it or a refined theory. Where we found no evidence, we discuss whether the theory is incorrect, or whether it may exist but we simply didn't find evidence relating to it during the interviews.

1A Cooling for All works with partners to develop evidence about new solutions through research and pilots (I). That evidence is used by partners to convince the supply chain to offer sustainable access to cooling solutions (O) because they have confidence (M) that the solutions are effective and that there is demand for them. The approach is effective because Cooling for All is recognised as an authoritative, impartial source and works with credible partners (C).

We found no evidence to support this. We spoke to numerous key partners who work with the supply chain and whilst they do use Cooling for All's evidence to engage with providers of access to cooling solutions, we did not hear of them using it in this way. There is evidence to

confirm that the authority of Cooling for All/SEforALL is of importance and this element is refined separately in 1Bi below.

1B Cooling for All has authority and credibility (O) because it is provided by SEforAll (C) which is trusted by stakeholders in the cooling supply chain (M).

There is evidence both to confirm and to refine this theory. Providers of technology and service solutions and the partners who support them trust Cooling for All for a variety of reasons. This trust has been built up over the years and frequently comes from a combination of sources. Many of our interviewees used the names SEforALL and Cooling for All interchangeably, and viewed them as part of the UN, even though officially they are not. The high quality of Cooling for All's work was often praised, with named members of the team being credited with notably personal, prompt and dedicated service. Brian Dean's past experience at IEA in particular was cited as evidence that he was knowledgeable and reliable.

> *"So when working with [government], for example, we say "Well, of course, in our conversations with SEforALL…" and you know that kind of helps and so I definitely see Cooling for All as a sub brand within SEforALL, I probably would refer to SEforALL more than Cooling for All."*
>
> *"I would say that any of these reports that SEforALL publishes has this authority. And because I mean, I believe there's at least the perception that SEforALL does really their job and doing the research. And for me, it's not just the perception, I can see it, because I've been also working with some other team members. So I know that they're quite rigorous in doing this. So in that sense, any number pulled from their reports has the authority to be considered as a baseline for any conversation.*"
>
> *"And so I think it's a combination. But I think the biggest thing is it's a UN body. And it's coming out of Sustainable Energy for All, which has already got a great reputation within this space. And the work was very thorough."*
>
> *"I know Brian from IEA as well. And I know how good he is. So, you know, the reputational score would be very high on this, you know, that this is credible."*

We have refined theory 1B as 1Bi below:

1Bi Cooling for All has authority and credibility with providers of technology and service solutions (O) because it is an SEforALL programme (C), because of the quality of their work (C) and the authority and responsiveness of individual staff (C) which have built trust and confidence (M).

1C Cooling for All tracks access to cooling activity and provides that data freely (I). The tracking data is used by partners and others to help them to make the business case for access to cooling solutions (O) because they can demonstrate that the solutions will deliver improved nutrition and health together with environmental benefits (M). This approach is effective because Cooling for All invests in rigorous collection of data about relevant indicators and communicates that data effectively (C).

Our interviewees provided evidence to refine this theory. They reported finding the data credible and very valuable as part of the background to decisions about investing further resources into access to cooling solutions. These decisions appear to be driven mainly by energy efficiency considerations, rather than being influenced by understanding the health and nutrition benefits. The data referred to is mainly Chilling Prospects which reaches providers through an effective network of partners used by Cooling for All to promote it. Some of the interviewees from organisations which support providers told us that the level of detail in Chilling Prospects was not so important – it is presenting the overall access picture which makes the difference. The Cooling for All team is seen as having established and credible connections at high level with governments and multilateral bodies which influence policy. Combined with theory 1Bi above, this means that providers trust the data and are prepared to conduct further research and due diligence on projects, exploring opportunities based on Cooling for All evidence.

> *"I'm fairly new to the industry. So for me, it's been a great tool to learn. And I use it as a resource to do research, and look at what's happening in the marketplace. And also, you know, what, what people what people actually need, and we're where we can sort of take our products. So for me, that's how we're sort of using the tool."*
>
> *"It's the backdrop, if you like, to the play that we're putting on - so their data, we refer to it at a high level, in our framings and in the work that we're doing with the organizations we're working with, because that gives it the backdrop."*
>
> *"I think that Chilling Prospects reports are very valuable, and that you know, that you put a handle on the size of the problem. But what I'm saying is whether or not that handle is really correct, we don't yet know. But at least it gives someone it gives people a number to bandy around."*
>
> *"I think they try to be transparent about how they've calculated things in the report itself. I'm not sure that always comes through. And these are primarily for, you know, high level awareness raising, not everyone's going into the weeds. So maybe there's a way to do this that's a little more accepting of the fact that this is an inexact science. But I think it's you know, I think they're tying up with the with IEA, for example, they've tied up with organizations that have some good technical reputations. I think that helps."*

We have refined theory 1C as 1Ci below:

1Ci Cooling for All provides up to date evidence about access to cooling (I). The evidence is used by providers of technology and service solutions to help them to assess the commercial opportunities for their cooling solutions (O) and to inform their further research and due diligence (O) because they have confidence in Cooling for All's technical knowledge and understanding of the policy environment (M). This approach is effective because Cooling for All staff have strong technical skills and good relationships with policy makers and the bodies that influence them (C).

1D Cooling for All works with partners to raise awareness about access to cooling solutions among policymakers, investors, suppliers and the public (I). That awareness leads to greater demand for sustainable cooling (O) because the benefits are recognised and valued by stakeholders (M). This approach is effective because Cooling for All works with partners who are able to convey the messages effectively (C).
1E The combination of supply chain offers, a strong business case and greater demand (C) builds efficient local markets which grow (O) as experience and confidence builds (M).

We found no evidence for our initial theories 1D and 1E. Some organisations which work to support providers suggested that Cooling for All is better placed to influence policymakers and investors on the issue of access and need, rather than on solutions and technology and that its efforts are more valuable in facilitating a positive enabling environment. Although there is now plenty of activity in the cooling space, we did not find evidence of increased awareness about access to cooling solutions resulting from Cooling for All's work, nor of increased demand.

1F A supportive policy and investment environment (C) resulting, in part from Cooling for All's work described in Theory of Change 3 (I) results in greater, faster take-up of sustainable access to cooling solutions than would otherwise be achieved (O) because market actors are confident in the stability of the enabling environment (M).

There was no evidence to support this initial proposition as a standalone theory, but it does form part of the overall picture which our research painted and which has led to the development of an overarching theory which we give at the end of this section as theory 2Hi.

2A Cooling for All provides tools and training to policymakers to support them in establishing an enabling environment for access to cooling(I). Those tools and trainings lead to more effective policy including National Cooling Action Plans (O) because they improve policymakers understanding of access to cooling (M) and capacity to make effective policy (M). The approach is effective because Cooling for All is recognised as an authoritative, impartial source and works with credible partners to provide relevant support at the appropriate level (C).

We found no evidence for this theory. None of our policymaker interviewees or survey respondents told us they had used the Cooling for All tools or training, though they did refer frequently and talked positively about, their use of Cooling for All's data, in the form of Chilling Prospects. They also reported having good experiences when seeking support and valuing the personal and knowledgeable service and professional response from the team when dealing with questions. In addition, some did report being aware of the #ThisIsCool communications campaign.

2B Cooling for All tracks access to cooling activity and provides that data to policymakers (I). The tracking data helps to make the case for access to cooling policy (O) because policymakers can demonstrate that the solutions will deliver improved nutrition and health together with environmental benefits (M). This approach is effective because Cooling for

All invests in rigorous collection of data about relevant indicators and communicates that data effectively (C).

We refined this theory, based on our interviews, because we did not hear evidence about consideration of health and nutrition benefits. This may have been because the contacts which Cooling for All provided as potential interviewees were mainly concerned with energy policy. We did not talk to health, agriculture and nutrition policymakers, but to government officials with energy efficiency and ozone responsibilities, and to organisations which support them. We spoke to one advocate for agriculture and energy efficiency. But we do not know whether health, agriculture and nutrition policymakers are using the data and we found no evidence that energy policymakers are engaging with other departments to discuss these aspects of cooling.

We heard evidence that energy and ozone policymakers use Cooling for All data to help them develop cooling policy and gain buy-in from senior ministers. They find examples from other countries particularly helpful.

> *"I thoroughly endorse the website because it has good information. And I would pull information from it. If I needed information on SDGs I can look at that. And I can, you know what I mean, see the nexus between cooling and other SDGs, gender etc. So I would say that the website is informative and influential on up to date information on what's going on within my particular field."*

> *"So for example, in terms of what technologies were being developed, what refrigerants are being introduced, this information was very helpful for us because we are currently updating our regulations in terms of the refrigerators and air conditioners. ….We have a policy on the minimum performance standards of these appliances that are being imported. However, these laws were passed way back….. And you agree with me that technology has taken place. And a lot of these regulations probably would not still be very effective. So the information there has actually helped us in upgrading the content of our regulation."*

There is evidence from advocates for sustainable cooling that Cooling for All data helps them to persuade policymakers to take action.

> *"Cooling for All is, I think making a difference, because it's actually helping people understand the problem."*

> *"It's been extremely useful data to make the case writ large, that this is affecting billions of people in an acute way. And being able to point to that with actual numbers is very helpful."*

The detail is less important than the overall picture in securing buy-in.

> *"Sometimes we just went fast and not necessarily take the time to look at the numbers more specifically, especially as we don't think that, you know, like, the National Cooling*

Action Plan will help to resolve all these. But in general, I think it's very useful to show the background and the issues."

Advocates find it very useful to provide examples of where other countries have taken action and the outcomes they are achieving and/or challenges they are tackling. They urged Cooling for All to make more, and more diverse examples available.

"Hearing from more peer groups, countries that look like the countries that that we're aiming at here, so and then Rwanda is one thing, but what if we had a conversation with someone from a West African country that's actually like, in the process of looking at this internally, or Bangladesh is another great example. Bangladesh is not quite there yet on their cooling action plan. But it's doing a lot of really interesting things in this space."

"This is coming from my close relationship with policymakers, they're always asking us, what are other countries doing what is working in other countries, we have examples of what that is, especially on the on grid, energy efficiency policy. But we know that this cooling challenge is broader."

We did hear from organisations which support policymakers that it would be important to frame the data in different, targeted ways in order to interest those who are making health and nutrition policy.

"It is very important to make that connection very clear - the energy and agriculture link, because especially policymakers, you'll have to take them by the hand and guide them into this, it doesn't it's not something that pops up directly in their head, it's always about transport or, you know, industry."

"It depends on the audience….. If you go into the climate ministry, it's how you might address some of your commitments you've made, it's giving you some scaling, it's giving you a bit of a route map on some things you could do. If you're going into industry or generation, it's more or much more about load management, cost reduction, minimizing long term investment in new generating facilities, bigger infrastructure. And if you're going to health, it's a, you know those people over in climate, they're doing stuff that's why you are at all interested, it really matters to you, people are going to get really hot and you need cooling in hospitals, you're going to need cooling in homes to have the health outcomes that you're trying to do. So the reason it's a yes or no, I would suggest you could take the same content….. and repackage it in five different boxes. And it would become much more useful."

"I think one of the challenges that the cooling sector faces is that, unlike energy access, you know, you have a government arm for energy access, you have a government arm for health. Cooling is a cross cutting across all of those. And so I think it makes it much harder to figure out who the audience should be on the government side, which I think finally is where SEforALL is looking to influence."

We refined our initial theory 2B as 2Bi and 2Bii below:

2Bi Cooling for All tracks access to cooling activity and provides that data to energy policymakers through Chilling Prospects (I). Chilling Prospects helps to make the case for energy efficient cooling policy (O) because energy policymakers understand the likely increased electricity demand (M). This approach is effective because Cooling for All data are good enough (C), they are communicated effectively (C) by a credible team (C) and because SEforALL is an authoritative body (C).

2Bii Where advocates for sustainable cooling want to engage policymakers (C) Cooling for All provides credible evidence for the need for sustainable cooling (C), the development benefits (C) and examples of others taking action (C) which interests energy policymakers as they see the benefits to their population (M) and are then willing to engage with advocates to develop policy for access to sustainable cooling (O).

2C Cooling for All has credibility with policymakers (O) because it is able to convene a wide range of partners with authority in access to cooling solutions (C), because it has robust data on access to cooling (C). This gives policymakers confidence that Cooling for All is recommending practical, realistic solutions (M).

2D Cooling for All has authority and credibility (O) because it is provided by SEforALL (C) which is trusted by policymakers and investors (M).

There is evidence that Cooling for All's convening power is important in enabling it to spread its unique messages about access to sustainable cooling. Policymakers, donors, DFIs, investors and advocates talked about Cooling for All's credibility being based partly in this ability to network with those in a position to influence others.

> *"What about their role as a convener?"*
> *"Yeah, they're fantastic. The only other organization that I've ever met that is as effective as a convener is the climate and clean air coalition, which is also small, nimble organization."*

> *"I definitely will see this is a strength of, of SEforALL to bring people together, set up partnerships…… I think they do quite a good job at this and also quite an effective job because by asking for our inputs to let's say, products, reports, these things and by reviewing this in a quite technical manner, it's not just the copywriter checking the language, it's actually the content, then they also gain an understanding of where our expertise lies, and they learn from what we do, and then by learning what we do, it's easier for them to explain to others what the different organizations do or what their where the expertise lies. So that's strength of theirs."*

> *"I understand the consideration to kind of coordinate with Cool Coalition, kind of allow Cool Coalition and their high level political leaders to, to kind of like to share the stage to say, but I think SEforALL has a specific expertise on access to cooling that Cool Coalition doesn't necessarily have, because they're overseeing the cooling work in general."*

"What else could Cooling for All be doing to help you increase the uptake of sustainable access to cooling solutions?"

"More regularly bringing capital providers such as [my company] together with the NGOs, governmental organizations or stakeholders who are working to mainstream the concept of (and need for) cooling efficiency. I see your platform as a convener for bringing together disparate stakeholders - not enough is done in this arena."

Cooling for All's status as a programme run by SEforALL adds to its credibility, although the relationship was not understood by everyone, and the names were often used interchangeably. Cooling for All was generally seen as a UN body. We discussed this above with reference to providers of access to cooling solutions in theory 1B, and the same applies to policymakers and investors.

"I think that for the type of influencing they're trying to do they're well positioned, to be in the UN system. And then hopefully others, like us can get out there and then build on that on the ground."

"The source carries a lot of substance, that kind of stuff, and its reputation, so we would assume or hope, we're not (just) hoping, that the data is coming from valid sources."

"And in terms of buy in also that also helps because with government agencies, they would want, you know, credible organizations that are championing these causes."

"Our board also comes from, from the UN SEforALL world. And then they know the whole UN system and everything else also. So you know, SEforALL has weight that, you know, they will trust."

We refined our initial theories 2C and 2D as theories 2Ci and 2Di below which describe how Cooling for All's credibility comes from the perception that it is part of the UN, from its partners, and from the expertise and skills of the team:

2Ci Cooling for All has credibility with policymakers, donors, DFIs and private investors (O) because it is a SEforALL programme (C), because the team are knowledgeable and convincing advocates (C) and because they work with credible partners (C). This gives them confidence that Cooling for All is recommending practical actions that will benefit their populations (M).

2Di SEforALL perceived to be a UN body (C) and UN bodies are trusted to be rigorous and impartial (M) which means users have confidence in their recommendations (O)

2E Cooling for All provides guidance on gender (I) which builds policymakers' understanding of the need for gender inclusive policy and their capacity to develop it (M) which results in the adoption of gender-transformative policies (O). This is effective

because policymakers are open to gender inclusive solutions (C) and the guidance is relevant and actionable (C).

We found evidence to refute this theory. This may have been because the Cooling for All guidance on gender has only recently been published, but none of our interviewees or survey respondents reported having read or been influenced by it. Although some said they were pleased that Cooling for All was addressing the issue, others questioned whether this was a necessary or appropriate role for the organisation. Some thought that equity as a general issue is a more important angle to adopt.

> *"It's great that Cooling for All is playing a role in widening that discussion and saying, look, social, and cultural issues are as important as the access to the technologies, we really have to think about, we really have to get to grips with that. So I think that's a really, that's a really good, a great role that they're playing."*

> *"Gender is a very important issue, I get that. Why has cooling suddenly become a gender issue, because gender is important, but cooling is important to to society…….should a cooling project to help farmers in Africa? Should it help all farmers? Or should it specifically help female farmers?"*

> *"If you really want to reach out to policymakers, I know that equity is a major concern right now. Not so much gender, especially from the governments that we're working in, in Southeast Asia and in Africa. You know, there, there has never been a conversation where a government or stakeholder talks to me about gender, but equity, yes."*

One interviewee thought that the recent focus on gender was probably driven by funders' priorities and questioned whether this was helpful.

> *"And are they honest with themselves about "We're only doing this because the funder has come to us and said we'd love you to do this"? And rather than there's definitely a gap in the market, and where's the best place to address that gap and my services, it's been driven by "Here is more money, will you do it?" But it's a crude, it's a crude observation. But unfortunately, that's what it looked like to me, rather than saying no, and saying we're going to just do these things."*

2F Cooling for All tracks access to cooling activity and provides that data to investors (I). The tracking data helps to make the business case for investment in access to cooling solutions (O) because they can provide confidence that the investment will deliver acceptable returns at predictable risk (M). This approach is effective because Cooling for All invests in rigorous collection of data about relevant indicators and communicates that data effectively (C).

There is evidence to refine this initial theory, as various types of investor appear to use the data for different purposes. For donors and DFIs, Chilling Prospects in particular helps them to make the case to others within their organisation for investing in sustainable cooling

because for these investors, the multiple benefits which can be achieved in terms of health and nutrition help to align such investments with their strategy for investment in both development and climate projects.

> *"I have relied a lot on the things that the Cooling for All has put up put forward I mean, you know, that their first report as well as the Chilling Prospects……I think that that was actually one of the biggest selling points for us. Especially to my management was what we took out of the Chilling Prospects. Because I'm an energy efficiency guy. So everything I see, I see it from an efficiency point of view, and then I see it from a dollars point of view on what the returns are going to be. Because I mean, I've worked on finance for such a long time, then, you know, when we were able to kind of bring in this whole point about, you know, where the lack of cooling and then how the cooling basically affects the most vulnerable people in different strata and different categories. I think that was a really an eye opening thing was one for me."*

> *"So there's that Chilling Prospects report, and the tracking one, and I think they're quite useful for us to try and articulate, you know, why does this topic deserve attention on a standalone basis? Yeah. So I think that's, you know, they put out high quality data, we use that internally, to build our case, for promoting this area of business."*

> *"And it was useful, for instance, in developing the proposal for KCEP that included [country], because [country] was one of the countries that they identify as having the largest portion of vulnerable population in the lack of access to cooling. And of course, it supports mobilized funding around those issues and getting access to funds like KCEP for NDC facility as well."*

> *"I think, especially since the first report, if you if we look and see how the Chilling Prospects report process has evolved over the last three cycles, I think it's been really important for development banks, international organizations, and others that are looking at this space to actually have a baseline for this."*

For private investors, on the other hand, the important aspect is that the numbers provided by Cooling for All demonstrate the scale of the opportunity and the openness of the enabling environment. We found no evidence of interest amongst private investors in development or climate issues, but we did not interview or have survey responses from many private investors so we may not have the full picture.

> *"To do energy efficiency projects, the barrier in this part of the world has very much been historically, one simply just doing the investment grade audit, right? Because as I'm sure if you've travelled in this part of the world, the focus on money and on cost is quite significant. And so you'd have a lot of discussions at simply a lot of initiatives that simply wouldn't get traction, because nobody wanted to pay for it, right*?"

> *"Something for them to consider is the insurance, reinsurance and credit risk markets are going to be hugely important in getting this actually deployed in, you know, in the private sector. ..... I think they're starting to put numbers on that in a way that's important. But I think there's a long way they could go, and I would love to see them*

start to do lead some more outreach into those communities, their traditional hard non-profit to work with because they're looking to make a new product rather than, you know, have a policy answer."

"If we were looking at certain countries to go into, but you could look at that action pattern and from that gauge, how switched on each government we're talking to is into the importance of cooling."

We refined our initial theory 2F as 2Fi and 2Fii below.

2Fi Cooling for All tracks access to cooling activity and provides that data to donors and DFIs through Chilling Prospects (I). Chilling Prospects helps to make the case for providing concessionary finance for energy efficient cooling (O) because donors and DFIs understand that there is a significant opportunity for development and climate benefits (M). This approach is effective because Cooling for All data are good enough (C), they are communicated effectively (C) by a credible team (C) and because SEforALL is an authoritative body (C).

2Fii Cooling for All assesses the market for cooling and makes those data freely available (I). Private investors trust these data because SEforALL is an authoritative body (C) and understand that there is a significant market opportunity (M) which helps to mobilise private finance (O).

2G Cooling for All provides tools and training to investors to support them in developing products to invest in access to cooling (I). Those tools and trainings lead to investment (O) because they improve investors' understanding of access to cooling (M) and capacity to evaluate investments (M). The approach is effective because Cooling for All is recognised as an authoritative, impartial source and works with credible partners to provide relevant support at the appropriate level (C).

There is no evidence that investors are using tools and training, as opposed to data, provided by Cooling for All. We discussed this above at 2A, and the same points apply, except that there is no evidence of investors using the #ThisIsCool campaign.

2H This policy and investment environment together (C) work alongside the presence of an efficient local supply market (C) resulting, in part, from Cooling for All's work described in Theory of Change 1 to increase investment in gender-transformative access to cooling solutions (O) because market actors have greater confidence that they will secure benefits that are of value to them (M) along with the capacity to take action (M).

We have developed a refined and combined version of theories 1F and 2H as 2Hi below. This theory brings together the underlying theories discussed above.

2Hi A supportive policy environment (C) and the availability of concessionary finance (C) resulting, in part from Cooling for All's work (I) together with innovation and investment by suppliers of sustainable cooling solutions (C) results in greater, faster take-up of sustainable

access to cooling solutions than would otherwise be achieved (O) because market actors are confident in the scale of the opportunity and the stability of the enabling environment (M).

7.4 New theories

7.4.1 Cooling for All has credibility

Drawing on the findings from this evaluation we found that Cooling for All has authority and credibility with providers of technology and service solutions because it is an SEforALL programme, because of the quality of their work and the authority and responsiveness of individual staff which have built trust and confidence. This is shown in figure 13 below:

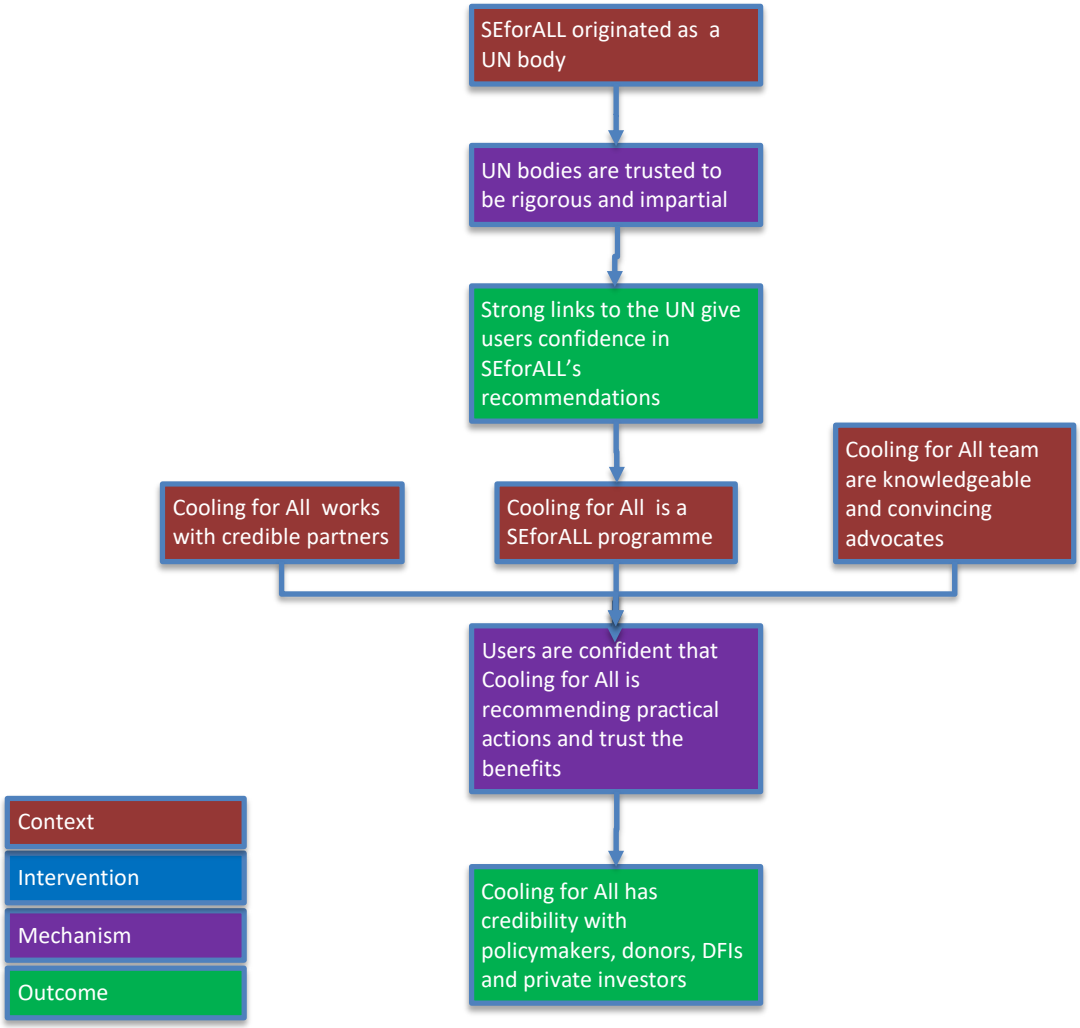


Figure 13: Cooling for All has credibility

7.4.2 Cooling for all contributes to innovation and investment by suppliers

Drawing on the findings from this evaluation we found that Cooling for All contributes to innovation and investment by suppliers of sustainable cooling solutions because:

- Cooling for All provides up to date evidence about access to cooling. The evidence is used by providers of technology and service solutions to help them to assess the

commercial opportunities for their cooling solutions and to inform their further research and due diligence because they have confidence in Cooling for All's technical knowledge and understanding of the policy environment. This approach is effective because Cooling for All staff have strong technical skills and good relationships with policy makers and the bodies that influence them.

- Cooling for All assesses the market for cooling and makes those data freely available. Private investors trust these data because SEforALL is an authoritative body and understand that there is a significant market opportunity which helps to mobilise private finance.
- SEforALL is a UN body and UN bodies are trusted to be rigorous and impartial which means users have confidence in their recommendations.

This is shown in figure 14 below:

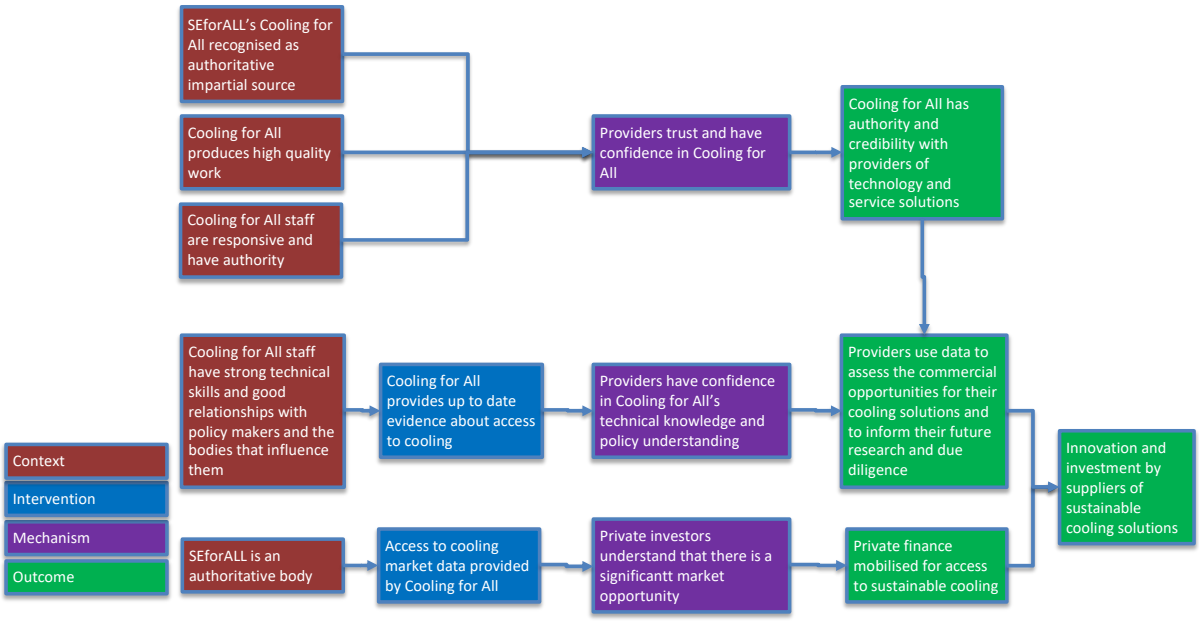


Figure 14: Cooling for All contributes to innovation and investment

7.4.3 Cooling for All contributes to greater faster take up of access to sustainable cooling

Drawing on the findings from this evaluation we found that Cooling for All contributes to greater faster take up of access to sustainable cooling because:

- There is innovation and investment by suppliers (see section 3.2 above).
- Cooling for All tracks access to cooling activity and provides that data to energy policymakers through Chilling Prospects. Chilling Prospects helps to make the case for energy efficient cooling policy because energy policymakers understand the likely increased electricity demand. This approach is effective because Cooling for All data are good enough, they are communicated effectively by a credible team and because SEforALL is an authoritative body.
- Where advocates for sustainable cooling want to engage policymakers Cooling for All provides credible evidence for the need for sustainable cooling, the development benefits and examples of others taking action which interests energy policymakers as

they see the benefits to their population and are then willing to engage with advocates to develop policy for access to sustainable cooling.

- Cooling for All has credibility with policymakers, donors, DFIs and private investors because it is a SEforALL programme, because the team are knowledgeable and convincing advocates and because they work with credible partners. This gives them confidence that Cooling for All is recommending practical actions that will benefit their populations.

The areas combine to secure a supportive policy environment and the availability of concessionary finance resulting, in part from Cooling for All's work. Together with innovation and investment by suppliers of sustainable cooling solutions this results in greater, faster take-up of sustainable access to cooling solutions than would otherwise be achieved because market actors are confident in the scale of the opportunity and the stability of the enabling environment.

This is shown in figure 15 below:

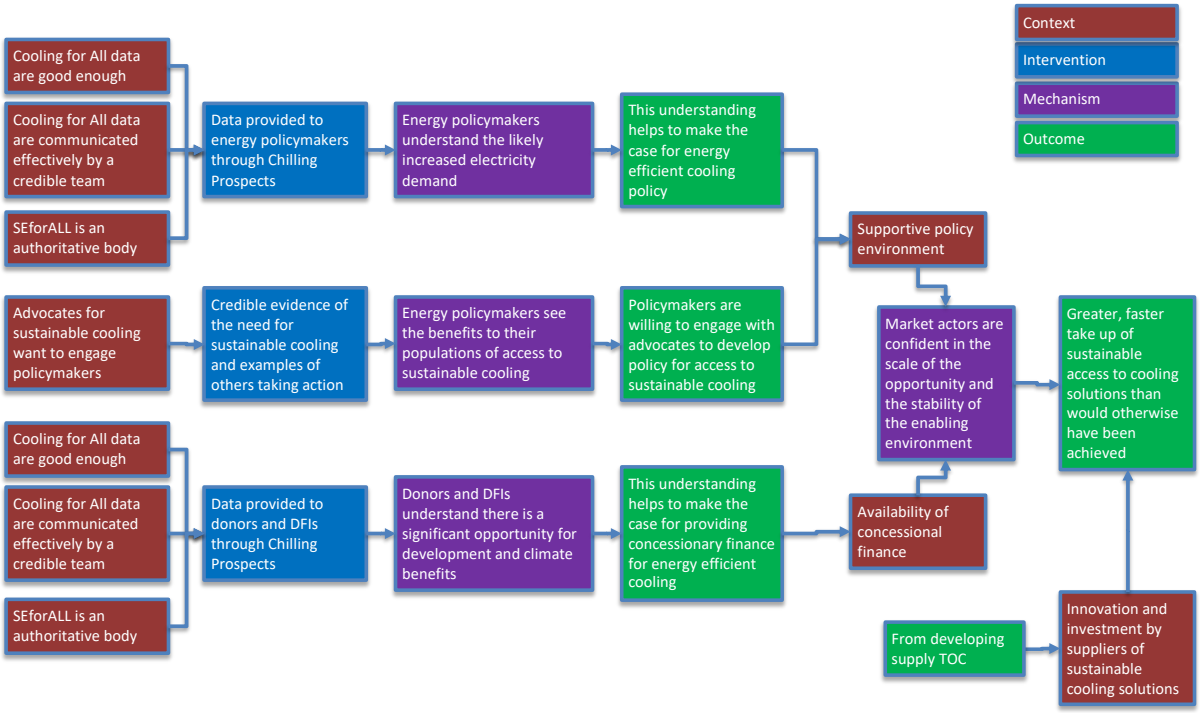


Figure 15: Cooling for All contributes to greater, faster take up of access to sustainable cooling

8 Appendix B Interview guide

Cooling for All

Topic guide for interviews

Thank you very much for agreeing to help with this evaluation for Cooling for All. We are looking at what has worked well and what has been more challenging over all stages of the programme since it began in 2017. We are keen to understand how, why, for whom and in what circumstances Cooling for All's work has made a difference or where it could make a bigger difference in the future. SEforALL will use the results to improve their support for the access to cooling community.

Anything you tell us will be treated in confidence and your feedback will be anonymised. I'd like to record our conversation so that I can make sure I don't miss anything. The recording is just for our use and won't be shared outside the evaluation team. Is that OK?

Introduction

Could you start by telling me a bit about your role – what do you do?

All respondents

Have you worked directly with SEforALL's Cooling for All programme?

IF YES: What were you hoping to get from working with Cooling for All? To what extent did you get what you needed?

IF NO: What type of awareness of or interaction with the Cooling for All programme have you had?

Please can you give examples? e.g.:

- *Advice and support on policy development e.g. NCAP*
- *Tools and resources e.g. Cooling for All Needs Assessment, Solutions Assessment*
- *Capacity Building and Events e.g. training or webinars*
- *Data and evidence e.g. Chilling Prospects*
- *Communications e.g. #ThisIsCool*

Probe as appropriate to test theory of change:

What is it about Cooling for All that is important to you?

- *What is **your perception** of Cooling for All as a programme?*
    - *To what extent do you think Cooling for All is recognised as authoritative? Why is that?*
    - *How important is it that Cooling for All is impartial?*
    - *To what extent do you have confidence that Cooling for All recommends practical, realistic approaches or solutions?*
- *Cooling for All works to bring together **a range of partners**. How important is this to you? What difference does this make?*
    - *How much does it matter to you that Cooling for All works with credible partners? Why do you say that?*
- *Thinking about **the data** that Cooling for All tracks on access to cooling risks and trends, by whom and how are these communicated to you?*

    - *How effectively do you think it is communicated?*
    - *And how would you describe the quality of the data?*
    - *To what extent is it rigorously collected?*
    - *How relevant is it to you?*
- *How does Cooling for All fit into the **overall landscape** of people and organisations working in sustainable cooling?*
    - *Are they the best people to do the work that they do?*
    - *What are the programme's strengths and weaknesses?*
    - *Is there anything else you would like them to do? Why and how would it help you?*
- Is it important to you that the secretariat for Cooling for All is **hosted by SEforALL?** Does that affect your confidence in the support and data that they provide? Why?

Thinking about investment going into access to cooling solutions, to what extent do you think that Cooling for All's work has helped enable increased funding to increase access to sustainable cooling, either directly or indirectly? Has the Cooling for All narrative changed attitudes and willingness to invest? Can you give examples?

For policy and investment respondents

- *To what extent has Cooling for All's guidance on gender and access to cooling helped you to develop policy (or investment planning)? How relevant and actionable is the guidance? Can you give examples of the guidance specifically influencing gender policy implementation to enable access to cooling?*

All respondents

Have you done anything differently as a result of working with Cooling for All?

What did you do? Probe to get details

How did Cooling for All help you to do that? Probe as appropriate to test theory of change:

- *Did it improve your **understanding** of access to cooling?*
- *Did it increase your **capacity** to develop solutions? Or your **confidence** that solutions are effective? Or that there is **demand** for them?*
- *Did it help you make **effective policy**?*
- *Did it help you to **demonstrate that solutions will deliver** improved nutrition, health, thermal comfort and productivity benefits?*
- *Did it help **stakeholders to recognise and value the benefits** of access to sustainable cooling?*
- *Did it help you to make the **case for funding** or leverage funding?*
- *Did it give you **confidence that investment will deliver acceptable returns** at predictable risk?*
- *Did it help you **form partnerships**?*
- *Did it **catalyse new initiatives**?*

Were there other things on sustainable cooling or access to cooling you could have done if Cooling for All had provided more support? What has prevented you from doing them?

Did you work with other organisations on the action you took on sustainable cooling or access to cooling? If so, who? Would you say that this complemented the work that Cooling for All does or not? Why do you say that?

Probe to test contribution story…

- *Is there anything that Cooling for All does that isn't available from other sources? What?*

- *Does Cooling for All's work in raising awareness of access to cooling as a development priority fill a gap that is not fully addressed elsewhere? If yes, how and in what way? If no, why not?*
- *Does Cooling for All/SEforALL have a unique ability to convene and partner? Why do you say that?*

What else made a difference to the action you have taken?

What more could be done to improve access to sustainable cooling, what else could Cooling for All do?

Is there anything else I should know or anything you would like to feed back to Cooling for All?

Thank you for your time, that's been very helpful.