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3.0	28.04.2017	Volker Krey	Final version of update for Periodic Report 1	• An adjustment of the target level for article downloads or views, based on the experience to date (adjusted from 30,000 to 80,000. This is because by the end of the reporting period the scientific articles related to the project were viewed more than 21,000 times. • Key messages to be communicated to the different target audiences were further clarified based on the short term plans of the project, more specifically, with the work aiming to contribute to the IPCC 1.5°C Special Report. • The section describing communication activities (Section 3) was updated with information on progress with regards to dissemination, communication and outreach during the first reporting period of the project.
4.0	28.09.2017	Jessica Callen	Revised to address comments from 1st review	• NGOs and businesses/ industry were added as key target audiences. • A more elaborated and detailed planning for the stakeholder and expert workshops was included. • Books and newsletters were removed as forms of communication and substituted with more suitable and prompt forms of communication.
4.1	19.01.2018	Jessica Callen	Minor changes to address comments & questions from EC project advisor	• NGOs and business/industries invitees for Delhi stakeholder/expert workshop listed. • More details on planned expert workshop in Delhi included. • Justification for newsletters being replaced with increased social media, press releases, etc. incorporated into text. • Table 2 revised from quarterly to monthly view.

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Horizon 2020 Societal challenge 5:
Climate action, environment, resource efficiency
and raw materials

CD-LINKS

Linking Climate and Development Policies – Leveraging International Networks and Knowledge Sharing

GA number: 642147, Funding type: RIA

Deliverable number (relative in WP)	**D6.2**
Deliverable name:	Dissemination and Communication Plan
WP / WP number:	WP6
Delivery due date:	Project month 12 (31/08/2016)
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Changes with respect to the DoA

n/a

Dissemination and uptake

This deliverable will be used especially by the project secretariat as a support for implementing and monitoring dissemination and communication activities.

Short Summary of results (<250 words)

The Dissemination and Communication Plan of CD-LINKS focuses on identifying the most effective means of communication for getting key messages through to identified target audiences of the project. This was done in a number of steps. First, the project's main objectives for communications were defined, and based on this, seven target audiences identified. As all dissemination and communications should aim at taking into account the interests and needs of the target audiences, key messages were thought through for each of these groups. To make the plan more tangible, possible means of communication to be used were identified and the scope of them described in more detail. The means of communication were divided into two- and one-directional; two-directional means having the tendency to engage groups of people and organizations through dialogue, whereas one-directional communication is more focused on informing audiences. In the plan, one-directional means of communication range from policy briefs and scientific publications to newsletters and website updates. On the other hand, two-directional means of communication include stakeholder and expert workshops, side-events, presentations at conferences and a research exchange program, among others. Further, available resources, indicators and targets, and a timeline for communications activities for the remaining three years of implementation of the project are presented. The document concludes in a summary of dissemination and communications activities that have already taken place during the first year of implementation of the project.

Evidence of accomplishment

The full Dissemination and Communication Plan can be found as an annex to this document.

Linking Climate and Development Policies –
Leveraging International Networks and Knowledge Sharing

Update of Deliverable 6.2 (month 23)

Dissemination and Communication Plan

Author: Jessica Callen
Reviewer: Volker Krey
Date: 28 September 2017 (update of month 18 version)

Abstract: The Dissemination and Communication Plan of CD-LINKS focuses on identifying the most effective means of communication for getting key messages through to identified target audiences of the project. This was done in a number of steps. First, the project's main objectives for communications were defined, and based on this, nine target audiences identified. As all dissemination and communications should aim at taking into account the interests and needs of the target audiences, key messages were thought through for each of these groups. To make the plan more tangible, possible means of communication to be used were identified and the scope of them described in more detail. The means of communication were divided into two- and one-directional; two-directional means having the tendency to engage groups of people and organizations through dialogue, whereas one-directional communication is more focused on informing audiences. In the plan, one-directional means of communication range from policy briefs and scientific publications to press releases and website updates. On the other hand, two-directional means of communication include stakeholder and expert workshops, side-events, presentations at conferences and a research exchange program, among others. Further, available resources, indicators and targets, and a timeline for communications activities for the remaining two and a half years of implementation of the project are presented. The document concludes in a summary of dissemination and communications activities that have taken place during the first year and a half of implementation of the project (i.e. during the first reporting period).
Keywords: Communication, dissemination

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 642147 (CD-LINKS).

Disclaimer

Deliverable description (as in Grant Agreement)

A comprehensive Dissemination and Communication Plan will be developed during the early Associated with document Ref. Ares(2015)1747584 - 24/04/2015 Page 32 of 47 stages of the project to foster high visibility of CD-LINKS activities and related research products. Careful consideration will be given in the plan to activities that would allow using project outcomes effectively for further exploitation by user communities even beyond the project duration of CD-LINKS. The plan will be developed together with all partners, defining a set of complementary activities and associated dissemination/communication tools in order to reach the relevant target groups.

Executive Summary

The Dissemination and Communication Plan of CD-LINKS focuses on identifying the most effective means of communication of key messages to identified target audiences of the project. This was done in a number of steps. As a basis for more detailed plans of dissemination and communications, five general objectives of communications were defined for the project:

1) Reaching policymakers with the project results in a way that could have an impact on national policy-making and global negotiations in climate change and other sustainable development fora.
2) Increasing awareness of the general public, NGOs and business/industry sector with key messages of the research findings related to the interplay between the different sustainable development challenges the world (and individual countries) will face in the future. Conscious and better-informed citizens will more likely demand increased action from their policy- and decision-makers and employers towards a low-carbon and sustainable future.
3) Expanding the knowledge base within the research community and to spur continued research to further deepen the understanding about the interaction of climate change mitigation and non-climate sustainable development goals.
4) Creating a network of scientists with expertise in sustainable development, hence attracting talented scientists to join the consortium partner institutes, as well as enhancing the capacities within the current network of scientists.
5) To ensure all of the above-mentioned, a final objective is to ensure that the internal communications within the project consortium flow in an efficient manner, taking into account that the project consortium consists of 19 partner institutes in 15 countries and 4 continents.

The next step in developing the plan was to define target audiences that would help the project in reaching the above-mentioned objectives. Seven target audiences were defined, these being:

1) national policy makers,
2) UNFCCC negotiators,
3) major international policy-related and scientific initiatives,
4) media,
5) general public,
6) the external research community,
7) the internal research community,
8) NGOs, and
9) businesses/ industry sector

Key messages were defined for each of these target groups on a general level, however, specific messages will depend on project findings further ahead in the project.

The next step was to identify the most effective means of communication. During the remaining two years of project implementation, these groups of audiences will be targeted through both one-directional and two-directional messages. The two-directional means tend to engage groups of people and organizations through dialogue, whereas one-directional communication is more focused on informing audiences. One-directional means are specifically useful for offering readily available information about the project and its results for a larger amount of actors looking to deepen their knowledge in some of the project's topics. In this Dissemination and Communication Plan, one-directional means of communication range from policy briefs and scientific publications to press releases and website updates. On the other hand, two-directional means of communication include workshops, side-events, presentations at different conferences and a research exchange program,

among others. There are financial resources dedicated to several of these means of communication, which have been taken into account in creating the timeline for the execution of the specific dissemination and communications activities.

Figure 1 summarizes the general structure of the Dissemination and Communication Plan. The general idea is to get the key messages to each of the target audiences through a mix of one-directional and two-directional means of communication. The specific mix for each key message and target audience will vary and depends on the specific needs of the target audiences.

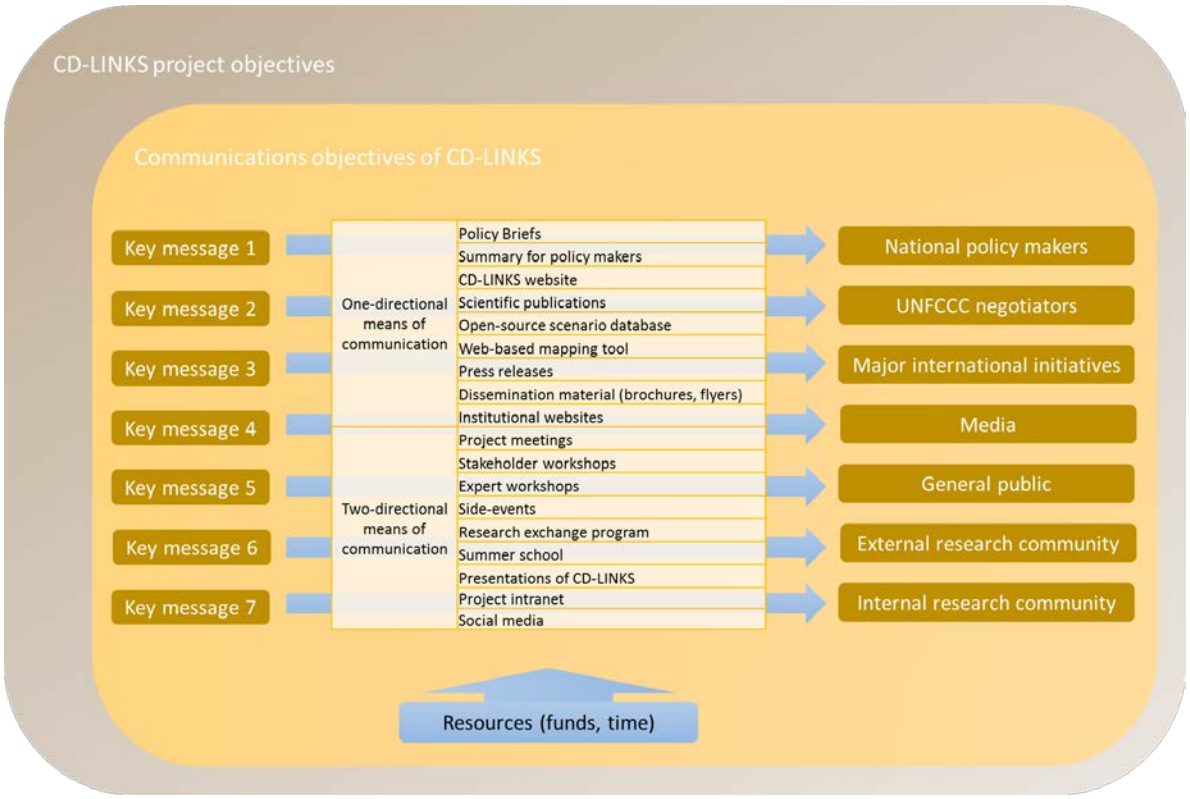

Figure 1: Structure of the Dissemination and Communication Plan for CD-LINKS

Communications activities have already taken place during the two years of the project, which include a project website, a project flyer, press releases, multiple presentations of project results at scientific and policy events, nine dedicated outreach events (e.g., at COP22), and eight publications in peer-reviewed journals.

Progress towards the goals set for the dissemination and communications activities is being assessed every 6 months internally by the Project Officer. Further, as the project is implemented and produces further scientific outputs, the plan is adjusted according the needs of the project.

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Abbreviations

CD-LINKS	Linking Climate and Development Policies – Leveraging International Networks and Knowledge Sharing
CMCC	The Euro-Mediterranean Center on Climate Change, Italy
COP	Conference of the Parties (supreme body of the UNFCCC)
EC	European Commission
IIASA	International Institute for Applied Systems Analysis, Austria
IPCC	Intergovernmental Panel on Climate Change
MCC	Mercator Research Institute on Global Commons and Climate Change, Germany
NDCs	Nationally Determined Contributions under the UNFCCC
NIES	National Institute for Environmental Studies, Japan
PBL	Netherlands Environmental Assessment Agency, The Netherlands
PIK	The Potsdam Institute for Climate Impact Research, Germany
SBSTA	Subsidiary Body for Scientific and Technological Advice (permanent subsidiary body to the COP)
SDGs	Sustainable Development Goals
SDSN	Sustainable Development Solutions Network
SE4ALL	Sustainable Energy for All initiative
UNFCCC	United Nations Framework Convention on Climate Change
WP	Work Package
YSSP	Young Scientists Summer Program (hosted by IIASA)

1. Introduction

The objective of this document is to present the communications and dissemination plan of the CD-LINKS (*Linking Climate and Development Policies – Leveraging International Networks and Knowledge Sharing*) project. Communications and dissemination activities will aim at reproducing meaningful messages out of the project research findings delivered through the work packages. In this process it is key that the messages resonate with the different target audiences so that there is uptake of the project results and the results prevail in the longer term.

Finding ways to communicate with groups that are of interest to the project is the objective of this Dissemination and Communication Plan. The plan is presented in Chapter 3 of this document. Chapter 3 gives a summary of the communications activities already implemented to date. However, first, the plan is put into context through a short presentation of the CD-LINKS project and its objectives.

1.1. Objective of the CD-LINKS project

It is increasingly recognised that climate change is intricately linked to sustainable development, not just in terms of joint underlying drivers, but also with respect to synergistic policy choices. On the one hand, climate mitigation policy, if well designed, can lead to significant co-benefits for development, for example, reducing the health burden from ambient and indoor air pollution and enhancing energy security and safety. On the other hand, climate impacts and risks have been strongly identified as 'threat multipliers' that affect water access, food security, human health, poverty reduction and the socio-economic processes of development in general. Climate adaptation responses are thus intricately linked to development.

To effectively address the challenge of climate change, whether at the national or international level, it is therefore important to take an integrated and holistic perspective. This means that linkages between climate change mitigation and adaptation and other sustainable development objectives are fully recognised in decision making. While coherence and consistency across national strategies is of crucial importance from a global perspective, a central question for national policy-making is how climate and development policies may interact – do they reinforce or hinder each other when trying to achieve a range of societal priorities, like, for example, energy poverty eradication, air quality improvement, energy security enhancement, climate resilience and food and water access? Especially as decision makers throughout the world tend to prioritise societal objectives quite differently, depending on local and national circumstances (e.g., development stage, income inequality, exposure and vulnerability to impacts, fossil fuel resource endowment, energy trade balance, domestic food production).

In order to respond to some of the complex challenges described above, the CD-LINKS project brings together inter-disciplinary and international research teams from Europe, Asia and the Americas to assess the multiple climate and development policy objectives from both global and national perspectives.

A comprehensive analysis of future low-carbon development pathways will align global and national perspectives to capture climate-development linkages so that the possible synergies and trade-offs between multiple objectives can be identified. Moreover, because local and national circumstances vary significantly, future low-carbon development pathways need to be informed by empirical policy analyses that explore the past determinants of policy success and failure. These analyses are crucial for envisioning realistic pathways, considering the implications for policy-effectiveness and the opportunities and challenges for policy implementation.

The CD-LINKS project aims to inform decision making processes, particularly at the science-policy interface, through a better understanding of multiple sustainable development goals. More specifically, it has four main objectives: (i) to improve the scientific understanding of the linkages between climate change and multiple sustainable development objectives, (ii) to broaden the evidence base in the area of policy effectiveness by exploring past and current policy experiences, (iii) to develop globally consistent, national development pathways, and (iv) to establish a research network and capacity building platform in order to leverage knowledge-exchange among institutions from Europe and other key players within the G-20.

2. Communications and dissemination plan description

The communications and dissemination plan aims to ensure that the project research outputs will reach the target audiences of the project in a meaningful way. The EC guidance document on communicating research has been used as a general guideline of this document (European Commission, 2014).The focus of the plan is on concrete action, with measurable goals. This way assessing the effectiveness of the communications activities will be facilitated.

This chapter starts with a description of the objective of the communications and dissemination plan (Section 2.1), towards which all communications activities later described in the document should have as an overarching goal. The following section (2.2) will describe in detail the target audiences of the project and Section 2.3 gives a short description of a general focus of the key messages to each of the target groups. As a next step, the means of communication are described in Section 2.4. The following section (2.7) proposes how to measure progress towards the communications goal. Section 2.5 presents the resources the project is equipped with to follow through the planned communications activities, and Section 2.6 will present an actual timeline for communications activities through the years of implementation of the project. Finally, Section 2.8 identifies actions that ensure a longer-term impact beyond the project implementation.

Figure 1 summarizes the structure of the Dissemination and Communication Plan.

2.1. Communication goals

From the general objective of the project (described in section 1.2 of this document) the below five central communications goals can be derived. All project-related dissemination and communication activities need to be aligned with these goals, which will help to focus the project's communication efforts:

1) Informing policymakers of the project results in a way that could impact national policy-making and global negotiations in climate change and other sustainable development fora.
2) Increasing awareness of the general public and businesses/ industry sector with key messages of the research findings related to the interplay between the different sustainable development challenges the world (and individual countries) will face in the future. Conscious and better-informed citizens will more likely demand increased action from their policy- and decision-makers and employers towards a low-carbon and sustainable future.
3) Expanding the knowledge base within the research community and to spur continued research to further deepen the understanding about the interaction of climate change mitigation and non-climate sustainable development goals.

4) Creating a network of scientists with expertise in sustainable development, hence attracting talented scientists to join the consortium partner institutes, as well as enhancing the capacities within the current network of scientists.
5) To ensure all of the above-mentioned, a final objective is to ensure that the internal communications within the project consortium flow in an efficient manner, taking into account that the project consortium consists of 19 partner institutes in 15 countries and 4 continents.

Indicators and targets for reaching the above-mentioned goals will be presented in Section 2.7, which discusses how to best measure progress in implementing the communications plan.

2.2. Target audiences

For the purpose of this communications and dissemination plan, target audiences have been defined. These are groups of people or organizations who can help the project reach its communications objectives. Understanding the needs and characteristics of the target audiences will be important to get the messages through to them.

The following groups have been identified as target audiences for the CD-LINKS project:

- National policy makers: Policy makers in the countries represented by the CD-LINKS consortium (including the European Union) who are involved in establishing policies with an impact on sustainable development, including the implementation of climate change mitigation and adaptation measures and the Sustainable Development Goals (SDGs).
- UNFCCC negotiators: Government decision-makers and civil society representatives at global climate change negotiations led by the United Nations Framework Convention on Climate Change (UNFCCC). We expect the project outcomes to be highly relevant for the international climate negotiations and aim at active involvement in meetings of the UNFCCC. Funds in the project budget have been set aside to organise at least two side-events COPs, SBSTA or equivalent, over the duration of the project.
- Major international initiatives: CD-LINKS aims to establish close ties with other major ongoing activities with a focus on climate change and sustainable development. In particular, it would be important to reach UN bodies and other organizations involved in the SDG process. Planned collaboration with other major international initiatives include particularly the Sustainable Energy for All (SE4ALL) initiative, the Sustainable Development Solutions Network (SDSN), the Warsaw Loss and Damage framework and Disaster Framework for Action, and others. Collaborations with these initiatives and institutions will be mutually reinforcing and help leveraging CD-LINKS resources and raise international visibility.
- Media: Media (press, internet, TV) will be an important intermediary to reach the general public and civil society. Journalists specialized in climate change and development issues can be expected to be most easily reached, but it would be key to also catch the attention of journalists in fields such as economics and politics.
- General public: The specific focus of this project will be on the general public within the countries represented by the consortium member institutions. As mentioned above, the main channel for reaching the general public will be the media.
- External research community: Scientific community external to the project from various research disciplines (economics, social sciences, political sciences, natural sciences, etc.) with a focus on issues related to or touching upon climate and/or sustainable development.
- Internal research community: Research staff of the consortium partner institutes of the CD-LINKS project. This target group is key for building a strong research community within the interconnection between climate change and sustainable development, but also for ensuring that the project objectives are reached. This target group will also support the communications and dissemination activities with all other above-mentioned target groups.

- NGOs: Those non-governmental organisations that are focused on climate change and development issues, particularly working at the international level or based in countries represented by the CD-LINKS consortium. NGOs will have first-hand experience in dealing with many of the issues that CD-LINKS is seeking to address.
- Business/ industry sector: The project is likely to have an indirect impact on small and medium-sized enterprises by indicating their role in preparing the economy and society for low-energy and low-carbon structures. Involving this target group will help enhance the project having a more effective impact on the sector.

2.3. Key messages to communicate

Keeping in mind the general objective of the Dissemination and Communication Plan, key messages need to be defined for each one of the groups defined as target audiences. In the case of a research project like CD-LINKS, the key messages will largely depend on the findings that will come out of the project. Some initial ideas on messages resulting from the current work on providing input to the IPCC Special Report on 1.5°C is presented below. However, once the results are available, more specific messages will be tailored to the different audiences. These will be updated also in this dissemination and communication plan as the project advances.

- National policy makers:
  - Policy-relevant results of the project need to be packaged in a way that policy makers have a clear understanding and easy access to information on the potential trade-offs and synergies that policy-decisions can have on other climate and sustainable development issues. The project is currently working on producing results to the IPCC Special Report on 1.5°C with the aim to provide policy-makers information on how ambition with regards to the Nationally Determined Contributions (NDCs) can be increased, the positive impacts of increasing ambition earlier instead of later (i.e., in 2020 instead of 2030), and the potential synergies and trade-offs of increasing ambition with regards to other development goals. Furthermore, later in the project also financial implications of the before-mentioned will be assessed, giving policy-makers enhanced tools for making these decisions.
- UNFCCC negotiators:
  - UNFCCC negotiators should understand the potential trade-offs and synergies between low carbon development (climate mitigation) and sustainable development both at the global and national levels. The interaction between global and national teams during the project, and the consistency between the global and national pathways that the project strives for, will give credibility to the project results. The results to be produced by the project for the IPCC Special Report on 1.5°C can provide enhanced capacity for the negotiators to make informed decisions regarding mitigation targets and climate finance.
- Major international initiatives:
  - The project aims to facilitate the design and development of different international initiatives by offering readily available information on multiple sustainable development goals. Most of the current research has focused on interactions between specific sustainable development objectives (not multiple ones) and are based on empirical studies (not forecasting/scenario work), and this will be the value added of CD-LINKS for the SDG discussions in different arenas.
- Media:

  - Key findings of the project will be presented in a language that is clear and understandable for non-expert journalists and lay audiences, and introduced in a form that is as easy as possible to use as a basis for different types of media pieces.
- General public:
  - The focus here will be to enrich the current climate change knowledge of the general public through simple and concise messages that will be derived from the results. The general public may not be aware of that there is a connection between specific sustainable development objectives, such as water availability, food security and poverty eradication, and reducing greenhouse gases, and therefore filling this knowledge gap could be an important value added of the project.
- External research community:
  - The key messages that come out of the research do not have to be modified, as they directly correspond the needs of this target audience. It is important that researchers in different fields are aware of the existence of the open-source databases that the project will produce, and that the research findings are accessible for the research community. Further, a key message is the importance to bring together a network of inter-disciplinary scientists in order to continue studying the interrelation between sustainable development and climate change.
- Internal research community:
  - The key messages for the project consortium partners will focus on creating, strengthening and maintaining a research community to study the cross-section of climate and sustainable development that will continue collaborating even beyond the implementation of the project. Furthermore, smooth communications and cooperation during the implementation of the project will be key to ensure high-quality outputs.
- NGOs:
  - Key findings and results of the project will be presented to NGOs, particularly those focused on sustainable development, in clear and understandable language. Of interest to NGOs will be how the findings and results can inform and improve the work that they are carrying out.
- Business/ industry sector:
  - The key messages to indicate to this group will focus on green growth and low-carbon innovation and what role small and medium-sized enterprises could take. This will be conveyed in ways that are of interest and relevance to business such as the financial incentives or the potential for corporate outreach to customers/ prospective customers. Messages can also be developed in consultation with the industry/business representative that will be appointed to the Advisory Board.

2.4. Means of communication

In order to reach each target audience with our key messages with the greatest impact, the most effective means of communication for each group have been defined. Multiple means of communication to reach each target audience are used, and many of the means of communication are the same across the different target groups. Table 1 summarizes the key means of communication per target audience.

Table 1: Summary of the means of communication and key messages for each target audience

Target group	Key message	Means of communication
National policy makers	Facilitating the understanding about the potential trade-offs and synergies of national policy decisions.	- Stakeholder and expert meetings - Policy briefs - Project website - Interactive mapping tool - Pathways database with visualization tool - Summary for policymakers - Side-events - Dissemination material (e.g. brochures, flyers) - Scientific publications, including the IPCC Special Report on 1.5°C
UNFCCC negotiators	Facilitating the understanding about the potential trade-offs and synergies of measures for limiting the impacts of climate change.	- Stakeholder and expert meetings - Policy briefs - Project website - Interactive mapping tool - Pathways database with visualization tool - Summary for policymakers - Final conference in Brussels - Side-events - Dissemination material (e.g. brochures, flyers) - Scientific publications, including the IPCC Special Report on 1.5°C
Major international initiatives	Facilitating the design and development of different international initiatives by offering readily available information on the interaction of various sustainable development goals.	- Interactive mapping tool - Scientific publications - Policy briefs - Pathways database with visualization tool - Side-events - Summary for policymakers - Side-events - Dissemination material (e.g. brochures, flyers)
Media	Presenting key findings of the project in a way that helps journalists create different types of media outputs.	- Press releases - Project website - Institutional websites - Interactive mapping tool - Dissemination material (e.g. brochures, flyers) - Pathways database with visualization tool - Social media
General public	Enrich the current climate change knowledge of the general public through simple and concise	- Project website - Institutional websites - Interactive mapping tool

	messages that will be derived from the results.	- Pathways database with visualization tool - Side-events - Social media
External research community	Facilitating access to research findings and databases. Bringing together a network of inter-disciplinary scientists.	- Scientific publications - Pathways database with visualization tool - Project website - Dissemination material (e.g. brochures, flyers) - Social media - Press releases - Summer school - Presentations (at research events) - Side-events
Internal research community	Creating and strengthening the research community that studies the relationship of sustainable development and climate change.	- Project intranet (SharePoint) - Project meetings - Email updates - Social media - Project website - Research exchange
NGOs	Presenting key findings and results that are useful for the work implemented by sustainable development NGOs.	- Stakeholder and expert meetings - Press releases - Policy briefs - Project website - Interactive mapping tool - Dissemination material (e.g. brochures, flyers) - Pathways database with visualization tool - Social media
Business/ industry sector	The role small and medium-sized enterprises could take in preparing the economy and society for low-energy and low-carbon structures	- Stakeholder and expert meetings - Press releases - Project website - Dissemination material (e.g. brochures, flyers) - Social media

In the following section, each of the means of communication is described in more detail within the context of the project. Similarly to the EC guidance on communication, the means of communication are divided into one-directional and two-directional types of communication. One-directional communication is characterized by a more massive distribution and it is ideal for a large audience, whereas two-directional communication is seen as more of a dialogue and an interpersonal option, which is also more interactive and flexible (European Commission, 2014).

The project will utilise these two different types of communication depending on the target audience and message. The two-directional means tend to engage groups of people and organizations through dialogue, whereas one-directional communication is more focused on informing audiences. One-directional means are specifically useful for offering readily available information about the project and its results for a larger audience that would like to enhance their knowledge of the project's topics.

Please note that the activities that have already taken place to date are presented in Chapter 3 of this document.

2.4.1. One-directional means of communication

Scientific publications in peer-reviewed journals are planned to complement the deliverables in work packages 1-5 contributing to the visibility of the project within the scientific community. All publications of CD-LINKS are publicly available for download and explicitly acknowledge Horizon 2020 funding. Special issues in peer-reviewed journals are planned to be produced to present a series of papers resulting from project-wide efforts. Scientific papers based on current model runs (to be submitted by 1st November 2017), aim to provide input to the IPCC 1.5°C Special Report.

Deliverables, such as D1.1 Report on the case studies assessing the effectiveness of existing policies, will be disseminated over various communication channels. For example, a press release might be issued following the publishing of the associated scientific paper, the deliverable will be made available on the project website and highlights of the results will be publicised across social media channels - both IIASA's and the dedicated Twitter accounts.

At the end of the project, **Policy Briefs** will be published. The two policy briefs planned will summarize key findings on (i) policy effectiveness of past and existing policies (Deliverable 6.2) and on (ii) the climate and development gaps (Deliverable 6.3). The Policy Briefs will be widely distributed through the networks of the CD-LINKS partners in Europe as well as to key stakeholders in Brazil, China, India, Russia, the US, and Japan.

In addition, a **Summary for Policy Makers** of the project will summarise the main findings from national and global pathways analyses, illustrating viable strategies and actionable measures for reaching SD and climate objectives. The Summary for Policy Makers will be presented at the final conference of CD-LINKS in Brussels at the end of the project.

For effective dissemination and communication of results it is central that the main products of the CD-LINKS project are easily accessible in a user-friendly way to enable further exploitation by the science and policy communities. To this end, CD-LINKS will develop tailor-made, open-access data and visualisation tools to respond to diverse user needs. This will include (i) an extensive open-access web-based database of global and national low-carbon development pathways resulting from the scenario analyses in WPs 3 and 4, and (ii) a policy visualisation tool targeting the lay and non-technical audience synthesising information from WPs 1, 2 and 5 in a global mapping framework for easy communication of hot spots and criticalities for policy making in G20 countries.

Functionalities of the **open-source scenario databases** will include download possibilities for users in different formats, allow transfer of data into other community and policy databases (e.g., IPCC databases), and comprise visualisation tools to respond to the increasing need of users (the press, public, scientific peers, and policy community) for easy adaptable graphics/visualisations of results for further exploitation in presentations and external reports. The CD-LINKS scenarios databases will thus enable exploitation of the results for major assessments in the future and will additionally serve as an important information resource for the public, scientific peers, policy/decision makers and others who might have demand for quantitative scenario information.

The interactive **web-based mapping tool** will help non-technical audiences visualise the main insights of the project. Taking advantage of several opportunities to interact with stakeholders and policy makers that CD-LINKS will provide, it will be possible to work on a tool that represents in the most

understandable way those results that are of key interest to the general audience. One example could be the mapping of different implementation issues over multiple layers of a map so that countries and regions where several key issues might or have arisen are immediately emphasised. While the tool itself will be developed in WP5, which has a specific focus on implementation issues, the tool will also showcase information from other WPs.

A **CD-LINKS website** was created at the start of the project. The website facilitates the dissemination of information on CD-LINKS activities to the public. All the public results produced by CD-LINKS will be posted and made available on this site. The website includes a brief description of the project activities and consortium partners (with links to the partners' institutional websites), a news section, project results, past and upcoming events, a page with information for the media (currently it contains links to IIASA's CD-LINKS related press-releases and the project flyer), and contact information of the project secretariat.

The **institutional websites** of the project partner institutes offer an additional dimension of visibility of the project. All institutes have their network of partners and collaborators, as well as consumers interested in their work, and therefore visibility on these websites will facilitate reaching a wider audience.

The project's main findings will be presented to the media in the form of **press releases**. This will mostly be conducted by the communications department at IIASA, but joint press releases among the project consortium partners may also be developed. The press releases are published on the project partners' institutional websites, as well as in the media section of the CD-LINKS website.

Dissemination material in the form of e.g., brochures, flyers and posters, will be developed and updated throughout the project. This material is useful for increasing the visibility of the project at conferences and events. All dissemination material produced will include summarised information on the project and its results and will help direct interested persons to the project website or to directly contact the project secretariat.

Finally, the EC has some tools available through which the project can communicate its key messages. These tools include print and e-magazines, newsletters, events and online news. These will be explored as potential means of communication as the project implementation progresses (European Commission, 2014).

2.4.2. Two-directional means of communication

An important part of the internal communications and planning process of the project are the **project meetings**, organized every 8 months throughout the duration of the project. The meetings are a space for all project collaborators to convene and discuss the progress and future plans of the different work packages. The project meetings are hosted by 3 EU partners and 3 non-EU partners. As part of the project meetings, **internal capacity building workshops** are also planned to be organized as needs for capacity building are identified. A capacity building workshop for data management/analysis routines, shared libraries and common standards took place during the 4th project meeting in Potsdam, Germany. In addition, during the 5th project meeting in Delhi, India, a capacity building session will be scheduled for modellers who need technical support, such as auto-filling of templates, and will be aimed at Indian junior scientists and students.

A regular dialogue throughout the project with national and international policy makers involved in decisions on climate change and sustainable development polices is a core objective of the CD-LINKS

project. All together four dedicated **stakeholder workshops** in Europe, China, India and Brazil are planned to assure a two-way dialogue with the policy community. Furthermore, **expert workshops** are to be organized with the objective to explore a specific topic related to CD-LINKS in more depth and from different perspectives together with experts external to the project. The next stakeholder and expert workshop will take place on 19 March 2018 in India and will be targeted at government officials, national policy makers, technical support staff, NGOs and the business and industry sector. The scope of the workshop will be to provide background information and an overview of the CD-LINKS project, present the effectiveness of past and current policy experiences (e.g. results and findings of D6.3), explain from the Indian perspective how the SDGs can be attained and the ambition of the INDCs increased, and also indicate the relevant findings from the project for business and industry, such as green growth and low-carbon innovation in India. The first part of the workshop will be stakeholder-focused, with presentations and panel discussions centred on policy aspects and participation expected from the Indian government and the think-tank Niti Aayog. The second part of the workshop will be expert-focused, with presentations and panel discussions centred on the water-energy nexus and the SDGs in India. An initial list of invitees has been prepared in partnership with the Indian host TERI, and includes both business/industry representatives and NGOs: World Energy Council-India, Tata Power, Prayas Energy Group and Council on Energy, Environment and Water. A similar concept for a stakeholder workshop is planned for January/ February 2019 in Brazil.

A **final conference** presenting project results will be organized by IIASA in Brussels at the end of the 4 years of implementation. The primary aims of the final conference are to (i) to raise public awareness on the research field covered by CD-LINKS, (ii) to inform and to stimulate an exchange between European-level decision makers, practitioners and industry stakeholders and the broader public with respect to possible G20 strategies, (iii) to bring interested parties at different levels closer to EU research, and (iv) to give account of how public money is spent and to foster internationally relevant research in the European Research Area.

The project is planning to present its results during the climate change negotiations under the framework of the UNFCCC (COPs), and other related international events, through **side-events**.

In addition to the capacity building that will result from the close collaboration and knowledge exchange within the WPs (between leading European, US, and Japanese modelling teams and modelling teams from emerging economies in India, China, Brazil, and Russia), CD-LINKS will set up an **Exchange Program** for early- to mid-career scientists. The Exchange Program will be targeted at the partner institutions of CD-LINKS and will allow approximately 12 research visits for a period of 2-3 months each. The visits will facilitate researchers particularly from emerging economies (but also European partners if needs may arise) to engage in joint model and methodology development and thus allow knowledge transfer on critical issues where progress in research is required. Thematically, the research visits will focus on a better representation of the climate-development nexus in the modelling frameworks of CD-LINKS, also including themes such as air-pollution, water or other environmental linkages relevant for climate change mitigation and adaptation.

A **Summer School** organised and hosted by CMCC will aim at external analysts and researchers who are not part of CD-LINKS. The CD-LINKS Summer School will bring together a limited number (15-20) of young scholars, PhD students or post-docs for a week. The program will be comprised of a series of lectures from top faculty in the area of Integrated Assessment modelling and climate change policy assessment. In addition, CD-LINKS Summer School participants will be able to present their work and be mentored by the faculty. The objective of the Summer school is to create a community of young scholars around the topics discussed and analysed within the CD-LINKS project in order to create a long-lasting heritage of the research performed in the study. In addition, IIASA will build upon its established Young Scientists Summer Program (YSSP), setting a thematic focus on the training of advanced graduate

students from around the world on research topics related to CD-LINKS. The IIASA-YSSP will offer research opportunities to talented young researchers to work under the direct supervision of experienced IIASA scientists. Training of about 5-10 young researchers for a period of 3 months each is planned during the project duration of CD-LINKS.

In addition, **presentations** of results of the project at scientific conferences will be highly encouraged.

The project's day-to-day work is based on an **intranet** (based on Microsoft SharePoint) which permits the sharing of documents, simultaneously editing documents and creating task lists for the different work packages, among others. All project collaborators from the consortium institutes have access to this portal. Technical support for users is given by the project secretariat at IIASA.

Finally, the project aims at having visibility in **social media**. For this purpose, the existing social media accounts of IIASA and CD-LINKS partner institutes will be used, as they already have an established network of followers and collaborators, and will have continuity beyond the project. In addition, a dedicated CD-LINKS twitter account has been established since May 2017.

The combination of press releases issued on the public CD-LINKS website and information provided via other social media channels, such as Twitter, are more suited to increase the awareness of project activities and key published findings, thereby ensuring this can be publicised immediately. Press releases and social media can be used to disseminate project activities on an ad-hoc and more frequent basis than some other communication channels, such as quarterly newsletters. This has already been actively implemented when Nature Energy **featured a CD-LINKS' publications as a Research Highlight** – this was then communicated via **Twitter** (re-tweeted by Nature Energy journal), sent to our partners via the mailing list, featured as a news item on the public website and also featured on **CARISMA's ClimateChangeMitigation.eu website**. A similar process will be undertaken for promoting the CD-LINKS activities during COP23.

2.5. Resources

In terms of financial resources, the project has funds allocated solely for communications and dissemination purposes. The foreseen communication and dissemination costs are included in the IIASA budget, and cover costs for travel dedicated to dissemination and outreach activities (e.g., organisation of events at COPs, SDSN meetings and other important international meetings). Furthermore, the budget includes the costs for establishing the project website for external dissemination, and the costs for designing dissemination materials (such as the Policy Briefs and the Summary for Policy Makers).

The organisational costs for meetings, workshops and the final conference have been added to the partner budgets. These budgets include costs for the production of communication and other materials to be distributed at the stakeholder and capacity building workshops, as well as at the final conference.

To ensure the participation of the project partners in all project meetings and stakeholder/expert workshops, costs for travel account for about 66% of all other direct costs. It comprises the travelling costs of the consortium partners to attend seven project meetings of CD-LINKS, as well as the back-to-back expert, stakeholder and capacity building workshops. In addition, travel costs also include costs of the partners attending the final conference of the project in Brussels.

The project puts high emphasis on establishing a science dialogue involving stakeholders and experts from outside the project. Therefore, expenditures related to travel for international collaborators,

stakeholders and experts will be covered. This will enable the participation of European, as well as international stakeholders/experts in the CD-LINKS workshops.

Furthermore, there are funds allocated for financing the Research Exchange program for the partner institutions that will allow about 12 research visits/exchanges of 2-3 months each (particularly from emerging and developing country partners). The funds cover the costs of travel and accommodation of the research exchanges. Expenditures of the CD-LINKS Summer School have also been budgeted for, including the lecturing rooms and materials, as well as the travel and other costs of the 15-20 students.

The CD-LINKS project has a full-time Project Officer responsible for ensuring that all communications tasks are followed through on time and to ensure the day to day updates of the website and intranet. The Project Officer will mainly be responsible for dissemination activities, but will be supported by the communications departments of IIASA and the other project consortium partners, if needed.

IIASA's communications department, and the other partners' communications departments collaborate closely with the project, especially with regard to the management of media relations (including the drafting and publication of press releases), dissemination material design (brochures, policy briefs, etc.) and social media coverage. The IIASA communications department also developed the logo of CD-LINKS and produced a slide-deck for project-related presentations for use by the consortium.

2.6. Timeline

The following tables (Table 2 and Table 3) present the communications activities from September 2017 onwards. Activities conducted to date (September 2015-September 2017) are presented in Chapter 3.

The activities presented in the timeline are tentative, and will largely depend on the results that will come out of the project. Therefore, the plan will be revised periodically and adjusted according to the newest developments of the project.

The communications and dissemination activities timeline presents the activities as grouped into one- and two-directional means of communication. There are constantly ongoing processes, such as website and intranet maintenance, the development of scientific publications, the research exchange program and mentions or presentations on CD-LINKS for different audiences. Press releases are also marked as continuous, however, these are only published when there are news-worthy research results. These can be published papers, tools that are developed, or outcomes of stakeholder dialogues with, for instance, policy-makers. The rest of the activities are more specific, and their expected occurrence has been indicated in the tables.

Table 2: Timetable of communications and dissemination activities during 2017-2019

	Date	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18
	Month #	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**
Project deliverables				**D1.3**			**D4.2**						**D5.1**
One-directional means of communication	Policy Briefs												
	Summary for policy makers												
	CD-LINKS website												
	Scientific publications												
	Open-source scenario database												
	Web-based mapping tool												
	Press releases												
	Dissemination material (brochures, flyers)												
	Institutional websites												
Two-directional means of communication	Project meetings												
	Stakeholder workshops												
	Expert workshops												
	Side-events												
	Research exchange program												
	Summer school												
	Presentations of CD-LINKS												
	Project intranet												
	Social media												

	Date	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19
	Month #	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**
Project deliverables			**D3.1; D1.2**		**D2.3; D6.4**		**D4.3**			**D3.2; D5.2; D5.3**			**D6.5, D6.6; D6.7**
One-directional means of communication	Policy Briefs												
	Summary for policy makers												
	CD-LINKS website												
	Scientific publications												
	Open-source scenario database												
	Web-based mapping tool												
	Press releases												
	Dissemination material (brochures, flyers)												
	Institutional websites												
Two-directional means of communication	Project meetings												
	Stakeholder workshops												
	Expert workshops												
	Side-events												
	Research exchange program												
	Summer school												
	Presentations of CD-LINKS												
	Project intranet												
	Social media												

2.7. Measuring progress

The communications and dissemination plan will be internally assessed at least every 6 months. This will provide an opportunity to address any deviations from the plan, but also to update the plan if this is required, which depends on project implementation and the results obtained.

As it can be challenging to qualitatively assess the progress of this communications and dissemination plan, quantitative indicators were created for assessing the progress in implementing this plan. Table 4 presents the indicators with a set target to be reached by the end of the project.

Table 3: Indicators and targets for measuring progress of the communications and dissemination plan of CD-LINKS

Indicator	Target
Number of events for stakeholders and experts (including side-events at UNFCCC negotiations or other international events)	8
Number of policy briefs and summaries for policy makers on the project results	3
Number of media pieces (e.g., articles in the press, videos in digital media or TV, audio in radio, etc.) that stem from project results (based on press releases or academic publications)	500
Number of scientific publications in peer-reviewed journals	30
Number of citations of scientific publications in peer-reviewed journals	150
Number of downloads/page views of scientific publications in peer-reviewed journals	80.000[1,2]
Pieces of dissemination material (e.g., brochures, flyers) produced to present the project or its results	5
Number of presentations mentioning CD-LINKS at scientific conferences or other related events	40
Number of persons that the project directly reaches through meetings, workshops and presentations	2.500
Number of research exchanges within the consortium (including IIASA YSSPs working on issues related to CD-LINKS)	20
Number of participants in the CD-LINKS summer school	20

Some of the above-mentioned indicators measure progress in the implementation of the Dissemination and Communication Plan itself, whereas others are more focused on measuring the results of the communications activities. The indicators measuring implementation progress of this plan are more focused on process, such as the number of policy briefs, scientific publications, events, or pieces of dissemination material. On the other hand, the indicators measuring results, focus on the outcome of the activities that are planned, such as the number of citations and downloads of scientific publications, and the number of people that the project reaches.

[1]The number of downloads/page views of articles will be monitored via the metrics provided by the academic journals. Not all journals provide this data, and therefore the final number at the end of the project will not capture the complete number of article views.

[2] Given that there have already been more than 21.000 downloads/views of current publications by February 2017, the target was raised from 30.000 to 80.000 to better reflect what can be expected by the end of the project.

2.8. Long-term impact

CD-LINKS is a 4-year project and implemented until August 2019. Even though it can be difficult to ensure visibility or impact after the project is finished, there are some activities of the project that might contribute to longer lived project results beyond the project implementation period.

The products of the project, such as visualization tools and databases of scenario development, will be available online and will remain available after the project has expired. Scenarios and other results of the project will be documented in scientific publications, and therefore the outputs of the project will be readily available beyond the project duration. In the same way, policy briefs and a summary for policy makers will be published, which add to the products of the project that will be available after the project concludes.

The project aims to form a network of scientists and experts interested in studying the intersection of climate and sustainable development issues. This network of scientists has the potential to induce many different forms of future collaboration that goes beyond the time limits of the CD-LINKS project. The network is built both within the project consortium as a product of the close collaboration during the four project years, and also the research exchanges that will take place between the institutes that are participating in the project. Furthermore, the organization of expert and stakeholder workshops will widen the network beyond the project, and aims to spur science-policy dialogue beyond project completion. The summer school hosted by CMCC for early career scientists will also help to add to the network, and aims to provoke long-term collaboration between researchers.

Finally, the final conference of the project, which will present the results of the project to an academic and policy-maker audience, could stimulate further initiatives to continue the research and science-policy dialogue related to climate and sustainable development.

3. Communication activities up to September 2017

To date, after two years of implementation, several communications and dissemination activities have already taken place. The progress of activities will be presented in this chapter of the communications plan. This will give a deeper understanding of the basis on which future communications and dissemination activities are built. The activities are grouped into one- and two-directional means of communication, as presented in Section 2.4.

3.1. One-directional communication means of communication

At the start of the project, the **logo** of the project was developed, the website launched and the intranet created. The logo gives visual identity to all project documents, presentations and dissemination material. It was designed by the communications department at IIASA. The template for presentations and deliverables with the visual identity of the project are available for all project contributors in the intranet. The project **website** was launched at the start of the project at: www.cd-links.org and has been

regularly updated with news and reports from past events. Figure 2 presents part of the website main page to illustrate its appearance.

Figure 2: Screen shot of project website (www.cd-links.org)

During the first reporting period (September 2015 – February 2017), there have been a total of 48.218 page visits. The following figure presents the number of visits per month.

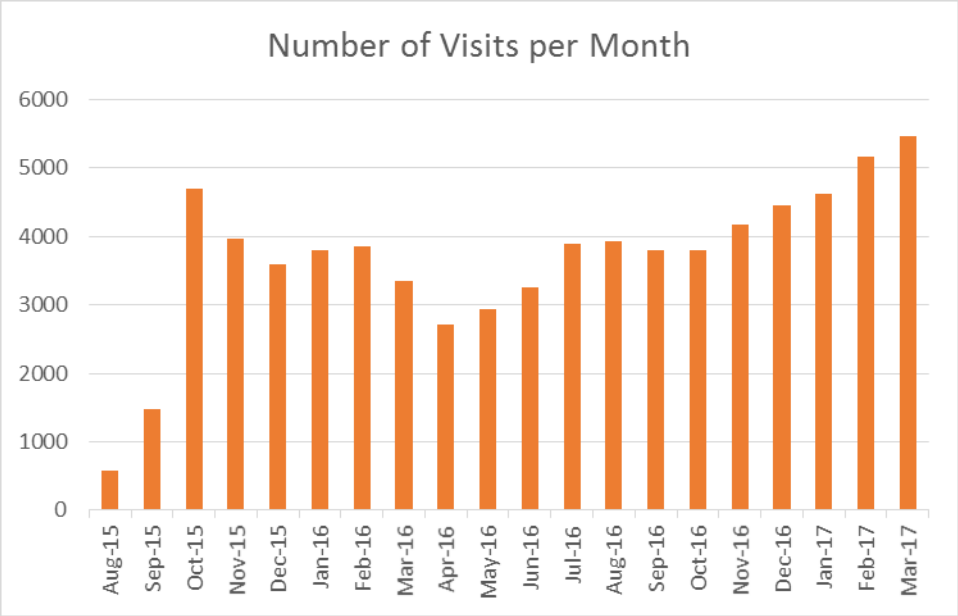

Figure 3: Number of website visits per month (www.cd-links.org)

Some of the **institutional websites** of the consortium partners have a dedicated page on their website about the project. For example, the project is presented on institutional websites of IIASA, CMCC and PIK.

The Horizon2020 project CARISMA has developed a platform (http://climatechangemitigation.eu/) which presents results and actions resulting from climate change related EU-funded projects. CD-LINKS has been included in the platform, and project results that are public, including datasets, scientific publications, and policy briefs, will be shared on the platform.

At the end of November 2015, the first project **flyer** was developed and printed. It was first distributed at the EU Pavilion of COP21 in Paris during a panel discussion in which the CD-LINKS project was mentioned, as well as during the official side-event at COP22 in Marrakech organized by CD-LINKS. A digital version of the flyer can be found on the project website. Furthermore, a poster was developed early in 2017, to be distributed at a meeting for EU funded climate and development initiatives organized by the European Commission in Brussels in February 2017, and during a marketplace event organized as part of an institutional review at IIASA also in February 2017. A digital version of the poster is also available on the project website. There will be updated flyers and posters developed as the project starts to produce results from the different work packages.

Outside of IIASA, the EU Delegation to Japan has been developing a brochure of the Horizon 2020 project in which Japanese institutes are involved, including CD-LINKS. The brochure was printed in September 2016. An online version will not be available, however, Figure 4 illustrates the design of the CD-LINKS page in the brochure. Furthermore, the EU-Japan Centre for Industrial Cooperation is currently working on a promotional video and brochure in which the CD-LINKS project will be presented. A NIES representative from the project was interviewed for the video and is available on the project website. The products will be sent to IIASA once they have been finalised (end of March).

CD-LINKS Linking Climate and Development Policies - Leveraging International Networks and Knowledge Sharing http://www.cd-links.org/

DATE | Start: September 2015 / End: August 2019 Project partner countries: AT, BR, CN, FR, DE, EL, IN, IR, IT, JP, NL, KR, RU, UK, US

The CD-LINKS project brings together a consortium of 19 leading international research organizations from around the globe to explore national and global transformation strategies for climate change and their linkages to a range of sustainable development objectives.

CD-LINKS is a research project that brings together a consortium of nineteen leading international research organizations from around the globe to explore national and global transformation strategies for climate change and their linkages to a range of sustainable development objectives.

An important question for policy makers, in the G20 and beyond, is how to bring climate action into the broader sustainable development agenda. Objectives like energy poverty eradication, increased well-being and welfare, air quality improvement, energy security enhancement, and food and water availability will continue to remain important over the next several decades. There have been relatively few scientific analyses, however, that have explored the complex interplay between climate action and development while simultaneously taking both global and national perspectives.

The CD-LINKS project will change this, filling the critical knowledge gap and providing much-needed information for designing complementary climate-development policies. The project aims to have a pronounced impact on the policy dialogue, both nationally and internationally: an important outcome of the project will be a list of country-specific policy recommendations for effectively managing the long-term transformation process.

These recommendations will poinst out opportunities for policy synergies and at the same time respect political and institutional barriers to implementation.

Through six highly integrated work packages – from empirical research to model and scenario development – CD-LINKS will advance the state-of-the-art of climate-development policy analysis and modelling in a number of areas. This means working toward the next generation of national and global low-carbon development pathways that take into account different sustainable development goals, and establishing a research network and capacity building platform in order to leverage knowledge-exchange among institutions from Europe and other key players within the G20.

» JAPANESE PARTNERS

Center for Social & Environmental Systems research
National Institute for Environmental Studies

Dr. Shinichiro Fujimori
CD-LINKS provides an opportunity to have global climate change and sustainability research collaborations as well as the access to the latest EU knowledge.
The Research Institute of Innovative Technology for the Earth

Dr. Keigo Akimoto
CD-LINKS will provide better strategies on climate change responses by harmonizing policies for sustainability issues that impact people's lives.

08 CREATING LEADERSHIP IN INDUSTRIAL TECHNOLOGIES

Figure 4: Presentation of CD-LINKS in the brochure of Horizon 2020 projects in Japan by the EU Delegation to Japan

IIASA has also issued three **press releases** related to CD-LINKS; one at the launch of the project, a second one in collaboration with the Mercator Research Institute on Global Commons and Climate Change (MCC) on a study published in Environmental Research Letters related to the inter linkages between climate policies and other (non-climate) sustainable development goals (von Stechow, 2016) and a third one on a perspective published in Nature on the importance of ratcheting up the current NDCs agreed on in Paris in order to keep warming at 2 or 1.5°C (Rogelj, 2016).

In total eight **academic papers** have been published in peer-reviewed journals which are based on work within the CD-LINKS project. These include the two above-mentioned studies (von Stechow, 2016); (Rogelj, 2016), a paper which focuses on case studies with a green economy perspective on experiences of renewable energy policies with socio-economic objectives, published in Applied Energy (Pahle, 2016), a paper studying water use implications in the energy sector for 2°C scenarios (Fricko, 2016) a paper comparing national low-carbon electricity transitions (Cherp, Vinichenko, Jewell, Suzuki, & Antal, 2017), a paper studying historical progress in energy access in relation to other living standards (Rao & Pachauri, 2017), a paper on the rural electrification program in Brazil (Bezerra P., 2017), and a paper on the Paris Agreement emission uncertainties (Rogelj J. F., 2017). A FEEM working paper on the concept of inequity was also published in 2017 (Berger L., 2017). These are available on the CD-LINKS website (direct link to publications). The articles have been viewed or downloaded a total of 27.099 times and cited by about 170 articles[3] (source: the journals' own metrics, available online).

[3] Von Stechow et al., 2016: 5.518 downloads and cited by 6 articles; Rogelj et al., 2016: 10.272 page views (cumulative count of full-text article views that includes HTML views and PDF downloads) and cited by 155 articles, depending on database source; Pahle et al., 2016: cited by 8 articles, no information on views/downloads available; Fricko et al., 2016: 6.885 downloads and cited by 3 articles; Cherp et al., 2017: cited by 3, no information

The above-mentioned press releases and publications have already resulted in broad **media visibility**. According to the media database of IIASA, these project outputs have resulted in 135 media pieces – 20 online print versions or newspapers, 75 news websites, 38 blog inserts, 1 social networking site and 1 radio channel. According to journal metrics, the paper by Rogelj et al. (2016) has been covered by 98 news outlets and blogged by 32, the paper by Fricko et al. (2016) by 14 news outlets and 1 blog, the paper by von Stechow et al. (2016) by 4 news outlets and 1 blog, the paper by Rao & Pachauri (2017) by 5 news outlets, and the paper by Rogelj et al. (2017) has been covered by 11 news outlets and blogged by 2.

CD-LINKS has also had **social media exposure**, mainly via the social media channels of the consortium partner institutes, including IIASA and PBL. Figure 5 shows some examples of social media visibility to date. According to the journal metrics, the Rogelj et al. (2016) paper was mentioned in Twitter and Facebook 559 times, the Fricko et al. (2016) paper 24 times, the von Stechow et al. (2016) paper 8 times, the Cherp et al. (2017) paper 72 times, the Rao & Pachauri (2017) paper 12 times, the Bezerra et al. (2017) paper 2 times, and the Rogelj et al. (2017) paper 76 times.

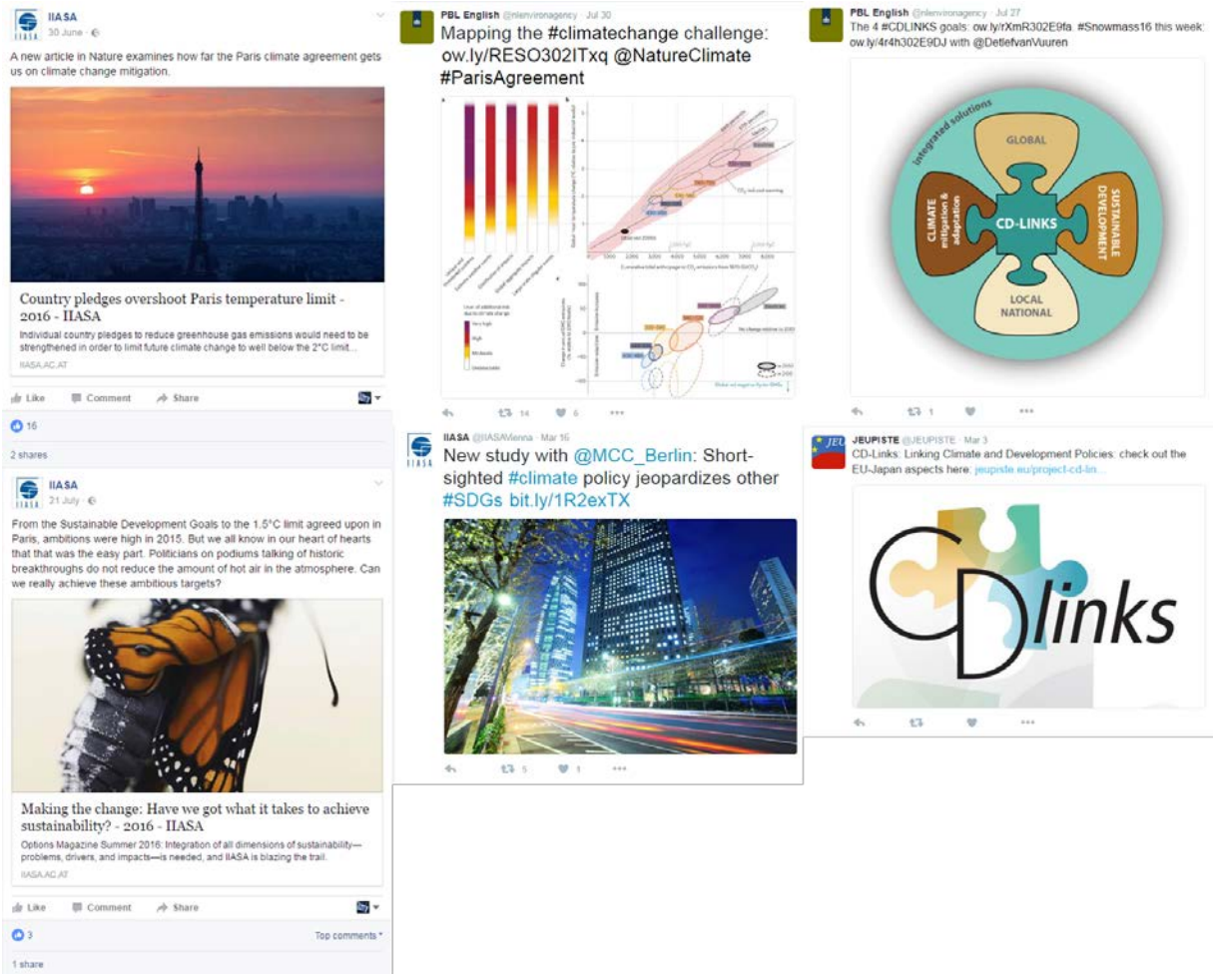

Figure 5: Some examples of CD-LINKS-related social media posts, including the Facebook account of IIASA and the Twitter accounts of IIASA, PBL and Jeupiste.

on views/downloads available; Rao & Pachauri, 2017: cited by 1 article, 3.543 downloads; Bezerra et al. (2017): no information on citations, 881 downloads; Rogelj et al., (2017): 2 citations and no information on views/downloads.

IIASA publishes the biannual **magazine Option**, which is published both in printed version and online. CD-LINKS has been mentioned in the two latest issues of the magazine. The winter 2015 issue presented CD-LINKS in an article titled "A new nexus for sustainable development", and the summer 2016 issue is featuring CD-LINKS in an article called "Have we got what it takes to achieve sustainability? Making the change". These issues are publicly available on the IIASA website.

During the second, third and fourth project meetings (May 2016, Venice – Italy, December 2016 – Beijing, China and May 2017, Potsdam – Germany) the first steps for planning the development of the **web-based mapping tool** for visualizing project results were taken. Before the Venice meeting, the first elicitation of preferences and understanding of alternative formats for data visualization examples was identified from the project partners, including Advisory Board members, via a questionnaire, and the ideas were further discussed during the meeting. Further discussions were held in the Beijing meeting. There was an additional day at the Potsdam meeting (May 2017) that focused on the visualization tool and presented a first version of the tool, which was developed based on the outcomes of the scenario runs and provided the developers with the opportunity to obtain feedback from the group. During the planned stakeholder meeting in India in March 2018, it is planned to present the visualization tool to participants in order to obtain feedback from policymakers, decision makers and technical experts.

At the second project meeting a fast-track process was drawn up to ensure that the project also contributes to **the planned 1.5°C report of IPCC**. Papers aimed at input for the report will be submitted by 1st November 2017. A Special Issue with the journal Climatic Change is under development that will provide to a larger audience the results on national low-carbon development pathways that are consistent with the global transformation towards 1.5 and 2°C, as specified in the Paris Agreement. The Special Issue will not only explore the costs and emissions implications of the NDCs, it will also assess viable strategies to ratchet the NDCs up in order to make them more consistent with the long-term objective of 2°C. Eleven papers are planned for the Special Issue – nine country-level from the national teams of CD-LINKS, one synthesis paper that draws on all of the country-level/ regional analysis and one paper on the various effort-sharing approaches for regional carbon budgets and emission pathways.

3.2. Two-directional means of communication

Four project meetings have been held, and the project has also hosted one initial stakeholder and expert workshop at the launch of the project to help connect the research with policy discussions. An expert workshop on measuring and modelling inequality and poverty was held as part of the second project meeting in Venice, Italy, and a workshop for Chinese stakeholders in Beijing was held as part of the third project meeting in Beijing, China. The initial stakeholder meeting back-to-back with the kick-off meeting aimed at assuring the overall design of low-carbon pathways, the empirical assessment of policies, as well as the methodological work in CD-LINKS is of highest policy relevance. As a result of the dialogue in the expert workshop held back-to-back with the second project meeting in Venice, an article was drafted by a group of experts who presented at the meeting and submitted the article to Nature Climate Change. This activity can also be seen as a first step towards the creation of a **network of scientists and experts** aiming at tackling the new challenges of climate and sustainable development. Finally, in the stakeholder meeting organized in China, initial project results were presented to Chinese stakeholders and useful feedback was received as a result of the subsequent dialogue. A stakeholder meeting in India is scheduled for March 2017, with the main focus of the workshop being 'Sustainable national roadmaps towards the global objective of 1.5 and 2°C – the Indian perspective'.

CD-LINKS has been visible in several **presentations** throughout the first reporting period, including at a panel discussion at the EU Pavilion both in COP21 in Paris and in COP22 in Marrakesh, at the IAMC annual conferences in Potsdam in 2015 and in Beijing in 2016 and in the keynote presentation of the

Systems Analysis conference hosted by IIASA in Laxenburg (295 participants), among others. In total, to date, the project has been mentioned in at least 8 external events. The total number of participants in these events was more than 720. It was not possible to check for double counting of the same people attending the external events.

IIASA organized an official side-event at the COP22 in Marrakesh during which CD-LINKS results were presented. This event took place on 17 November 2017, and drew together an estimated audience of 80 people. There was a specific focus on India and Brazil, who presented their low carbon pathways, and on presenting initial global results on the inter-linkage between climate mitigation and other sustainable development objectives. During the side-event, an interesting discussion between the presenters and the public took place, for example on the challenge of finding a balance between meeting the requirements for keeping the global average temperature well below 2°C, as stated in the Paris Agreement, and of meeting the development needs of the individual countries. The risk of carbon lock-in was also discussed, together with the price development of low carbon technologies and their affordability in countries such as India at a larger scale.

CD-LINKS held a side-event on 7 December 2016 as part of the 9th Annual IAMC meeting, which brings together scientists in the field of IAM from around the world. In this session, project results were presented with a focus on the country-level results, with insights of several of the country teams participating in CD-LINKS (China, Brazil, EU, Japan and India). The discussion centred on how to further develop the scenarios and the models involved in the project.

Two side events took place at the Vienna Energy Forum (VEF) in Vienna, Austria and at the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) in Bonn, Germany during May 2017. The VEF event had 30 people attend and was focused on the energy and climate policy measures that would be needed to reach the well below 2°C target, and a comparison with the current Nationally Determined Contributions (NDCs) was presented. At SBSTA, 25 people attended the event, which was focused on ratcheting up the NDCs and consistent national roadmaps towards the global objective of 1.5 and 2°C. The CD-LINKS project poster was also presented at the 9th annual meeting of the SBSTA Research Dialogue.

CD-LINKS has applied for 3 side events at COP23: in the Bonn Zone, in the EU Pavilion and an event hosted at the Interconnections Zone by the German Development Institute/Deutsches Institut für Entwicklungspolitik (DIE). Each of the side events will introduce the most recent outcomes of the CD-LINKS project. In addition, the climate policy measures required to reach the 1.5 and 2°C targets will be presented along with a comparison of the current ambition level of the Nationally Determined Contributions. The implications of the low carbon transformation pathways for the SDGs will be assessed and presented, such as for poverty, food security, water, biodiversity, air pollution and health. Representatives of the Indian, Chinese and Brazilian partners of the project will also present country-level strategies for climate transformation pathways for the future that support the global target of staying well below 2°C, together with initial results on their impact on other sustainable development dimensions. A policymaker from the EU (DG Clima) has confirmed their participation as a panellist and an expert from SDSN is planned to be invited; their attendance will help facilitate discussions from the policy making perspective. The new advisory board member from the business/ industry sector will also be invited to participate.

The Research Exchange program has been ongoing since its first application deadline on 31 March 2016. The application deadlines are quarterly and anyone from the partner institutions has the possibility to apply (application guidelines and template are available on the project intranet). To date, five research exchanges have taken place within the framework of the CD-LINKS project. One of them (taking place between COPPE and IIASA), was admitted funding through the CD-LINKS Research Exchange program,

whereas the four others (COPPE-IIASA, RITE-IIASA, NIES-IIASA and TU-IIASA) did not need additional funding from the project. The research exchanges have varied in length from 2 to 12 months. Two further research exchanges are planned in the coming months, one between COPPE-IIASA and the other between ERI-PBL.

Finally, the project intranet is in constant use by the project collaborators and the project secretariat ensures that all relevant documentation is uploaded to as the project progresses.

In summary, the progress to date is presented in Table 5 against the indicators that have been defined to measure the progress of this communications and dissemination plan. Table 6 presents a summary of the communications activities that have taken place per means of communication.

Table 4: Progress of the communications and dissemination efforts to date against set indicators

Indicator	Target	Progress as of Sept. 2017
Number of events for stakeholders and experts (including side-events at UNFCCC negotiations or other international events)	8	6
Number of policy briefs and summaries for policy makers on the project results	3	1
Number of media pieces (e.g., articles in the press, videos in digital media or TV, audio in radio, etc.) that stem from project results (based on press releases or academic publications)	500	112-231[4]
Number of scientific publications in peer-reviewed journals	30	8
Number of citations of scientific publications in peer-reviewed journals	150	559[5]
Number of downloads/page views of scientific publications in peer-reviewed journals	80.000	27.099
Pieces of dissemination material (e.g., brochures, flyers) produced to present the project or its results	5	3[6]
Number of presentations mentioning CD-LINKS at scientific conferences or other related events	40	28
Number of persons that the project directly reaches through meetings, workshops and presentations	2.500	970[7]
Number of research exchanges within the consortium (including IIASA YSSPs working on issues related to CD-LINKS)	20	5
Number of participants in the CD-LINKS summer school	20	0

[4] Due to different sources of media visibility (IIASA and journal-specific statistics on visibility for CD-LINKS related papers) which might include duplicate pieces, an absolute number cannot be presented and therefore the number is presented as a range.

[5] There were some differences between different database sources in the number of citations, and therefore this is an approximation.

[6] Includes the flyer and the poster produced by the project secretariat (IIASA) and the brochure on Horizon 2020 projects in Japan.

[7] The final number consists of: 780 people to participate in different external events in which CD-LINKS has been presented, 132 people to have participated in project meetings, and 28 people in stakeholder and expert workshops.

Table 5: Summary of communications and dissemination activities of the project to date (September 2015-September 2017)

	Date	Q3 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017
Project deliverables		**D6.1; D7.1**	**D7.2**		**D6.2**	**D1.1; D2.1**	**D4.1**	**D6.3**	**D2.2**
One-directional means of communication	Policy Briefs								
	Summary for policy makers								
	CD-LINKS website								
	Scientific publications		2	1	1		2	1	1
	Open-source scenario database								
	Web-based mapping tool								
	Press releases								
	Dissemination material (brochures, flyers)								
	Books								
	Institutional websites								
	Newsletter								
Two-directional means of communication	Project meetings								
	Stakeholder workshops								
	Expert workshops								
	Side-events								
	Research exchange program								
	Summer school								
	Presentations of CD-LINKS								
	Project intranet								
	Social media								

Bibliography

Berger L., a. E. (2017). *Welfare as Simple(x) Equity Equivalents.* Milan, Italy: Fondazione Eni Enrico Mattei, Nota di Lavoro 14.2017.

Bezerra P., C. C.-P. (2017). The power of light: socio-economic and environmental implications of a rural electrification program in Brazil. *Environmental Research Letters*, Vol. 12: 9.

Cherp, A., Vinichenko, V., Jewell, J., Suzuki, M., & Antal, M. (2017, February). Comparing electricity transitions: A historical analysis of nuclear, wind and solar power in Germany and Japan. *Energy Policy*, *101*, 612-628. doi:10.1016/j.enpol.2016.10.044

European Commission. (2014, September 25). *Communicating EU Research and Innovation - Guidance for Project Participants.* Retrieved from http://ec.europa.eu/research/participants/data/ref/h2020/other/gm/h2020-guide-comm_en.pdf

Fricko, O. P. (2016). Energy sector water use implications of a 2°C climate policy. *Environmental Research Letters*, 11 034011. doi:10.1088/1748-9326/11/3/034011

Pahle, M. P. (2016). Can the Green Economy deliver it all? Experiences of renewable energy policies with socio-economic objectives. *Applied Energy*, in press. doi:doi:10.1016/j.apenergy.2016.06.073

Rao, N. D., & Pachauri, S. (2017, February). Energy access and living standards: some observations on recent trends. *Environmental Research Letters*(12), 025011. doi:10.1088/1748-9326/aa5b0d

Rogelj, J. d. (2016). Paris Agreement climate proposals need a boost to keep warming well below 2 °C. *Nature*(534), 631-639. doi:10.1038/nature18307

Rogelj, J. F. (2017). Understanding the origin of Paris Agreement emission uncertainties. *Nature Communications*, Vol. 8 Article 15748 doi:10.1038/ncomms15748.

von Stechow, C. M. (2016). 2°C and SDGs: united they stand, divided they fall? *Environmental Research Letters*(11), 034022. doi:doi:10.1088/1748-9326/11/3/034022