



The Deep Decarbonization Pathways Project (DDPP) is an initiative launched by the Sustainable Development Solutions Network (SDSN) and the Institute for Sustainable Development and International Relations (IDDRI). Research and analysis is conducted by 13 country teams comprised of 30 national research institutions (annex) from: Australia, Brazil, Canada, China, European Union, India, Indonesia, Japan, Mexico, Russia, South Africa, South Korea, and the United States. Collectively the 13 countries represented in the DDPP account for over 75% of global greenhouse gas emissions. DDPP also works in partnership with several international organizations, research institutions, and business associations, including the International Energy Agency (IEA).

### The Deep Decarbonization Pathway Project has four objectives:

- I. **Prepare practical national deep decarbonization pathways to 2050, consistent with the 2°C target**, for each of the 13 countries, to help them identify their own cost-effective transition path to a low carbon future.
- II. **Contribute to a positive result of the September 23rd World Leaders Climate Summit in New York, and to a successful conclusion of the United Nations Framework Convention on Climate Change (UNFCCC) negotiations during the 21st Conference of the Parties (COP) in Paris in December 2015**, by making governments, businesses, and civil society understand how deep decarbonization can practically be achieved in each country.
- III. **Provide analytical platforms in each participating country to conduct additional climate policy analyses**. Such work may focus on technology diffusion and innovation, policy frameworks, financing, governance arrangements for implementation, etc.
- IV. **Build an on-going global network of experts and practitioners**, by using the pathways prepared as the basis for further work on the implementation of national deep decarbonization strategies, and by applying the methodological tools developed to other countries and regions.

## Defining Features & Value Added

Meeting the challenges of deep decarbonization, to limit global warming below 2°C, requires unprecedented problem solving on all fronts: technological diffusion and innovation, infrastructure building and replacement, financing mechanisms and financial regulation, policy frameworks, institutional arrangements, business models, consumer behavior, etc. This problem solving in turn requires the development of practical national deep decarbonization pathways through to 2050, which will serve as the basis upon which countries will organize further work on the actual implementation of deep decarbonization strategies.

The DDPP is building on extensive previous work on decarbonization pathways, both at the national and global levels. DDPP's efforts complement other current projects but are also unique:

- **The national decarbonization pathways will be truly deep, i.e. consistent with the 2°C target.** Several studies have been looking at emission reduction trajectories to 2050, though in most country-specific studies, the national emissions reductions are usually not enough to meet the 2°C target. Implementation of these studies by countries would induce infrastructure and technology lock-ins, and eventually lead to unsafe levels of GHG emissions globally. In the DDPP, participants have agreed to use a limited number of criteria and methodologies to define the 2050 emissions reduction target for their country, including the convergence of per capita and per unit of GDP emissions and other methods, taking into account important national circumstances.
- **The deep decarbonization pathways will be country-specific.** Many global scenarios developed to look at ways to reach the 2°C target are considered unrealistic by country experts because they are based on inaccurate assumptions about technology potentials or are incompatible with other national objectives. In the DDPP, deep decarbonization pathways are prepared by country teams comprising one or more local research institutions. The teams use their local knowledge and organize in-country expert consultations to develop practical pathways from their own national perspective, helping to form concrete policy discussions with domestic policy makers and businesses.
- **The pathway process will be sound and transparent.** SDSN and IDDRI lead the coordination unit, but all analytical and modelling work is done locally and structural decision with regards to the project are taken jointly by all country teams and partners. This approach ensures locally owned tools and results that reflect the specific needs of each country, but are part of a globally consistent and coherent approach towards mapping out a 2°C pathway. All country teams and partners collaborate frequently on common input parameters, a shared framework for producing the outputs, and exchanging on technology and other assumptions.

- **The national decarbonization pathways will be practical.** A bottom-up technology-economic perspective will complement the typical macro-economic perspective of Computable General Equilibrium (CGE) models to lay out in great detail the content of deep decarbonization strategies in a transparent manner, supported by off-model quantitative and qualitative analysis. In the DDPP, the national pathways will identify country-specific solutions to the challenges of deep decarbonization, e.g. for energy related GHG emissions.

## Timeline & Deliverables

**The DDPP will publish a first report for the UN Secretary General, Ban Ki Moon, on July 1st, 2014,** to contribute to the preparation of the September 23rd World Leaders Climate Summit. It will include one chapter for each of the 13 countries, plus a summary of the key findings, showing the key elements of deep decarbonization pathways, both globally, and for each country.

**The DDPP will also publish a second report for the French Presidency of COP21 in early 2015,** to provide inputs to the UNFCCC negotiation process. Compared to the first, this second report will include further elements on the implementation these national deep decarbonization strategies. It will provide some recommendations on the policies to be implemented to manage the transition costs of deep decarbonization domestically, and on the technology cooperation and policy coordination mechanisms to be put in place to accelerate to process of decarbonization globally.

## Current Status

- DDPP's inception meeting was organized in Seoul and hosted by the Korea Development Institute (KDI), on October 12 and 13, 2013.
- The second meeting was organized in Warsaw, during COP19 of the UNFCCC, on November 18, 2013.
- The third meeting was organized in Paris, from January 6 to 10, 2014, and included 3 days of technology roundtables in partnership with the WBCSD, and 2 days of modeling workshop in partnership with the IEA, gathering a total of 120 participants.
- The next meeting is scheduled for early April in Paris.

## Organization

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### Coordination Unit



### Country Teams



**Australian National University**



**National Institute for Environmental Studies, Japan**



**ENERGY RESEARCH CENTRE UNIVERSITY OF CAPE TOWN**



**THE EARTH INSTITUTE COLUMBIA UNIVERSITY**



### DDPP Partners

