



CLIMATE AND SDG SYNERGIES



Virtual Learning Series

Summary of Webinar 2:

Webinar 2: How to Maximize Climate & SDG Synergies? Identifying Opportunities and Navigating Trade-offs

Tuesday, 19 January 2021 - 9:30 AM - 10:30 AM [New York]

Webinar 2: How to Maximize Climate & SDG Synergies? Identifying Opportunities and Navigating Trade-offs - was the second webinar in a Learning Series aimed at providing practitioners from the Global South with tools they can use to apply climate and SDG synergies. The Learning Series as they are called were organized jointly by UNDESA, UNFCCC and UNITAR to inform the development of training modules to be rolled out in 2021 and facilitate learning for practitioners in the global south as a follow-up on the recommendations of the 2020 [Climate & SDG Synergies Consultations](#).

Webinar 2 introduced some of the tools and methods that can help decision-makers identify climate & SDG synergies with the most potential in their locality or country. Speakers offered lessons learned for local and national planning and introduce decision-making tools that can help planners navigate trade-offs and prioritize opportunities to realize climate & SDG co-benefits. The following questions were helpful in guiding the discussion:

1. **What policy areas hold the most promise to maximize SDG and climate synergies?**
2. **What tools can help stakeholders understand how social, environmental, and economic policies and/or targets will interact in practice?**
3. **What methods are used to identify the actions & collaborations most likely to advance multiple targets?**
4. **How can stakeholders minimize or avoid trade-offs between objectives?**
5. **How does integrated SDG and climate planning work in practice through for example the first and updated NDC reports?**

Key take-away messages:

1. Tools

- Tools respond well to a major question asked for Webinar 2, i.e., what tools are used to identify and plan for synergies and trade-off between climate and SDGs?
- Quantitative analyses using tools such as LEAP and SCAN-tool are very important to drive decisions at the national level. Tools help with interactions and decision making at the national level and the engagement processes.

- Initiatives like the [Integrated Climate and Development Planning](#) enables low- and middle-income countries to integrate planning to achieve Nationally Determined Contributions and Sustainable Development Goals using the LEAP tool and other integrated assessment tools like WEAP and the new NDC-SDG Connections tool.
- The SDG Climate Action Nexus tool (SCAN-tool) is designed to provide high-level guidance on how climate actions can impact achievement of the Sustainable Development Goals (SDGs). The objective of the SCAN-tool is to provide policy makers and all users with high-level but comprehensive initial guidance on the links between climate mitigation actions and the SDGs.
- The SCAN-tool tries to identify and reflect those two potential outcomes in two separate links, one as a synergy and the other as a trade-off. A synergy is obtained when an intervention in one sector reinforces an intervention in another sector and a trade-off is when an intervention in one sector conflicts with an intervention in another sector. In some cases, a policy can create both synergies and trade-offs – for example, implementing renewable energy interventions could create new jobs but at the same time jobs will be lost in the fossil fuel industry.
- Games/social simulations are complimentary to modelling tools such as LEAP and the SCAN-tool. In a world of complexities and complex situations, it is difficult to predict the future because there can be many different futures and scenarios, which leads to different understanding and interpretations.
- A systems approach is needed to respond to the challenges of dealing with complexity but in practice this is very difficult to do and achieve because it is difficult to visualize how actions are interconnected because it is easy to focus mainly on one main domain of interest.
- Stakeholders find it difficult to understand quantitative tool such as models. Hence, additional tools or different approaches that can work with models are needed to address the challenges to reduce the gaps between science and policy, and science and society.
- Games are a valuable tool to get people to see something from a different perspective and to play different roles to see the larger picture and experiment in a risk-free environment.

2. Country experiences – NDC process

- Countries are undertaking climate action in line with their national development agenda in compliments with the global development goals on the SDGs.
- Both adaptation and mitigation options are considered in the NDC process. In the preparation of the NDC report, various professional groups and stakeholder are engaged - technical professionals, academics, industry, civil society, etc.
- Discussions for exploring SDG/climate energies are initiative with national thematic groups through sector base analysis of the NDC. Sectors are identified from the various IPCC report. Those sectors were led by the main actors from the government and for each sector for which

thematic workshop were organised for specific internal discussions within each sector as described initially for the waste sector.

- Financing NDC implementation is critical. In some countries the process for developing the first NDC was anchored in the participation in the international carbon market. Others committed and mobilized domestic sources to implement the NDC for both adaptation and mitigation measures and some financing from the international community and through their participate in the international carbon market.
- The updated NDC process was affected by COVID-19 pandemic, which required flexibility and determination. Engagement process through national thematic group meeting (in-person events/workshops and meetings) had to change to online engagements to discuss, analyze and update the document and work with various stakeholders.

Summary statements by each of the speakers including the moderator

Moderator: [Dhesigen Naidoo](#), CEO, Water Research Commission (WRC), South Africa

This is the second of webinar being part of a v-learning initiative that originated at the UNFCCC conference in Copenhagen. Intended to harness the synergies between the SDGs and climate action and raise the ambition towards Paris+5 and the COVID-19n pandemic recovery efforts. This webinar aims to maximize SDG and climate synergies and identify opportunities but also how to navigate the trade-offs. This will be followed by Webinar 3 which will address the means of implementation and identifying opportunities around this converged pathway as a way forward.

- The need for integration of the SDGs cannot be overemphasized. The post-covid-19 period should be used to build back better in a coordinated way.
- Brilliant presentations on tools that will not only help decision makers but also the users of systems that are organizing to have better dialogue around climate/SDG issues.

The pandemic wakeup call has been stark worldwide. There is no place on earth, however remote, that has been spared by the global pandemic. Nevertheless, we have seen very positive things. We have seen the goodness and possibilities for low carbon futures. We have seen places of the world like Beijing and Delhi have seen clear skies and experienced breathable air they have not seen for decades. We have seen a creep of wildlife into towns experiencing lockdown and seen short term changes in GHG emissions in the global centres of the world. We have also woken up to our global interconnectedness as a species, as well as our need for collective action. This interconnectedness is recognized by the World Economic Forum risk register, which states for 2021 that the highest impact risk expected to dominate in 2021 is in fact the risk of the pandemic to the businesses.

While these challenges exist, we could have opportunities to move to a low-carbon future and be much more climate sensitive than we have been in the past. However, the rise of anti-global action led by a leading world power under the Trump administration is something we got to fight hard against. Although this could change with a new president in the White House soon, there are still other things we must consider. For example, the stimulus package that various countries in different regions have announced to deal with the pandemic is worthy of reflection. The structures and priorities of some of those stimulus packages are deeply worrying. Many of them are shaped around reviving old industries and organised

around keeping extraction industries and the drive towards national sovereign guarantees of energy has drawn attention and made news headlines.

[Jason Veysey, Senior Scientist, SEI - U.S. Centre - LEAP Model \(SEI Integrated Climate and Development Planning Initiative\) - Presentation](#)

SEI has an ongoing global initiative on Integrated Climate and Development Planning, one of the reasons why SEI is excited about the UNDESA webinar series. The initiative enables low- and middle-income countries to integrate planning to achieve Nationally Determined Contributions and Sustainable Development Goals – the measures that underpin the two global missions. The initiative has a timeline of 2020-2024. The purpose of the initiative is to enable integrated planning for climate change mitigation and SDGs at national scale:

- Developing methods, tools, models, and training and educational resources for integrated planning
- Focus on forward-looking, quantitative assessment of interactions between SDGs and NDCs in particular country context because much of the information out there is on qualitative interaction and not the quantitative interaction and data that is needed for decision making.
- Goal is to empower national practitioners, particularly in low and middle-income countries

LEAP, shorthand for the [Low Emissions Analysis Platform](#), is one of the most widely used tool for national integrated energy planning and climate change mitigation assessment particularly for low-income countries, with close to 50,00 users worldwide that have interacted and used the model in its 40 year history.

- Desktop tool for quantitative modeling of energy systems, climate and air pollution, and sustainable development
- Key features include data and methodological flexibility, graphical user interface with powerful visualizations, scalability, scenario-based design
- Among most widely used modeling tools in world for national climate and energy planning (e.g., >30 first NDCs, dozens of national communications to UNFCCC)
- Available free of charge, with support, to government and non-profit users in low and lower-middle income countries

Areas of focus based on national partners' experience and feedback include the following,

1. Energy:
 - Multiple methods for energy system modeling –econometric, engineering, optimization
 - Bottom-up analysis of energy access, technologies, efficiency
2. Climate:
 - Estimation of GHG and short-lived climate pollutant emissions from all sources
 - Libraries of emission factors and template models implementing IPCC method
3. Air pollution and health:
 - Downscaled atmospheric modeling used to calculate pollutant concentrations and exposure
 - Impacts on human health, agricultural production, temperature
4. Gender:
 - Gender-disaggregated health impacts of outdoor and indoor air pollution
 - Time burden of fuel collection and cooking
5. Diet, agriculture and health:
 - Connections between diet, agricultural requirements, and impacts –malnutrition, overweight/obesity, premature mortality, pollution, land use, biodiversity
6. Waste and wastewater:

- Health and climate benefits from improved waste management strategies
7. Macroeconomics:
 - National-scale macroeconomic modeling linked to climate and sustainable development scenarios
 - Models based on econometric or structuralist methods
 - Projections of output, employment, income distribution, economic structure
 8. Transport, health and safety:
 - Estimated deaths and injuries due to traffic accidents, health benefits of non-motorized transport
 9. Training and capacity building:
 - SDG-focused training materials and pathways

All climate & SDG quantification features in LEAP are embedded in LEAP's scenario modeling framework. Scenarios can be used to test policies and actions, simulate different external developments. Comparing scenarios in terms of climate & SDG objectives provides insights on synergies and trade-offs. LEAP supports robust decision making. The model is used to simulate planning decisions in many possible futures and the results systematically find low-regrets decisions –those that do a good job of increasing synergies and reducing negative trade-off.

Some examples where LEAP has been applied:

1. Assessment of air pollution and health impacts of national climate change plans in Bangladesh, where LEAP was applied for synergistic GHG reduction actions could avoid over 100k premature deaths in 2030.
2. Sixth ASEAN Energy Outlook - modeling of SDG 7 attainment in 10 ASEAN member states.
3. Integrated climate, air quality, and health planning in Nigeria, where modeling provided a basis for collaboration among climate, environment, and economic development agencies.

[Piotr Magnuszewski, Ph.D, Research Scholar, Centre for Systems Solutions/ IIASA - Nexus/SDGs Synergies Game - Presentation](#)

Games/social simulations are complimentary to modelling tools such as LEAP. Whether we talk about climate change or the SDGs, we talk of a world of complexities and complex situations that make it very difficult to predict the future because there can be many different futures and scenarios. Imbedded in that is uncertainty and the ambiguity because of the technical complexity of many interacting parts that cannot be easily understood. These include biophysical factors, economic factors, but also how we interact with these factors and make decisions that affect how we use natural resources. This then leads to different understanding and interpretations of reality.

So many people say we need systems approach to respond to these challenges but in practice this is very difficult to do and achieve because we don't see how our actions are interconnected because we focus mainly on our main domain of interest. Typically, and very often we work with models to address complexity and when we work with these models, which is very much needed, we engage stakeholders in so doing. But very often, stakeholders find it difficult to understand these models. Hence, we need additional tools or different approaches that can work with models to address these challenges to reduce the gaps between science and policy, and science and society.

Different approaches include, not only thinking first (science: planning, programming and verbal facts), but see first (art: visioning, imagining and visual ideas), and doing first (craft: venturing, learning, the visceral experiences). The question is: how do we combine these three different approaches which we

need to fully understand complexity without excluding any one of them? We need an approach which is both active and experiential, as well reflexive and conceptual. We need a tool that is both problem solving oriented and system oriented but also people oriented so that stakeholder engagement and collaboration among people is made possible. An approach that is also future oriented because that is what we need to help us address these complexities into the future.

Social simulations can be thought of as serious games – examples:

1. [Nexus Game](#) – water, energy and land which explores the interactions between different sectors, water, energy, agriculture, climate, etc. and the trade-offs and synergies between these different domains. The Nexus Game gives participants a unique opportunity to get an insight into challenges of water management for energy and food production, at the same time sustaining environmental flows. Participants strive to address water needs of population, industry, and agriculture, at the same time facing challenges of climate change. They take different responsibilities as ministers of various sectors and role play to make decision on water, agriculture, industry, climate, etc. Different decisions by roles actors leads to different outcomes. The aim of the game is thus to provide an opportunity for practicing how different water management policies can lead to sustainable development of society in harmony with Nature. It can be used both as a training tool and a policy exercise. The game is designed to demonstrate many interconnected Water-Food-Energy Nexus challenges. Nexus Game has been applied at workshops in Southern Africa and Lahore in Pakistan. Abstract concepts like environmental flows becomes quite practical as participants engage in negotiations keeping in mind the human elements and take decisions on very important issues that affect users within and between countries, including international organizations.

Learning from the Simulation games – how it can be useful for participants – most people said it helped them to quickly catch the systemic character of the situation and how different actors need to interact to take decisions. The social aspects were also very import and also how the games inspire participants to take decisions in the real world on issues of policy, governance and practice but also their understanding of systems science improved a great deal. **“Serious games are a valuable tool to get people to see something from a different perspective and to play different roles to see the larger picture and experiment in a risk-free environment”.**

2. [The world’s Future](#) – looks at all the three key elements of the SDGs as systems – earth system, social system, and production system, which are then linked with specific SDGs. The World’s Future is a social simulation in which players adopt high-level leadership roles within a world much like ours. As the simulation progresses, they experience the pressure of making tradeoffs and the thrill of finding synergies involved in pursuing sustainable development. This game gives participants the opportunity to interact with all three systems and take decisions across different sectors and difference scales of governance. The digital version of the game has been developed, which makes it very handy especially during these difficult times of the COVID-19 pandemic which make face-to-face learning and engagement difficult or impossible. The digital version can be run with participants from different parts of the world with role actors representing different stakeholders from government representatives to international NGOs, multilateral development banks and others.

Social simulations applied in different parts of the world and a lot of lessons have been learnt, with the fantastic engagement of participants. “Tell me and I forget, show me and I may remember, engage me and I will understand”Xunzi.

Games are available for free for non-commercial uses. Advisable to apply these games together with the models and simulations to maximize the effects for decision making, not only to see and understand but also for stakeholders to learn and participate by doing the recommendations and results coming from researchers.

Sofia Gonzales-Zuñiga, Lead Author, SCAN-tool Methodology, New Climate Institute - [Presentation](#)

The SCAN-tool is meant to support policy makers across different departments and state levels, to achieve greater policy coherence and to improve the efficiency of implementation by providing them with an initial indication of which climate actions may impact - positively or negatively - specific SDG targets. The tool is straightforward and very easy to apply. It is available online at https://ambitiontoaction.net/scan_tool/

The coverage areas of the SCAN-tool include electricity, transport, building, industry, waste, agriculture, forest and general following the IPCC Report categorization. A deep dive, for example, in the electricity sector produces much granular data for the links between the electricity sector and other SDGs. The mitigation actions are grouped into three broad categories:

1. Changing activity – different policies that tend to reduce demand of emissions-intensive activities, e.g., a policy intervention for a switch from the use of fossil driven automobile to cycling.
2. Reduce emissions intensity – policies that tend to reduce the emissions per unit of activity, e.g., policies promoting the use of electric vehicles. You do not want to change the activity, but you want to reduce emissions from the activity. People may continue driving their cars but with reduced emissions.
3. Increase energy efficiency – policies reducing energy demand per unit of activity, e.g., having more energy efficient appliances at home to reduce energy consumption.

Each of the 982 links is defined as either a potential synergy or trade-off - 231 links identified as potential trade-offs; 751 links are potential synergies

The tool was populated based on existing literature – a lot of literature and data base that is available online, incl. IPCC 1.5°C SR report where there is a while chapter on linkages. The SCAN-tool has some limitations. The tool does not address:

- Magnitude of the links because it is highly context specific
- Indirect impacts are not considered. Only direct links are applied in the tool
- Potential links to SDG13 (climate action is implicit) and SDG17 (Partnerships for the SDGs are thought to be out of scope as the goal is not development related)

How to use the SCAN-tool

- Step 1: Identify a list of mitigation actions – it could be a policy package or a mitigation action to update their INDCs

- Step 2: This is the most important step. The user has to attribute each measure to a category (categories and actions table online). This crucial and there are some examples online on how to best achieve it.
- Step 3: In the diagram of links, select the sector and category of your mitigation action one Step 2 has been completed.
- Step 4: Review the list of potential links to see which links apply to your country's context and which ones do not, with a qualitative description of the potential synergy. This helps the user to know whether the link description as a synergy or trade-off applies to their specific national context.
- Step 5: Where needed, adapt the description of the link to better reflect the specific national circumstances.

The number of links identified in each sector reflect, to a certain extent, the amount of literature available on this topic for the sector. For example, there is a lot of data and literature available for the energy sector compared to industry and agriculture. But this does not mean that there are fewer potential linkages of these sector. The way a mitigation action is implemented has a strong influence on whether this will create synergies or undermine the achievement of the SDGs.

All linkages are ultimately very context specific. The tool is presented only as a first step to have an overview of all the potential linkages. They can then take this to identify which links are relevant for their policy objectives or for their national context. The developers encourage users to dig deeper and go into further details and move on to quantification and further analysis on how to strengthen synergies and/or abate a potential trade-off.

Anne Nyatichi Omambia, Ph.D, Climate Change Coordinator, NEMA - Kenya NDC process

The experience from Kenya on the NDC process was shared briefly. Kenya submitted its first NDC report on Dec 28 2016. It had both adaptation and mitigation options. In the preparation of the NDC report, various professional groups and stakeholder where engaged, technical professionals, academics, industry, civil society, etc. The process for developing the NDC was anchored in the participation in the international carbon market.

Thematic groups were sector base analysis of the NDC. For example, all actors within the waste management sector met at a dedicated workshop on handling waste, including those engaged in waste collection, recycling and reuse, to interpret how the NDC waste section on mitigation would be impacted by the waste sector and what the waste sector can do to help achieve the national overarching goal on mitigation in relation to all the other sectors identified in various IPCC report. Those sectors were led by the main actors from the government and for each sector, there were thematic workshop for specific internal discussions with each sector as described initially for the waste sector.

Following the request for NDC updates, Kenya submitted her NDC update on the 20th of December 2020. The target to mitigate emission by 30% by 2030 following the “*business as usual*” scenario was spread across sectors, with the waste sector taking 4% of that, having been informed by data on emission from

the waste sector. The country has committed to undertake climate action in line with its national development agenda in compliments with the global development goals on the SDGs. The estimated cost to reach the ambition will reach 62 billion USD, with most of the resources used for the implementation of the measures submitted in the first NDC report coming from domestic sources although there were commitments for international support.

With the updated NDC, the country has committed to raise/mobilize 13% from domestic sources to implement the NDC for both adaptation and mitigation measures, raise 87% from the international community and participate in the international carbon market. The updated NDC report built upon the first NDC report. The initial ambition of 30% was raised to 32% for mitigation and this was informed by detailed technical analysis and anchored within the climate change act 2016, one of few in the world, which set upon an overall goal of a low carbon resilient economy and development pathway. Sustainable development is enshrined both within the Kenya constitution and the climate change act and the blueprint for Kenya Vision 2030. The NDC update also informed at the policy level by the national adaption plan 2030, the national climate change action plan, which were well informed by various stakeholders. Since the submission of the first NDC report in 2016, new policies ad actions have emerged, and these have been used to inform the updated NDC report. The methodology included detailed analysis of adaptation and mitigation measures in the sector analysis and stakeholder engagement at the national and county level.

The updated NDC process was affected by COVID-19 pandemic. During this time flexibility was key. We started off with the thematic group meeting through in-person events/workshops and meetings to discuss, analyze and update the document and work with consultants who were together putting down the document with information from the technical experts from various sectors. However, we had to go online following the national lockdown during the pandemic since March 2020. Working online, we had to adapt, innovate, and work towards ensuring that we meet our target to submit the updated NDC report by the end of the year. This required a lot of collaboration and flexibility on the part of the technical experts, to read the document online, send comments ad track changes or send a mail directly to the expert and consultants who were engage. Also, we had to be flexible to use technology ad work long hours online which was quite challenging. We also had to do smaller working groups in line with the COVID-19 rules which the lockdown was eased a bit and we could go back to work in public spaces. But the validation had to be done online with over 500 contributors validating the report online, an undertaking that was led by the Ministry of Environment and Forestry, the national focal point.

[Manjeet Dhakal, Head of LDC Support Team, Climate Analytics - Nepal NDC process - Presentation](#)

Nepal submitted its first NDC report in 2016.

The updated version was submitted on 8th December 2020 - Nepal's 2020 NDC has a target of ten years (2020-2030) areas where action in already being undertaken and covering key sectors and priorities specified by the IPCC. It includes a mitigation section and the key section within that are as follows:

- Energy - expand clean energy generation to 15,000 MW, with 5-10% solar, wind, micro-hydro & bio energy
- aims to achieve net-zero greenhouse gas emissions by 2050
- Resilience building and adaptation
- maintain 45% of total area of the country under forest cover

- Transport - increase sales of e-vehicles to cover 90% of all private passenger and 60% of all four-wheeler public passenger vehicle – with a focus on public electric transport
- Gender Equality and Social Inclusion
- adopt low emission technologies in brick & cement industries to reduce coal consumption & air pollution
- ensure 25% of households use electric stoves as their primary mode of cooking.

The overall cost for implementing the NDC is about 28 billion USD, with 3-4 billion contributed by the national government. Nepal is one of the lowest emitters, with less than 0.1% of overall global emissions. Yet Nepal is one of the countries with the highest vulnerability – Mt Everest with melting glaciers is in a vulnerable state and agriculture which has been influenced grateful by fluctuations in atmospheric conditions.

Process: Enhancement of Nepal's NDC

- Building ownership of the process at the national and sub-national level,
- Review, align, and updated existing target, policies, and measures.
- Incorporate new sectors and/or greenhouse gas emissions.
- Assess costs and investment opportunities
- Monitor progress and strengthen transparency

Methodology for choosing NDC targets

1. Analysis of relevant documents
 - 15th national plan
 - SDGs national framework and action plan
 - Climate Change and Environmental policies
 - Sectoral policies and strategies
 - Provincial periodic plans
 - White papers and fiscal budgets
2. Building on existing targets,
3. Modelling and analysis – the LEAP tool was used for the modelling and analysis, data validation was one of the challenging task, but appreciate the flexibility with LEAP in terms of data challenges.
4. Expert and stakeholder consultations both at the national and provincial level.
5. Updated NDC targets – identifying gaps in the first NDC report and addressing those gaps in the updated version.

Experience and lessons learned - horizontal and vertical alignment

- Broader consultation and inputs from central & provincial stakeholders, including women, youth, and Indigenous communities fed the NDC enhancement process - around 30 virtual & in-person consultations at central and provincial level helped build vertical alignment
- Modelling and analysis, including review of sectorial policies and the National SDG Framework served as key input to inform the targets for 2020 NDC - synergy with existing policies and SDG targets helped build horizontal alignment.
- Considerations while selecting NDC targets included: synergy with existing policy, maximized co-benefits, cost-effectiveness and gender and social inclusion - stakeholder buy-in and policy

relevance helped build both vertical & horizontal alignment. Cost-benefit analysis was achieved with the updated version unlike the initial NDC report which did not have a cost-benefit analysis.

- Provincial targets helped to inform the national target that were updated by technical specialists – the more input from stakeholders, this helps with buy-in and inclusivity. In-person consultations were organized in three of the seven Provinces, and to adopt with COVID restrictions, a report with analysis of provincial policies and plans served as an input for the remaining provinces. With COVID face-to-face events for consultation were replaced by online events.
- Consultations took place between the central and provincial Governments, the private sector and development partners, women and youth, indigenous communities served as key stakeholders for the revised version of the NDC.

[Sara González](#), Technician, National Council for Climate Change & CDM - **Dominican Republic NDC process** - [Presentation](#)

The NDC RD 2020 has been a transparent, inclusive, dynamic and multisectoral participatory process, with 114 institutions. The implementation of the NDC contributes directly to the achievement of the SDGs.

Within the framework of the NDC Action Plan – 2015:27 strategic results positively impact at least 1 SDG. Most positively impact 3 to 4 SDGs. The SDGs with the greatest impact are 6, 7, 11, 15 and 13

Mitigation Component

NDC RD 2015 approach Base year: 2010, estimated emissions 3.6tCO₂eq (0.0036Gg CO₂eq) 25% reduction in emissions per capita based on the base year, by 2030. Fully conditioned to international cooperation.

NDC RD 2020 approach

- Base year: 2010 projection of the BAU 2030 estimated emissions 51,000Gg CO₂eq 27% reduction in GHG emissions, with respect to BAU 20% target conditioned on external finances 7% objective unconditional to domestic finances (5% from the private sector and 2% from the public sector).
- Sectors Prioritized in Mitigation: Number of Options by Sector
- Total options: 46 options evaluated and/or identified.
- Estimated funding: USD\$ 8.9MM

Adaptation Component

NDC RD 2015 - Prioritizes the inclusion of climate change adaptation; Highlights planning approaches

NDC RD 2015 - Adaptation to climate change strategic vision and objective, support to institutional arrangements and policy framework; Climate change scenarios, impacts, risks and vulnerabilities; National and sectoral priorities for adaptation to climate change; Climate change adaptation investment priorities; Implementation of adaptation measures and plans; Co-benefits of adaptation measures and/or economic diversification plans to mitigation; Contribution of adaptation measures to other frameworks and/or international conventions

Prioritized Sectors in Adaptation - Number of Measures by Sector – a total of 37 measures identified

- Estimated financing needed: USD\$ 8.7MM

Synergy with National Development Strategy

Accelerator recommendations: Resilient populations in the face of climate change and other risks

- Complete and updated legal framework with strengthened capacities for its effective implementation
- Sustainable management of natural resources and integrated water resource management
- Comprehensive risk management system
- Populations resilient to climate change and other risks

Legal Framework for SDGs: Law No. 01-12 of the National Development Strategy 2030

Set indicators to reduce emissions and to adapt to climate change. “A society with a culture of sustainable consumption and production that protects the environment and natural resources and promotes an adequate adaptation to climate change.

Data challenges:

There are imperfect and largely inaccurate data challenges in most parts of the world – How does it become a challenge to the use of the LEAP tool and other tools for that matter, and even more importantly how do you overcome data challenges? Examples of typical data used in LEAP are demographic data, macro-economic data, energy balances and emission inventories, national plans and policies, data on equipment, national natural resource reserves and potentials. In some cases, these data are available, and in some cases, they are not, or marginally from various sources that are not in one data base. In the programmes we have followed we have identified a lead national agency that was able to identify and assemble the required data from various government sources. The aim of the climate quantification analysis using the LEAP model is at the national level. So often a lead national agency collects information and data from local, national, and even sub-regional entities. If the data is insufficient, then there is the possibility to use a simplified version of the tool, or use proxy data from other sources, simplify the method to arrive at a rough answer without the precision that one would have if the required data was available.

WEAP Tool:

How do you deal with the nexus issues inside the LEAP tool, with regards to the scenario analysis around the social simulations? On the nexus issues one would be the water-energy-food nexus as it is applied within the framework of LEAP and the involvement and integration of stakeholders in the process. Water-energy-food nexus is a huge part of the research programme at SEI. Quite often those types of analysis are done by linking the LEAP to other tools like the "Water Evaluation And Planning" system tool - [WEAP](#), which is a tool developed for very detailed nexus analysis that couples various hydrological models with action on the SDGs, which allows the user to look deeper into the connections and quantify the linkages between various actions/intervention in water, energy and food systems. The involvement of stakeholders is such a key part of any modelling and analysis. In participatory modelling approaches we get stakeholders to be involved in the design of the models, identify uncertainties and shape the narratives of various scenarios that inform the models through participatory stakeholder modelling workshops and sessions to use the input of stakeholders not only to provide input for the models but to validate models and this is a very important part of the process and useful for analysis complex and multiple systems with stakeholders coming from different disciplines and typically not “speaking the same language and

understanding each other” but have to speak to each other to understand how their different domain work by listening to each other.

Integrating tools and approaches:

Each of the different tools offer a very different facet to the analysis with the opportunity to bring in more and more stakeholders into the discussion – How do you integrate all these tools and have the best out of them? One could start with the SCAN-tool for example to identify the linkages. Once the linkages have been identified, it is very important to start a conversation with national stakeholders to engage the right set of stakeholders to involve people and in that social simulations will be relevant as described for the various games that are available and getting the feedback to identify the priorities and will inform the models and analysis for a deep dive, especially when qualification is need, for example when you want to raise ambition levels, quantification would be need at the micro-level to take the right decisions in a specific context. In summary, all the tools presented are very complimentary and it is important to put them together.

Webinar 2 Speakers:

Moderator: [Dhesigen Naidoo](#), CEO, Water Research Commission, South Africa

1. Speakers - Tools and methods that help decision-makers identify and act on climate/SDGs synergies:

- Mr. [Jason Veysey](#), Senior Scientist, SEI - U.S. Centre - **LEAP Model (SEI Integrated Climate and Development Planning Initiative)** - [Presentation](#)
- Mr. [Piotr Magnuszewski](#), Ph.D, Research Scholar, Centre for Systems Solutions/ IIASA - **Nexus/SDGs Synergies Game** - [Presentation](#)
- Ms. [Sofia Gonzales-Zuñiga](#), Lead Author, **SCAN-tool Methodology**, New Climate Institute - [Presentation](#)

2. Speakers - Lessons and practices from national NDC processes and planning with climate/SDGs synergies:

- Ms. [Anne Nyatichi Omambia](#), Ph.D, Climate Change Coordinator, NEMA - **Kenya NDC process**
- Mr. [Manjeet Dhakal](#), Head of LDC Support Team, Climate Analytics - **Nepal NDC process** - [Presentation](#)
- Ms. [Sara González](#), Technician, National Council for Climate Change & CDM - **Dominican Republic NDC process** - [Presentation](#)

The webinar event page, including programme description, speaker bios and presentations, and recoding of the webinar can be found at the following link:

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