REPORT

National capacity building workshop for the development of nationally appropriate mitigation actions (NAMAs)

New international guidelines for climate change mitigation
14 and 15 March 2013 – Lima, Peru
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Overview

The National Capacity Building Workshop for the Development of Nationally Appropriate Mitigation Actions (NAMAs) was held on 14 and 15 March 2013 in Lima, Peru. It was organised by the Peruvian Ministry of Environment (MINAM) with the support of German cooperation (Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ), the Low Emission Capacity Building Programme (UNDP-European Union, Australia) and the Mitigation Momentum project (ECOFYS and the Energy Research Centre for the Netherlands), mainly funded by the International Climate Initiative (ICI) of the German Federal Ministry for the Environment. The workshop took place within the framework of the International Partnership on Mitigation and MRV.

It brought together forty experts from public and private institutions in the energy, industrial, agricultural and transport sectors. The purpose of the workshop was to: provide capacity building for new greenhouse gas (GHG) emission mitigation initiatives, such as NAMAs; analyse the mitigation potential for three areas, namely sustainable transport, energy production from agricultural waste, and the construction industry; and provide training in the use of tools designed to develop specific ideas for NAMAs.

The two-day training event was based on an approach combining theory and practice. The first day featured a conceptual overview of NAMAs, focusing on their potential for reducing GHG emissions and on opportunities for implementing NAMAs in the targeted sectors in Peru in an effective and sustainable manner. The NAMA Tool was presented on the second day, followed by exercises where participants simulated the NAMA development process. The outcomes were presented and discussed in a plenary session and used as input to draw up sectoral roadmaps for low GHG emission development in the country.

The workshop also provided an opportunity for the different actors involved to exchange experiences and discuss relevant issues. The working groups established will continue their work to develop the NAMA roadmaps and report on progress made at the InterCLIMA event to be held in October of this year and at other national and international fora held for the exchange of experiences in this area.

Objectives of the workshop

- To strengthen the capacities of relevant actors from Peru’s energy, housing and transport sectors to develop nationally appropriate mitigation actions (NAMAs).
- To analyse mitigation potential in the three targeted sectors and develop specific ideas for NAMAs.
- To provide input to develop roadmaps for the NAMAs and disseminate the results in national and international fora held to exchange knowledge and experiences in this area, such as InterCLIMA, the Latin American Carbon Forum, MAIN Dialogue, EC-LEDS (Enhancing Capacity for Low Emission Development Strategies), meetings of the International Partnership on Mitigation and MRV, and international negotiations.

Information and resources available

All the methodological resources and workshop presentations have been posted on the website of the International Partnership on Mitigation and MRV and can be found by following this link: [http://mitigationpartnership.net/peru-technical-workshop-%E2%80%9Ctraining-nama-development%E2%80%9D](http://mitigationpartnership.net/peru-technical-workshop-%E2%80%9Ctraining-nama-development%E2%80%9D).

Further information can be found on MINAM’s website: [http://cambioclimatico.minam.gob.pe/](http://cambioclimatico.minam.gob.pe/) (in Spanish).
1. National context for the development of NAMAs in Peru – Eduardo Durand (MINAM)

Policy context: the national framework for climate change
- 1993: The National Climate Change Commission was created.
- 2002: Peru ratified the Kyoto Protocol.
- 2003: The first national climate change strategy was adopted.
- 2005: The General Environment Act was passed.
- 2008: The Ministry of Environment was created out of what was the National Environment Council.
- 2009: The national environment policy was adopted, incorporating climate change as a policy component.
- 2010: The action plan for climate change adaptation and mitigation was formulated.
- 2013: Work is in progress to update the national climate change strategy, with a view to revising the conceptual framework and the decision-making process.

Voluntary commitments made by Peru for 2021
- Removals and zero net emissions in the category of land use, land use change and forestry.
- Increasing the share of non-conventional renewable energy sources and hydropower in the national energy mix, so that together they account for at least 40% of energy consumed in the country.
- Recovery and use of methane from landfill gas.

Action to promote low carbon development in Peru
- Planning for Climate Change project (PlanCC)
The objectives of the project are to:
  - compile quantitative evidence on possible climate change mitigation scenarios in the country in order to develop policies and investment planning that take into account climate change issues;
  - strengthen national capacities and lay the foundations for low carbon economic growth in the long term;
  - promote regional exchanges and learning through a south-south technical cooperation platform.

- NAMAs
NAMAs are measures implemented at the national, regional or sectoral level to promote sustainable development and reduce GHG emissions. The sectors and sectoral programmes with GHG emission reduction potential are: energy (bioenergy, renewable energy sources and energy efficiency); housing (sustainable buildings); industry (construction industry: cement, brick and steel); solid waste (integrated solid waste management); and transport.
• **New carbon markets (Clean Development Mechanism – CDM)**
  The Ministry of Environment, as the designated national authority, has issued 85 letters of approval to CDM projects that comply with sustainable development criteria. This is a prerequisite for registering projects with the CDM Executive Board.

### 2. Presentation of working group results: developing NAMAs

The practical part of the workshop took place on the second day and consisted of exercises in which the NAMA Tool was applied to specific cases. This methodological tool was used by the three sectoral working groups to jointly develop examples of sectoral roadmaps for NAMA development. In the case of the bioenergy sector, the working group reported on progress made in developing the document to define and design the NAMA for the sector. Each group’s outputs are outlined below.

#### 2.1. Integrated urban transport in Peru

The NAMA proposed for this sector involves a range of policies aimed at improving the system of urban public transport and non-motorised transport in Peru. The plan is to establish an independent transport authority to counter problems currently arising from the duplication of efforts in this sector. Establishing a law on sustainable urban mobility is also envisaged, including provisions to improve vehicle infrastructure and update technical requirements for vehicles, including stricter limits on vehicle emissions. These measures will benefit public transport users in terms of health, journey times, etc.

Key actors involved are the Ministry of Transport and Communications (MTC), the Ministry of Housing, Construction and Sanitation (MVCS), and local authorities, as well as private sector stakeholders and international cooperation agencies, which will provide technical and financial assistance.

<table>
<thead>
<tr>
<th>Steps to develop a NAMA</th>
<th>The integrated urban transport system in Peru</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1. Assess framework conditions, analyse policy gaps and identify measures needed.</strong></td>
<td><strong>Evaluation of framework conditions</strong></td>
</tr>
<tr>
<td></td>
<td>• Gaps in the existing institutional framework: there is no independent authority for the transport sector. The establishment of such an authority is crucial in order to ensure that efforts are well coordinated and to solve the problem of duplicated efforts.</td>
</tr>
<tr>
<td></td>
<td>• The absence of an urban transport plan (there is just a strategic plan for the sector) is a major constraint.</td>
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<td></td>
<td>• It is necessary to carry out a study to identify bottlenecks in the country’s urban transport system.</td>
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<td></td>
<td>• Work should continue along the lines established in the management plans implemented to date, but with improvements to coordination mechanisms.</td>
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<tr>
<td></td>
<td><strong>The following policy gaps need to be addressed:</strong></td>
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<td>• There is policy interest in road improvement works, but not in urban planning to improve mobility in cities. In order to address this problem, it is necessary to amend the organic laws of municipal and regional governments.</td>
</tr>
<tr>
<td></td>
<td>• It is necessary to increase the vehicle infrastructure to accommodate more journeys. The</td>
</tr>
</tbody>
</table>
The aim is for people to travel less and for journeys to be shorter.

- The measures identified by the working group include:
  - defining a single joint transport authority;
  - adopting a law on sustainable mobility;
  - standardising minimum requirements for vehicles;
  - prioritising urban public transport;
  - updating maximum permissible limits for vehicle emissions;
  - tightening checks on the technical condition of vehicles.

### Step 2: Evaluate the technical potential for emissions reduction and co-benefits.

Studies that can be used as a basis for developing the NAMA are already available, including:

- Environmental baseline study for the Metropolitano bus rapid transit corridor: COSAC 1;
- Study on the demand for line 1–Z (Lima’s electric rail transport authority – AATE);
- Integrated transport system study, conducted by Protransporte;
- Study on the demand for supplementary corridors;
- Urban transport and logistics study for Lima-Callao (MTC);
- Feasibility study for Lima’s L2 metro line;
- Annual report 2012, MTC;
- Study for the urban transport masterplan, Japan International Cooperation Agency (JICA), 2012.

Some of the co-benefits identified are improved health, improved journey times and lower healthcare costs.

### Step 3: Identify potential actions and NAMA implementers.

Key actors for the development of the NAMA are:

- the Ministry of Transport and Communications;
- the Ministry of Housing, Construction and Sanitation;
- provincial municipalities.

### Step 4: Define the baselines.

Information requirements for establishing the baseline have been identified, but the available data is incomplete or partially out of date.

### Step 5: Design the MRV (measuring, reporting and verification) plan.

Indicators are:

- the calculation of urban transport CO₂ emissions;
- the number of vehicles by type of transport;
- fuel consumption;
- the number of vehicles by type of fuel;
- vehicle occupancy rates;
- passenger demand by type of vehicle;
- studies on switching between types of transport;
- vehicle fleet growth rates;
- emission factors;
- the number of journeys;
- the average age of vehicles.

All this information will be used in the three phases of the MRV plan and must therefore be updated, reliable and shared among the actors.

### Step 6: Plan the NAMA in detail.

In coordination with the key actors, it is necessary to establish a time frame for planned activities, clearly indicating the responsibilities and functions of each actor. This NAMA would be implemented as a pilot project.
2.2. NAMA for the construction sector

The proposed NAMA aims to reduce the carbon footprint of the construction industry by achieving the following specific objectives: a 20% reduction in GHG emissions compared to the baseline for the brick sector by 2020; a 10% reduction in GHG emissions in the cement sector by 2020; and an allocation of 5% of the Green Code budget to the 'Mi Vivienda' and 'Techo Propio' programmes, which promote home ownership.

<table>
<thead>
<tr>
<th>Step 7. Identify required resources.</th>
<th>The resources required include support for the interinstitutional work as well as ongoing technical assistance to document and update the NAMA. The financing required will be structured as follows: public (25%), private (10%) and international (65%).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 8. Register the NAMA.</td>
<td>The registration form was submitted to the organizers as a completion of the group’s work.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Steps to develop a NAMA</th>
<th>Construction sector</th>
</tr>
</thead>
</table>
| Step 1. Assess framework conditions, analyse policy gaps and identify measures needed. | • Step 0: it is necessary to determine the value chain for the construction sector (materials – use of materials – sustainable housing).  
• Efforts focus on the three subsectors: brick, steel and cement.  
• The key actors are the Ministry of Production (PRODUCE), the Ministry of Environment, the private sector, international cooperation agencies, SENCICO (national training service for the construction industry), etc.  
• The process to develop the NAMA should be led by a single entity through an interinstitutional committee formed by representatives of the public and private sectors and cooperation partners.  
• As substantial market changes are needed, assistance from different cooperation partners and support from Ministry of Environment departments will be valuable. |

**Assessment of framework conditions**

- Specific public policies targeting the construction sector are lacking.  
- Total GHG emission reduction potential for the sector as a whole (all the subsectors) has not been determined.  
- There is no long-term vision permitting the identification of market trends.  
- The sector’s technical capacity remains weak.  
- Stakeholder mapping for the sector is required in order to identify synergies among the sector’s institutions and avoid the duplication of efforts.  
- Specific priority issues have not been identified for the sector.
<table>
<thead>
<tr>
<th>Step 2. Evaluate the technical potential for emissions reduction and co-benefits.</th>
<th>The subsectors with the highest technical potential for emissions reduction are the cement and brick subsectors. According to the baseline for the brick subsector, small-scale brickyards have a reduction potential of 30% to 45% using validated technologies, but it is also necessary to assess the potential of the cement and steel industries to determine the construction sector's overall potential. Co-benefits for the small-scale brick-making sector include formalisation, improved competitiveness, improved socio-economic conditions, improved use in housing, health benefits for the general population and workers, increased income, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 3. Identify potential actions and NAMA implementers.</td>
<td>Based on the construction sector’s value chain, the following measures have been identified. Overarching measures: • the introduction of technological improvements to achieve greater energy efficiency, which will reduce emissions and provide economic incentives for entrepreneurs and companies (cost savings); • energy efficiency can be replicated in the three subsectors, taking into account the particularities of each one. Supplementary measures: • switching to a fuel with a lower emission factor and higher energy efficiency; • drawing up a green building code based on standards concerning the use of materials; • introducing technologies that generate energy savings for households (sustainable housing).</td>
</tr>
<tr>
<td>Step 4. Define the baselines.</td>
<td>Not all the information required is available, and in many cases it is not up to date. However, this exercise has served to identify relevant information that will be useful in establishing the baseline.</td>
</tr>
<tr>
<td>Step 5. Design the MRV plan.</td>
<td>It is necessary to define an MRV system adapted to the CDM or to create one from scratch. In order to do this, however, it is necessary to identify what information is required, where it can be sourced, who will compile it, and who will use it. It is also necessary to apply tools such as the useful energy balance sheet for the cement, steel and brick industries in order to calculate fuel consumption per product and monitor the reduction in the carbon footprint for materials on a yearly basis.</td>
</tr>
<tr>
<td>Step 6. Plan the NAMA in detail.</td>
<td>The activities to be carried out should address Step 1, that is, they should aim to strengthen institutional capacities in order to implement the NAMA effectively. It is also necessary to design public policies that promote the transformation of the sector and ensure the successful implementation of the NAMA. All this should be accompanied by technical support, as the technology to be introduced needs to be validated by means of pilot projects. An important factor to address is the creation of a market for sustainable buildings, so that the activities described above can be put into practice. This will be achieved by creating incentives for the private sector.</td>
</tr>
<tr>
<td>Step 7. Identify required resources.</td>
<td>• Funding from international cooperation sources. • Support in the form of research into materials and technologies for the technical component.</td>
</tr>
<tr>
<td>Step 8. Register the NAMA.</td>
<td>The registration form was submitted to the organizers upon completion of the group’s work.</td>
</tr>
</tbody>
</table>
2.3. National programme for the sustainable use of biomass

Work to design this NAMA proposal began in 2012 and was carried out in coordination with the Ministry of Environment and the Bioenergy Commission. It establishes a set of measures, including capacity building, financing arrangements and the creation of a renewable energy market, aimed at producing energy from agricultural waste generated by small, medium and large agro-industry enterprises in the country’s three regions.

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Bioenergy sector</th>
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<tbody>
<tr>
<td>Institution to lead the NAMA</td>
<td>The Ministry of Agriculture (MINAG) will lead the NAMA and coordinate the programme’s work with the other sectors. Other key actors include the National Society of Industries (SNI) and the National Environment Fund (FONAM).</td>
</tr>
<tr>
<td>Target sector</td>
<td>The target sector is small, medium and large agro-industry enterprises throughout the country. Particular attention will be paid to the particularities of each geographic area.</td>
</tr>
<tr>
<td>Technical potential for the reduction of GHG emissions</td>
<td>Relevant information is available but this was not presented at the workshop.</td>
</tr>
<tr>
<td>Funding</td>
<td>A renewable energy market will be created with the support of the private sector. Incentives must be created for this purpose.</td>
</tr>
</tbody>
</table>
| Measures identified              | • Create a renewable energy market.  
• Make necessary changes to legislation to solve the problem of perverse incentives. Furthermore, there are no policy incentives for small markets.  
• Strengthen technical capacities within the sector in order to ensure the sustainable implementation of the NAMA. Although the sectors involved are prepared to undertake these efforts, technical capacities are weak (particularly with regard to new technologies).  
• Replicate good practices.                                                  |
11. Workshop conclusions

The main conclusions reached at the workshop are outlined below.

- **NAMAs**, which are particularly important in view of the fact that 67% of global GHG emission reduction potential is to be found in developing countries like Peru, are a series of measures aimed at achieving sustainable low-carbon development that is measurable, reportable, verifiable and, above all, consistent with the development priorities of the country in which they are implemented.

- While Peru today has cleaner fuels and energy sources and the potential to achieve greater efficiency in natural resources management, the participants acknowledged that NAMAs are a good opportunity to ensure that the rapid economic growth achieved in recent years is maintained without increasing GHG emissions.

- There is no one-size-fits-all recipe for the development of NAMAs, because one of their main features is their capacity to be adapted to the specific circumstances of the country where they are implemented. For successful NAMA development, it is therefore essential for actors to work together, be creative and, above all, have the necessary political commitment and technical capacity.

- A key component of NAMA development is the set of financing sources and mechanisms available for use at different stages in the process. This isn’t necessarily sourced from international cooperation partners either, as it can also be developed within the country through the creation of an internal carbon market, for example.

- Particularly noteworthy is the work carried out in Peru that uses a multisectoral approach. Although Peru is still in the early stages of the process to develop and design the NAMA concept, it has shown a clear commitment to promoting low-carbon development and to laying the foundations for synergies among the different sectors involved. International cooperation agencies have also made an important contribution, providing technical assistance as well as financial support.

- The plans, strategies and projects formulated by the Ministry of Environment provide useful input for the development of NAMAs in Peru. The Planning for Climate Change project (PlanCC), for example, has compiled quantitative data on scenarios and sectors where GHG emissions can most effectively be reduced. Further opportunities arise in connection with the revision of the national climate change strategy ten years after it was first adopted. This revision process aims to resolve present difficulties in (a) understanding the problems involved and (b) the decision-making process. The Climate Change Commission includes a high-level component for NAMA development because, in addition to sector-specific technical capacities, political authority is required to put mitigation actions into practice.

- The workshop participants acknowledged the importance of identifying co-benefits arising from the implementation of NAMAs. They include improved environmental quality, improved socio-economic conditions for the general population and strengthened management capacities in specific sectors. These co-benefits can be used as a means to bring the private sector on board, for example.

- Concerns voiced about the development of NAMAs include: the risk that NAMAs might not be implemented as designed; that efforts might focus solely on technical aspects; and that key actors might not be willing to work together or have the technical capacities required to manage mitigation measures effectively. A well-designed and effectively managed MRV system can ensure that these risks are avoided.

- A consistent MRV plan is a key element in evaluating the effectiveness of NAMA implementation. By measuring, reporting and verifying the measures implemented using established indicators and goals, it can be determined whether
the objectives set have been achieved or not. It also contributes to ensuring the effective coordination of activities
carried out by the different actors involved and the transparency of the data compiled, thereby facilitating the
identification of lessons learned from the process.

The practical part of the workshop consisted of exercises in which the NAMA Tool was applied to specific cases. This
methodological tool was used by the working groups to jointly develop a sectoral roadmap for NAMA development. It should
be noted in the case of the bioenergy sector that the working group reported on progress made in developing the document
to define and design the NAMA for the sector.

The achievements of the sectoral working groups and the difficulties encountered are outlined below.

- Key actors have been identified in each sector for the development of the respective NAMA, which has a sufficiently
diversified composition and designated lead institution. However, all three sectors highlighted the need to identify
the role played by each actor up to this point and to determine their capacities and strengths, so that synergies can
be developed to facilitate NAMA implementation. Participants acknowledged that human resources, in particular
the technical capacities and political will of the actors involved, are key to the successful development of NAMAs.
- Mechanisms must be put in place to build trust and promote cooperation among the actors involved.
- The three sectors also stressed the importance of continuing with training processes for the actors involved in
NAMA development and management, with international cooperation partners playing a major role in this area.
- The participants drew up a list of indicators that will be useful for the MRV system.
- Potential social, economic and environmental co-benefits to be gained from the implementation of NAMAs were
identified. These co-benefits can be promoted as part of a win-win strategy to raise funds, which highlights the value
of co-benefits for both NAMA implementers and the beneficiary population.
- One of the shortcomings identified is the weak institutional framework and the need to improve the regulatory
framework to ensure the viability of NAMA development at the technical and political levels.
- Technical potential for emissions reduction has been identified based on previous studies. However, in sectors like
the construction industry, where three specific subsectors are targeted, it is important to determine the overall
potential for emissions reduction and this requires specialised studies based on up-to-date information. Although
the working groups listed the information required to establish baselines for the NAMAs, updated information is not
always available and there are no effective mechanisms in place for sharing it.

12. The challenges ahead

- It is important to continue holding meetings of this kind, with a focus on capacity building, as they are key to
guiding, developing and managing NAMAs in the country.
- It is necessary to find ways to ‘sell’ the NAMA concept at the decision-making levels in targeted sectors and to direct
advocacy and promotional efforts towards bodies responsible for making policy decisions.
- Efforts are required to bring private sector actors on board. One way of doing this is to highlight the benefits to be
gained from NAMA implementation.
- Participants must become NAMA ambassadors both for their institutions (working externally) and within their
institutions (working internally).
13. Annexes

- Workshop agenda
- List of participants
- Workshop conclusions

Annex 1. Agenda

Download workshop agenda [here](#).
Annex 2. List of participants

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sofía Alcalde Poma</td>
<td>Coordinator, Socio-environmental Management</td>
<td>AATE (Lima’s electric rail authority)</td>
</tr>
<tr>
<td>2</td>
<td>Alexandra Ames Brachowicz</td>
<td>Operations Manager</td>
<td>NGO Cruzada Vial</td>
</tr>
<tr>
<td>3</td>
<td>Patricia Arias</td>
<td>Metropolitan Municipality of Lima (MML)</td>
<td>MML</td>
</tr>
<tr>
<td>4</td>
<td>Rosa Aspilcueta</td>
<td></td>
<td>AATE</td>
</tr>
<tr>
<td>5</td>
<td>Sandra Bazán Velásquez</td>
<td>Environmental specialist</td>
<td>Ministry of Transport and Communications (MTC)</td>
</tr>
<tr>
<td>6</td>
<td>Marianella Crispin</td>
<td>Consultant</td>
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<tr>
<td>7</td>
<td>Italo Díaz Horna</td>
<td>Director General</td>
<td>MTC</td>
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<tr>
<td>8</td>
<td>Vanessa Esslinger</td>
<td>Advisor</td>
<td>GIZ</td>
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<td>9</td>
<td>Ricardo Estrada</td>
<td></td>
<td>Ministry of Environment (MINAM)</td>
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<td>10</td>
<td>Claudia Figallo</td>
<td>Directorate General for Climate Change, Desertification and Water Resources (DGCCDRH)</td>
<td>MINAM</td>
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<td>11</td>
<td>Tatiana García</td>
<td></td>
<td>European Union</td>
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<td>12</td>
<td>Cecilia Irigoyen Montestruque</td>
<td>Lawyer</td>
<td>MTC</td>
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<td>13</td>
<td>César Lama</td>
<td></td>
<td>National Engineering University (UNI)</td>
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<td>14</td>
<td>José Moquillaza Risco</td>
<td>Senior consultant</td>
<td>KFW</td>
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<td>15</td>
<td>Jimena Mora</td>
<td></td>
<td>Libélula (sustainable development consultancy)</td>
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<td>16</td>
<td>Analí Ochoa</td>
<td>Coordinator, Education</td>
<td>MML</td>
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<td>17</td>
<td>Regina Ortega</td>
<td>DGCCDRH</td>
<td>MINAM</td>
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<td>18</td>
<td>Nelly Rivera</td>
<td></td>
<td>Peruvian Centre for Social Studies (CEPES)</td>
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<td>19</td>
<td>Pamela Taboada</td>
<td>Environmental specialist</td>
<td>Protransporte (Lima public transport development body)</td>
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<td>20</td>
<td>Alejandro Talavera</td>
<td>Coordinator, Research and</td>
<td>UNI</td>
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<tr>
<td>21</td>
<td>Jessica Tantalean</td>
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<td>MML</td>
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<tr>
<td>22</td>
<td>Mario Tejada</td>
<td>Environmental advisor</td>
<td>Proinversión (Peruvian inward investment agency)</td>
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<td>23</td>
<td>Ramzi Tubbeh</td>
<td></td>
<td>Libélula</td>
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<td>24</td>
<td>Luis Yamada Tanaka</td>
<td></td>
<td>Peruvian Chamber of Construction (CAPECO)</td>
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<td>25</td>
<td>Raúl Zárate</td>
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<td>Callao Regional Government</td>
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<td>26</td>
<td>Wendy Zelada</td>
<td>Environmental specialist</td>
<td>Protransporte</td>
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<td>27</td>
<td>Harald Diaz Bone</td>
<td>Senior advisor, TRANSfer project</td>
<td>GIZ</td>
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### CONSTRUCTION SECTOR

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>César Albarracín</td>
<td>Specialist</td>
<td>Ministry of Production (PRODUCE)</td>
</tr>
<tr>
<td>2</td>
<td>Gloria Aranda</td>
<td>Advisor</td>
<td>Ministry of Housing, Construction and Sanitation (MVCS)</td>
</tr>
<tr>
<td>3</td>
<td>Francisco Avendaño</td>
<td></td>
<td>MVCS</td>
</tr>
<tr>
<td>4</td>
<td>Jochen Beerhalter</td>
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<td>David Cueto</td>
<td>Head, Environment Division</td>
<td>UNACEM (cement company)</td>
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<td>Efrain Cruz</td>
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<td>9</td>
<td>Jorge Delgado</td>
<td>Specialist in finance and climate change</td>
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<td>Rocío García</td>
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<td>Magna Neyra</td>
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<td>14</td>
<td>Carlos Orbegozo</td>
<td>Coordinator, Low Emission Capacity Building Programme</td>
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<td>Edgar Porras Robles</td>
<td>Director, Environmental Assessment in Industry</td>
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<td>Iván Rojas</td>
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<td>Cecilia Rosell</td>
<td>Manager, Social Responsibility</td>
<td>National Society of Industries (NSI)</td>
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<td>Lisbeth Solis</td>
<td>Specialist</td>
<td>SENCICO (national training service for the construction industry)</td>
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<td>19</td>
<td>Andrea Tang</td>
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<td>21</td>
<td>Emma Torres</td>
<td>Coordinator, Regulatory Management</td>
<td>Cementos Pacasmayo (cement company)</td>
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### BIOENERGY SECTOR

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<tr>
<th>No.</th>
<th>Name</th>
<th>Position</th>
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<tr>
<td>1</td>
<td>Fernando Acosta</td>
<td>Advisor</td>
<td>SNV (Netherlands development organisation)</td>
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<td>2</td>
<td>Paola Alfaro</td>
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<td>National Centre for Strategic Planning (CEPLAN)</td>
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<td>Miguel Aréstegui</td>
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<td>Ministry of Energy and Mines (MINEM)</td>
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<td>Romy Calancho Herrera</td>
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<td>National University of San Marcos (UNMSM)</td>
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<td>Adolfo Chipana Medina</td>
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<td>Jaime Gianella Silva</td>
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<td>MONDER S.A.C.</td>
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<td>Julia Justo</td>
<td>Executive Director</td>
<td>National Environment Fund (FONAM)</td>
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<td>Sara Leavitt</td>
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<td>Peace Corps</td>
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<td>Ministry of Agriculture (MINAG)</td>
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<td>S. Ramos Jheen</td>
<td>Coordinator, Development</td>
<td>Maple Energy plc</td>
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<td>14</td>
<td>Pedro Sánchez</td>
<td>National coordinator, Energy and Environment Partnership (EEP)</td>
<td>Inter-American Institute for Cooperation on Agriculture (IICA)</td>
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<td>15</td>
<td>Marietta Shimizu Larenas</td>
<td>Specialist in social affairs</td>
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<td>Tania Vergara Mezarina</td>
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