Partnership for Market Readiness PMR - Costa Rica

Informal Market Readiness Proposal (MRP) presentation
Third meeting of the Partnership Assembly
Cologne, May 2012
### Agenda

#### Introduction
- Costa Rica’s national context and Carbon Neutrality Pledge (Building Block 1)
- Assessment of target sectors/programs and core readiness components (Building Blocks 1 & 2)
- Planning for a market instrument (Building Blocks 3, 4, 5)

#### Planning for a market instrument and key readiness components (Building Blocks 3, 4i)
- Agriculture:
  - Livestock: scaled up GHG crediting instrument (Building Block 4i)
  - Coffee: scaled up GHG crediting instrument (Building Block 4i)
  - Renewable energy: scaled up GHG crediting instrument (Building Block 4i)

#### Next steps to presentation of final Market Readiness Proposal (MRP)
- Schedule of key deliverables for Building Blocks 1-5.

#### Appendix
- Basic information about other PMR Sector.
A number of countries made different C-Neutrality pledges in Copenhagen and most of them have made significant qualifications to their pledges; Costa Rica maintains its Copenhagen pledge to implement a "long-term economy-wide transformational effort to enable C-Neutrality" by 2021; and Costa Rica has always promoted the use of markets in its efforts to reach climate goals.

Costa Rica’s national context (Building Block 1)

C-Neutrality pledge

- Costa Rica’s GDP (2011): $41 billion, pop. 4.5 million, ~$9000/capita;
- Net GHG emissions (2009): 7-8 MtCO$_2$e, 1.5-1.8 tCO$_2$e/capita;
- Highest emissions come from fossil fuels (5.6 MtCO$_2$e), agriculture (4.6 MtCO$_2$e), and waste (1.2 MtCO$_2$e);
- Over 90% renewable energy in electricity generation from hydro, wind, geothermal, bio; and
- Carbon intensity of the economy is 0.17tCO$_2$/1000, one of the lowest in the world.
Costa Rica’s national context (Building Block 1)

Progress towards C-Neutrality pledge

• Costa Rica proposes to utilize the carbon-intensity (‘Ci’) of the economy as a practical way to monitor progress towards C-Neutrality, and commit to continue lowering its carbon intensity;
• This is a challenge because Costa Rica already has a very low Ci (0.17tCO₂e /$1000);
• The way to achieve this goal is through implementation of a set of specific scaled up crediting instruments; and
• Costa Rica intends to use PMR funds to explore these scaled up crediting instruments.

Emission reduction potential by sector 2008-2030 (Gg of CO2e)

Source: NEEDS (2010)
## Assessment of target sectors/programs and core readiness components (Building Blocks 1 & 2)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Potential for a scaled up crediting Instrument</th>
<th>Support</th>
<th>Building Block (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Agriculture/livestock</td>
<td>√</td>
<td>PMR and US LEDs</td>
<td>3, 4</td>
</tr>
<tr>
<td>2. Renewable energy</td>
<td>√</td>
<td>PMR and US LEDs</td>
<td>3, 4</td>
</tr>
<tr>
<td>3. Energy Efficiency</td>
<td>√</td>
<td>PMR</td>
<td>3, 4</td>
</tr>
<tr>
<td>4. Housing</td>
<td>√</td>
<td>PMR/NUMA</td>
<td>3, 4</td>
</tr>
<tr>
<td>5. Transport</td>
<td>To be explored</td>
<td>PMR/GIZ/IDB and US LEDs</td>
<td>2, 3, 4</td>
</tr>
<tr>
<td>6. Waste management</td>
<td>√</td>
<td>PMR and GIZ</td>
<td>3, 4</td>
</tr>
<tr>
<td>7. REDD +</td>
<td>√</td>
<td>FCPF</td>
<td>n/a</td>
</tr>
<tr>
<td>8. Consolidation of system of national parks</td>
<td>Unilateral</td>
<td>None</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Supply Side
- Project/Program
  - Validation
- Public consultation
- National Registry Emissions
  - Monitoring
  - Verification
  - Certification
- Credit generation (UCC)

Demand Side
- Organization
  - Inventory
    - Reduction plans
- Verification
  - V/V Organization
  - Certification
  - 3rd party Organization
- Accredited

Professional Organizations
- Carbon Expert
- Accredited

Domestic and Foreign Financial Market
- MINAET Agreement of National Program
  - National Carbon Committee
  - Methodologies, protocols etc

Source: DCC-2012
Supply Side

- Large/Mid Scale Project/Programs
- Small/Micro Scale Project/Programs
- Intermediary Entities
  - National Registry, MRV Certification System
    - Credit generation (UCC)
      - Domestic Carbon Market
        - Global/Multiplayer Carbon Market
          - Entity Registry, MRV Certification System
          - Entity Methodologies, protocols, etc
          - Country Program Methodologies, protocols, etc

Source: DCC-2012

PLANNING FOR A MARKET INSTRUMENT (BUILDING BLOCK 3, 4, 5) - INTERACTION SECTORS - DOMESTIC/GLOBAL MARKET
The National Development Plan 2011-2014 and the National Strategy for Climate Change consider this sector central in development and mitigation strategies;
• The Ministry of Agriculture (MAG) is the guiding entity of mitigation strategy in this sector;
• It represents the second largest emitter in Costa Rica after transport and is key to achieve the country’s aspirational goal of carbon neutrality;
• Pilot program of sustainable agriculture and livestock (Law 8408) provides framework for registry, MRV, payments and technical support and allows scaling-up to sectoral mitigation capture program with market components; and
• Mitigation meets the objectives of the Agriculture and Food Systems and Rural Development (2010-2021) and Sectoral Policy on Climate Change (2011-2014).

Livestock activities are the largest source of GHGs in the sector;
• Land for livestock represents 70% of agricultural land in Costa Rica; and
• Improvement of livestock practices is underway. Scale-up is needed to transform the sector and to meet climate objectives.

Source: IMN (2009) and Montenegro (2010)
Between 2012-2014 efforts will focus on 3 of the 8 national farming areas to ensure national coverage over time;

This program focuses on the primary activities and will not consider the subsequent production chain;

The activities to be supported will be directed towards:
  - Farm-wide measures;
  - The animals diet and breed; and
  - Improving pastures.

<table>
<thead>
<tr>
<th>Scope and boundaries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition</strong></td>
</tr>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Rationale</strong></td>
</tr>
</tbody>
</table>
### Scaled up GHG Crediting Mechanism - Focus area 1: Livestock Components (Building Blocks 2, 3, 4)

#### Readiness activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studies</td>
<td>Analysis of CO$_2$e capture potential in the different 8 regions of Costa Rica</td>
</tr>
<tr>
<td>Analysis</td>
<td>Use of laboratory services from local universities and or private sector for the analysis of samples taken from field work in livestock farms</td>
</tr>
<tr>
<td>Data collection</td>
<td>In the absence of an updated livestock census in Costa Rica, MAG will collaborate with the private sector (meat and milk producers) to generate data</td>
</tr>
<tr>
<td>Training of technical staff</td>
<td>Training of MAG technicians in the 8 regions</td>
</tr>
<tr>
<td>Training of farmers</td>
<td>MAG technicians prepared to lead technical workshops to train farmers in certain regions</td>
</tr>
</tbody>
</table>

#### Mitigation potential

- J. Montenegro (2010) estimates CO$_2$ capture potential: **630,644 MT/year** representing 16% of total emissions of the sector; CATIE estimates it can increase up to 50% in some areas; and
- **8 million MT of CO$_2$e** (NEEDs study, 2010) could be mitigated if improved practices in the agriculture and livestock sector in Costa Rica were adopted in 2010-2030.

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Montenegro (2010)
Coffee sector set a national precedent in carbon neutrality in 2011 in response to Costa Rica’s aspiration to be carbon neutral by 2021; Technical partners are ICAFE, Fundecooparación and CATIE; 60% of coffee farmers are organized in cooperatives: facilitates the collective implementation of new technology and best practices with a cooperative (800 farms) has certified the world’s 1st C-Neutral coffee; Several agro-forestry pilot projects are underway offering payments for environmental services in coffee farms; and Government and coffee sector are fundraising internationally.

Assessment of historic and projected emissions trends and key drivers

- Coffee is one of the main consumers of nitrogen-based fertilizers in Costa Rica (250 kg/ha vs. 117kg/ha, the world’s average); and
- 20% of the emissions expected by 2030 under BAU conditions are related to nitrogen-based fertilizers.
### Scaled up GHG Crediting Mechanism - Focus area 2: Coffee – Description and Rationale (Building Blocks 2, 3, 4)

<table>
<thead>
<tr>
<th>Definition</th>
<th>Mitigation actions and MRV for the coffee sector for generation of CO₂ credits, participation in the local carbon market and to contribution to the carbon neutrality.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Incentivize the uptake of sustainable practices that reduce N₂O and CH₄ and increase capture by reduction of fertilizers, soil conservation, agro-forestry, energy management and waste water treatment.</td>
</tr>
</tbody>
</table>
| Rationale  | • Carbon neutrality is an opportunity for market and country differentiation and to encourage the adoption of best practices that reduce emissions.  
• Linking existing technologies, activities and measures to tap into the coffee sector mitigation potential while enhancing the resilience of coffee sector. |

### Scope and boundaries

- National coverage aiming to reach the 8 coffee growing regions of Costa Rica over time.
- Readiness activities in pilot areas will be carried out between 2012 and 2015 with a focus on technical studies and the design of an MRV system in 2012-2013.
- Implementation and scaling up phases will occur between 2015-2035.
- The Plan focuses on 4 areas:
  1. Mitigation. **Farms:** Reduction of fertilizers, improve carbon content of soil, introduction of agro-forestry systems. **Mills:** energy management and wastewater treatment;
  2. MRV;
  3. Market development of sustainable coffee products, and
  4. Capacity building and dissemination components (training activities and sharing lessons learned).
Increased fertilizer efficiency could deliver the highest reductions compared to the other proposed actions; Between 2015 and 2035 the mitigation potential is **26 million MtCO₂e**; and Preliminary analysis shows abatement cost for fertilizers over $600/tCO₂e requiring further studies about cost reduction of measures.
Agriculture and livestock sector – MRV considerations (Building Blocks 3, 4)

• Existing in-country technical capacity to produce quality data coming from field research in pilot farms is high both inside and outside the MAG;
• Central MRV challenge is the lack of field and fixed equipment (e.g. laboratory) in-house MAG. Hiring universities’ labs is expensive and often delay the analysis;
• Because of Costa Rica’s long forestry tradition, high capacity exists to measure and monitor ecosystem services accruing from agro-forestry practices;
• Given the extensive agricultural research in Costa Rica, the challenge is to aggregate data and expand the scope of the studies to built a baseline for the agricultural sector;
• Current data on livestock from the official census is from 2000. Many farmers resist to reporting, but this has increased partly because a recent law requires owners to register the animals, in an effort to prevent animal theft;
• The growing collaboration between MAG and ICAFE, and other specialized institutions facilitates data collection and analysis; and
• In terms of verification: MAG has 90 offices covering 8 regions and about 5 specialists per region. Verification (of results) would take about 15 days of field work within each region. Training is needed for this area.
FOCUS AREA: RENEWABLE GENERATION

Climate change objectives, regulatory and institutional framework

- According to the National Development Plan in 20 years will double capacity to meet demand, target is to raise to 95% of renewable energy.
- In National Climate Change Strategy private investments are needed to achieve goal of renewable generation.
- Laws around ICE (449, 7200, 7508) allow private generation with renewable only.
- Electricity Generation Expansion Plan (2012-2024) is road map for electricity sector.
- Plan for Non-Conventional Renewable Sources (PNCRR): Develops technical, environmental, and economic issues for promotion of new energy sources.
- Pilot Plan for Distributed Generation for households and industry.

Assessment of historic and projected emissions trends and key drivers

- Thermal generation increased from 2 to 9% of total since year 2000.
- Greater participation implies higher rate of GHG emissions, (100 tCO₂e/GWh in 2011).
- Trend is lower generation capacity in the dry months and due to climate variability.
Scaled up GHG Crediting Mechanism - Focus area 3: Renewable generation (Building Blocks 1, 2)

Assessment of historic and projected emissions trends and key drivers

- Reduction of fossil fuel generation through increased renewable energy development
- Use of non conventional renewable sources such as microhydro, wind, biomass, solar, in conventional and distributed generation schemes.

TOTAL DIRECT GHG EMISSIONS
ELECTRICITY GENERATION EXPANSION PLAN, 2012-2024

Source: ICE, Preliminary data under revision)
**Scaled up GHG Crediting Mechanism - Focus area 3: Renewable generation – Description and Rationale (Building Blocks 2, 3, 4)**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Promotion of the Plan for Non-Conventional Renewable Sources (PNCRR) to increase electricity generation with clean sources in twelve (12) years. PNCRR includes activities such as new policies, energy potential assessments, removal of legal and regulatory barriers, pilot projects, up scaling to commercial projects, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Promote actions towards the implementation of the PNCRR, specifically towards diversifying electricity generation with non-conventional renewable sources (solar, wind, biomass, bio-digestors, micro-hydro).</td>
</tr>
<tr>
<td>Rationale</td>
<td>Initiative is key for diversifying the grid with renewable sources, thus decreasing vulnerability, also leads to decreased GHG emissions in the electric sector and to a low-carbon economy</td>
</tr>
</tbody>
</table>

**Scope and boundaries**

- Framework for the promotion of specific programs directed to different non-conventional renewable sources, taking into consideration seasonality, technological development, costs, environmental impact, among other relevant variables;
- 5-year scope for studies and implementation, continuation 7 years after initial period;
- Private-public partnership (generation from non-conventional renewable sources up to 50 MW). ICE is energy buyer;
- Goal: substitute 35% of country’s thermal generation in 6-year period, a reduction of 200 000 tCO₂; and
- Given its dimension, not all the projects are visible in the Electric Generation Expansion Plan 2012-2025, but these projects have high potential to substitute thermal generation.
Scaled-up crediting mechanism - Focus area 3: Renewable generation – Components (Building Blocks 2, 3, 4)

Mitigation potential

- The proposal consists of implementing the Plan for Non-Conventional Renewable Sources which involves development of generation from wind and biomass at a commercial scale, and other sources such as solar, micro hydro and others under a Distributed-Generation topology;
- The goal is to reduce fossil fuels generation projected in the Expansion Plan by 50% through the Plan for Non-Conventional renewable sources. This amounts to substituting 1 600 GWh fossil fuel generation from the Electricity Generation Expansion Plan in the period 2013-2018, which represents a 1 200 000 tCO$_2$e reduction to the baseline; and
- As a reference, in 2011 fossil fuel generation was 860 GWh with inventoried emissions of approximately 216 500 tCO$_2$e. (All these conditions are currently under revision)

Readiness activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation and approval of the PNCRR</td>
<td>2011 and 2012 - Concluded</td>
</tr>
<tr>
<td>Scaled up crediting instrument formulation</td>
<td>2012 Scaled up crediting instrument design and Presentation and institutional support</td>
</tr>
<tr>
<td>Scaled up crediting instrument formulation</td>
<td>2012 Scaled up crediting instrument design and Presentation and institutional support</td>
</tr>
<tr>
<td>Implementation</td>
<td>Implementation of the PNCRR and measurement of avoided GHG emissions for market purposes</td>
</tr>
<tr>
<td>Proposal and presentation of available</td>
<td>Presenting offer for sale certified carbon</td>
</tr>
<tr>
<td>certificates</td>
<td></td>
</tr>
</tbody>
</table>
**Scaled up GHG crediting mechanism Focus Area 3: Renewable Generation – MRV Considerations (Building Blocks 3, 4)**

- Emissions reductions will be verified against actual dispatch of the National Electricity System for each generation technology;
- For small generators included in the Plan for Non-Conventional Renewable Sources, metrics for the control of energy production and carbon emissions need to be designed and implemented;
- Certified avoided emissions and reduction potential will be audited for market purposes according to national MRV;
- All programs and projects that conform the Plan for Non-Conventional Renewable Sources will be packaged by ICE for certification. Funds will be reinvested in the PNCRR. ICE will act as single-buyer agent;
- Systematic monitoring and verification instruments will be designed and implemented by ICE but aligned to the national MRV;
- ICE seeks that MRV and other transactions costs are kept at the minimum necessary, so that more resources become available directly for funding the Plan for Non-Conventional renewable sources; and
- Information on energy production in the context of the Plan for Non-Conventional Renewable Sources will be web enabled.
**Next steps**

<table>
<thead>
<tr>
<th>Date</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 29</td>
<td>Informal MRP presentation to Partnership Assembly</td>
</tr>
</tbody>
</table>
| Jun 31       | **Finalize internal MRP draft:**  
1. Building Block 1 – Finalize plan for using new market instruments to achieve already established mitigation objectives in view of the existing policy objectives and projected emissions trends  
2. Building Block 2 – Outline the role of a market instrument for all target sectors and programs in view of the existing work undertaken on market readiness and obstacles to implementation  
3. Building Block 3 – Finalize requirements for an MRV system for market instruments and a central registry proposal in view of data already collected and targets set  
4. Building Block 4 – Finalize plan for scaled up crediting instrument including all the basic elements (design, infrastructure, schedule for implementation etc) |
| Jun 31 – Aug 16 | Review/modification/circulation (Building Block 5)                                                                                      |
| Aug 17       | Draft 1 of MRP submitted for feedback from PMR Secretariat, Expert Group and Steering Committee                                           |
| Aug 17 – Sep 30 | Modification in view of comments received from feedback process (Building Block 5)                                                     |
| Sep 30       | Formal submission of MRP to PMR Secretariat (must be 3 weeks ahead of PA meeting)                                                      |
| Oct 17       | Presentation of final MRP to Partnership Assembly                                                                                       |
Partnership for Market Readiness PMR - Costa Rica

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Cologne, May 2012
Appendix

Basic information about other PMR Sector
FOCUS AREA: TRANSPORT

Climate change objectives, regulatory and institutional framework

• National Development Plan 2011-2014 sets out the reorganization of metropolitan public transport by sectors and use of gas, biofuels and electricity to replace 5% of fossil fuels in the vehicle fleet.
• National Climate Change Strategy proposes stimulus to mass transit and discouragement to the individual, because of its high impact on C-Neutrality.
• Planning, stewardship, organization and management of the transport system is the sole responsibility of Ministry of Public Works and Transport (MOPT)
• Country lacks a comprehensive regulatory body National Transport Plan 2011-2035 as step forward.
• Regulation on Policies and Strategies for Public Transportation 2000, supports sectorization program.
• Remunerated Transport Regulatory Act provides by MOPT operating rights for 7 years.
• National Biofuels Program promotes to add up to 15% of vegetable oil into fuels to produce biofuels.

Assessment of historic and projected emissions trends and key drivers

• Transport responsible for 33% of GHGs net emissions, 56% of energy consumption and 80% of fuel consumption (45% private, 37% freight and 10% public transport).
• Projections show fossil fuels consumption will expand 60% in 10 years

![Fuel Consumption in Transport](chart.png)

![Projected Emissions Trends in Transport](graph.png)

Source: NEEDS (2010)
<table>
<thead>
<tr>
<th>Definition</th>
<th>Modernization of Urban Public Transportation by multimodal integration, increased of sustainable transport technologies and biofuels, and modernization in transport management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Promote a transformative vision in transport by multimodal public transportation, technological change and modern transport management.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Private transport and freight are leading emitter of GHGs. A modern and efficient multimodal public transport would be a first step in a policy of encouraging collective transport against private. Complementary actions are the technological switch to sustainable alternatives and biofuels in private vehicles and freight, along measures of transport management.</td>
</tr>
</tbody>
</table>

**Mitigation potential**

- By a modern multimodal public transport, integrating a reorganized bus system and a electrical train is possible reduce emissions by 15%
- By technological switch to progressive use of hybrid and electric car and biofuels, total reduction is 7%.
- Total mitigation potential is 22% equivalent to 925 thousand of CO₂ tones a year at the beginning.

(All these conditions are currently under revision)
FOCUS AREA: SOLID WASTE

Climate change objectives, regulatory and institutional framework

• National Climate Change Strategy proposes use of methane from landfills and wastewater, can be a great contribution to the c-neutrality, clean electric energy production and incentives for private sector.
• Ministry of Health is rector of the solid waste sector
• The National Policy on Waste Management 2010-2021 defines policies and strategies and requires the inclusion of measures to mitigation of GHGs.
• The Law for Waste Management, No. 8839, 2010, has among its objectives “To prevent the improper management of waste contributes to climate change impacts”
• The Solid Waste Plan (2008) define strategic actions of short and medium term.
• Government is promoting plans for municipal waste management

Assessment of historic and projected emissions trends and key drivers

• Solid waste emissions 2012: 0.94 million tons of CO₂.
• Emissions of methane at landfills: 1.08 million tons.
• Recycling offsetting and preventing 0.14 million tons.
• Wastewater emissions about 0.73 million tons of CO₂.
• Total sector in 2012: 1.67 million tons (17% country)
• Estimate in 2021 is 1.91 million tons of CO₂ and in 2032 2.25 million tons of CO₂.
Scaled up GHG Crediting Mechanism - Focus area 3: Solid Waste – Description and Rationale (Building Blocks 2, 3, 4)

<table>
<thead>
<tr>
<th>Definition</th>
<th>High efficient capture of biogas in landfills for power generation and transition strategy towards mitigation in at disposal sites and sources of origin.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Capture high-efficiency and energy use of biogas in 4 landfills, passive entrapment in other landfills; transition strategy toward mitigating in the sources for recycling, improvement of municipal plans for integral management and promotion of partnerships with industry players and key stakeholders.</td>
</tr>
<tr>
<td>Rationale</td>
<td>Current patterns of waste management accumulate landfill methane that is expelled into the environment. In the long term goal is mitigation at the source</td>
</tr>
</tbody>
</table>

Mitigation potential

- Mitigation potential depends on the interdependencies and combinations between strategies, amounts deposited in the present and future; business contracts with municipalities and useful lifetime of landfills, among other factors.
- Total mitigation potential is 635,000 tonnes of CO₂ a year.
- (All these conditions are currently under revision)

<table>
<thead>
<tr>
<th>Landfill</th>
<th>Mitigation Potential (Tones of CO₂e a year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Carpio</td>
<td>25.000</td>
</tr>
<tr>
<td>Los Mangos</td>
<td>30.000</td>
</tr>
<tr>
<td>Aserri</td>
<td>180.000</td>
</tr>
<tr>
<td>Los Pinos</td>
<td>250.000</td>
</tr>
<tr>
<td>Outside GAM</td>
<td>150.000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>635.000</strong></td>
</tr>
</tbody>
</table>

Source: Jan Janssen, (2012)
**FOCUS AREA: HOUSING**

**Climate change objectives, regulatory and institutional framework**

- In the National Development Plan 2011-2014 the challenge is including land use and the environmental dimension in social housing policy.
- REDD + strategy encourages production and consumption of sustainable timber from primary and secondary forests, and reforestation to increase carbon storage in buildings and reduce the use of wide footprint materials like cement or steel.
- Current housing policy lead by the Minister of Housing and Human Settlements
- Housing finance policy through the National Financial System for Housing
- Financing by second-tier Housing Mortgage Bank (BANHVI) with two programs of demand-side subsidy.
- National Technical Standards INTECO on Construction of buildings - Modular coordination

**Assessment of historic and projected emissions trends and key drivers**

- Construction waste amount to 650 thousands of metric ton per year.
- This volume not only impact the productivity of the sector and generates in necessary emissions of CO$_2$, also competes with other kind of waste (eg. Organic) for a place in the landfills, in the best alternative.
- Reducing construction waste is a key driver.
- National Forestry Office (ONF), indicate that in 2009 were processed 1,048,126 meters cubic.
- Estimate from construction sector is 12% of that wood goes to building structures.
- Currently, 140,000 tones of CO$_2$ is trapped with the use of wood in construction.
**Scaled up GHG Crediting Mechanism - Focus area 3: Housing – Description and Rationale**

**Definition**
Sustainable building by zero waste construction and increasing of products environmentally preferable, beginning by wood in building and coordination and harmonization of all constructive systems in the country, setting the basis for a green urban development.

**Objective**
Reaching a construction process with Zero Waste; Increasing wood in building; Establishing a Module of coordination universal in order to harmonized all constructive systems in the Country, and Moving to a strategy to a New local development of products environmentally preferable and a New Green Urban Development.

**Rationale**
Reducing construction waste is a key driver to mitigate carbon footprint by coordination and harmonization of all constructive systems and it is necessary a policy, legal and institutional framework to encourage use of products environmentally preferable.

**Mitigation potential**

- Reducing waste generation in the construction site, beginning with Building design, construction waste recycling and co-processing waste materials and construction Increasing diversion from landfill to amount to Mitigation of 150,000 tones of CO₂ a year. About 25% of the total waste.
- Doubling use of wood in construction structures has the potential of 150,000 tones of CO₂ trapped year.

(All these conditions are currently under revision)