

Policy Brief #**61**

Deforestation to
Reforestation REDD+ in
Pakistan

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Sustainable Development Policy Institute is an independent, non-profit research institute on sustainable development.

First edition: June 2018

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1. Introduction

A study on Pakistan’s Intended Nationally Determined Contribution (PAK-INDC) submitted to United Nations Framework Convention on Climate Change (UNFCCC) reveals that according to Global Economic Ranking, the share of Pakistan to global Greenhouse Gas (GHG) emissions is merely 0.87%. But, the country is known for its climatic vulnerability due to its geo physical conditions (Lin et al. 2017). In the Long-Term Climate Risk Index (CRI), 2017, Pakistan is ranked 7th with a death toll of 523.1 per year, which means about 10,462 died in 20 years. The economic losses during the same period are worth US\$ 3.8 billion — equivalent to 0.605 per cent of the GDP. During this time, Pakistan had to face 141 extreme weather events (Lin et al. 2015).

2. Sector-wise share of GHG Emissions

With this scenario of minimum share in GHG emissions, Pakistan is heading towards climate vulnerability, so there is a lot to study about how to cope with this global warming.

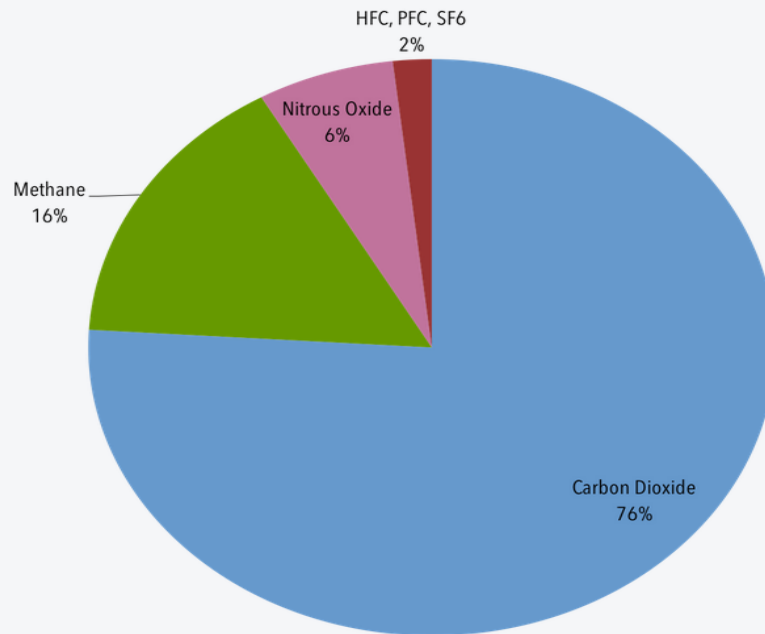
If we follow in (PAK-INDC) it has been found that out of 0.87% of Pakistan’s share to GHG emissions which is 405.07 Million Tons (MT) CO₂-equivalent, following is the share by sector-wise, which increased dramatically over the years.

Inventory of GHG Emissions (in MT CO₂-Equivalent)

<i>Sectors</i>	<i>1994</i>	<i>2015</i>
<i>Energy</i>	85.8	185.97
<i>Agriculture</i>	71.63	174.56
<i>Industrial Processes</i>	13.29	21.85
<i>Land Use Change & Forestry</i>	6.52	10.39
<i>Waste</i>	4.45	12.29
<i>Total</i>	181.7	405.07

Although Carbon Dioxide (CO₂) is not the only gas in GHG but it has a largest share of 76% in GHG emissions (Centre for Climate and Energy Solutions 2018).

Global Manmade Greenhouse Gas Emissions by Gas, 2015



Out of these five sectors, now Pakistan's socio-economic conditions only favour Land Use Change and Forestry to reduce emissions, which are merely 2% of the total emissions of GHG Inventory by Pakistan.

2.1. Energy

The historical trend of energy-related emissions over the last 20 years corresponds with economic growth and developmental pathways of successive governments, having focus on addressing the issue of energy security. The country, however, continues to suffer from a severe energy crisis that needs to be addressed on priority basis in the coming years. The national government is committed to exploring all sources of energy to resolve the prevailing crisis. The sector also offers the most promising mitigation potential, which can be realized by making available required funding and technologies.

2.2. Agriculture

Agriculture remains the second highest contributor to the economy, a situation that is likely to continue in the coming years. The increase in emissions from the agriculture sector over the last 20 years also corresponds with economic growth and developmental pathways of successive governments. Focusing on ensuring food security for a continuously increasing population underscores the relevance of food security challenge. It merits recognition that the sector will make major GHG contributions in the coming years. However the sector also offers very promising mitigation potential.

2.3. Industrial Process

Industrial processes show a gradual increase in emissions over the last 20 years. Again the trend is consistent with the overall emissions trajectory. Slightly lower increase in the industrial emissions is also an indicator of relatively slow growth in industrial sector. It needs to be recognized however that slower historical emissions of the industrial sector are not indicative of future industrial sector emissions, particularly in the context of governmental plans for GDP growth and industrial growth.

2.4. Waste

Waste is a low emission contributor in the overall emissions trajectory, but with an unprecedented increase in urbanization and GDP growth, the emissions are expected to grow exponentially in future. Pakistan being one of the fastest urbanizing country of the region, foresees a logical increase in GHG contributions of the waste sector.

2.5. Land Use Change and Forestry

Contributions of 'Land Use Change and Forestry' sector in overall emissions profile of the country are merely 2%. A consistent but gradual increase can be noticed over the last 20 years. Another striking fact in this sector is the alarming rate of deforestation (27,000 hectares per year). With strengthened regulations and aggressive plans for reforestation, it is expected that the country will benefit from the sink effect in the long-term. However, in the short-term, emissions are expected to increase.

3. Mechanism to reduce deforestation in the country

Reducing Emissions from Deforestation and Forest Degradation (REDD+) is an international climate policy initiative that aims to contribute to reducing global carbon emissions by creating incentives for the conservation and sustainable management of forests and enhancement of forest carbon stocks in tropical forest countries.

REDD+ was born from a proposal of Papua New Guinea and Costa Rica presented to the 11th Conference of the Parties (COP 11) of the United Nations Framework Convention on Climate Change (UNFCCC) in Montreal, Canada in 2005.

In 2007, during the 13th Conference of the Parties (COP 13) in Bali, a negotiation track titled: "Reducing Emissions from Deforestation" (RED) was started. The concept was later expanded to include Reduction of Emissions from Forest Degradation (RED). Finally, it was expanded to REDD 'plus' (REDD+) to include conservation of carbon stocks, increased carbon stocks and sustainable management of forests.

COP 16 held in 2010 in Cancun, Mexico led to the articulation of five REDD+ activities that developing countries can implement to become eligible to receive payments (United Nations Framework Convention on Climate Change 2011). These are:

- a. Reducing emissions from deforestation
- b. Reducing emissions from forest degradation;
- c. Sustainable management of forests
- d. Conservation of forest carbon stocks, and
- e. Enhancement of forest carbon stocks

After several years of negotiations and discussions at international level, the UNFCCC COP adopted the ‘Warsaw Framework for REDD+’ at its 19th meeting in December 2013 (United Nations Framework Convention on Climate Change 2011a).

This officially anchored REDD+ to the UNFCCC regime. The Warsaw Framework builds on previous COP decisions and clarifies and consolidates the requirements and methodological guidance countries must meet in order to access results-based finance (United Nations Framework Convention on Climate Change 2011b). According to the Warsaw Framework, developing country Parties aiming to receive results-based finance for REDD+ must:

1. Ensure that the anthropogenic forest-related emissions by sources and removals resulting from the implementation of REDD+ activities are fully measured, reported and verified (MRV) in accordance with UNFCCC guidance (United Nations Framework Convention on Climate Change 2011c);
2. Have in place (United Nations Framework Convention on Climate Change 2011d):
 - A national strategy or action plan (a link to which is shared on the UNFCCC REDD+ Web Portal);
 - A national forest reference emission level and/or forest reference level, or if appropriate, as an interim measure, subnational forest reference emission levels and/or forest reference level (that has undergone a UNFCCC- coordinated technical assessment process);
 - A robust and transparent national forest monitoring system for the monitoring and reporting of REDD+ activities; and
 - A system for providing information on how the safeguards are being addressed and respected (SIS)

4. The Phases of REDD+

The UNFCCC outlines a phased implementation for REDD+(United Nations Framework Convention on Climate Change 2011e)

Phase 1:

Known as the Readiness phase, phase 1 focuses on the development of national strategies or action plans, policies and measures, which should address the causes of deforestation and forest degradation, as well as capacity building. Countries are also expected to establish their legal and institutional arrangements for REDD+ management, consultation and implementation in Phase 1.

Phase 2:

Focuses on the implementation of national policies, measures, strategies or action plans for further capacity building, technology development and transfer, and results-based demonstration activities, evolving into

Phase 3:

Results-based actions to be fully measured, reported and verified.

5. Other REDD+ initiatives

Parallel to the negotiations of REDD+ under the UNFCCC, several multilateral funds and programmes were established to support the implementation of REDD+. These initiatives include the World Bank’s Forest Carbon Partnership Facility (FCPF), World Bank Forest Investment

Programme (FIP) and UN-REDD besides several other bilateral initiatives, such as Germany's REDD+ Early Movers (REM) and Norway's bilateral agreements with the governments of Brazil, Guyana, Indonesia, and Tanzania.

While running parallel to the UNFCCC process, the objective of these initiatives is to support countries to participate in a future UNFCCC regime, therefore expected to comply with UNFCCC decisions and guidelines.

Several of the REDD+ funding agencies and donors have developed their own safeguard frameworks or apply existing safeguards policies applicable to the REDD+ readiness and demonstration activities that they financially support. REDD+ recipient countries, who are under increasing pressure to develop their safeguard responses that meet not only the UNFCCC requirements, but also the multilateral and bilateral and contractual commitments they acquired through the funding agencies and donors that are supporting them.

'Safeguards' is a term that can be traced to financial institutions such as the World Bank, where it refers to measures to prevent and mitigate undue harm from investment or development activities (McDermott et al. 2012). The World Bank's safeguards is a 'risk-based approach', which involves pricing and prioritizing risks according to the logic of economically efficient 'risk management'. A risk management process aims to protect against the risk of a certain type of activity triggering an initiative's safeguards accountability mechanisms.

6. Safeguards in REDD+

As REDD+ discussions progressed in the UNFCCC, it was recognized that implementation of REDD+ can pose significant environmental and social risks. It provides an opportunity to promote multiple benefits as well.

Potential benefits include the promotion of biodiversity conservation and securing the provision of ecosystem services, which include water regulation, timber production, erosion control and the provision of non-timber forest products. REDD+ can also produce social benefits, such as improving governance, livelihoods and clarification of land tenure.

Potential negative impact of REDD+ include: appropriation of local communities and indigenous people's lands (involuntary displacement), human rights violations, and depletion of biodiversity.

Failure to correctly address current national forest governance shortcomings or mitigate the risk of adverse social effects of REDD+ actions and activities could potentially prevent REDD+ from achieving its long-term goal of sustainable reduction of GHG emissions from deforestation and forest degradation.

7. REDD+ in Pakistan

The grant agreement between FCPF and Government of Pakistan was signed on May 4, 2015 and since then the Readiness Preparation Activities are being carried out through the Office of Inspector General of Forests, Ministry of Climate. The objective of the grant is to strengthen the capacity of the recipient to monitor deforestation and reduce forest and land use change related greenhouse gas emissions through a socially, environmentally, and technically sound national REDD+ strategy.

Under FCPF grant, the REDD+ Readiness Preparation Activities will be completed by the end of June 2018. They are broadly categorized into four components.

A. REDD+ Policy Analysis: The first component includes:

- Carrying out analytical work and development of a national REDD+ strategy and its implementation framework.
- Conducting Strategic Environmental and Social Assessment (SESA),
- Preparing an Environmental and Social Management Framework (ESMF),
- Assessing existing Feedback and Grievance Redress Mechanism (FGRM), and Developing a FGRM framework for REDD+

B. REDD+ Technical Preparation: The second component includes:

- Supporting the development of Forest Reference Emissions Levels (FRELs),
- Designing a national Measurement, Reporting and Verification (MRV) system for emissions reduction and a monitoring system for non-carbon benefits.

C. REDD+ Readiness Management: The third component includes:

- Supporting Inspector General of Forests Office in managing and implementing the REDD+ preparation activities;
- Building capacity of the relevant institutions involved in the implementation of the REDD+ preparation activities;
- Conducting consultations on issues related to REDD+

D. Designing and Testing of REDD+ PES scheme

This fourth component includes:

- Designing of a REDD+ Payment for Environmental Services (PES) scheme in at least three provinces subject to availability of funds

The selection of the province will be done in consultation with the stakeholders based on its ecosystem, e.g. temperate, mangroves or scrub forest, and its importance in the national level REDD+ readiness process. This grant will not finance the implementation of the PES scheme, but only supports its designing.

8. Gaps and Challenges to implement REDD+ in Pakistan

In Pakistan, drivers of deforestation and forest degradation are multiple and versatile. They are: urbanization, wood energy needs, no demarcation of boundaries, illegal logging, food security, lack of alternative livelihoods, etc. The biggest challenge is to address these multiple drivers at once. In this regard, REDD+ office under the Ministry of Environment has not engaged any ministry and government department in National REDD+ Strategy.

The other challenge being faced to Pakistan is to convince the households that REDD+ is here to help them financially to make their lives more prosperous and sustainable.

Finally, an important aspect to focus on is to be carefully cognizant of the recent cases of corruption involving private investors from developed countries, aptly termed “Carbon Cowboys”, who raked in cheap advance forest carbon rights in poorly prepared and partially informed developing countries (in contravention to the provisions of the Cancun agreement that calls for capacity building at phase one and trading at phase 3). Learning from these bitter experiences, Pakistan needs to open up its REDD+ market only after identifying and realizing the forest sequestration potential,

instituting an informed regulatory/policy framework and fully grasping the dynamics of this new commodity market.

Although National REDD+ Strategy is in final stages legal cover and institutional mechanisms are still missing.

9. Recommendations

- A global mechanism requires a level playing field for a uniform application and an effective system to ensure accountability and credibility of REDD+ credits, which are yet to be in place.
- Emissions reduction under REDD+ must be permanent, so that trees saved previously might not felled next year. The liability for non-permanence needs to be assigned and any leakage or 'emissions' displacement' needs to be estimated and controlled.
- As drivers of deforestation and forest degradation show the importance of different ministries and government departments, such as Ministry of Planning & Development, Department of Food, etc. Ministry of Climate Change and National REDD+ office should include them in consultation with National REDD+ Strategy and should liaison with them on regular basis to successfully implement the strategy in the country.
- To implement the REDD+ mechanism in the country, National REDD+ mechanism needs to gain the trust of forest communities. For this purpose, governments should come up with energy alternatives for the community instead of cutting trees to fulfil their energy and livelihood requirements.
- To avoid and overcome any professional negligence and financial bungle, there should be a third-party audit (monitoring & evaluation) of the project at every stage. This will lead to less professional and financial corruption in the project.

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