

Measuring and Tracking GHG Emissions

A concrete path to climate progress

Measuring countries' emissions and the progress they make towards reducing emissions is critical for evaluating whether countries are on track to meet their climate goals. The Paris Agreement took a major step forward in establishing an enhanced system of transparency for Measurement, Reporting, and Verification (MRV) with flexibility to accommodate varying national capacities. For the first time, countries will provide emissions data and track progress against their promised Nationally Determined Contributions (NDCs).

As the world's third largest emitter of greenhouse gases (GHG) and a developing country, India plays a key role in spurring global action on climate change. India's NDCs set a clear signal for promoting cleaner energy, reducing

the emissions intensity of the Indian economy and restoring forest cover.

Now India must take concerted action to deliver on its NDCs. A major thrust will be to develop robust MRV systems that will assess whether India's efforts to address climate change are making a difference. A starting point to robust MRV systems is the measurement and tracking of GHG emissions. This can help answer some key questions: What are the key sources of GHG emissions? What do GHG emission trends reflect? What are the opportunity areas for better GHG management? To what extent are India's clean energy programmes and other climate-related efforts leading to emission reduction? This information will play a key role in informing policy development to tackle climate change. Importantly, it will strengthen

domestic MRV systems and enhance transparency around climate action—a key requirement of the transparency framework under the Paris Agreement.

Two flagship initiatives enabled by Shakti Sustainable Energy Foundation (Shakti) are prioritizing the better measurement and tracking of GHG emissions to support policy development in the area of climate change. The GHG Platform India, a civil society platform, prepares and disseminates GHG emission estimates for the country, and the India GHG Program builds the capacity of businesses to reduce and manage their GHG emissions. With both areas providing a critical fact base for GHG emissions data, these efforts can inform the development of MRV systems in the country.



INDIA'S FIRST CIVIL SOCIETY PLATFORM THAT PROVIDES DATA ON GHG EMISSIONS FOR VARIOUS SECTORS

As India continues to experience the impact of climate change, there is a growing recognition for policy action. Robust and reliable GHG emissions data can help inform such action and complement India's developmental goals. But this data is scattered across various sources or not easily available in the public domain. Also, the methods used to estimate emissions may vary significantly. The latest official national GHG emission inventory available for India is for the year 2010, and only a handful of states have prepared state-level GHG inventories. There are several data gaps and accessibility issues, which must be addressed so that more informed action can be taken to address climate change.

OUR ROLE

In 2015, Shakti facilitated the establishment of the GHG Platform India, a collaborative platform of civil society organizations to prepare GHG emission estimates at the national level and for states. The Platform aims to address a critical data gap—the lack of updated, reliable, and publicly accessible GHG inventories for the country. It aims to provide information on GHG emissions in a comprehensive way and complement India's existing reporting mechanisms to the United Nations Framework Convention on Climate Change (UNFCCC), such as the National Communication (NATCOM) and the Biennial Update Report (BUR).

THE PLATFORM AIMS TO:

- Address gaps in GHG data availability in the country
- Enhance accessibility to robust GHG emission data
- Inform policy dialogue and decision making on climate change
- Showcase India's action on climate change

For more information, please visit www.ghgplatform-india.org

IMPACT

The GHG Platform India provides national emission estimates for major GHG emitting sectors in India — Energy, Industry, Agriculture, Forestry and Other Land Use (AFOLU), and Waste sectors for the calendar years 2007 to 2012 for carbon dioxide, methane and nitrous oxide gases. The Platform is the most substantial and comprehensive approach by civil society to improve GHG emissions data reporting in the country.

Data is freely available on the Platform's website through its easy-to-use online interface. The website is designed to help policy makers, business, academia, civil society, and the media to perform relevant data analysis, to re-use data and to promote action on climate change. One of the ways in which the Platform enhances data transparency is by providing information about the methodology used for analysis and assumptions along with the complete datasets.

The availability of this data has enhanced the volume of analytics on India's GHG emissions sources and trends. For example, Industry emissions have been estimated across 16 sub-sectors including chemicals and fertilisers, food and beverages, machinery, metals and mining, textile, etc. The data trend, disaggregated at the sub-sector level, can inform policymakers and industries to improve energy efficiency and emission intensity. Similarly, data from other sectors can be used to track emissions, understand trends and inform energy and climate policy action, a relevant need in context of the commitments made by India under the Paris Agreement.

The Platform is currently expanding the time-series for the national estimates. It is also developing GHG emission estimates for each state.



HELPING BUSINESSES TRACK AND MEASURE GHG EMISSIONS

The need for India's corporate sector to play a greater and more proactive role in addressing climate change has never been more critical. An increasing number of businesses operating in India are emphasizing good governance and recognising the incentives of sustainable business practices. At the same time, businesses have varying levels of capacity to use globally accepted methodologies that exist for estimating emissions and preparing inventories. Some businesses are more advanced in controlling their GHG emissions and incorporating low-carbon planning into operations, while others may require additional support. This reduces the overall ability of businesses to respond to climate change and leverage related opportunities.

OUR ROLE

In 2013, Shakti facilitated the establishment of the India GHG programme to address the gap in GHG emissions data collection, reporting and analysis by the business sector. The program provides businesses with the wherewithal and technical know-how to measure their emissions, identify reduction opportunities, and establish short and long-term voluntary emission reduction goals. Broadly, it aims to address the needs and expectations of businesses in building capacity to mitigate economic, social and environmental risks while helping them remain profitable, competitive and sustainable.

UNDER THE PROGRAM, BUSINESSES HAVE ACCESS TO:

- Internationally standardised and locally relevant GHG measurement and accounting tools
- Training and capacity building
- Industry specific best practices, benchmarking data and analytics
- Expertise on appropriate goal setting and voluntary targets
- Business solutions to facilitate GHG emission reductions

For more information, please visit <http://indiaghg.org/>

IMPACT

The India GHG Program has garnered the voluntary participation of roughly 50 businesses that collectively contribute to about 15% of India's total GHG emissions each year. With support from the Program, a majority of these businesses are now tracking and compiling their GHG inventories on a regular basis. Businesses that have signed up include the National Thermal Power Corporation Limited, Indian Railways, Godrej & Boyce Manufacturing Company Limited, Ambuja Cements Limited, Ford India Private Limited, Mahindra Sanyo Special Steel Private Limited, Infosys, ITC Limited, Jet Airways and ACC Limited.

With its premise of driving profitability while looking at tangible benefits of GHG management, the Program has received strong support from industry leaders. Over 400 industry representatives have already been trained under the Program to prepare GHG inventories for their organizations. The Program has developed tools and resources for GHG accounting such as a best practices road map for the Indian aviation sector to roll-out low carbon initiatives, a freight rationalization tool for large corporates and Public Sector Undertakings, green practice case studies for the buildings and heavy engineering sector, do-it-yourself tool for SMEs and the power tool to estimate emissions from power plants.

The relevance of the Program in building up voluntary corporate action and supporting bottom-up inventories was recognized when it was formally acknowledged in India's INDC and the Biennial Update Report (BUR) that was submitted to the UNFCCC last year.

When well-known businesses take action to tackle climate change, other industry members take heed. The Program has set a strong precedent for businesses to adopt a more sustainable growth model. Going forward, it will continue to engage with business and push for a more conducive policy environment for corporate GHG emissions management in India.

The India GHG Program is a collaboration between World Resources India (WRI India), The Energy and Resources Institute (TERI) and Confederation of Indian Industry (CII). It is currently being supported by Shakti Sustainable Energy Foundation.

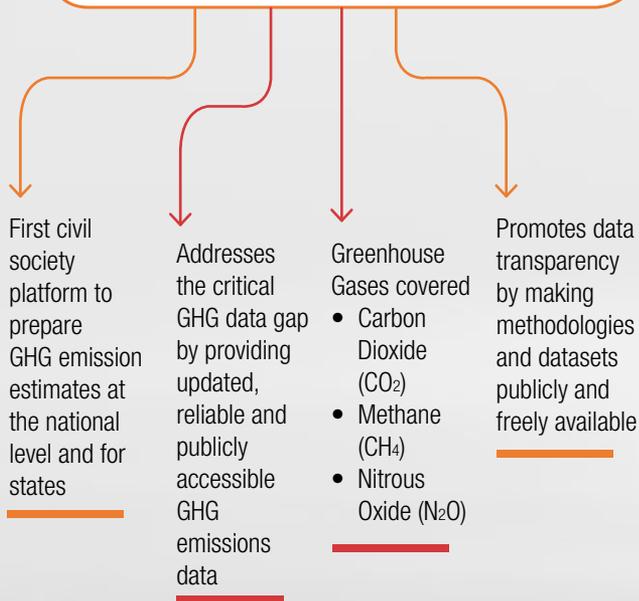


Measuring and Tracking GHG Emissions: A Starting Point for Robust MRV Mechanisms

Our Engagement with Civil Society and Businesses



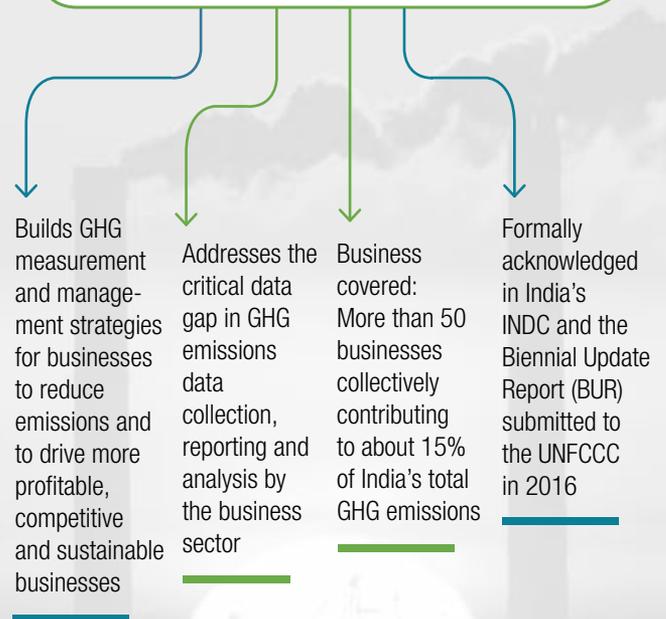
GHG Platform India - Action by civil society



The GHG Platform India is a collaboration between the Council on Energy, Environment and Water (CEEW), International Maize and Wheat Improvement Center (CIMMYT), Center for Study of Science, Technology and Policy, (CSTEP), ICLEI – Local Governments for Sustainability South Asia (ICLEI-SA), Vasudha Foundation, World Resources Institute India (WRI India), in collaboration with SEEG, Brazil (System for Estimation of Emissions of Green House Gases). It is co-funded by Shakti Sustainable Energy Foundation and Oak Foundation.



India GHG Program - Businesses take the lead



The India GHG Program is a collaboration between World Resources India (WRI India), The Energy and Resources Institute (TERI) and Confederation of Indian Industry (CII). It is being currently being supported by Shakti Sustainable Energy Foundation.

Shakti Sustainable Energy Foundation works towards India's transition to a sustainable energy future by promoting policies that encourage energy efficiency, renewable energy and the adoption of sustainable transport solutions.



Capital Court, 104 B, 4th Floor
Munirka Phase -III, New Delhi 110067
T : 011 4747 4000
F : 011 4747 4043

W : www.shaktifoundation.in

Corporate Identity Number : U93030DL2009NPL194891

