



EVENT PROCEEDINGS

TECHNICAL WORKSHOP FOR GHG EMISSION ESTIMATION: EXPLORING THE SEEG FRAMEWORK FOR INDIA

9th April 2015, India Habitat Centre, New Delhi

I. Background and objective of the Workshop:

At the sidelines of the Climate Conference that took place in Lima in December 2014, a few of us attended a session organised by a group of Brazilian organizations, under the umbrella of “System for Estimation of Emissions of GHG” (SEEG), to showcase a project of estimating GHG emissions in Brazil. The project, which seemed quite unique brought together several research organisations and Civil Society groups to prepare national GHG estimates for Brazil in the first phase and extended it to preparing state level GHG estimates and historical emission estimates dating back to 1970, in the second phase of the project.

Having seen the presentation and followed by rounds of meetings with the Brazilian groups who initiated the SEEG, a small group comprising of representatives from Shakti Sustainable Energy Foundation, Environment Defense Fund, Vasudha Foundation and Oak Foundation got together to have preliminary discussions on whether a project on similar lines would be useful for India and if so, what would be the value addition of such an initiative.

In our initial thinking, we thought that a good understanding of India’s GHG emissions and their sources is essential for undertaking research on climate change and designing and evaluating climate policies and actions. Presently, the latest national GHG emission inventory available for India is for the year 2007, while only a handful of states have prepared state-level GHG inventories. Needed is a time series data of national sectoral emissions to support better analysis and policy design.

Further, in terms of value add, our initial thinking is that, such an exercise could help in identifying gaps and potential areas for strengthening in the various climate action plans and missions that exist. Further, having a robust estimate of current GHG emissions could help in zeroing down on sectors where more actions could be taken to address the

emissions. In addition to the above, given the various work around climate and energy that a number of organisations have undertaken with states, there is also a perception that a number of states will find state-level GHG estimates extremely useful and if available, would use this for streamlining and strengthening their respective state climate action plans.

In view of the above thinking these organizations thought it worthwhile to organize a technical workshop involving sector experts and practitioners from India to discuss the merits of establishing a multi-institution civil society platform for GHG emission estimation for India. Further, we also thought, that, it would be good to get some of the people associated with SEEG to give us an overview on their model and also to seek the perspectives of Indian experts on the merit of replicating the SEEG model in India.

II. The Workshop Proceedings:

The Technical Workshop on GHG Emission Estimation commenced with a welcome note from Mr. Krishan Dhawan, Chief Executive Officer, Shakti Sustainable Energy Foundation, followed by a brief presentation on setting the context, the purpose and objective of the Workshop by Mr. Srinivas Krishnaswamy, Chief Executive Officer, Vasudha Foundation. The presentation gave a broad overview on India's GHG Inventories, NATCOM, and a brief introduction into the SEEG model.

The rest of the morning session was devoted to understanding of the SEEG model. Presentations by Brazilian experts discussed the need for adopting the SEEG model, given the history and issues of existing inventories, the methodology involved, and the final results.

II A. The SEEG Model: An Overview as Presented by the Brazilian Groups.

The guests from Brazil were Mr. Tasso Avazedo from the SEEG Secretariat, Ms. Marina Piatto of Imaflora, David Tsai from Energy and Industry and Amintas Brandao from Imazona.

The main purpose behind the SEEG model was primarily:

- to produce and make available annual estimation of GHG on a consistent and accessible basis,
- offer a time series data for emissions to support trend analysis and understand its implications for policy,
- Increase the capacity of civil society groups to understand and use this data.

Some of the unique features of the SEEG model are as below:

- The SEEG model is primarily a multi-institutional Civil Society Platform to estimate GHG emissions at multiple geographic levels (national and state).

- The creation of the SEEG Platform was mandated by a large group of Brazilian Civil Society Organizations, working in the Climate and Energy Space known as the “Climate Observatory” which comprises of the following organizations:

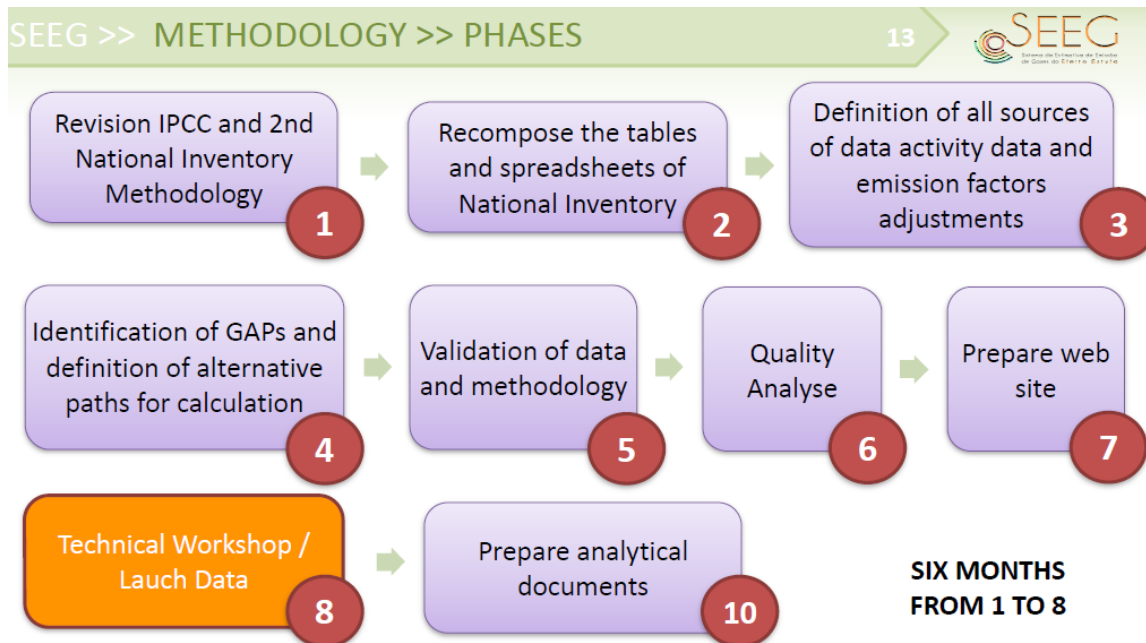


Climate Observatory in this case was a pre-existing network of NGOs.

- The SEEG platform is a multi-institutional Civil Society Platform for implementing the GHG Emission Estimation for Brazil and comprises of the following lead organizations for the respective sectors:



- The methodology followed in the SEEG model is an 8 step process as described below:



- Another interesting aspect of the model is the products it established. The products provide an open and transparent platform for the Civil Society. The products achieved from the SEEG Model include:
 - Annual Estimation of GHG's across all sectors and gases;
 - Analytical Reports;
 - Web Platform to disseminate the data, methodology and other supporting documents;
 - Annual Technical Seminars.
- Other interesting features include that the annual estimation of GHGs was done from a period of 1970 to 2013. Further, the annual estimation of GHGs was also done for states. This was done in a phased manner. While the first phase looked at estimation of GHG for the national level for the year starting from 2005, in the subsequent phases, it was extended to yearly estimation from 1970 onwards and also include disaggregated data for states for all gases and all sectors. The exception here was the agriculture sector where in the first phase the calculations were done at state levels and then aggregated.
- Further, the SEEG model also has a clear data quality indicator in the form of colour coding. For data which they believe is good and robust, the color code is green and for data estimation that could be close to the reality and could pass as fairly good has been coded as yellow and for data that is just a approximation has been coded as red. This increases the transparency of the entire data and provides scope for making further improvements in data quality.
- The GHG estimates developed under the SEEG model permit a range of analyses. Some illustrations of these analyses are:

- Gap analysis of programmes and implementation from a GHG emission perspective
 - Identification of possible areas of intervention for low carbon strategies
 - GHG Emission Projections
- Yet another salient feature of the SEEG model is that the data used are those that are available in public domain. None of the data used in the model has been purchased thus ensuring that anyone who wants to check the data used against primary sources, has the ability to do so.

II B Gist of the Discussions on “replicating the SEEG model in India”

The conference concluded with an open house discussion on the merits of replicating the SEEG model in India, with some discussions on the approach and methodology. There were also some discussions around the possible challenges and methods to overcome them. Some of the important points that emerged from the discussion are as below:

- a) There was an agreement from most of the participants from India that undertaking an exercise for estimating GHG Emissions in India is a useful exercise and needs to be undertaken.
- b) Most of the participants agreed that such an exercise would add a lot of value, since, such data on GHG inventories in India is very sparse, with the latest information available only for the year 2007.
- c) Most of the participants also felt that having a time series estimation of emission year on year from a historical perspective would add a lot of value and would be extremely useful to enable a wide range of analysis that can help give direction to various programmes and policies. While the SEEG data goes back to 1970, it was understood that given data constraints in India, a realistic assessment is needed to understand how far back we can go historically.
- d) A vast majority of the participants also echoed that such an exercise with disaggregated data at the state level would be a very useful value add and would perhaps be welcomed by states as they as of now, do not have access to such information. The SEEG team reiterated that while this is a good idea, based on their experience they encouraged the team to have a first phase that is top down and prepares national-level estimates and then look at state level approaches. There was a mixed response from the participants on the challenges of accessing data, particularly at the state level for some of the sectors. While, many of the participants were of the view that, by and large data was available, as long as one knew which source(s) to tap. However, there was also a general consensus that for some sectors, accessing the data could be difficult, but approximation could be adhered to.
- e) On the institutional approach for such a project, most participants agreed that it should be a multi-institutional framework with a few organisations coming together to undertake this exercise.

- f) On a cautionary note, most participants felt that such a project needs to be undertaken in a phased manner and cautioned that taking on too many dimensions of the project simultaneously could be difficult and potentially pose problems.
- g) Some participants made a suggestion that avenues be investigated to integrate the India exercise with the National Communication exercise.
- h) Further, participants were of the view that we should broad base the exercise to include various organisations and expertise, even amongst those who could not participate.
- i) To take forward the exploration of such an exercise in India, it was decided to form a “Planning Working Group”. The planning working group that was formed, included representatives from the following organisations:
 - i. Council for Energy, Environment and Water (CEEW), New Delhi
 - ii. Centre for Study of Science, Technology and Policy (CSTEP), Bangalore
 - iii. ICLEI, South Asia
 - iv. School of Biotechnology, KIIT University, Bhubaneswar
 - v. CGIAR, Pusa, New Delhi
 - vi. Fair Climate Network
 - vii. Environment Defense Fund
 - viii. Vasudha Foundation
 - ix. Oak Foundation
 - x. Shakti Sustainable Energy Foundation

II C Next Steps and Way Forward:

The agreed next steps and way forward are as follows:

- a) Formation of a Planning Working Group: As indicated in the earlier section of this report, a planning working group was formed comprising of members mentioned in the previous section.
- b) Sharing Presentations on the SEEG Framework including the presentation on sector specific methodologies and approaches: This was also done on Friday, with presentations made by the SEEG group was shared with all participants who attended the workshop. Vasudha Foundation undertook the responsibility of sharing the presentation with all participants.
- c) Sharing of the Notes on the proceedings of the workshop: It was decided that Vasudha Foundation would undertake the responsibility of sharing the proceedings of the workshop in the form of a report to all participants by the end of the April 2015.
- d) The first meeting of the Planning Working Group: It was decided to convene a face to face meeting of the Planning Working Group members in the last week of April/first week of May to take forward the discussion on the merits of GHG Emission Estimation for India and to come up with a plan for operationalising such a project.

Annex 1

List of Participants

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