
Climate
Change—
audit
guidelines

Audit of Climate Change

Audit criteria for climate change

Audit criteria help in assessing the performance of the entity with reference to certain laid down standards and performance benchmarks. Climate change criteria can be national if there is a climate change policy/law or can be international, especially if the country had signed and ratified UNFCCC/Kyoto Protocol. Audit criteria can also be in the area of good governance and good management as climate change action needs to be taken by different ministries in the government/agencies of the central and state government and lack of coordination and non-transparency in decision making can be detrimental to implementation in the area of climate change.

a) International agreements

UNFCCC is the main global response to the challenge of climate change. UNFCCC and its Kyoto Protocol spell out a number of commitments for Parties, and it is thus where we must start looking for audit criteria. The UNFCCC is based on the principle of 'common but differentiated responsibilities'. The developed or industrialised countries should 'take the lead' in modifying anthropogenic emissions in the long term. More specifically, this means that the Annex I Parties have to take more responsibility than the non-Annex I Parties: firstly, they shall help developing countries to meet their commitments and, secondly, they shall take the first steps towards reducing GHG emissions; this second point was also included in the Kyoto Protocol. The commitments under the Convention are largely non-binding and of a general nature. They are not country-specific or time-bound. There is one exception, however: reporting to the UNFCCC secretariat. The Convention establishes rules for the timing of national communications for both Annex I and non-Annex I Parties and inventory submissions from Annex I Parties. The emission targets established by the Kyoto Protocol are binding on all Annex I Parties which have ratified the Protocol. The Protocol specifies emission targets for each Party. It also has a set time frame: the first commitment period runs from 2008 to 2012.

i) Mitigation commitments

The Convention commits all parties to adopt programmes containing measures to reduce anthropogenic emissions of GHGs and enhance and maintain sinks. The developed countries have a further commitment to adopt mitigation policies that demonstrate that they are taking the lead in modifying longer-term trends in anthropogenic emissions. While the objective of the UNFCCC is a long-term target, the Kyoto Protocol has a short-term and measurable target. The Protocol contains a set of legally-binding emissions targets (for industrialised countries) that amount to a total reduction among all Annex I Parties of at least 5% from 1990 levels by 2008-2012. The non Annex I Parties¹ do not have any binding emission level reductions; for non Annex I parties, emission reduction is purely voluntary.

¹ All countries who are not Annex I or Annex II. Includes India and China.

The Protocol thus establishes binding, quantifiable reduction targets for Annex I Parties. In order to achieve the reduction targets, the Kyoto Protocol commits Annex I Parties to make use of a number of national policies and measures, including increased energy efficiency, protection and enhancement of sinks of GHGs, promotion of sustainable forms of agriculture, development of new technologies, phasing out of market imperfections in all GHG-emitting sectors, limitation of GHG emissions from the transport sector and the limitation of methane emissions. This is generally referred to as the flexible mechanisms and includes Joint Implementation (JI), Clean Development Mechanism (CDM) and emissions trading. The flexible mechanisms mean that GHG emissions have an economic value. Normally, this value is expressed as the value of a tonne of CO₂ or CO₂ equivalents. The market determines the price of one tonne of CO₂. Using these mechanisms is voluntary. However, if a country chooses to make use of them, there are certain procedures and rules that can be used as audit criteria. The use of these mechanisms can be used to meet the emissions targets, but they should be supplementary to domestic action. This is reviewed by the Compliance Committee's facilitative branch. However, the facilitative branch has no sanctioning powers. The Clean Development Mechanisms (CDM) system is a system whereby Annex I Parties invest in projects that reduce expected GHG emissions in developing country Parties. In return for their investment, they receive credits in the form of certified emission reductions (CERs). The financing and recipient Parties decide on how to share the credits from the project. They can use the credits to offset their own GHG emissions, save them for a subsequent period or sell them. For the recipient Party, the intention is that it should also gain from an investment in sustainable development.

Conditions that must be fulfilled for the accreditation of a CDM project include:

- Investment in a CDM project must be additional to the financing and technology transfer

Commitments of Annex II Parties

- A CDM project cannot be profitable without the investment of an Annex I Party
- GHG emissions after the CDM project must be lower than they would have been without the project
- 2% of the CERs generated must go to an Adaptation Fund
- Requirements for additionality and contribution to sustainable development

The Joint Implementation (JI) mechanism works in a very similar way to CDM, in that it offers an opportunity for Annex I countries to invest in another country in a more cost-effective manner. Under JI, however, both the financing and recipient countries are Annex I Parties with emission targets under the Protocol.

The Emission Trading System (ETS) is a market mechanism for trading emission credits. It is based on setting a value on the right to emit one tonne of CO₂-equivalents and on this right being tradable. Trading can take place between countries, companies or between countries and companies. Based on this setting of a limit on emissions, companies receive (free or through an auction) emission allowances. Companies can then trade these allowances. Companies that emit less GHGs than their allowances permit can sell surplus

allowances. Conversely, companies that emit more GHG than their allowances permit must buy allowances. The Kyoto mechanisms open for emission trading between countries, and some regions/countries have established separate emission trading schemes that are consistent with the Kyoto requirements in order to facilitate emissions trading with other countries and between installations or companies. Normally, such schemes are established in national law or legislation and more detailed rules are agreed than those that apply under the Kyoto Protocol. These rules can also include provisions for verification and control.

Thus audit criteria for India could be:

- Emission reduction targets set by the government of India;
- Any plans or programmes devised by the government in the area of climate change;
- Whether any projects have been sanctioned under CDM and whether all the criteria governing CDM projects are being satisfied.

ii) Monitoring and reporting commitments for mitigation

All Parties shall submit national communications containing information about GHG emissions and removals and implementation activities. Annex I Parties shall, in addition, submit annual GHG inventories. Both the Convention and the Protocol have established systems for monitoring and reporting. All Parties must follow the reporting requirements of the Convention, while the Kyoto reporting only applies to the Annex I Parties which have ratified the protocol. Non-Annex I Party reporting requirements are subject to considerations of the resource situation and financial assistance from Annex II Parties. The first national communication from non-Annex I Parties was due three years after the entry into force of the Convention for that Party or three years after financial resources were made available. These Parties do not need to submit annual inventories.

iii) Adaptation Commitments

The obligations in international climate change agreements with respect to adaptation are fewer and less specific than those concerning mitigation. Member Parties to the Convention have no legally-binding commitments concerning adaptation. However, the Nairobi Work Programme (NWP) formulated by the UNFCCC can be regarded as a framework for establishing good practice for national adaptation strategies. The objective of the Nairobi Work Programme is to improve Parties' understanding and assessment of the impacts of climate change and countries' vulnerability to these impacts, thus enabling them to make informed decisions about practical adaptation measures. Key actions to this end include impact and vulnerability assessments, data collection and analysis, modelling and adaptation assessments. Adaptation strategies should be based on a sound scientific, technical and socio-economic basis; existing experience, domestic as well as experience from other countries, should be taken into account when relevant. Annex II Parties to the Convention shall help developing countries to prepare for adaptation. This can be done by preparing National Action Plans for Adaptation (NAPAs). These action plans focus on immediate adaptation needs. Funding for adaptation identified through the NAPAs is channelled through the Global Environment Facility's (GEF) Least-Developed Countries Fund.

iv) Commitments on technology, funding and research

The UNFCCC commits all Parties to cooperate on developing and transferring technology that can control GHG emissions. Furthermore, the developed countries shall take all practicable steps to promote, facilitate and finance the transfer of environmentally sound technologies. It is underlined that developed and developing countries must cooperate to make sure that technologies are not only transferred but also made accessible, in the sense that know-how and capacity in the recipient countries must also be enhanced. The development and transfer of technology is a theme in the Marrakesh Accords. A framework was established for 'meaningful and effective action' to meet the technology requirements under the Convention. This framework focuses on the assessment of technology needs, the establishment of an efficient information system, removing barriers to technology transfer and capacity building.

Scientific research is related to two interlinked yet different areas. One is climatology, which focuses on understanding climatic change; the other is environmental science, which emphasizes measuring impacts and changes in ecosystems and human systems. In addition, Article 5 of the Convention stipulates activities members of the Convention shall carry out in order to fulfil their commitments related to scientific research. This includes supporting and developing international and intergovernmental efforts to conduct, assess and finance research, data collection and systematic observation, as well as strengthening research capacities and capabilities. These efforts shall take into account the particular needs of developing countries.

Annex II Parties to the Convention are obliged to provide financial assistance to the developing countries. In order to assist the developing country Parties, and, in particular, the least-developed countries and small island developing states, new and additional funds should be made available. Funds can be provided through multilateral channels or as development assistance.

b) National Plans

These are adaptation and mitigation plans enunciated by the Government of India and include NAPCC and any other sectoral initiatives taken by the Government of India. These have been discussed in Chapter 2 and are a good source of audit criteria.

c) Criteria for good governance

Many aspects of good governance can serve as norms and standards when auditing national governance in the climate change field and are evaluation tools when auditing mitigation and adaptation issues.

i) Effective accountability arrangements between government departments and public entities

Climate change policy involves a wide range of sectors, and there is considerable potential for conflicting objectives and targets. It is very important, therefore, to coordinate efforts in order to ensure that the policy as a whole is effective. One possible audit criterion is whether the government has organised its work on climate change in a way that will meet

this challenge. Firstly, the government must have a good overview of the parties and agencies involved, and a clear and documented responsibility map. Procedures for coordination must be documented and a forum for intersectoral work established. Secondly, the efforts of the different sectors and players must be complementary, not conflicting. This means that there must be coordination in practice, not just on paper. There are many risks to the success of such coordination, for instance if the body responsible for reaching the targets does not have the authority to apply central policy instruments. However, the optimal way of coordinating the efforts will vary with different climate change issues, the political structure etc.

ii) Transparency in decision-making

Transparency in decision-making is important, as it will probably lead to an open process. If a policy is discussed, decisions will be better, and transparency makes it possible to check that the government complies with laws and keeps the public interest in mind. A lack of transparency carries a risk of fraud and corruption, especially in connection with the use of flexible mechanisms.

iii) Involving the public and engaging stakeholders

To succeed in climate change policy, it is necessary to involve the groups that have relevant knowledge and those that will be affected when the politics are implemented. Effective communication with external parties is also important.

iv) Management by objectives and results

If a country has international or national targets for mitigation, adaptation or science and technology, the attainment of these targets will often depend on implementation by central, regional and local government. This is especially important in the context of climate change because the issue is so complex, and because there are many interlinked players and different sectors. The parliament may have set requirements for the government administration that require it to manage by objectives and results. According to such principles of governance, the government should:

- **Define objectives and expected results:** The ministry in charge of climate change policy must clearly communicate what is expected of each of the subordinate government agencies and other ministries involved. This means that the overall objectives and targets must be operationalised in all sectors and at all levels. Targets should be specific, measurable, attainable, relevant and time-bound (SMART). National objectives, sector targets and indicators should be clearly communicated to all relevant public bodies and other existing levels of government and/or administration. This may include intra-state treaties that divide up targets and assign duties and responsibilities.
- **Develop implementation strategies:** The government should ensure that objectives and expected results are achieved, that the resources are used effectively and that the entity is in compliance with laws, regulations and standards. The authorities must develop plans and programmes to describe their obligations and targets, what risks they consider to be involved in achieving them, and the actions needed to ensure that they will meet their commitments. The authorities must also

identify activities and implement them. The identified activities should be considered necessary to minimise the relevant risks and suitable for the purpose, which means that cost-benefit analyses are required. The ministry in charge must follow up the other bodies in order to achieve the overall target.

- **Provide the information needed to assess efficiency and goal achievement:** The government should provide the information necessary for effective decision-making. Relevant and reliable information is equally important in the planning stage before implementing climate change policies and in evaluating the cost-effectiveness of the policy instruments chosen.
- **Monitor performance:** It should monitor performance to find out whether changes are needed in order to reach the overall target. Monitoring and reporting are established as commitments under the Convention and the Protocol. The results from the national communications to the UNFCCC secretariat should be used by governments to improve policies, and they should be made available to the public in order to improve transparency.
- **Collecting information:** Collecting information should be an ongoing process that follows effective procedures. The information should be: appropriate (is the required information there?), timely (is it there when required?), current (is the latest information available?), accurate (is it correct?) and accessible (can it be obtained easily by the relevant parties?).
- **Governmental risk management:** In risk management, risks can be defined as ‘the chance of something happening that will impact on objectives’. Risk management aims to achieve an appropriate balance between realising opportunities for gains while minimising losses. It is an integral part of good management practice and an essential element of good corporate governance. Risk-based management is an ongoing process that should be renewed and updated frequently. In climate policy, there is a risk of not attaining the targets and there is a risk of inefficient use of money. It is also relevant to reduce the risk of corruption and fraud.

v) **Criteria for good management: internal control systems**

An internal control system is a management tool used by entities to control and initiate activities with a view to reaching their goals. All entities involved, both governmental bodies and private partners – for instance companies buying or selling emission allowances – could have an internal control system. An internal control system in itself is no guarantee of reaching the goal. Well defined targets and an efficient organisational structure are very important preconditions for an efficient internal control system. When they are in place, the internal control system can contribute by making sure the system works as intended. The set of audit criteria for internal control systems is based on an INTOSAI model. The model has five components:

- **Control environment:** Among other components, the organisational structures, authority, responsibility and human resources have to fit the challenges involved in managing the risks. We discussed this briefly under good governance.
- **Risk assessment**
 - i) Identifying the entities’ objectives and targets;

- ii) Identifying risks-- external and internal factors that could impact on the achievement of the objectives and targets; and
- iii) Consider and prioritise among the risks-- Priority-setting in accordance with their graveness and how they will impact on the objectives and target achievement.
- **Control activities:** Control activities are established to address risks and to achieve the entity's objectives. They include a wide range of activities, such as authorisation and approval procedures, segregation of duties, controls of access to resources and records, reviews of operations and so on. Corrective actions can complement control activities, and both detective and preventive control activities are necessary.
- **Information and communication:** Information about performance in relation to the management of established risks must be communicated in order to provide feedback by reconsidering risk management.
- **Monitoring:** The ongoing monitoring process is a system to assess whether the implemented activities lead to the entities' defined objectives.

Major compliance audit issues audit of climate change

Compliance audit is a major part of any audit exercise and can form the first step in evaluating whether the acts/rules framed by the government are being adequately complied with. With respect to climate change, India does not have a policy or a law to control emissions or any other activities that lead to climate change. It also does not have any law/rule/regulations in the area of climate change. Only strategies, plans of action like NAPCC and sectoral strategies exist for climate change. Also, India does not have any commitments to reduce emissions under the UNFCCC. However, under the Kyoto Protocol, India has been the recipient of many CDM projects. Hence, compliance audit can be used to study adherence to targets/plans of action laid out under NAPCC as well as project objectives and criteria under CDM.

Checklist for performance audit of climate change efforts of the government

The following checklist can be used for the performance audit of government's response to climate change. In addition, any of the themes listed in the checklist below can also be used to carry performance audit related to that particular theme.

Objective	Main question
Theme 1: Existence of data about climate change and identification of risks	
1. To assess whether the government identified and quantified the sources of emissions and has the effect on climate change on health and	1.1 Has the government identified the main sources of GHG emissions in the country?
	1.2 Has the government quantified emissions from sources like energy production, transport, buildings, industry, agriculture, forestry, waste etc?
	1.3 What are the trends of projections of GHG emissions in the country?
	1.4 Has the government assessed the major vulnerabilities (areas and

environment of the country been assessed.	sectors most likely to be affected) to climate change?
	1.5 Has the government assessed risks to public health as a result of climate change?
Theme 2: Government's response to climate change	
2. To assess whether the government has responded effectively to the challenges posed by climate change.	2.1 If the government does not have any international mitigation or adaptation commitments, has it set any national commitments?
	2.2 Has the government defined any effective policy for climate change and for controlling GHG emissions?
	2.3 Have any national targets for mitigation and adaptation been set and are they realistic, practical and effective?
	2.4 Has the government defined any policy instruments for reducing GHG emissions, adaptation and mitigation?
	2.5 Has responsibility and accountability been assigned to different ministries/agencies of the government in the climate change process, especially for adaptation and mitigation?
Theme 3: Implementation of plans for mitigation and adaptation	
3. To assess the effectiveness of government's adaptation and mitigation programs in the area of climate change.	3.1 Have extensive consultation with all agencies and stakeholders in the climate change agencies done before introduction of the plan?
	3.2 Have the sectors contributing most to climate change been identified and have these been included in the national plan?
	3.3 Have clearly defined targets and timelines for implementation been laid down in the plan?
	3.4 Whether emission trends and projections are in line with targets set in the plan?
	3.5 Whether coordination of relevant ministries being done as envisaged?
	3.6 Have research activities taken place as envisaged in the plan?
	3.2 Whether adequate financial resources are made available for implementation of the plan and are they being spent wisely?
	3.2 Whether the plan has led to achievement of objectives and targets.
Theme 4: Effective implementation CDM projects	
4. To assess whether effective implementation of CDM projects is taking place in the country?	4.1 Whether any targets for implementation of CDM projects been set?
	4.2 Whether the criteria for approval, eligibility, sustainable development targets etc are being met by the CDM projects.
	4.3 Whether CDM projects are achieving their stated targets?
Theme 5: Monitoring	
5. To assess whether effective monitoring of national plans was taking place.	5.1 Whether these was allocation of responsibility for overall monitoring of the plan was done?
	5.2 Was monitoring taking place as envisaged?
	5.3 Were international commitments on reporting met by the government?
Theme 7: Impact analysis	

6. To assess whether the government's plans actually led to reduction of emissions.

6.1 Did the plan meet the mitigation and adaptation commitments of the country?

6.2 Did the plan actually led to reduction of GHG emissions?