



## **DRAFT DISCUSSION DOCUMENT 3**

CCXG seminar breakout session 3a

# Setting National and Sectoral Baselines<sup>1</sup>

Prepared for the  
CCXG/Global Forum on Environment  
Seminar on MRV and Carbon Markets<sup>2</sup>

28-29 March 2011, Paris

*Please do not cite or quote the contents of this document.*

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<sup>2</sup> The CCXG Secretariat would like to thank the EC, Germany and Japan, who provided funding specifically for this event, as well as OECD member countries that provide funding for the Global Forum. They would also like to thank Canada, Finland, Japan, Netherlands, Norway, Sweden, Switzerland, UK and US for their direct funding of the CCXG in 2010, and OECD and IEA for their in-kind support.

## Setting National and Sectoral Baselines

Setting baselines involves not only analysing technical data and making assumptions e.g. on future projections, but also considering policy choices which are driven by the intended application of the baseline. Both the technical and political considerations can have impacts on the environmental ambition of a baseline in relation to an emissions goal or target. Given the potential influence of baselines on the environmental integrity of greenhouse gas (GHG) mitigation goals, targets, or mechanisms, they need to be developed carefully.

This discussion document presents key considerations in establishing emissions baselines and provides questions for further discussion. Section 1 describes the main elements of baseline setting in different situations, and provides examples of several types of baselines in practice. Section 2 outlines the issues and challenges associated with establishing baselines, highlights some experience, and proposes questions for discussion. Section 3 provides options for improving the environmental integrity of baselines. The questions for discussion are summarised in the Annex.

### 1. Defining and clarifying different types of emissions baselines

Baselines can help provide transparency and inform stakeholders regarding emissions levels and their expected trajectories. However, the term ‘baseline’ is frequently used with different meanings in discussions of climate change mitigation mechanisms and policies. Even after more than a decade of experience under the United Nations Framework Convention on Climate Change (UNFCCC), the definition and application of baselines remains unclear. Significant ambiguity can arise as to how to define and set a baseline, leading to confusion in the political discourse.

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#### What is a baseline?

A **baseline** can be defined as a level of emissions (either at a point in time or over a period of time) which provides a reference level that could be used to establish a goal and/or to measure progress.

A baseline can be used to define a **goal or target**, either explicitly or implicitly. (The setting of goals or targets is beyond the scope of this document.)

A baseline could be the same as a **business-as-usual (BaU)** pathway, but may also be set at an emissions level below BaU. For example, in Clean Development Mechanism (CDM) projects, the baseline may be at or slightly below BaU, whereas for an environmentally ambitious sectoral crediting mechanism, the baseline could be set well below BaU. The circumstances of a BaU can also change over time, which can impact a baseline set as BaU.

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How a baseline is set depends on its purpose. Possible applications of a baseline can include one or both of the following:

- To set a target or goal; and/or
- To define a counter-factual emissions level or pathway as a reference against which to measure performance of a project, goal or target, and in some cases to award credits.

Some decisions involved in setting a baseline are outlined in Figure 1. These include defining the purpose, which can be influenced by policy considerations, and defining the characteristics of the baselines, which can be influenced by both policy and technical considerations. These decisions can ultimately impact the environmental ambition of a baseline in relation to an emissions goal or target.

Figure 1: Influences and decisions in setting a baseline

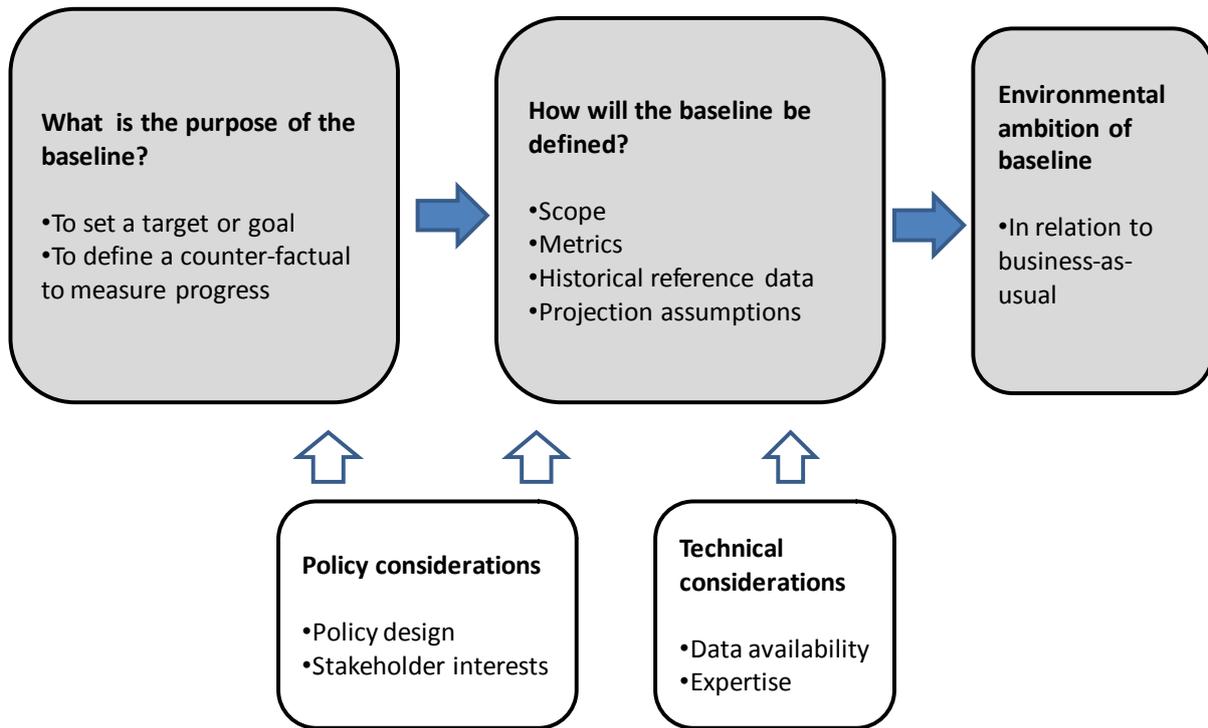


Table 1 provides practical examples of baselines to illustrate the varying scope and metrics that can be used for different applications. Although there is some overlap between purposes, these examples illustrate the use of baselines to set a goal and/or to measure progress towards a goal, and the use of absolute or relative metrics (e.g. measuring total emitted GHG, or emission intensity measured in GHG per unit of output). Consideration of the range of baselines used for different purposes gives rise to the questions raised for discussion in Section 2.

Table 1: Examples of different types of baselines

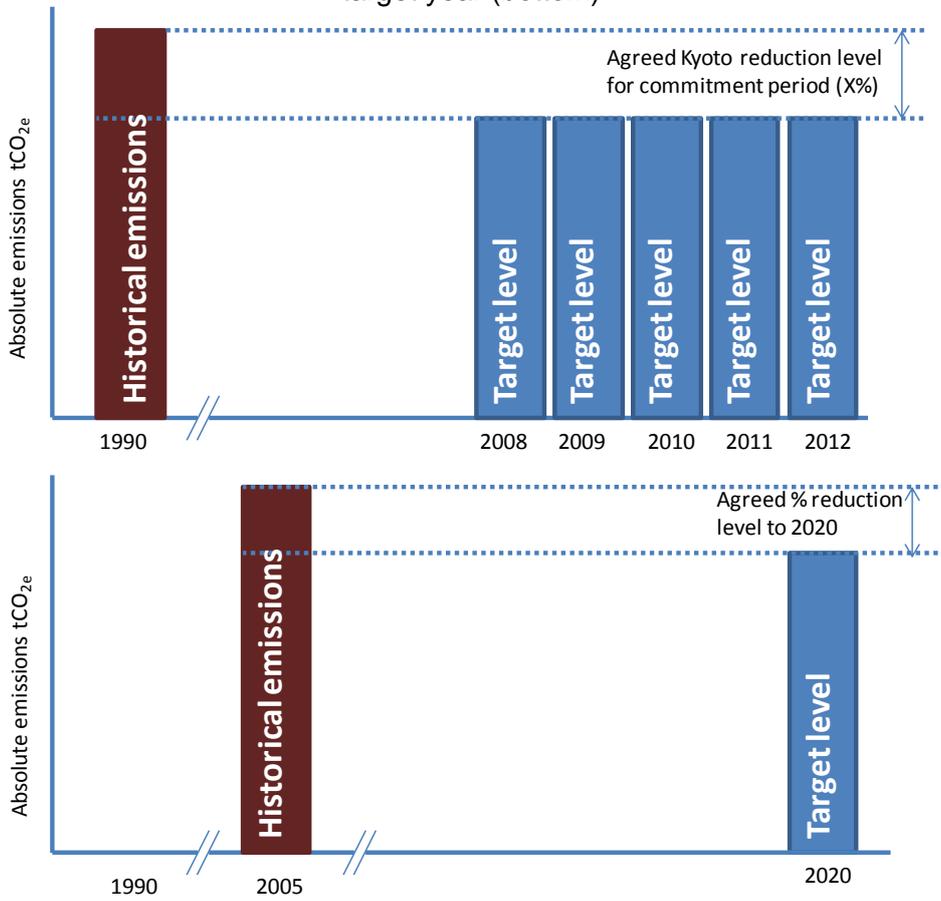
Purpose	Metric	Scope		
		National	Sector or sub-sector	Project/ Installation
To set a goal or target <sup>3</sup>	Absolute	<ul style="list-style-type: none"> <li>• Kyoto assignment target with reference level as 1990 (the implicit baseline) and the same target for each commitment year as -X% (see Figure 2)</li> <li>• US mitigation goal, taking 2005 absolute emissions as reference level (implicit baseline) and target -17% by 2020 (see Figure 2)</li> <li>• Brazil mitigation goal from a baseline defined as BaU by 2020 (see Figure 3)</li> </ul>	EU ETS allocation based on "grand-fathering", using historical emission level of entities, or on projections of expected emissions trajectory	Project performance targets could be based on an emissions threshold or performance of a best-available technology.
	Relative	China mitigation goal for 2020, taking national emissions intensity of GDP in 2005 as reference and setting target of 40-45% below by 2020 (see figure 4)	China energy sector target of a reduction in energy intensity by 17% from 2011 to 2015 (note that this is not in itself an emissions target, but is an effective proxy).	(No current examples exist.)
To measure performance (in some cases to award credits)	Absolute	(No current examples exist.)	(A sector crediting baseline could be established based on an absolute emission level.)	CDM "what-if" counter-factual scenario for project-based reduction activities (see Figure 5)
	Relative	(No current examples exist.)	A sector crediting baseline where sector emissions performance is calculated from emission intensity levels <sup>4</sup>	Some CDM projects use an implicit intensity metric to establish an absolute baseline (e.g. electricity projects).

These baselines can also be represented graphically as in the following selected examples. In Figure 2, historical emissions are used as a baseline from which the targets are defined (Kyoto targets, US goal). In these examples, the baseline is a historical level of emissions.

<sup>3</sup> Allocation of emission permits is taken here to be an application of an emissions target.

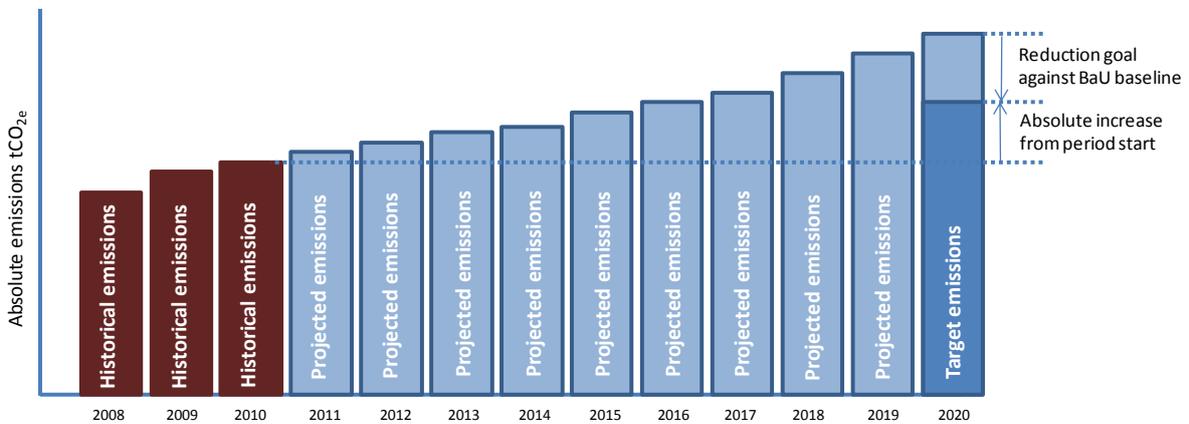
<sup>4</sup> This could be done in at least two ways: either take a historical emissions intensity for a sector and set a crediting threshold of X% below that intensity, or take the intensity of the best performing Y% of installations in the sector in year Z and set that as the crediting threshold level

Figure 2: Absolute baselines based on historical reference levels used to set a target: Kyoto allocation with one reference for multiple target years (top), and US 2020 goal with single target year (bottom)



In Figure 3, projected emissions are used as a baseline representing a BaU from which Brazil’s goal is defined. In this example, the baseline is a projected business-as-usual level of emissions.

Figure 3: Absolute baseline using a forward projection to define a goal: Brazil’s mitigation goal for 2020



China’s projected intensity baseline is shown in Figure 4. In this example, the baseline is a historical level of emissions intensity.

Figure 4: Relative baseline using a historical intensity level to define a goal: China’s mitigation goal for 2020

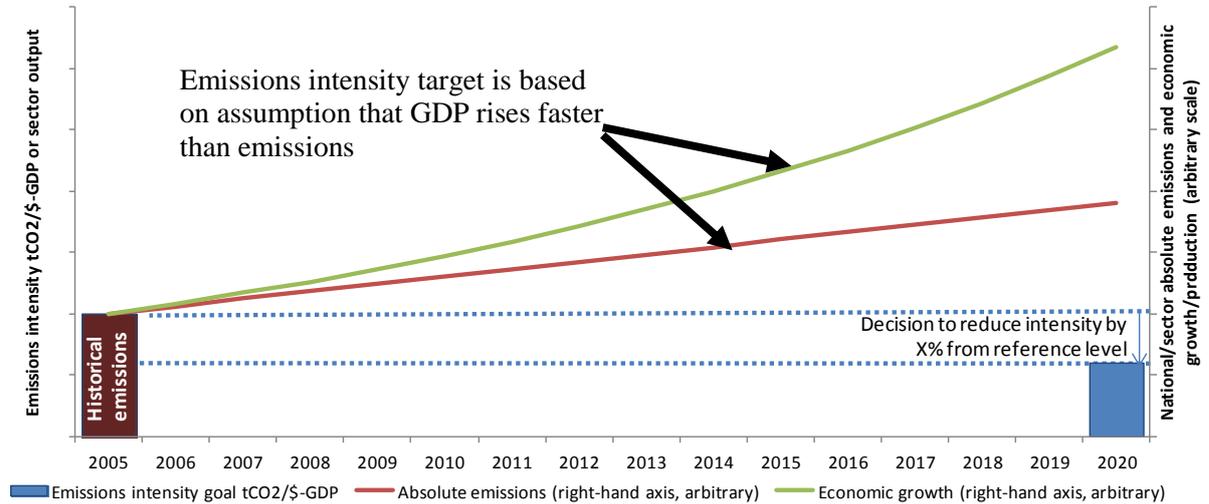
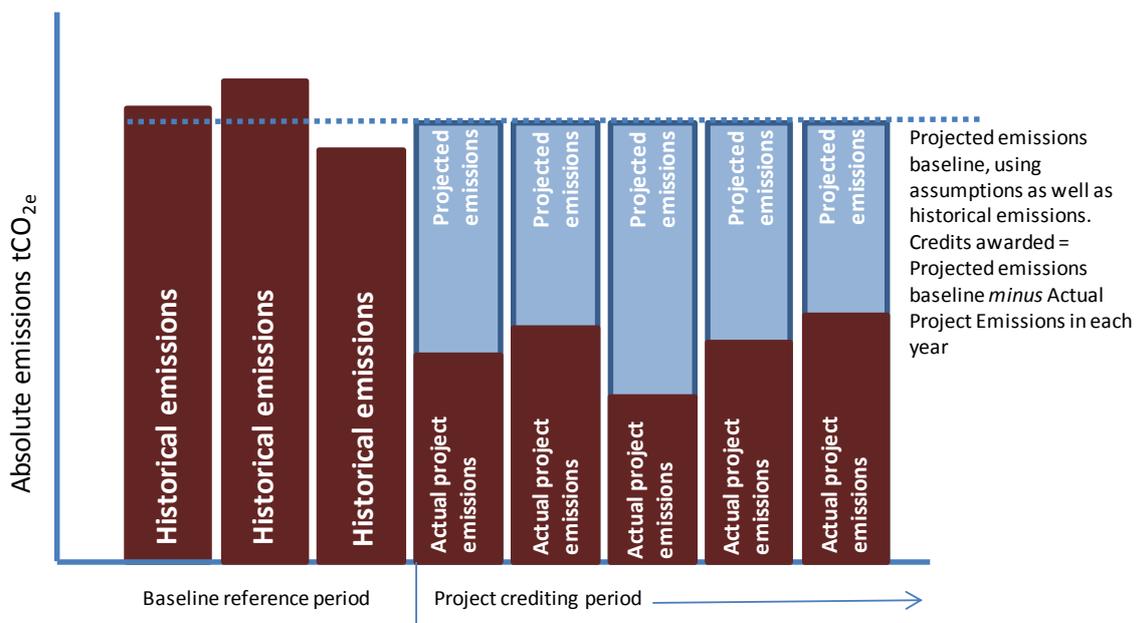


Figure 5 illustrates an example of a project-level baseline using projected absolute emission levels to determine the amount of credits earned from a CDM project. The baseline is calculated using an average of past emissions, often set as the most recent 3 years.

Figure 5: Baseline using projection of expected absolute project emissions: CDM projects



## 2. Key issues and challenges for setting baselines

Setting a baseline involves defining key characteristics such as scope (e.g. national or sectoral) and metrics (e.g. tCO<sub>2</sub>e or tCO<sub>2</sub>e/unit of output). A baseline can be calculated based on either historical data and/or projections based on assumptions about an expected future emissions pathway that would occur in the absence of a project or policy (a counter-factual). Such projections could be a ‘business as usual’ scenario, or another type of counter-factual scenario.<sup>5</sup> Table 2 describes the options and considerations for each of these variables.

Table 2: Key variables in setting and updating baselines

Baseline variable	Options	Considerations
Scope	Project, programme, sub-sector, sector, country/ies; in some cases could also be specific to technology type or age of plant/entity	Defines the level of aggregation and bounds the emissions included. Boundaries can be hard to define as projects, sub-sectors, etc. often contain complex emissions pathways that can have influences beyond their primary sector (e.g. baselines for the cement sector can be influenced by electricity sector inputs used in the manufacturing of cement). Scope must be defined through a decision on what needs to be included given the limits of data availability, and the potential risks of leakage <sup>6</sup> (e.g. as a result of an emissions target). For a crediting baseline, the scope defined for setting the baseline may differ from the population to which the baseline is then applied.
Metric	Absolute GHG or CO <sub>2</sub> emissions, <sup>7</sup> relative GHG emissions <sup>7</sup>	Depending on the circumstances, baselines could be calculated using total emissions levels over the time period chosen or could be calculated on a relative basis, e.g. as intensity of emissions against economic or production output.
Historical reference data	Single time period (such as one year), or multiple time periods (such as an average over several years)	A baseline requires a root in historical emissions data, even if it is ultimately developed into a projection. This can be a single time period (sometimes known as a base year), the average of emissions of several periods, the emissions trend over a period, etc. The choice of which particular year(s) are used for historical data can be important.
Future assumptions	Assumed continuation of historical emissions (project), continued rate of growth of emissions/emission intensity (sector), modelled development; depends on policies included in baseline and time period of projections	For a baseline calculated using a projection, assumptions need to be made about how emissions would evolve in the future. This could be a simple linear projection of historical emissions into the future, a projection based on expected change of growth rate or a more complex model of potential emissions pathways. Which policies to include in the baseline must be decided (e.g. business-as-usual, no new policies after a cut-off date, etc.). Projections further into the future are inherently more uncertain than baselines projected over a shorter time period. Furthermore, the circumstances that influence a baseline are likely to change over time, which may warrant systematic review or updating of a baseline after it is established.

### 2.1 Scope of the baseline

**The issue and key challenges:** The scope is largely driven by the purpose of the baseline, but is not always obvious to define. The scope of a baseline can influence the ambition of a baseline in relation

<sup>5</sup> For example, Annex I national communications include “without measures”, “with measures,” and “with additional measures” projections, none of which is specifically defined as a reference or BaU.

<sup>6</sup> Leakage in this context means a corresponding rise in emissions outside of a targeted sector or country due to changes in relative prices, competitive advantage or other factors.

<sup>7</sup> Other types of baselines could be established based on activity-level data (e.g. level of forested area or technology market penetration rate), but are not the focus of this discussion paper.

to a measured emission reduction. There are at least two key questions involved: how to precisely set definitions of scope in order to draw boundaries, and what broad level of data is needed (and available). A national scope of emissions can involve complexities such as net land-use emissions. A baseline for an individual project may have clearer boundaries, but this does not mean that data will be available or reliable. To set a baseline for a sector, part of a sector, a single complex industrial site, or a group of projects, the issue of what should be included within the boundary may be less straightforward (Baron and Ellis, 2006). The definition of the sector or sub-sector can be further broken down into two related issues: what entities or types of entities are included, and which emissions sources from these entities should be counted. The situation is yet more complex for sectors that have very heterogeneous emissions performance. For example, within the power sector, decisions are needed on whether to compare a coal-fired power plant with average emissions for coal-fired plants or with the performance standard of a newly-built plant or best-available technology. If a baseline is used as a reference against which to measure performance, then defining the scope can have politically contentious impacts. For instance, how the scope is defined could either penalise well-performing early movers, or allow the worst-performing entities to weaken the ambition of the baseline in relation to a goal.

### **Experience to date:**

- Sector crediting case studies: work on possible design features of sector crediting schemes using sector baselines has thrown up issues of scope, particularly in boundary setting (Baron *et al.*, 2009). For example, in the power sector in many countries there is a wide range of emissions from different power generating technologies, from near-zero for renewables to emissions-intensive coal plants. As such it is not clear whether a single sector crediting baseline using emissions intensity could be effective for the whole sector. Some industrial sectors involve on-site power generation, such as iron and steel production. A decision needs to be made as to whether these emissions are included in the sector in which they are physically located – in this case iron and steel – or as part of the power sector given that the emissions are created in generating electric power. Another issue of scope is whether to set the baseline using the performance of new entities or plants, or include a broader application of the whole sector (Baron and Ellis, 2006), which can have implications on ambition compared with a mitigation goal.
- CDM: although most CDM projects set project-specific baselines that are limited in scope to the individual project boundary, those individual project baselines may be calculated using standardised factors. This highlights the difference between a standardised baseline and a baseline devised through standardised approaches (Ellis, 2000). There is therefore a spectrum of possible “standardisation” of baselines that ranges from standardised methodologies and/or parameters to standardised emission levels. For example, many projects use an electricity grid emissions factor to calculate the effect on emissions of reduced consumption of grid electricity; this is calculated using national or sub-national data.<sup>8</sup> Furthermore the CDM modalities (UNFCCC, 2005) do allow for benchmark approaches in CDM baselines and some such methodologies have been developed. These vary in the level of aggregation used and by whether the benchmark serves for just the baseline or for also justifying the additionality of the project. Experience with the latter has shown that aggregating data across a sector can be prohibitively expensive for early movers (UNFCCC, 2010a). This may explain the lack of uptake of a methodology for manufacture of energy-efficient fridges (AM0070; UNFCCC, 2008). Much experience has also been gained with the methodology designed by the World Business Council for Sustainable Development (WBCSD) under the Cement Sustainability Initiative; this is based on multiple benchmarks for the cement sector, but has not yet found approval with the CDM Executive Board (WBCSD, 2009).

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<sup>8</sup> The CDM tool used to calculate this factor uses a weighted average to take into account the usually better performance of the more recent plant in the sector. This is one approach for how to make allowances for heterogeneous performance levels across a sector. The *Tool to calculate the emission factor for an electricity system* is available at <http://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-07-v2.pdf>

**Questions for discussion:**

- Could national baselines exclude certain sectors or gasses, and if so, under what circumstances?
- For sector baselines, sector-specific issues include:
  - Electricity sector, one product but many different inputs with diverse emissions profile (coal, gas, renewables) -- should baselines be sector or fuel/process-specific?
  - Iron and steel sector, highly diverse outputs and inputs and very complex process making it difficult to set sector boundary and choose normalisation metric for intensity, widespread on-site power generation at vertically integrated plants further confuses sector emissions – what should be included in the sector boundary?
  - Transport sector, highly diverse with varying emissions profiles for different modes of transport. Should focus be on average car performance, to reward efficient vehicles, or should the scope also cover public transport in order to recognise the modal shift to less emissions intensive transport types?

## 2.2 Metric for measuring baselines

**The issue and key challenges:** Baselines can be defined either as a level of total absolute emissions recorded or as an emissions performance relative to e.g. a unit of output, either economic or production-based. There are environmental and economic implications of establishing a binding absolute emissions cap or a crediting baseline. Relative emissions metrics may be more suited to fast-growing sectors or economies with varying and uncertain rates of economic growth. However, relative metrics essentially combine two metrics (e.g. GHG emissions and GDP), which leave the resulting emissions uncertain. This could provide more opportunities for political influence in setting the metric than do absolute metrics. On the other hand, absolute metrics fix the absolute emissions but do not account for significant changes in economic circumstances (e.g. change in growth pathway or recession). Regardless of metric, the underlying economic circumstances that drive absolute emissions, or a relative metric based on emissions, change over time. Thus reviewing and/or updating baselines can help to maintain environmental integrity relative to a goal over time.

**Experience to date:**

- EU ETS: although the EU ETS uses only absolute baselines to set allocation plans per sector in each country (based on historical reference level), the first phase of the scheme showed that this does not always lead to strong environmental performance because the baselines were set too high leading to over-allocation (Ellerman *et al*, 2010). Furthermore, the switch to extensive permit auctioning in the third phase of the scheme has led to the introduction of a benchmarking procedure based on a relative metric to ensure free allocation to sectors most exposed to competitiveness issues<sup>9</sup> (EC, 2011).
- New Zealand ETS: free allocation for sectors exposed to competitiveness is calculated using average emissions intensity for the sector, multiplied by the actual output of each installation and corrected by a ‘level of assistance’ factor depending on the deemed risk of leakage for the sector (Ministry for the Environment, 2009). This type of allocation allows for fluctuations in free allocation according to changes in output.
- US emission intensity target: this voluntary relative target (GHG emissions per unit of GDP) was established under the Bush Administration (US, 2006). Progress towards this target was

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<sup>9</sup> The allocation itself is however still absolute and based on historical output.

achieved at a faster rate than initially projected due to higher-than-projected economic growth which resulted in a baseline that was closer to the target than originally calculated.

- India: work is underway for Perform Achieve and Trade (PAT) scheme to calculate relative energy efficiency baselines for nine key industrial sectors in India. This is being done by gathering data from mandatory site-level Specific Energy Consumption (SEC) audits for the past three years. It is expected that installations will then be divided into a small number of groups depending on their individual intensity level, with a common energy efficiency target being set for each group (Bureau of Energy Efficiency, 2011).
- CDM: Due to its predominantly project-based nature, to date CDM has usually operated using an individual absolute emissions baseline calculated for each project activity; a baseline scenario is selected and the total expected emissions that would have occurred each year in the absence of the project activity are calculated. For electricity-generating projects, an emissions factor based on the emissions intensity of the power grid is usually used to calculate this absolute project baseline, as described above. Project-specific calculation of baselines is a time-consuming process. In some circumstances, standardisation of baseline setting could alleviate this.
- US EPA Climate Leaders Offsets and Regional Greenhouse Gas Initiative (RGGI) offset provisions: allows an element of standardisation through use of performance benchmarks for distinct project types (emissions level, practice- or technology- based), and choice of historical emissions or performance threshold for baseline, as noted in the US submission to the UNFCCC call for input on CDM standardised baselines (UNFCCC, 2010a).

**Questions for discussion:**

- What are the advantages and disadvantages of absolute and relative metrics?
- How can environmental performance relative to a goal or target be maximised?

## **2.3 Historical reference levels**

**The issue and key challenges:**

For baselines set using reference levels, the time period is usually clearly defined. For baselines using projected emissions, the projection still needs to be grounded in real emissions data. For this either single or multiple historical periods can be used to inform future emissions estimates. In some cases (e.g. for projects with long crediting periods) it may also be appropriate to revise the estimated emissions trajectory during the lifetime of use of the baseline, and this baseline renewal can also be done in different ways. For calculating the baseline of an individual project or site, often a single value will be used that is the average of several years' data, as this can be a way to prevent gaming and to avoid penalising early-movers.

**Experience to date:**

- National emission base years under Kyoto: although in most cases based on a single reference year<sup>10</sup>, baseline setting has still been very complex at the national level for both political and technical reasons, including in setting a common base year and in defining common accounting rules for inclusion of land-use activities occurring in different years.

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<sup>10</sup> In most cases the year is 1990. In some cases, such as HFC, the base year can be different, for example in cases where there were no emissions of a particular gas in 1990. This highlights that agreeing on a single base year can be challenging.

- EU ETS: the over-allocations of the first phase of the scheme were based on historical data, which could only be verified *ex-post* once the scheme was running. Further, in calculating the free allocation for sectors at risk of carbon leakage in Phase III of the scheme, the EU ETS uses historical reference production levels of the installation from either the median of 2005-08 or of 2009-10, whichever is higher, to avoid allocation levels being skewed by the economic recession (EC, 2011).
- CDM: projects need to calculate expected baseline emissions that would have occurred in the absence of the project for each year of the crediting period. Many methodologies define a minimum period over which historical data must be verified to calculate this projection. Even at the project level, this can be hard to standardise because of high variability in the gathering of data in some developing countries prior to the project. Furthermore, projects with renewable crediting periods (3x7 years, instead of one 10-year period) must recalculate the baseline at the moment of renewal. There is not yet much experience with this, because most CDM projects are still within their first crediting period. As of January 2011, only 20 projects had successfully renewed their crediting period (UNEP/RISOE, 2011).

**Questions for discussion:**

- How can countries be incentivised to collect robust data that are relevant to developing baselines? What role do the expanded MRV provisions for developing countries play in this?
- Given that economic and other conditions (e.g. weather) can vary widely, how can reference emissions be chosen to give a fair representation of past conditions?

## 2.4 Future projections

**The issue and key challenges:**

For baselines set using future projections, the specific situation in which the counter-factual will be used can help to guide the defining characteristics of the baseline. For example, should the baseline reflect:

- a business-as-usual scenario (i.e. no new or additional mitigation measures (as of a defined date));
- a scenario that includes some mitigation measures; or
- a scenario with additional mitigation measures?

The projections in Annex I national communications sometimes include information on all three of these baselines, but the environmental integrity depends on which measures are actually included and how the target or goal relates to the baseline(s). At this point, determination of which policies are included in a baseline is an *ad-hoc* decision depending, in part, on the purpose of the baseline, but also subject to a considerable degree of political influence. Beyond the measures or policies included, projections rely on assumptions regarding e.g. economic, population and energy-use growth. These assumptions contain a fair amount of uncertainty, and the further into the future they are projected, the more uncertainty is introduced. This can be a particular concern for developing economies with high or uncertain growth rates, or significant shifts in sectoral activity (e.g. from an agricultural to an industrial economy). For example, a comparison of different national baseline GHG emission projections for Mexico shows a variance of 60% in 2020 (Clapp *et al*, 2009).

**Experience to date:**

- UNFCCC national communications for Annex I countries: these include national and some sector level emissions projections for indicative purposes. Countries that do report sectoral emission projections use different sectoral definitions and aggregations, and are not consistent in their coverage (Ellis *et al*, 2010).

**Questions for discussion:**

- What are the steps for determining which policies should be included in the baseline, and how could policies with overlapping spheres of influence be isolated?
- How can the uncertainty in projection(s) for future emissions best be handled? For example, given the high growth rates and changing economic circumstances in some countries/sectors, how frequent is updating of baselines needed?

### **3. Looking forward: improving environmental integrity**

The fundamental challenge in setting a baseline is to ensure the environmental integrity in its use as a reference against which to measure progress. The environmental integrity can be influenced by both technical and political considerations. Thus improving the availability of data and expertise, as well as providing further guidance on baseline setting can improve the environmental integrity of baselines.

Measuring emissions performance of any kind requires reliable collection and reporting of emissions data. This is also true for using emissions data to calculate baselines. Counter-factual ‘what-if’ scenarios are often subject to a considerable degree of uncertainty, which can be somewhat reduced by improving the availability and reliability of data upon which extrapolations are built. Beyond data needs, analytical expertise is necessary to synthesise and incorporate the data into baselines.

The level of ambition of an action is measured by the distance between the resulting emissions from a project, goal or target and the baseline. A baseline used for the purpose of measuring progress needs to provide a realistic counter-factual to a mitigation goal. A baseline that departs substantially from a BaU can be ambitious.

The decisions adopted at COP 16 noted that new market-based mechanisms need to take into account “safeguarding environmental integrity” and “ensuring a net decrease and/or avoidance of global GHGs” (UNFCCC, 2010b). For such a mechanism, “the baseline for crediting in non-Annex I countries would need to be set lower than the BaU emission trend in the sector covered by the mechanisms. This would represent a departure from CDM where credits can be generated for any demonstrable reduction beyond BAU” (OECD/IEA, 2011).

The environmental integrity of a sector or other sub-national baseline is also affected by the national framework that it is operating under. For example, if a non-Annex I country announces a national mitigation goal to reduce overall emissions intensity per unit of GDP, should this affect the baseline of a sectoral mechanism operating in that country? Should the crediting baseline be set to be more ambitious than the national target (equivalent to a baseline “with measures”), or should the sector mechanism operate independently? This is a political as well as a technical issue, with bearing on international negotiations.

Guidance on baseline setting could help enhance transparency and environmental integrity. For example, an examination of projection guidelines in Annex I national communications could focus on improving guidelines for assumptions and data sources (Clapp *et al.*, 2010). Further, for CDM of sectoral crediting mechanisms, moving towards a more standardised baseline could reduce transaction costs (Aasrud *et al.*, 2009).

The following options to help improve the environmental integrity of baselines are proposed for discussion:

- Technical capacity building efforts could identify gaps in data and expertise, and enhance regional data sharing and collaboration efforts, and build in-country data sets and expertise (e.g. focusing on Africa, Asia, Latin America)

- Guidance on setting baselines could:
  - Enhance guidelines for baseline projections in Annex I national communications, including on: which measures should be included in the baselines (i.e. further guidance on “without measures,” “with measures,” and “with additional measures” projections); and on international data sets that could be used for underlying assumptions (e.g. GDP, population, energy use); and/or
  - Analyse issues in setting baselines across a broad range of purposes, including the use of baselines in exploring future pathways in LEDS, and in crediting mechanisms. The focus could be on what assumptions ought to be made more explicit, when standardisation makes sense, and what review process (if any) makes sense. This analysis should build on expertise in developed and developing countries, and potentially in industrial organisations for sectoral baselines.

In addition, the questions for discussion raised throughout this document are summarised in the Annex.

## Annex – Summary of discussion questions

Theme	Question
<b>Scope of the baseline</b>	<ul style="list-style-type: none"> <li>• Could national baselines exclude certain sectors or gasses, and if so, under what circumstances?</li> <li>• For sector baselines, sector-specific issues include:               <ul style="list-style-type: none"> <li>○ Electricity sector, one product but many different inputs with diverse emissions profile (coal, gas, renewables) -- should baselines be sector or fuel/process-specific?</li> <li>○ Iron and steel sector, highly diverse outputs and inputs and very complex process making it difficult to set sector boundary and choose normalisation metric for intensity, widespread on-site power generation at vertically integrated plants further confuses sector emissions – what should be included in the sector boundary?</li> <li>○ Transport sector, highly diverse with varying emissions profiles for different modes of transport. Should focus be on average car performance, to reward efficient vehicles, or should the scope also cover public transport in order to recognise the modal shift to less emissions intensive transport types?</li> </ul> </li> </ul>
<b>Metric for measuring baselines</b>	<ul style="list-style-type: none"> <li>• What are the advantages and disadvantages of absolute and relative metrics?</li> <li>• How can environmental performance relative to a goal or target be maximised?</li> </ul>
<b>Historical reference levels</b>	<ul style="list-style-type: none"> <li>• How can countries be incentivised to collect robust data that are relevant to developing baselines? What role do the expanded MRV provisions for developing countries play in this?</li> <li>• Given that economic and other conditions (e.g. weather) can vary widely, how can reference emissions be chosen to give a fair representation of past conditions?</li> </ul>
<b>Future projections</b>	<ul style="list-style-type: none"> <li>• What are the steps for determining which policies should be included in the baseline, and how to isolate policies with overlapping spheres of influence?</li> <li>• How can the uncertainty in projection(s) for future emissions best be handled? For example, given the high growth rates and changing economic circumstances in some countries/sectors, how frequent is updating of baselines needed?</li> </ul>

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