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**Subsidiary Body for Scientific and Technological Advice**

**Thirty-fifth session**

**Durban, 28 November to 3 December 2011**

Item 10(d) of the provisional agenda

**Methodological issues under the Kyoto Protocol**

**Materiality standard under the clean development mechanism**

**Views on the materiality standard under the clean development mechanism**

**Submissions from Parties and relevant organizations**

1. The Subsidiary Body for Scientific and Technological Advice, at its thirty-fourth session, invited Parties, intergovernmental organizations, admitted observer organizations and designated operational entities to submit to the secretariat, by 19 September 2011, their views on the issues listed in document FCCC/SBSTA/2011/2, paragraph 94.

2. The secretariat has received three such submissions from Parties<sup>1</sup> and one submission from an international organization.<sup>2</sup> In accordance with the procedure for miscellaneous documents, the submissions are attached and reproduced\* in the language in which they were received and without formal editing. In line with established practice, the two submissions from an admitted observer organization and another organization have been posted on the UNFCCC website.<sup>3</sup>

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<sup>1</sup> Also made available at <<http://unfccc.int/5901.php>>.

<sup>2</sup> Also made available at <<http://unfccc.int/3714.php>>.

\* These submissions have been electronically imported in order to make them available on electronic systems, including the World Wide Web. The secretariat has made every effort to ensure the correct reproduction of the texts as submitted.

<sup>3</sup> <[http://unfccc.int/parties\\_observers/ngo/submissions/items/3689.php](http://unfccc.int/parties_observers/ngo/submissions/items/3689.php)>.

**FCCC/SBSTA/2011/MISC.13**

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\* This submission is supported by Albania, Bosnia and Herzegovina, Croatia, Iceland, Montenegro, Serbia and the former Yugoslav Republic of Macedonia.

**Submission by Japan  
on materiality standard under the clean development mechanism (SBSTA)**

Japan welcomes the opportunity to submit its views on materiality standard under the clean development mechanism (CDM).

Japan recognizes applying the concept of materiality including threshold for determining materiality will increase efficiency of the CDM process and hence, promote additional emission reductions. In this regard, Japan supports adoption of the decision on materiality at 7<sup>th</sup> session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP7).

At the same time, however, there is no common and clear understanding on how to apply the concept of materiality, such as how to calculate thresholds for determining materiality, treatment of uncertainty in measurements, etc. Therefore, it is needed to apply the concept of materiality to the CDM process by step-by-step, and build common and clear understanding by learning-by-doing.

In this respect, although the concept of materiality can be applied to both the validation and verification stages, Japan proposes to apply it only to the verification stage initially, in which monitored data are available to determine whether data errors or omissions exceed materiality thresholds or not. After enough knowledge and experience are accumulated at the verification stage, then it should be expanded to apply the concept of materiality to the validation stage in which only planned data are available.

As for applicable project type, it should be applied to emission reduction project activities first, and then applied to afforestation and reforestation project activities, after enough knowledge and experience are accumulated in emission reduction projects.

Applying the concept of materiality should not be mandatory, rather be optional. The materiality thresholds should be reviewed periodically based upon accumulated knowledge and experience.

The fundamental difference between the CDM and financial accounting is the uncertainty in measurements. When calculating thresholds for determining materiality in the CDM, there exists uncertainty in measurements, whereas it does not exist in financial accounting. Therefore, it is necessary to remove uncertainties in measurements in determining whether data errors or omissions exceed materiality thresholds, by clearly defining quality assurance necessary on measuring equipments in monitoring methodologies.

Finally, subject to acquisition of enough knowledge and confidence of proper application of the concept of materiality, non-compliance to methodologies should be tolerated as long as the non-compliance does not lead to any material impact (which means it does not exceed materiality thresholds and does not affect the decision of the CDM-EB) on verified amount of emission reductions or removals.

## **Materiality standard under the Clean Development Mechanism (SBSTA)**

Views on:

**a) Whether the concept of materiality could be applied in the context of CDM;**

**Response:** The Government of Pakistan feels that the concept of materiality can be applied in the context of CDM

**b) If appropriate:**

**i) How materiality should be defined in the context of CDM**

**Response:** The Government of Pakistan defines material information as a piece of information whose omission or misstatement, or erroneous reporting, could change a decision by the Executive Board of the CDM on the registration of the project activity.

**ii) The appropriate thresholds used to define the conditions under which a piece of information should be regarded as material**

**Response:** The Government of Pakistan would request the Executive Board of CDM to adopt appropriate quantitative thresholds to define when the omission or misstatement of information or the non-compliance with a requirement related to a CDM project shall be considered material, taking into account the total amount of emission reductions achieved by the project activity.

**iii) The areas to which the concept of materiality should be applied**

**Response:** The concept of materiality should be applied in a consistent manner to the approved baseline; in the assessment of projects and monitoring methodologies.

**c) The relation, as well as the difference between uncertainty and materiality**

**Response:** Uncertainties occur towards measurement of the baseline and these uncertainties are then considered in addressing materiality.

## **Submission by Poland and the European Commission on behalf of the European Union and its Member States**

**This submission is supported by Albania, Bosnia and Herzegovina, Croatia, Iceland, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Turkey**

*Warsaw, 15 September 2011*

**Subject: The concept of Materiality in the CDM**

### **Introduction**

1. We welcome the decision on CDM (3/CMP.6) in Cancun to request the Subsidiary Body for Scientific and Technical Advice to consider the issue of materiality and we look forward to engaging in discussions with other Parties at the 35th meeting of the Subsidiary Body for Scientific and Technical Advice with the view to adopt a decision to introduce the concept of materiality in the CDM at CMP 7.
2. Despite its technical nature, this is indeed an important issue and we look forward to a timely implementation of the materiality concept in the CDM, noting the mandate assigned by the CMP to the Executive Board at CMP5 (decision 2/CMP.5, paragraph 22), and we welcome the draft standard on the use of the concept of materiality in the CDM<sup>4</sup>.
3. Progress on the application of materiality in the CDM is essential in order to enhance the efficiency, consistency and predictability of the CDM process. The concept of materiality is well known to the carbon market, including in the Kyoto project-based mechanisms and the concept of materiality in verification of JI projects was adopted by the JISC in June 2010<sup>5</sup>. In the European Union, the Emission Trading Scheme monitoring and reporting of emissions is also conducted with an assessment of materiality of emission reductions.

### **Definition of Materiality**

4. For the purpose of the emission monitoring and reporting in the context of the CDM, the proposed draft standard on Materiality adopts the International Accounting Standards Board (IASB) definition: 'An information is **material** if its omission or misstatement could **influence** the economic **decisions** of users taken on the basis of the financial statements. Materiality depends on the size of the item or error judged in the particular circumstances of its omission or misstatement. Thus, materiality provides a threshold or cut-off point rather than being a primary qualitative characteristic which information must have if it is to be useful.' Having introduced in the EU legislation (2004/156 EC decision) the notion of 'materiality', meaning the professional judgment of the verifier as to whether an individual or aggregation of omissions, misrepresentations or errors that affects the information reported for an installation will reasonably influence the intended users' decisions.

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<sup>4</sup> Draft Standard on the Use of the Concept of Materiality and Level of Assurance in the Clean Development Mechanisms" EB 56 Proposed agenda. Annotations Annex 2.

<sup>5</sup> Standard for Applying the Concept of Materiality in Verifications (Version 01)" adopted on June 16, 2010 at the 22<sup>nd</sup> meeting of the JISC.

5. In general, a 'materiality level', meaning the quantitative threshold or cut-off point, is one that could influence the decision making process made by the CDM EB with regard to registration of the CDM project or issuance of CERs from the project, consequentially to the application of the materiality threshold by a DOE. This means that non-material issues, if in aggregate do not exceed the material threshold, are only those facts that are deemed insignificant for this decision and which would not have affected its outcome, 'above the threshold level'.

6. Threshold level means the quantitative threshold or cut-off point to be used to determine the appropriate verification opinion on the emission data reported (in the case of DOE). It should be pointed out that the threshold level, in the context of determining whether an issue is material or non-material, always relates to the potential impact, in relative terms, on emission reductions or removals that could be claimed.

### **Scope of the application of materiality**

7. The concept of materiality is present in the stages of validation, verification and review of a CDM project. As noted in the draft CDM EB standard, the concept of materiality is already taken into account in all CDM methodologies. The EU acknowledges that and recommends that further improvements should be considered. Furthermore it is the EU's view that the scope of application of materiality should apply to all project categories eligible for CDM. Adopting a required threshold would increase the transparency and consistency of the myriad of judgments that have to be made by DOEs, secretariat and the EB and would result in a more predictable assessment overall. Applying a formal concept of materiality would increase transparency of each stage where the quantitative threshold or cut-off point is applicable in relation to a CDM project assessed. It should apply to the level of detail in the PDDs, validation and verification by DOEs but also in the review process and decisions by the Secretariat, the RIT and the CDM EB.

8. Materiality in relation to the review process will require that the EB, Secretariat and RIT consider the thresholds when deciding whether or not to send back a project document at completeness check or to trigger reviews of projects. Materiality in relation to decisions by the CDM EB requires that the EB considers the thresholds applied by a DOE when deciding on registration and issuance. Another problem that the EB has to take into serious consideration when addressing materiality, is how to prevent inconsistency between documents that can occur when non-material issues are ignored in each stage, for example between the PDD, the verification and the monitoring report.

9. The concept of materiality should be applied to both prescriptive and non-prescriptive CDM requirements as defined in the draft standard on materiality in the CDM.

### **Threshold for determining materiality**

10. In the CDM EB draft standard on materiality it is stated that 'information related to a CDM project is considered material if its omission might lead, at an aggregated level, to a total estimation of the emission reductions achieved by a CDM project equal or higher than:

- 0.5% of the emission reductions for projects achieving a total emission reduction – according to the PDD - of more than 500,000 tonnes of CO<sub>2</sub> equivalents per year;
- 2% of the emission reductions for large-scale projects achieving a total emission reduction – according to the PDD - of 500,000 tonnes of CO<sub>2</sub> equivalents per year or less;
- 5% of the emission reduction for small-scale projects.'

In the draft standard on the use of the concept of materiality and level of assurance in CDM, the emission reductions achieved are per year and not based on average reported annual emissions like for instance in the EU-ETS. The EU can support the emission reduction per year approach as suggested for CDM in the draft standard. Since the EU is of the opinion that the concept of materiality should apply to all types of CDM projects, the threshold levels should apply to

both emission reductions as well as removals. Furthermore, the EU proposes introducing a fourth level, applicable to micro-scale projects:

- 10% of the emission reduction for micro-scale projects (< 5 MW or 20 GWh/a).

11. The EU would like the CDM EB to report to the COP/MOP on the implementation of materiality, experience from the use of the thresholds and if there is a reason for revision of the levels.

#### **How to implement the materiality concept in practice**

12. The CDM EB and its support structures should start implementing the concept of materiality in validation, verification and review stages of the CDM as soon as possible. It should report on the implementation of the materiality concept in conjunction with the annual report from the CDM EB to the CMP.

13. Applying the concept of materiality includes a proper documentation of the analysis made and the conclusions with regard to materiality drawn by the project developers and the DOE during the development of the project and the preparation of the relevant reports. For the EB and its support structure, appropriate justification for their decisions is also requested.

14. Materiality needs to be applied within the overall context of the CDM projects and Programs of Activities as a common understanding between the DOEs and the Secretariat and the EB. The materiality principle can be explained and accommodated by new instructions for drafting PDDs and by revisions in the Validation and Verification Manual. The DOE should apply the materiality level as part of its analysis in the validation/verification methodology under CDM. If an error is detected in how the validation and verification requirements have been applied, the error will have to be corrected but, if the potential impact of all of the mistakes are less than the given threshold, then it shall be considered immaterial and not influence the decision on the project by the CDM EB.

15. The concept of materiality may ease especially the situation for PoAs under review according to the EB's procedures<sup>6</sup>. In case of a false inclusion of an activity by the DOE, the DOE should be liable for the amount of CERs resulting from the concerned activity only if the error in the sample is above the threshold values or if any error below the threshold values was concealed intentionally. In contrast, the DOE is not liable if it overlooked an error below the threshold. However, all detected errors have to be corrected and flawed activities have to be excluded. In this situation, a materiality standard will serve as a useful tool for DOE to focus their work and reduce their risks adequately, and by this way, remove a significant barrier for the widespread application of PoAs in the CDM.

16. Minor (non-material) errors and omissions should be solved by simple, direct communication between the DOE and the Secretariat at the stages of the CDM project cycle where the materiality level is applicable, and not affect the assessment of compliance with validation and verification requirements nor lead to a determination that the request for registration or issuance is incomplete (building upon the decision 3/CMP.6, para 59).

17. In the CDM EB draft standard on materiality it is stated that 'the level of assurance is a concept related to materiality'. The level of assurance defines the degree to which the DOE is confident in the validation or verification conclusion that the emission reduction/removal claimed by a CDM project, taken as a whole, is free from material errors, omissions or misstatements. The EU considers it important that the level of assurance be defined. An absolute level of assurance would mean that every parameter has been checked to ensure that every material error has been taken into account. This level of assurance cannot reasonably be asked for. In the EU-ETS scheme, as well as in the VCS, the verification opinion shall be based on a reasonable level of assurance. The EU would be in favour of using this standard

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<sup>6</sup> PROCEDURES FOR REVIEW OF ERRONEOUS INCLUSION OF A CPA, see [http://cdm.unfccc.int/Reference/Procedures/PoA\\_proc02.pdf](http://cdm.unfccc.int/Reference/Procedures/PoA_proc02.pdf)

## Paper no. 4: World Bank

### **The World Bank**

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September 19, 2011

**UNFCCC Secretariat**  
**P.O. Box 260124**  
**D-53153 Bonn**  
**Germany**

**Subject: Materiality standard under the clean development mechanism.**

**Ref: Report of the Subsidiary Body for Scientific and Technological Advice on its thirty-fourth session, held in Bonn from 6 to 16 June 2011.**

Dear Members of the SBSTA,

We welcome the opportunity to contribute to the discussion on the inclusion of the concepts of materiality under the clean development mechanism. This submission presents inputs requested with regard to the relevance of materiality to CDM, its definition, thresholds, areas of application, and differentiation of uncertainty and materiality, for consideration of the SBSTA at the thirty-fifth session.

### **Relevance**

Inclusion of materiality under the CDM will benefit project developers and DOEs, helps to focus scarce resources of the regulatory process on the issues that have a material or significant impact on emissions reductions of projects and programs, promotes consistency in the procedures followed, and helps to strengthen the environmental integrity of the CDM.

### **Definition**

Materiality refers to the aggregation of contexts or situations in which data/information/procedure whose omission/misstatement/erroneous use/improper reporting modifies/distorts the application of a methodology or a decision of the CDM Executive Board with implications to validation, verification, registration of a project or program or the issuance of certified emission reductions.

It is recommended that the definition explicitly states that materiality refers to the aggregation of error rather than any requirements to replace missing data with an estimate since it will not be known if an estimate is above or below the true value.

The materiality definition should be included in relevant sections of the VVM and the CDM Project Standard (to be considered at EB63)<sup>7</sup>. The EB is requested to approve the procedures on application of the concepts of materiality in relation to the other rules and procedures of CDM.

### **Thresholds**

The following thresholds outlined in the draft text on materiality are appropriate.

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<sup>7</sup> Note that in the current draft of the project standard materiality is not included. Instead CERs that cannot be accounted for are presumed to be zero.



- (a) 0.5 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal of more than 500,000 tonnes of carbon dioxide equivalent per year;
- (b) 2 per cent of the emission reductions or removals for large-scale project activities achieving a total emission reduction or removal of 500,000 tonnes of carbon dioxide equivalent per year or less;
- (c) 5 per cent of the emission reductions or removals for small-scale project activities other than projects covered under paragraph 4(d) below;
- (d) 10 per cent of the emission reductions or removals for the type of project activities that are referred to in decision 3/CMP.6, paragraph 38.
- (e) In cases of PoAs, the above rules should apply mutatis mutandis based on the overall annual emissions reductions the PoA achieves.

**Scope of application:**

We recommend the application of the concepts of materiality to all stages of the regulatory process, such as validation, registration, verification, and issuance of CERs, including CDM EB review of projects and programs, to assure consistency in procedures applied by the DOE, and the CDM Executive Board and its support structure.

**Uncertainty and materiality**

Uncertainty highlights the limitation of confidence in the values of parameters or calculations due to errors in the methods, measurements or models used in the implementation of a project or program. The uncertainty is addressed using statistical procedures of precision and confidence level of the monitoring data. The CDM EB has approved a precision of 10% and a confidence interval of 90% for accounting uncertainty in the parameters and calculations of emission reductions of a project or a program.

In contrast, materiality reflects the omission/misstatement/erroneous use/improper reporting of data/information/procedure that distorts the application of a methodology or a decision of the CDM Executive Board with implications to validation, verification, registration of a project or a program or the issuance of certified emission reductions, e.g. in the event of faulty installation, or the failure to apply required QA/QC measures to ensure meters run correctly.

To ensure further clarity on the differences between uncertainty and materiality and the factors contributing to them, the CDM EB should approve guidance on de minimis (i.e., inconsequential or insignificant) sources of emissions that do not require monitoring and verification and therefore could be ignored.

With kind regards,

Klaus Oppermann  
Team Leader Policy and Methodology  
Carbon Finance Unit, World Bank

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