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**SUBSIDIARY BODY FOR SCIENTIFIC AND TECHNOLOGICAL ADVICE**  
**Twenty-seventh session**  
**Bali, 3–11 December 2007**

**Agenda item 9 (d)**  
**Methodological issues under the Kyoto Protocol**  
**Good practice guidance for land use, land-use change and forestry activities under**  
**Article 3, paragraphs 3 and 4, of the Kyoto Protocol**

**Good practice guidance for land use, land-use change and forestry  
activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol**

**Draft conclusions proposed by the Chair**

1. The Subsidiary Body for Scientific and Technological Advice (SBSTA) took note of the information contained in document FCCC/SBSTA/2007/INF.2 on issues relating to the tables of the common reporting format<sup>1</sup> (CRF) for reporting estimates of greenhouse gas emissions and removals from land-use, land use change and forestry (LULUCF) activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol.
2. The SBSTA decided to recommend a draft decision on good practice guidance for LULUCF activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol for adoption by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its third session (for the text of the decision, see FCCC/SBSTA/2007/L.21/Add.1).
3. The SBSTA requested the secretariat, in implementing the decision referred to in paragraph 2 above, subject to the availability of supplementary funding, to develop a module to the CRF Reporter software for the tables for reporting activities under Article 3, paragraphs 3 and 4. It further requested the secretariat to release the module by 1 April 2009, at the latest, after the testing of a trial version of the module in cooperation with the reporting Parties, in order to facilitate the submission of the tables by Parties in 2010, and to report thereon to the SBSTA at its thirty-first session (December 2009). The SBSTA encouraged Parties in a position to do so to ensure funding of the development of this module.

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<sup>1</sup> The common reporting format is a standardized format to be used by Parties for electronic reporting of estimates of greenhouse gas emissions and removals and any other relevant information. For technical reasons (such as size of tables and fonts), the layout of the printed version of the tables of the common reporting format for LULUCF activities in the annex to the draft decision to be adopted under agenda item 9 (d) of the SBSTA cannot be standardized.

4. The SBSTA agreed to continue its consideration of the information included in the annex at its twenty-eight session with a view to concluding its consideration of this information at that session.

ANNEX

**Calculation of accounting quantities for activities under Article 3, paragraphs 3 and 4**

1. Table 1 shows in a tabular format the calculation of the accounting quantity for each of the activities under Article 3, paragraph 3 and 4, of the Kyoto Protocol, for the first commitment period. Symbols and formulae used in the table are explained on the following pages.
2. Table 2 contains a numerical example, also for the first commitment period, which shows the calculation of the accounting quantity for each activity under annual accounting after the fourth year of the commitment period. For commitment period accounting, the steps would be identical, but the calculation would not be reported until after year five of the commitment period.

**Table 1. Calculation of accounting quantities for activities under Article 3, paragraphs 3 and 4**  
**INFORMATION TABLE ON ACCOUNTING FOR ACTIVITIES UNDER ARTICLES 3.3 AND 3.4 OF THE KYOTO PROTOCOL**

Commitment period accounting   
 Annual accounting

Country  
 Inventory Year  
 Submission  
 n

Number of the reported year in the commitment period:

GREENHOUSE GAS SOURCE AND SINK ACTIVITIES	BY <sup>(5)</sup>	Net emissions/removals <sup>(1)</sup>						Accounting Parameters <sup>(7)</sup>	Accounting Quantity <sup>(8)</sup>
		2008	2009	2010	2011	2012	Total <sup>(6)</sup>		
		(Gg CO <sub>2</sub> equivalent)							
<b>A. Article 3.3 activities</b>									
<b>A.1. Afforestation and Reforestation</b>									AQAR <sub>T</sub>
A.1.1. Units of land not harvested since the beginning of the commitment period <sup>(2)</sup>		AR <sup>nh</sup> <sub>t</sub>	AR <sup>nh</sup> <sub>t</sub>	AR <sup>nh</sup> <sub>t</sub>	AR <sup>nh</sup> <sub>t</sub>	AR <sup>nh</sup> <sub>t</sub>	AR <sup>nh</sup> <sub>T</sub>		AQAR <sup>nh</sup> <sub>T</sub>
A.1.2. Units of land harvested since the beginning of the commitment period <sup>(2)</sup>									AQAR <sup>h</sup> <sub>T</sub>
<i>[specify identification code]</i>		AR <sup>h1</sup> <sub>t</sub>	AR <sup>h1</sup> <sub>t</sub>	AR <sup>h1</sup> <sub>t</sub>	AR <sup>h1</sup> <sub>t</sub>	AR <sup>h1</sup> <sub>t</sub>	AR <sup>h1</sup> <sub>T</sub>		AQAR <sup>h1</sup> <sub>T</sub>
		AR <sup>h2</sup> <sub>t</sub>	AR <sup>h2</sup> <sub>t</sub>	AR <sup>h2</sup> <sub>t</sub>	AR <sup>h2</sup> <sub>t</sub>	AR <sup>h2</sup> <sub>t</sub>	AR <sup>h2</sup> <sub>T</sub>		AQAR <sup>h2</sup> <sub>T</sub>
		AR <sup>h3</sup> <sub>t</sub>	AR <sup>h3</sup> <sub>t</sub>	AR <sup>h3</sup> <sub>t</sub>	AR <sup>h3</sup> <sub>t</sub>	AR <sup>h3</sup> <sub>t</sub>	AR <sup>h3</sup> <sub>T</sub>		AQAR <sup>h3</sup> <sub>T</sub>
<b>A.2. Deforestation</b>		D <sub>t</sub>	D <sub>t</sub>	D <sub>t</sub>	D <sub>t</sub>	D <sub>t</sub>	D <sub>T</sub>		AQD <sub>T</sub>
<b>B. Article 3.4 activities</b>									
<b>B.1. Forest Management (if elected)</b>		FM <sub>t</sub>	FM <sub>t</sub>	FM <sub>t</sub>	FM <sub>t</sub>	FM <sub>t</sub>	FM <sub>T</sub>		AQ <sub>FM</sub>
3.3 offset <sup>(3)</sup>								OFF <sub>ARD</sub>	AQ <sub>OFF</sub>
FM cap <sup>(4)</sup>								CAP	AQ <sub>CAP</sub>
<b>B.2. Cropland Management (if elected)</b>	CM <sub>BY</sub>	CM <sub>t</sub>	CM <sub>t</sub>	CM <sub>t</sub>	CM <sub>t</sub>	CM <sub>t</sub>	CM <sub>T</sub>	CM <sub>net</sub>	AQ <sub>CM</sub> <sub>T</sub>
<b>B.3. Grazing Land Management (if elected)</b>	GLM <sub>BY</sub>	GLM <sub>t</sub>	GLM <sub>t</sub>	GLM <sub>t</sub>	GLM <sub>t</sub>	GLM <sub>t</sub>	GLM <sub>T</sub>	GLM <sub>net</sub>	AQ <sub>GLM</sub> <sub>T</sub>
<b>B.4. Revegetation (if elected)</b>	RV <sub>BY</sub>	RV <sub>t</sub>	RV <sub>t</sub>	RV <sub>t</sub>	RV <sub>t</sub>	RV <sub>t</sub>	RV <sub>T</sub>	RV <sub>net</sub>	AQ <sub>RV</sub> <sub>T</sub>

Note: The footnotes to this table are provided in the table "Information table on accounting for activities under articles 3.3 and 3.4 of the Kyoto Protocol" in the Annex to the draft decision to be adopted under agenda item 9 (d) of the SBSTA.

AR<sup>nh</sup><sub>t</sub> = net emissions and removals for category A.1.1 for commitment period year t, in Gg CO<sub>2</sub> eq.

AR<sup>hx</sup><sub>t</sub> = net emissions and removals for a particular land unit (x) in category A.1.2 for commitment period year t, in Gg CO<sub>2</sub> eq.

D<sub>t</sub> = net emissions and removals for category A.2 for commitment period year t, in Gg CO<sub>2</sub> eq.

CAP = value inscribed for Party in annex to decision 16/CMP.1, converted to Gg CO<sub>2</sub> eq. and multiplied by five.

FM<sub>t</sub> = net emissions and removals for category B.1 for commitment period year t, in Gg CO<sub>2</sub> eq.

CM<sub>BY</sub> = net emissions and removals for category B.2 for the Party's base year, in Gg CO<sub>2</sub> eq.

CM<sub>t</sub> = net emissions and removals for category B.2 for commitment period year t in Gg CO<sub>2</sub> eq.

GLM<sub>BY</sub> = net emissions and removals for category B.3 for the Party's base year, in Gg CO<sub>2</sub> eq.

GLM<sub>t</sub> = net emissions and removals for category B.3 for commitment period year t in Gg CO<sub>2</sub> eq.

RV<sub>BY</sub> = net emissions and removals for category B.4 for the Party's base year, in Gg CO<sub>2</sub> eq.

RV<sub>t</sub> = net emissions and removals for category B.4 for commitment period year t in Gg CO<sub>2</sub> eq.

**Key to symbols used in table 1**

**Afforestation and Reforestation**

$AR_t^{nh}$  = net emissions and removals for category A.1.1 for commitment period year t, in Gg CO<sub>2</sub> eq.

$$AR_T^{nh} = \sum_{t=2008}^N (AR_t^{nh}),$$

where N is the most recently reported year of the commitment period

$$AQAR_T^{nh} = AR_T^{nh}$$

$AR_t^{hx}$  = net emissions and removals for a particular land unit in category A.1.2 for commitment period year t, in Gg CO<sub>2</sub> eq.

$$AR_T^{hx} = \sum_{t=2008}^N (AR_t^{hx}) \text{ for a particular land unit (x),}$$

where N is the most recently reported year of the commitment period

$AQAR_T^{hx}$ : If  $AR_T^{hx} \geq 0$ , then  $AQAR_T^{hx} = 0$ , else  $AQAR_T^{hx} = AR_T^{hx}$

$$AQAR_T^h = \sum_{x=1}^U AQAR_T^{hx},$$

where U is the last unit of land harvested

$$AQAR_T = AQAR_T^{nh} + AQAR_T^h$$

**Deforestation**

$D_t$  = net emissions and removals for category A.2 for commitment period year t, in Gg CO<sub>2</sub> eq.

$$D_T = \sum_{t=2008}^N (D_t), \text{ where N is the most recently reported year of the commitment period}$$

$$AQD_T = D_T$$

**Forest Management**

CAP = value inscribed for Party in annex to decision 16/CMP.1, converted to Gg CO<sub>2</sub> eq. and multiplied by 5.

$AQAR_T$  = total accounting quantity for afforestation and reforestation.

$AQD_T$  = total accounting quantity for deforestation.

$OFF_{ARD}$ :

IF  $\sum (AQAR_T + AQD_T) \leq 0$ , then  $OFF_{ARD} = 0$ ; else

IF  $(AQAR_T + AQD_T) < 165,000$ , then  $OFF_{ARD} = (AQAR_T + AQD_T)$ ; else  $OFF_{ARD} = 165,000$

$FM_t$  = net emissions and removals for category B.1 for commitment period year t, in Gg CO<sub>2</sub> eq.

$$FM_T = \sum_{t=2008}^N (FM_t), \text{ where N is the most recently reported year of the commitment period}$$

$AQ_{CAP}$ :

If  $|FM_T| \leq CAP$ , then  $AQ_{CAP} = FM_T$ , else

If  $FM_T < 0$ , then  $AQ_{CAP} = -CAP$ ; else  $AQ_{CAP} = CAP$

$AQ_{OFF}$ :

If  $OFF_{ARD} = 0$ , then  $AQ_{OFF} = 0$ ; else

If  $FM_T \geq 0$ , then  $AQ_{OFF} = 0$ ; else

If  $(|FM_T| - |AQ_{CAP}|) \leq 0$ , then  $AQ_{OFF} = 0$ ; else

If  $(|FM_T| - |AQ_{CAP}|) \leq OFF_{ARD}$ , then  $AQ_{OFF} = (FM_T - AQ_{CAP})$ , else

$AQ_{OFF} = -OFF_{ARD}$

$AQ_{FM} = AQ_{CAP} + AQ_{OFF}$

### ***Cropland Management***

$CM_{BY}$  = net emissions and removals for category B.2 for the Party's base year, in Gg CO<sub>2</sub> eq.

$CM_t$  = net emissions and removals for category B.2 for commitment period year t in Gg CO<sub>2</sub>eq.

$CM_T = \sum_{t=2008}^N (CM_t)$ , where N is the most recently reported year of the commitment period

$CP_t$  = number of years reported since the beginning of the commitment period.

$CP_t = t - 2007$ ; If  $t = 2008$ ,  $CP_t = 1$ ,

$CM_{net} = CM_{BY} * CP_N$

$AQCM_T = CM_T - CM_{net}$

### ***Grazing Land Management***

$GLM_{BY}$  = net emissions and removals for category B.3 for the Party's base year, in Gg CO<sub>2</sub> eq.

$GLM_t$  = net emissions and removals for category B.3 for commitment period year t in Gg CO<sub>2</sub> eq.

$GLM_T = \sum_{t=2008}^N (GLM_t)$ , where N is the most recently reported year of the commitment period.

$GLM_{net} = GLM_{BY} * CP_N$

$AQGLM_T = GLM_T - GLM_{net}$

### ***Revegetation***

$RV_{BY}$  = net emissions and removals for category B.4 for the Party's base year, in Gg CO<sub>2</sub> eq.

$RV_t$  = net emissions and removals for category B.4 for commitment period year t, in Gg CO<sub>2</sub> eq.

$RV_T = \sum_{t=2008}^N (RV_t)$ , where N is the most recently reported year of the commitment period

$RV_{net} = RV_{BY} * CP_N$

$AQRV_T = RV_T - RV_{net}$

**Table 2. Calculation of accounting quantities for activities under Article 3, paragraphs 3 and 4: an example**  
**INFORMATION TABLE ON ACCOUNTING FOR ACTIVITIES UNDER ARTICLES 3.3 AND 3.4 OF THE KYOTO PROTOCOL**

Commitment period accounting   
 Annual accounting

Country  
 Inventory Year  
 Submission

Number of the reported year in the commitment period:

4

GREENHOUSE GAS SOURCE AND SINK ACTIVITIES	BY <sup>(5)</sup>	Net emissions/removals <sup>(1)</sup>					Accounting Parameters <sup>(7)</sup>	Accounting Quantity <sup>(8)</sup>	
		2008	2009	2010	2011	2012			Total <sup>(6)</sup>
		(Gg CO <sub>2</sub> equivalent)							
<b>A. Article 3.3 activities</b>									
<b>A.1. Afforestation and Reforestation</b>								<b>-75,000</b>	
A.1.1. Units of land not harvested since the beginning of the commitment period <sup>(2)</sup>		-10,000	-10,000	-10,000	-10,000		-40,000	-40,000	
A.1.2. Units of land harvested since the beginning of the commitment period <sup>(2)</sup>								-35,000	
<i>Unit A</i>		-2,000	-2,000	-5,000	-3,000		-12,000	-12,000	
<i>Unit B</i>		-4,000	10,000	-3,000	-6,000		-3,000	-3,000	
<i>Unit C</i>		-4,000	-3,000	-2,000	15,000		6,000	0	
<i>Unit D</i>		-3,000	10,000	0	-4,000		3,000	0	
<i>Unit E</i>		-5,000	-5,000	-5,000	-5,000		-20,000	-20,000	
<b>A.2. Deforestation</b>		-30,000	200,000	0	-10,000		160,000	<b>160,000</b>	
<b>B. Article 3.4 activities</b>									
<b>B.1. Forest Management (if elected)</b>		-60,000	-80,000	-60,000	-40,000		-240,000	-150,000	
3.3 offset <sup>(3)</sup>							85,000	-85,000	
FM cap <sup>(4)</sup>							65,000	-65,000	
<b>B.2. Cropland Management (if elected)</b>	-2,000	-10,000	-10,000	-10,000	-6,000		-36,000	-8,000	
<b>B.3. Grazing Land Management (if elected)</b>	5,000	-2,000	-3,000	-3,000	-4,000		-12,000	20,000	
<b>B.4. Revegetation (if elected)</b>	0	-3,000	-3,000	-5,000	-5,000		-16,000	0	

Note: The footnotes to this table are provided in the table "Information table on accounting for activities under articles 3.3 and 3.4 of the Kyoto Protocol" in the Annex to the draft decision to be adopted under agenda item 9 (d) of the SBSTA