

**Notes on sources for
FCCC/AWGLCA/2009/INF.1**

Part II

C. Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries²²

Structural proposals

Proposal 1

Subsections 3 (MRV of actions) and 4 (MRV of support) should be merged into one single subsection titled “MRV of actions and support”. (India)

Proposal 2

The financial arrangements to support REDD+ actions should be included as part of the broader financial framework proposed to support NAMAs in developing countries (paras. 115 and 122 to be incorporated to Chapter IV on Finance). (Mexico)

Proposal 3

Move paragraph 110 under the “Means of implementation” (Australia)

Para 121 duplicates paras 94–96, delete 121 from section C. (USA)

Paras 122–124 duplicate paras 98–101, delete 122–124 from section C. (USA)

Move paragraphs 125–126 to chapter IV.A on Finance; move paragraph 127 to “Mitigation by developing countries, Institutional arrangements”. (USA)

Proposals for additional paragraphs: (Bolivia, Cuba, El Salvador, Paraguay, Venezuela)

[The global goal under the new agreement should include policies and measures that assure the reduction and reversion of GHG emissions from deforestation and forest degradation immediately in a 10 to 20 year framework.

To appropriately address actions related to REDD in developing country Parties, it should be taken fully into account issues related to non-permanence, leakage and additionality of forest-related mitigation actions. Those problems are still being considered under the methodological issues under the SBSTA.

Considering the serious risk of reversion inherent to REDD actions in developing country Parties, such actions should not be linked to quantified emission limitations or reduction objectives (QELROs) of developed country Parties, and should not be addressed under market-oriented approaches which could undermine the environmental integrity of the global GHG emission reduction goal.

Any REDD action in developing country Parties addressed under international emission trading schemes should be supplementary to the QELROs adopted by developed country Parties and additional to the national mitigation efforts by developed country Parties.

Finally, any REDD action to be developed in developing country should ensure sovereignty and national as well as local control over REDD-plus activities.]

²² The Bali Action Plan, in its paragraph 1 (b) (iii), calls for the consideration of enhanced national/international action on mitigation of climate change, including, inter alia, policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries.

1. Objectives, scope and guiding principles

x.1 [A REDD plus mechanism is hereby established] (Colombia, Peru)

x.2. [The objectives of this mechanism are to help:

(a) [Developing country Parties to [re-organize the] work within their forestry sector to contribute in the efforts towards low-carbon economies and taking part in the global effort to stabilize and reduce GHG concentration in the atmosphere] (Colombia)
[Developing country Parties to re-organize the forestry sector thus implementing low carbon economies and taking part in the global effort to stabilize and reduce GHG concentration in the atmosphere] (Peru);

Page 111

(b) Developed country Parties to meet their ambitious quantified emissions reduction targets [up to x per cent.] (Colombia, Peru)

x.3. [All Parties should collectively aim at halting forest cover loss in developing countries by 2030 at the latest and reducing gross deforestation in developing countries by at least 50% by 2020 compared by current levels] (EC).

106. [Developing country Parties contribute to enhanced mitigations actions in the [forestry sector] [land use, land-use change and forestry sector] [agriculture, forestry and land use sector] (Canada, Switzerland)] [through REDD-plus actions] (Peru, Mexico, PNG et al.) by reducing emissions [from deforestation and forest degradation] (Peru), [ensuring [conservation] (Mexico)] [permanence] of existing carbon stocks, [afforestation and reforestation] (Turkey) and enhancing removals [by sinks (Switzerland)] [maintaining existing forest carbon stocks and enhancing removals] (China), [and conserving carbon reservoirs] (Canada) while promoting [sustainable forest [and land] (Canada) management.] (New Zealand, Brazil) [and forest governance (Switzerland)] [sustainable management of forests] (Peru) [and prioritizing the restoration of forests] (Paraguay)

Alternatives to paragraph 106:

Alternative 1 (Australia):

[Developing country Parties contribute to enhanced mitigations actions from deforestation and forest degradation and increasing removals from forest carbon (to be known as REDD-plus).

Alternative 2 (EC)

[REDD-plus actions are actions in developing countries to reduce emissions from deforestation and forest degradation, ensuring permanence of existing carbon stocks and enhancing removals, while promoting sustainable forest management.]

Alternative 3 (Belize (Burundi) Cambodia, Cameroon, Central Africa Republic, Costa Rica, Dominica Republic, Democratic Republic of Congo, Ecuador, Equatorial Guinea, Honduras, Gabon, Ghana, Guatemala, Guyana, Malaysia, Panama, Papua New Guinea, Suriname, Salomon Islands, Thailand, Uganda) (hereinafter referred to as PNG et al.)

[Developing country Parties contribute to enhanced mitigation through REDD-plus actions by reducing emissions, enhancing removals, and ensuring [permanence] [conservation] of existing carbon stocks, while promoting sustainable management of forests.]

Alternative 4 (US)

[Developing country Parties contribute to enhanced mitigations actions by reducing emissions and enhancing removals in the land use, land-use change and forestry sector.]

106.1 [The REDD-plus mechanism shall be effective, result-based, flexible, dynamic and incentive driven. To achieve this, the mechanism shall be implemented in successive, gradually intensifying phases, beginning with national REDD-plus strategy development and core capacity building (phase 1), followed by the implementation of national REDD-plus policies and measures in combination with compensation for proxy-based results for emission reductions and removals from selected forest activities and land-use and land-use change categories (phase 2), and finally evolving into a result-based compensation mechanism for fully measured, reported and verified emission reductions and removals from the whole forestry sector and other selected land-use and land-use change sectors (phase 3).] (Norway)

[106.2 The scope of REDD-plus: (Australia)

(a) will encompass activities which reduce anthropogenic greenhouse gas emissions from deforestation and forest degradation, and increase anthropogenic removals from afforestation, reforestation and enhancement of forest carbon in developing countries; and

(b) may be expanded over time to cover the full land sector in developing countries.]

106.3. [With reference to paragraph 106 above, activities that result in reducing emissions, increasing removals and stabilization of carbon stocks in forestry sector at national level shall comprise REDD-plus activities. All REDD-plus activities undertaken according to national circumstances and leading to following objectives shall qualify for receiving positive incentives under REDD-plus mechanism: (India)

(a) Stabilization of forest cover, and thereby forest carbon stocks

(b) Conservation and maintenance of forest carbon stocks due to sustainable management of forests

(c) Reduction in deforestation rates

(d) Reduction in forest degradation

Page 112

(e) Enhancement of forest carbon stocks due to conservation and sustainable management of forests, and/or increase in forest cover due to afforestation and reforestation]

106.4. [Activities under paragraph 106, hereinafter, REDD-Plus, should include: (China)

(a) Increasing forest cover due to afforestation and reforestation

(b) Maintaining and enhancing forest carbon stock by forest conservation, incremental change of forest cover, sustainable management of forest

(c) Reducing deforestation

(d) Reducing forest degradation]

106.5 Recognizing the urgent need to take further meaningful action to reduce emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable forest management and enhancement of forest carbon stocks, all Parties shall support or undertake such action as appropriate to national circumstances and capabilities. (Canada)

106.6 Within the context of nationally appropriate mitigation actions for developing countries, a framework for voluntary actions to reduce anthropogenic emissions by sources and increase removals by sinks in the forestry sector (hereinafter referred to as REDD-plus mechanism) is hereby defined. (Canada)

106.7 The purpose of the REDD-plus mechanism is to assist developing country Parties in: (Canada)

- (a) Contributing to the objective in Article 2 of the Convention;
- (b) Enhancing efforts to achieve sustainable development goals through their nationally appropriate mitigation strategies;
- (c) Meeting their commitments under the Convention and related international agreements;
- (d) Conserving biological diversity and combating desertification;
- (e) Developing comprehensive land use inventories and monitoring frameworks; and
- (f) Achieving sustainable land management.]

107. [REDD-plus [actions] [strategies and actions plans] (Bolivia, Cuba, El Salvador, Paraguay, Venezuela) [should] [shall] be country-driven [and voluntary [NAMAs]], and undertaken in accordance with countries' capabilities[, legislation] (Colombia) and national circumstances.][taking into account the need to ensure equitable access to financial and technological support for these actions] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela) [and subject to adequate, predictable, and sustainable finance] (PNG et al).]

Alternative to paragraphs 106 and 107) (New Zealand)

[A mechanism to reduce emissions from deforestation and forest degradation [and other forest related activities] in developing country Parties is hereby defined.

The purpose of the mechanism shall be to assist developing country Parties to maintain [and enhance] forest carbon stocks while promoting their sustainable development; and to assist all Parties in contributing to the ultimate objective of the Convention by reducing emissions from deforestation and forest degradation [and by enhancing removals through other forest related activities], and in meeting their commitments under the Convention and any of its related legal instruments.

Emission reductions [and enhanced removals] resulting from activities under this mechanism shall be certified by operational entities to be designated by the [supreme body of this agreement], on the basis of:

- a) Voluntary participation approved by each Party involved;
- b) Real, measurable and long-term benefits related to the mitigation of climate change; and
- c) Reductions in emissions [or enhancements of removals] that are additional to any that would occur in the absence of the mechanism.]

Alternatives to paragraph 107:

Alternative 1 (China)

[REDD-plus should abide by follow principles:

- (a) Participation by developing countries should be voluntary;

- (b) Implementation should be a process driven by developing countries, in accordance with developing countries capability and national circumstance;

(c) Adequate, predictable and sustainable financial and technical supports from developed countries is precondition for successful implementation of REDD in developing countries.

(d) An important component to facilitate sustainable development, reduce poverty and respond climate change in developing countries, rather than a way to help developed countries to fulfill its commitment of emission reduction.]

Alternative 2 (US)

[REDD-plus policy approaches and positive incentives should invite broad country participation, be country-driven, be integrated into NAMAs, and voluntary , and undertaken in accordance with countries' capabilities and national circumstances.]

Alternative 3 (Tuvalu)

[Within the context of nationally appropriate mitigation actions, developing country Parties may undertake actions to reduce emissions from deforestation and forest degradation.

National appropriate mitigation actions associated with reducing emissions from deforestation and forest degradation may include, *inter alia*, conservation, sustainable management of forests and enhancement of forest carbon stocks.]

108. [[[Broad country] [national level] (India) participation,] [Maximize participation of developing countries] (China) [sustainable forest management] [sustainable management of forests] (Peru, PNG et al), [forest governance] (Switzerland), [permanence] and co-benefits such as biodiversity [conservation] (Peru, PNG et al) [and ecosystem services] (Colombia) {should} be promoted, [the necessity for good local government, in which indigenous peoples and local communities have participation and also apply the customary patterns of government] (Paraguay), and [domestic] (Peru, PNG et al) leakage {should} be [accounted for and] (Peru) avoided] [reduced as much as possible] (China).

Alternatives to paragraph 108:

Alternative 1 (Mexico)

[Co-benefits such as biodiversity conservation and other ecosystem services, should be taken into account and promoted when designing a REDD+ mechanism, which may complement the aims and objectives of relevant international conventions and agreements.]

Alternative 2 (Australia)

[REDD-plus actions should promote the sustainable management of forests and co-benefits, including biodiversity conservation, that may complement the aims and objectives of national forest programmes and relevant international conventions and agreements]

Alternative 3 (Bolivia, Cuba, El Salvador, Paraguay and Venezuela)

[Broad country participation, improved forest governance, the effective involvement of relevant major groups, sustainable forest management, permanence and co-benefits such as biodiversity should be promoted, and leakage should be avoided. REDD+ actions should be fully coherent with other relevant international instruments, including in particular the Convention on Biodiversity and its expanded program of work on forest biodiversity.]

Alternative 4 (US)

[Option 1: Broad country participation, sustainable forest management, permanence and co-benefits such as biodiversity {should} be promoted, and leakage {should} be avoided.

Option 2: REDD-plus actions should promote sustainable development, including social and environmental benefits, such as biodiversity.]

108.1. [The REDD mechanism shall ensure that Parties take precautionary measures and establish safeguards to protect biological diversity in host countries, including safeguards against the conversion of natural forests to forest plantations.] (Norway)

Page 114

109. [[There should be full and effective engagement of] (Australia) [Indigenous peoples and] local communities [[should] [shall] be involved] [must not be only like assistants to the implementation, but must begin with (Paraguay)] [in design plans and actions] (Paraguay) [design, development and] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela) implementation of [REDD-plus] (Australia) actions [in their land] (Colombia, Peru) and their rights [should be] (Australia) respected, [including the right of full prior and informed consent,] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela) [including prior and informed consent,] (Colombia) [consistent with the provisions established under the respective national legislation [or], [and][in its absence,] [in accordance with the United Nations Declaration on the Rights of Indigenous Peoples][consistent with relevant international instruments, obligations and national legislation] (Australia). [The CBD and its Expanded Work Programme on Biodiversity in forest should be observed to avoid inconsistencies at level of national implementation.] (Paraguay)

Alternatives to paragraph 109:

Alternative 1 (Canada)

[The implementation of REDD-plus actions should engage indigenous peoples and local communities and should respect the rights of indigenous peoples and members of local communities in accordance with national legislation and appropriate international law.]

Alternative 2 (Tuvalu)

[Actions to reduce emissions from deforestation and forest degradation shall ensure that the rights of indigenous peoples and local communities are not adversely affected and that all actions are consistent with the United Nations Declaration on the Rights of Indigenous Peoples.

The COP (or the Conference of Parties serving as the assembly of Parties) shall, in consultation with appropriate indigenous peoples' and local community organisations, develop guidelines to ensure that the rights of indigenous peoples and local communities are not adversely affected by actions to reduce emissions from deforestation and forest degradation.]

109.1 REDD-plus actions should be consistent with sustainable forest management, noting, inter alia, the relevant provisions of the United Nations Forum on Forests, United Nations Convention to Combat Desertification and the Convention on Biological Diversity (EU)

109.2 Respect the rights of indigenous peoples and ensure the full and effective involvement of stakeholders, in particular indigenous peoples and local communities, in the design and implementation of all activities linked to this mechanism. (Norway)

110. [Developing country Parties [aiming] [who decide] (US) to implement REDD-plus actions [shall] [should]]:

- (a) Develop REDD-plus national [or sub-national strategies,] (Colombia) [and where applicable, subnational actions, that may cover] (Peru) [implementation plans][action plans][strategies] [as part of their low carbon /emissions development strategies] (EU, US) [consistent with national

sustainable development goal] (US), covering different phases of implementation [in accordance to their process on relevant policy/actions;] (Indonesia) when appropriate [the phases may include] (Indonesia) [(i.e. a readiness phase, a policy implementation and demonstration activities phase, and full implementation)];

- (b) [Designate a national authority for [coordinating] (US) [registering, supporting, approving and] implementing REDD-plus actions, [according to relevant national legislative and policy frameworks] (Peru);

Alternative to sub-paragraph (b) (Bolivia, Cuba, El Salvador, Paraguay and Venezuela)

[Designate a national authority for implementing REDD-plus actions, and ensure the full and effective participation of all relevant major groups, including in particular indigenous peoples and local communities and women, in the design and implementation of REDD-plus actions.]

- (c) [Establish national reference [emission] levels [and/or national reference levels] in accordance with their national circumstances {, which can be reviewed and adjusted over time,} and submit them to (...).]

Alternatives to sub-paragraph (c):

Alternative 1 (EU)

[Establish national reference emission levels and/or national reference levels in accordance with their national circumstances and respective capabilities. National reference levels shall be independently reviewed, adjusted over time and adopted by the Meeting of the Parties to this Agreement.]

Page 115

Alternative 2 (Peru)

[Establish reference emission levels/ reference levels in accordance with their national circumstances, which can be reviewed and adjusted over time, and submit them to Conference of Parties, which should establish a contact group for further consideration.]

Alternative 3 (Bolivia, Cuba, El Salvador, Paraguay and Venezuela)

[Establish national reference emission levels in accordance with their national circumstances, which can be reviewed and adjusted over time, and submit to the future REDD coordinating mechanism under the UNFCCC.]

c.1. Involve all relevant stakeholders, including local communities and indigenous peoples, as appropriate; (Switzerland)

c.2. Collaborate transparently with the independent review authority. (Switzerland)

c.3. Have a process in place that promotes the full and effective participation of all relevant stakeholders, including indigenous peoples, forest dwellers, and local communities, prior to and during the design, planning, implementation, monitoring and evaluation of REDD-plus activities. (USA)

Alternatives to paragraph 110:

Alternative 1 (Mexico)

[Developing country Parties aiming to implement REDD+ actions [shall] [should]:

- (a) In order to address differing national circumstances, a step-wise approach should be implemented, which consists of [Develop REDD+ national {implementation plans} {action plans} {strategies}], covering different phases of implementation when appropriate (i.e.) a readiness phase, a policy implementation and demonstration activities phase, and full implementation;
- (b) Either designate a national authority for implementing REDD+ actions; or address implementation within the context of relevant national legislative and policy frameworks;
- (c) Establish national reference emission levels for emissions and/or removals, where relevant, in accordance with their national circumstances, and submit them to the Conference of the Parties, which in turn will establish a contact group for further consideration [and/or national reference levels in accordance with their national circumstances {, which can be reviewed and adjusted over time,} and submit them to (.).]

Alternative 2 (Australia)

[REDD-plus actions will be implemented through the forest carbon mechanism according to the principles of effectiveness, efficiency, simplicity, environmental integrity, consistency and fairness. The forest carbon mechanism should address permanence, leakage and additionality.

Participation in the forest carbon mechanism will be voluntary by Parties, and should be country-driven, taking into account national circumstances and capabilities. Under the forest carbon mechanism, Parties shall:

- (a) develop robust national carbon monitoring and accounting systems that are subject to review;
- (b) develop national frameworks for the sustainable management of forests; and
- (c) establish national forest emissions levels, which take account of national circumstances, and that are agreed by the COP based on independent expert advice.]

Alternative 3 (PNG et al.):

[Developing country Parties aiming to implement REDD-plus actions should:

- (a) cover different phases of implementation when appropriate (i.e. a readiness phase, a policy implementation and demonstration activities phase, and full implementation);

Page 116

- (b) Either designate a national authority for implementing REDD-plus actions, or address implementation within the context of relevant national legislative and policy frameworks;
- (c) Establish national reference levels for emissions, removals, conservation areas, and existing forest carbon stocks, where relevant, in accordance with their national circumstances, including expected emissions trends where appropriate and submit them to the Conference of the Parties that shall then establish a contact group for further consideration.]

National accounting [and monitoring system] (Indonesia) of emissions and removals in the forest sector {shall} {should} be established [according to national circumstances and capabilities, when appropriate] (Indonesia), with the establishment of sub national accounting [and monitoring system] (Indonesia) as an optional interim measure [and as part of the national system] (Indonesia). [Each Party should develop a unique emissions [and removals] (India) accounting and monitoring system for its forestry sector which includes all sub national activities.]]

Alternatives to paragraph 111:

Alternative 1 (Peru)

[National monitoring and reporting systems for REDD plus activities shall be established, which include all subnational activities. The possibility to accommodate subnational monitoring and reporting systems as an optional interim measure should be considered.]

Alternative 2 (Mexico)

[Establish, according to national circumstances and capabilities, robust and transparent national forest monitoring and reporting systems for REDD+ activities, and, if appropriate, subnational monitoring and reporting systems may be established in an initial phase, ensuring their compatibility with national monitoring system.]

Alternative 3 (EC)

[Developing country Parties shall establish national estimation of emissions and removals in the forest sector. Each developing country Party should develop an emissions estimation and monitoring system for its forestry sector.]

Alternative 4 (PNG et al)

[National monitoring and reporting for REDD-plus activities should be established, with the establishment of subnational monitoring and reporting as an optional [interim] measure [for demonstration activities]. Each Party should develop a national monitoring and reporting system for REDD-plus activities which includes all subnational activities.]

112. [Option 2]

National [and/] (Colombia, Peru) or subnational accounting of emission reductions from deforestation may be accounted for at either national or subnational level, as decided by each Party.]

Alternatives to paragraph 112:

Alternative 1 (PNG et al)

[Given the linkage between the loss of forest carbon due to bio-energy and food production needs, this Mechanism may be expanded in the future to include other emissions intensive activities or sectors, such as rural energy and food production, consistent with modalities, rules and guidelines approved by the Conference of the Parties.]

Alternative 2 (US)

[All Parties should be encouraged to find appropriate ways to relieve the pressure on forests and land that result in greenhouse gas emissions.]

Alternative 3 (merging paragraph 111, Option 1 and paragraph 112, Option 2) (China)

[Developing country parties, which decide to participate REDD-plus, should establish national accounting and monitoring system of emission and removals from REDD-plus, with

the establishment of sub-national accounting and monitoring system as an optional interim measure, as appropriate, after received adequate, predictable and sustainable financial and technical supports from developed countries.]

Move paragraphs 111 and 112 to chapter II.B, subsection 3 on Measurement, reporting and verification of supported actions. (US)

Page 117

112.1 The Conference of the Parties shall, at its next session, elaborate modalities and procedures with the objective of ensuring that activities, under the REDD plus mechanism, carried out and accounted for at the subnational level are accounted for in a way that addresses leakage in a comprehensive and conservative way. (Colombia)

112.2. Developing country Parties which undertake nationally appropriate mitigation actions to reduce emissions from deforestation and forest degradation shall ensure that: (Tuvalu)

- (a) necessary actions are taken to avoid national and international emissions displacement;
- (b) such actions are permanent and do not result in an increase in emissions from deforestation and forest degradation at a later time;
- (c) appropriate governance structures put in place to facilitate the appropriate use of funds provided for reducing emissions from deforestation and forest degradation
- (d) appropriate consultative mechanisms and domestic legislative arrangements are in place to avoid infringement of indigenous peoples and local community rights.
- (e) land tenure systems are recognised;
- (f) actions are consistent with the conservation of biological diversity.

112.3. Developed country Parties shall undertake policies and measures to ensure that the import of forest products and other commodities from developing countries Parties does not contribute to emissions from deforestation and forest degradation. (Tuvalu)

112.4. All Parties shall undertake policies and measure to ensure that actions undertaken by persons with legal personality of their countries do contribute to international emissions displacement in forests of developing countries. (Tuvalu)

112.5. Developing country Parties who wish to undertake Tier 2 nationally appropriate mitigation actions associated with reducing emissions from deforestation and forest degradation shall be guided by good practice guidance developed by the Intergovernmental Panel on Climate Change and any relevant decisions of the Conference of Parties serving as the assembly of Parties. (Tuvalu)

112.6. Tier 3 nationally appropriate mitigations actions shall not apply with respect to reducing emissions from deforestation and forest degradation and hence nationally appropriate mitigation actions for reducing emissions from deforestation and forest degradation shall not be eligible for emissions trading. (Tuvalu)

2. Means of implementation

Note: Owing to the different initial capabilities of developing countries to implement REDD-plus activities, Parties foresee different phases: an initial readiness phase, which can include or be followed by a policy implementation and demonstration activities phase, and a full implementation phase. The options presented in paragraphs 113–114 below relate to support for those phases.

x.1. The developed country Parties shall provide financial resources according to their obligations under the Convention. Under the REDD-plus mechanism, developed country Parties commit to adequate, predictable and long-term sustainable funding of activities for reducing emissions by sources and increasing removals by sinks in the forestry sector and other selected land-use and land-use change sectors in developing countries. (Norway)

x.2. Funding shall be based on an appropriate and effective international funding mechanism. The Conference of the Parties shall, at its 15th session, establish such a funding mechanism. At its [16th] session, the Conference of the Parties shall supplement the relevant principles, modalities, rules and guidelines for funding of all phases, including decisions on linkage to the carbon-marked. (Norway)

x.3. A REDD+ mechanism should be transparent, efficient, and equitable; and it should ensure a fair distribution of REDD derived benefits among all relevant stakeholders and indigenous peoples and local communities, in response to their efforts in REDD activities. (Mexico)

Page 118

113. [The readiness activities phase of REDD-plus actions, and the subsequent policy implementation and demonstration activities phase, including the activities to be implemented up to 2012, [should] [shall] be supported [through [one or more of the following sources]] [by new an additional fund] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela):]

[Option 1]

A readiness fund established under the COP to support capacity-building, technology transfer, policy implementation and institutional arrangements] [and the scaling up of demonstration activities that shall receive adequate, predictable and sustained resources from, inter alia, additional to official development assistance, and market-linked revenues such as the auctions of allowance for implementation of national policies and measures by Annex-1 Parties]. (PNG et al.)

Alternatives to Option 1:

Alternative 1 (Colombia)

[A REDD plus fund established under the COP to support capacity-building, technology transfer, policy implementation and institutional arrangements, and activities aimed at conserving carbon stocks. This fund will be financed by innovative sources of financing such as auctioning of national emissions trading allowances or of assigned amount units at international level,]

Alternative 2 (Peru)

[A REDD plus fund established under the COP to support capacity-building, technology transfer, policy implementation and institutional arrangements. This fund will be financed by innovative sources of financing such as auctioning of national emissions trading allowances or of assigned amount units at international level, and penalties or fines on non-compliance of developed country Parties with their emission reduction and financial resources commitments.]

Alternative 3 (Indonesia)

[A readiness fund established under the COP to support capacity-building, technology transfer, policy implementation and institutional arrangements, complementary to the financing provided by the Global Environment Facility and by bilateral and multilateral funding, for enhancing the capabilities of developing countries to monitor [changes in their

forest cover and the associated carbon stocks] [emissions and removals in their forest sector] and for designing and implementing policies that reduce deforestation and forest degradation, enhance and conserve carbon stocks.]

Alternative 4 (Bolivia, Cuba, Salvador, Paraguay, Venezuela)

[A readiness fund to be established under the COP to support capacity-building, technology transfer, policy implementation and institutional arrangements. These funds shall be new and additional to the ODA funds.]

[Option 2]

REDD-plus readiness windows of the relevant Convention funds (e.g. the proposed mitigation fund referred to in para. 175 below).]

[Option 3]

Auctions of allowances for implementation of national policies and measures.]

[Option 4]

Limited access to the market for emission reductions achieved by demonstration activities.]

[Option 5]

A special climate change fund to finance activities, complementary to the financing provided by the Global Environment Facility and by bilateral and multilateral funding, for enhancing the capabilities of developing countries to monitor changes in their forest cover and the associated carbon stocks and for designing and implementing policies that reduce deforestation and forest degradation.]

Page 119

Alternatives to paragraph 113:

Alternative 1 (Canada)

[The REDD-plus mechanism shall allow for the evolution of national REDD-plus strategies, in particular the self-financed actions, actions eligible for capacity building, technical assistance and financial support, and actions contained therein that result in emissions reductions or removals with sufficient integrity to become eligible to participate in the carbon market.]

Alternative 2 (in which several options in paragraph 114 are combined) (China)

[The full implementation phase of REDD-plus activities in developing countries, including early actions should be supported by a special REDD-plus fund under the convention complementary to the Global Environmental Facility and bilateral and multilateral funding, to support ongoing REDD-plus activities, the financial sources of the special REDD-plus fund could, but not limited, include:

- (a) additional public funds, such as ODA
- (b) donation
- (c) auction of allowance in developed countries
- (d) taxation of carbon in developed countries
- (e) other sources, but should not include international levies,]

Alternative 3 (EU)

[In the readiness activities phase of REDD-plus actions, developing country Parties shall strengthen forest governance and establish capacities and institutions for measuring, monitoring, reporting and verifying emission reductions and increases in removals from the forest sector. In the policy implementation phase, developing country Parties shall implement REDD-plus policies and measures. The readiness activities phase of REDD-plus actions, and the subsequent policy implementation phase, should be supported through windows of the relevant mechanisms.]

Alternative 4 (Turkey)

[Windows for REDD-plus activities could be opened under the relevant Convention funds, actions could be supported by market approaches and funds, and we think reforestation activities should also be supported.]

Alternative 5 (Tuvalu)

[A REDD Window of the International Climate Fund shall be established to assist developing country Parties undertake nationally appropriate mitigation actions with respect to reducing emissions from deforestation and forest degradation.

Funding through the REDD Window shall be used by developing country Parties to:

- (a) undertake actions to build capacity in measuring, reporting and verifying actions to reduce emissions from deforestation and forest degradation;
- (b) undertake nationally appropriate mitigation actions to directly reduce emissions from deforestation and forest degradation.]

114. [The full implementation phase of REDD-plus [strategies and actions] (Bolivia, Cuba, El Salvador, Paraguay, Venezuela) [activities] in developing countries, including early actions, [should][shall] [be supported by] [should be financed by] (Peru)]

[Option 1]²³

use of public funds, through one or more of the following approaches:

- (a) A specialized fund established under the COP for reducing emissions from deforestation and forest degradation;
- (b) Specialized funds or funding windows established under the COP;
- (c) Trust funds for community forestry accounts, a Convention adaptation fund, by which conservation and sustainable forest management could be supported as adaptation measures, and/or a forest reserve fund for conservation and sustainable forest management under the mitigation fund under the COP proposed in paragraph 175 below.]

[Option 2]

use of markets, such as:

- (a) Access to the carbon market through issuance of carbon credits for emission reductions from deforestation and forest degradation;

²³ This proposal is presented in conjunction with proposals for adaptation and mitigation funds presented in paragraph 175.

- (b) Access to the carbon market for emission reductions from deforestation and forest degradation, and for conservation and enhancement of carbon stocks in existing forest.]

Alternative to sub-paragraph (b) (Canada)

[For REDD-plus actions to be eligible to generate tradable emissions reductions or removal units, the monitoring, reporting and verification must be at the national scale unless methodologies for estimating intra-national leakage resulting from sub-national or project-level REDD-plus actions have been adopted by the COP, in which case those methodologies shall be applied.

Participation in the carbon market will be limited to Parties that have used country-specific, national reference levels of greenhouse gas emissions and removals.]

[Option 3]

a [flexible] (Colombia) combination of market approaches and funds, such as:

- (a) [A fund for conservation additional to ODA, [international levies] and/or market-linked mechanisms;]
- (b) [Funds for capacity-building, conservation efforts and sustainable forest management. Use of funds [or markets] would depend on host countries' preferences for activities to reduce emissions from deforestation and forest degradation;]
- (c) [A market-based approach for supporting enhancement of carbon stocks through sustainable forest management and reduced [emissions from] (Switzerland) deforestation [and forest degradation] (Switzerland); and a non-market-[regulation] (Switzerland) based approach for supporting stabilization of forest cover, conservation and maintenance of carbon stocks through sustainable forest management;]
- (d) [A special climate change fund complementary to the Global Environment Facility and bilateral and multilateral funding, to support ongoing forest conservation and efforts to enhance forest carbon stocks, while using the certified emission reductions that accrue from project activities, involving the private and public sector to contribute to compliance with part of the countries' quantified emission limitation and reduction commitments under the Convention.]

Alternatives to Option 3, sub-paragraphs (a), (b) and (c)

Alternative 1 (Colombia)

[(a) A fund shall be used to support efforts to conserve carbon stocks, including sustainable forest management. Activities to reduce deforestation and degradation can also be financed by the fund depending on host countries' preferences. Replenishment sources of the fund as been detailed in paragraph 7 above.

(b) A market shall be developed, learning from the CDM, for supporting reduced deforestation and degradation as well as enhancement of carbon stocks through sustainable forest management.

(c) The Conference of the Parties shall elaborate modalities and procedures with the objective of ensuring transparency, efficiency and accountability to ensure the environmental integrity of the mechanism.]

Alternative 2 (Peru)

[(a) A fund shall be used to support conservation efforts and sustainable forest management and provide upfront funding for demonstration activities. Activities to reduce deforestation and degradation can also be financed by the fund depending on host countries' preferences. Replenishment sources of the fund shall follow as has been detailed in paragraph 7 above.

(b) A market shall be developed, learning from the CDM, for supporting reduced deforestation and degradation as well as enhancement of carbon stocks through sustainable forest management, based on a voluntary participation of Parties. Market and/or non-market approaches shall be developed for supporting stabilization of forest cover, conservation, and maintenance of carbon stocks through sustainable management of forests.

(c) The Conference of the Parties shall elaborate modalities and procedures to ensure the integrity of the carbon market in other sectors, the compatibility with the CDM and real benefits to climate and sustainable development.]

Alternative to options 1, 2 and 3 in paragraph 114 (Mexico)

[(a) Use of markets or funds would depend on host countries' preferences for REDD+ actions;

(b) Access to the carbon market for REDD+ actions;

(c) Funds to support REDD+ actions;

(d) Funds for ongoing capacity-building, support of price floors, etc.]

Option 3.1 (PNG et al.)

[A combination of market approaches and/or funds:

(a) Use of markets or funds would depend on host countries' preferences for REDD-plus actions;

(b) Access to the carbon market for REDD-plus actions;

(c) Funds to support REDD-plus actions organized under the Convention;

(d) Funds for ongoing capacity-building, support of price floors, etc.

(e) Recognizing that higher levels of measurement, reporting and verification will be required for market-based eligibility.

Alternatives to paragraph 114:

Alternative 1 (New Zealand):

[Prior to the commencement of the full implementation phase, the [supreme body of this instrument] shall elaborate rules, modalities and procedures for the establishment of a robust framework for addressing issues of non-permanence.]

Alternative 2 (China):

[This paragraph should define the concrete activities within REDD-plus to be supported by the fund, namely the orientation of the financial supports, which could include: capacity-building, formulating plan and strategy, establishing carbon accounting and monitoring system, technology transfer, policy implementation, institutional arrangements etc.]

Alternative 3 (South Africa/African Group):

[A fund shall be established to reward or provide incentives for reducing emissions through sustainable land management practices, including forest conservation, sustainable forest management, the avoidance of deforestation, afforestation and sustainable agriculture.]

114.1 When accessing the carbon market the Secretariat would register the information agreed by the Parties under Paragraph [118], and if achieved, any subsequent emissions reductions or removals enhancements. On a periodic or annual basis: (PNG et al.)

(a) Based on the total projected emissions reductions and removals enhancements, the Secretariat would deduct an equivalent number of assigned amount units from the respective allocations to relevant Parties. Deductions would be equitable and held by the Secretariat in an independent settlement account. (PNG et al.)

(b) As emissions reductions or removals enhancements are reported to the Secretariat and independently verified, they would be exchanged on an equal basis for the assigned amount units held in the settlement account. (PNG et al.)

Page 122

(c) If the supply of verified emissions reductions or removals enhancements is less than the total deductions, then the Parties may agree that they be auctioned with the proceeds used for the general purposes outlined in Paragraph 4; while if supply of verified emissions reductions or removals enhancements is greater than the total deductions, then the surplus may be made available under relevant flexibility mechanisms, as agreed by the Parties.] (PNG et al.)

3. Measurement, reporting and verification of actions [Measurement and Monitoring System] (China)

115. [Option 1]

[Developing countries participating in the forest carbon mechanism shall register their national forest emissions level in its National Schedule, with activities under the forest carbon mechanism measured, reported and verified against their agreed national forest emissions levels.] (Australia) [Developing country Parties requesting support {shall} {should} record under the NAMA registry REDD-plus actions undertaken within their REDD-plus national [implementation plans] [action plans] [strategies], including information on the extent and type of support requested and the nature of the action, and any information received on measurement, reporting and verification of actions, including their outcomes.]]

Alternative to paragraph 115 (Tuvalu)

[The COP (or Conference of Parties serving as the assembly of Parties) shall develop appropriate means of measuring, reporting and verifying Tier 2 nationally appropriate mitigation actions associated with reducing emissions from deforestation and forest degradation.

To assist in developing methods and procedures for measuring, reporting and verifying Tier 2 nationally appropriate mitigation actions associated with reducing emissions from deforestation and forest degradation, developing country Parties shall develop:

- (a) national capacity needs assessments;
- (b) national forest inventories;
- (c) national and where appropriate, sub-national baselines to calculate changes in emissions from deforestation and forest degradation;
- (d) strategic plans to reduce emissions from deforestation and forest degradation.

(e) quality assurance and quality control regulations to ensure that funds for reducing emissions from deforestation and forest degradation are used directly for that purpose and not diverted for other purposes.]

116. [Option 2]

Developing country Parties requesting support [, including market-based eligibility,] (PNG, Mexico) [shall] [should] submit to [{... }][the Conference of the Parties] (Peru) [the future REDD coordination mechanism under the UNFCCC] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela) their national REDD-plus [implementation plans][action plans][and] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela)[strategies] [information on their REDD-plus actions to the Conference of the Parties] (PNG, Mexico) [, including information on the extent and type of support requested, the nature of the actions to be supported, [as far as possible,] (Indonesia) their systems for measurement, reporting and verification of actions [,](Indonesia) and the outcomes of the actions]] [their system of measurement and monitoring of actions, and the outcomes of the actions] (China).]

117. [When establishing national reference emission levels [for emissions, removals, conservation areas, and existing forest carbon stocks, where relevant] (PNG) [and] [/or national reference levels] (India, Peru, G-77/China) [or subnational strategies] (Colombia, Peru), taking into account national circumstances, developing country Parties that are requesting support shall follow [any] (EU) guidance [decided] (EU) [developed] by the [COP] [Meeting of the Parties to this Agreement at its first session] (EU) [and adopted at its [seventeenth][sixteenth] (Colombia) session] (EU) on how to establish the levels[, including ways to [account for and] (Peru) address [domestic] (PNG) leakage]] [if applying subnational approaches for demonstration activities] (PNG) [and the development of guidance in monitoring and reporting with the full effective engagement of indigenous people and local communities]. (Bolivia, Cuba, El Salvador, Paraguay and Venezuela)

117.1. A global reference level for future emissions and removals from the forestry sector and other selected land-use and land-use change categories and activities from developing countries shall be established in order to avoid carbon leakage and to ensure the environmental integrity of the mechanism. (Norway)

Page 123

117.2. The methodology for the establishment of a global reference level shall:

- Be robust and based on objective, measurable, and verifiable criteria; and
- Ensure additionality both at the national and global level compared to business as usual scenarios. (Norway)

118. [Parties aiming to implement REDD-plus actions [duly supported with assured funding] (India) shall, [[under the NAMA registry as mentioned in paragraph 115 above][on the basis of their national REDD-plus [implementation plans][action plans][strategies]]:

- [Report information on the implementation of national REDD-plus [implementation plans][action plans][strategies][actions] (PNG et al., Mexico), readiness activities, including policy implementation and demonstration activities, and identified co-benefits [such as biodiversity] (PNG et al., Mexico);]
- [Measure and report the quantitative reduction of GHG emissions [or quantitative increment in removals] (India, China) achieved and/or the change in carbon stocks in relation to the [reference emission level] [/reference level] (India, China) [or the aggregate reductions achieved by its

registered sub-national activities] (Colombia) [national reference levels for emissions, removals, conservation areas, and existing forest carbon stocks, where relevant,] (PNG et al.) [national reference levels for emissions and/or removals, where relevant] (Mexico).]

- b.1 Report information on REDD-plus actions taken [up to 2012] [during the period from 2005 up to the date a Party gives notice under this paragraph] for consideration of credit for early action (PNG et al.)
- b.2 Report early actions taken up to 2012 for consideration. (Peru)
- b.3 Report information, to be determined by the Parties, related to the application of a correction factor to the relevant national reference levels, either higher or lower, taking into account national circumstances, historically low rates of deforestation and forest degradation, developmental divergence, and respective capabilities and capacities. (PNG et al.)]

Alternative to paragraph 118:

[As part of the measuring and reporting process described in paragraph 88, Parties shall measure and report the quantitative reduction of GHG emissions achieved and/or the change in carbon stocks in relation to the national reference emission level.] (EU)

Move paragraphs 115-118 to chapter II.B subsection 3 on Measurement, reporting and verification of supported actions (US)

119. [Developing country Parties shall develop] (EU) Robust national monitoring systems [for emission reductions [and]/[or]] [emissions removals] (Australia) [carbon stock changes] [for emissions/removals from REDD-plus] (China) [to measure emissions by sources and removals by sinks in the land use, land-use change and forestry sector] (US) [shall][should] [be developed following][take into account] (US) relevant methodological guidance [to be] provided by the [COP] [Meeting of the Parties to this Agreement] (EU), on the basis of the advice received from the Subsidiary Body for Scientific and Technological Advice (SBSTA) including the use of [relevant IPCC guidelines and methodologies] (EU)[, when appropriate] Colombia)][the most recent IPCC guidelines [and methodologies] (Peru) for GHG inventories] (EU) [, including above and below ground carbon stocks, subject to the availability of technology, finance and capacity building] (PNG et al.) [taking into consideration the indigenous ancient knowledge and local communities] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela).

120. [[Measurement and monitoring] (China) [Measurement, reporting and verification] of REDD-plus actions shall be carried out in accordance with guidelines to be [agreed][decided] (EU) by the [COP] [Meeting of the Parties to this Agreement] (EU). These guidelines shall cover, inter alia, eligibility criteria for access to support[, take into consideration the advice resulting from the outputs of the work programme on] methodological issues established under the SBSTA,²⁴ and the type of support required, [while recognizing that higher levels of measurement, reporting and verification will be required for market-based eligibility (EU)].] [Monitoring, reporting and verification for REDD-plus actions shall extend to the provisions for involvement of indigenous peoples and local communities as set out above, and to consistency with sustainable forest management, noting, inter alia, the relevant provisions of the United Nations Forum on Forests, United Nations Convention to Combat Desertification

²⁴ The SBSTA is carrying out a programme of work on methodological issues relating to decision 2/CP.13, paragraph 11 (FCCC/SBSTA/2008/13, para. 47). It will report back to the COP at its fifteenth session with the aim of providing advice on methodological issues related to measuring and reporting, and reference emission levels [and reference levels] (India, China).

and the Convention on Biological Diversity] (EU).

Page 124

121. [Verification of [reported greenhouse gases emissions reductions and removals resulting from] (Canada) REDD-plus actions shall be carried out by [an expert review team under] (PNG et al., Mexico) [an expert review team under the guidance of] (Peru) the [COP] [Meeting of the Parties to this Agreement at its first session] (EU) [expert review teams or] [a measurement, reporting and verification technical panel] [which to be established by the future coordinating REDD mechanism, which [shall] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela) includes inputs by indigenous people as well as local communities] (Bolivia, Cuba, El Salvador, Paraguay and Venezuela) [measurement and monitoring technical panel] (China) [expert review teams in accordance with the agree rules and guidelines] (Canada) [national expert review teams, peer reviewed by team of experts or a measurement, reporting and verification technical panel appointed by the COP] (Lesotho/LDCs) [national experts and peer reviewed by international teams under the guidance of the COP in case of national scale activities, and by an independent body(ies) in case of sub-national scale] (Colombia).]

[To maintain the environmental integrity within and between international agreements on climate change, at the end of an agreement period, any final surplus in accounted emissions reductions and removals enhancements compared to the reported quantity should be transferred to a subsequent international agreement on climate change.] (PNG)

4. Measurement, reporting and verification of support

122. [Option 1]

Parties, when providing support to REDD-plus actions in developing countries, [shall][should] enter information into the NAMA registry on the extent and type of support to be provided, and the nature of the action to be supported.]

Alternative to paragraph 122 (Tuvalu)

[Means for measuring, reporting and verification of support by Parties shall be undertaken in accordance with general MRV provisions for NAMAs.]

123. [Option 2]

[Developed Country] (Colombia, Peru) Parties, when providing support to REDD-plus actions in developing countries, [shall] [should] provide information on the extent and type of support, and the nature of the action for which the support is provided]. [All Parties recognize that the level of support, through fund or market options for REDD activities, will be important in determining the success of developing countries in reducing the emissions from deforestation and forest degradation.] (Colombia) [All Parties recognize that the level of support, through fund or market options, will be important in determining the success of developing countries in implementing REDD-plus actions.] (Peru)]

124. [Measurement, reporting and verification of support provided [by Developed Country Parties to Developing Country Parties] (Colombia, Peru) for REDD-plus actions [should][shall] (Colombia) be carried out] [by a technical panel comprised of experts equitably balanced between developed and developing countries] (PNG et al.) [by the expert panel appointed by the COP as in paragraph 121 above] (Lesotho)].

5. Institutional arrangements, including funds

x.1 [Effective forest governance is a prerequisite for managing forests sustainably and should be promoted at all governance levels, from national to sub-national to local level.] (Switzerland)

125. [Option 1]

The financial arrangements to support REDD-plus actions should be included as part of the broader financial framework proposed to support NAMAs in developing countries (see paras. 115 and 122 above and chapter IV below).]

[Option 1.1]

Specialized funds, funding windows and a board shall be established by the COP, as well as mechanisms to link the various funds. Each of the funds could be advised by an expert group or committee supported by a technical panel/technical panels.]

Alternative to paragraph 125 (Tuvalu)

[Developing country Parties may be eligible to seek funding through the REDD Window of the International Climate Fund.

Page 125

A special allocation shall be provided through the REDD Window to assist developing country Parties to establish develop community-based trust funds to support local actions associated with reducing emissions from deforestation and forest degradation.

The COP (or Conference of Parties serving as the assembly of Parties), in collaboration with other organisations, shall develop regional REDD centres.

The purpose of regional REDD centres shall be to assist developing country Parties build their capacity in measuring, reporting and verifying nationally appropriate mitigation actions associated with reducing emissions from deforestation and forest degradation.]

126. [Option 2]

The financial arrangements to support REDD-plus actions should be developed for REDD-plus activities in developing countries, and should:

- (a) Be under the guidance and authority of the COP;
- (b) Ensure full transparency, efficiency, effectiveness, openness and the equitable and balanced representation of [all] Parties;
- (c) Provide coherence and coordination between various sources of financing.]

c.1. [[Secure] (PNG et al.) [Provide] (Peru) adequate, predictable and sustainable financial resources] (PNG et al., Peru)

c.2. [Ensure under the authority of the COP the development and application of guidance and criteria on what REDD-plus action can be funded by which financing mechanism] (Switzerland)

c.3. [Coordinate implementation through internationally accredited agencies while leveraging the efforts already undertaken by the World Bank's Forest Carbon Partnership Facility and the UN-REDD Program] (PNG et al.)

c.4. [Include ongoing activities coordinated through existing institutional arrangements] (Peru)

Move paragraphs 125 and 126 to chapter IV.A on Finance

127. [Option 3]

A specific body shall be established to supervise REDD-plus actions. An entity or group of entities or bodies shall be designated by the COP [to verify and certify the emission reductions [or removals] (India) achieved] [to assess the emissions and removals] (China).

Move paragraph 127 to chapter II.B, subsection 5 on Institutional arrangements

128. *[Issues identified by Parties in the context of paragraphs 110–127 above as requiring further elaboration at the appropriate time include rules and modalities in relation to activities or necessary arrangements, provisions for linking the information on readiness and implementation of REDD-plus actions with the financial resources.]*

Alternative to section C (Norway):

- x.1. A mechanism for reducing anthropogenic emissions by sources and increasing removals by sinks in the forestry sector and other selected land-use and land-use change sectors in developing countries (REDD-plus mechanism) is hereby defined.
- x.2. The REDD-plus mechanism shall be effective, result-based, flexible, dynamic and incentive driven. To achieve this, the mechanism shall be implemented in successive, gradually intensifying phases, beginning with national REDD-plus strategy development and core capacity building (phase 1), followed by the implementation of national REDD-plus policies and measures in combination with compensation for proxy-based results for emission reductions and removals from selected forest activities and land-use and land-use change categories (phase 2), and finally evolving into a result-based compensation mechanism for fully measured, reported and verified emission reductions and removals from the whole forestry sector and other selected land-use and land-use change sectors (phase 3).
- x.3. The REDD-plus mechanism will gradually be phased out as developing country Parties commit to quantified emission targets for the land-use, land-use change and forestry sector.
- x.4. The purpose of the REDD-plus mechanism is to assist developing country Parties in:

Page 126

- a. Contributing to the ultimate objective of the Convention by reducing their emissions by sources and increasing removals by sinks in the forestry sector, and other selected land-use and land-use change sectors;
- b. Initiating efforts to embark on economy-wide low carbon development pathway, through economy-wide low carbon development plans;
- c. Meeting their commitments under the Convention and related legal instruments;
- d. Developing capacity and a reliable national framework for measurement, reporting and verification of emission reductions and removals from forestry sector and other selected land-use and land-use change sectors;
- e. Achieving sustainable development; and
- f. Conserving biological diversity.

x.5. The developed country Parties shall provide financial resources according to their obligations under the Convention. Under the REDD-plus mechanism, developed country Parties commit to adequate, predictable and long-term sustainable funding of activities for reducing emissions by sources and increasing removals by sinks in the forestry sector and other selected land-use and land-use change sectors in developing countries.

x.6. Funding shall be based on an appropriate and effective international funding mechanism. The Conference of the Parties shall, at its 15th session, establish such a funding mechanism. At its [16th] session, the Conference of the Parties shall supplement the relevant principles, modalities, rules and guidelines for funding of all phases, including decisions on linkage to the carbon-marked.

x.7. For the purpose of this mechanism the following definitions, to be provided by the Subsidiary Body for Scientific and Technological Advice, shall apply:

- a. "Forest" (as defined in 16/CMP.1)
- b. "Afforestation" (as defined in 16/CMP.1)
- c. "Reforestation" (as defined in 16/CMP.1)
- d. "Deforestation" (as defined in 16/CMP)
- e. "Plantation"
- f. "Biological diversity"
- g. [...]

x.8. For the purposes of this mechanism, eligible activities and land use categories are those set forth in annex A and that started on or after [...].

x.9. The mechanism shall provide flexibility for including over time additional land-use and land-use change categories and activities on the basis of measurable, reportable and verifiable commitments and actions, including guidelines agreed by the COP.

x.10. Governance of and participation in the REDD-plus mechanism shall be in accordance with the provisions and principles of the Convention, in particular the principle of common but differentiated responsibilities and respective capabilities, and guided by the following:

- a. Recalling Article 3.4 of the Convention, developing country Parties have a right to and should promote sustainable development.
- b. The Parties should take measures to anticipate, prevent and minimize the risk of inter- and intra-national carbon leakage. The Parties should cooperate to address leakage.
- c. The Parties should take precautionary measures to anticipate, prevent and minimize the risk of non-permanence. The Parties should cooperate to reduce the risk and consequences of non-permanence.

x.11. In their actions under the REDD-plus mechanism, the Parties shall:

- a. Ensure the environmental integrity of the mechanism; especially global and national additionality of reduced emission and enhanced removals from the forestry sector and other selected land-use and land-use change sectors to any that would have occurred in the absence of the REDD-plus mechanism;

- b. Ensure against the conversion of natural forests to forest plantations;

- c. Ensure real, measurable and long-term benefits related to the reductions of emissions by sources and increasing removals by sinks from the forestry sector and other and other selected land-use and land-use change sectors;
 - d. Respect the rights of indigenous peoples and ensure the full and effective involvement of stakeholders, in particular indigenous peoples and local communities, in the design and implementation of all activities linked to this mechanism;
 - e. Take precautionary measures and establish safeguards to protect biological diversity in REDD-plus host countries; and
 - f. Establish and further develop measurable, reportable and verifiable nationally appropriate REDD-plus framework, institutions and capacities.
- x.12. The Conference of the Parties shall develop guidelines, principles, methodologies and mechanisms for measurement, reporting and verification (MRV) of emission reductions and removals from the forestry sector and other land-use and land-use change categories and activities, based on the most recent IPCC guidelines for GHG inventories, for adoption at [COP 17].
- x.13. The REDD-plus framework shall be consistent with overall approaches to measurement, reporting and verification of nationally appropriate mitigation actions by developing country Parties under this Agreement and related agreements, recognizing the need for higher tier level of MRV for sectors linked to the carbon-market.
- x.14. Emissions and removals shall be reported in a transparent, consistent, comparable, complete and accurate way.
- x.15. Verification should build on review procedures and methodologies for Annex I Parties, including making use of the institutional function of the UNFCCC secretariat as host of the verification mechanism. The Conference of the Parties shall define rules and procedures for international verification of national GHG inventories, including a comprehensive and robust international expert review of inventories.
- x.16. A global reference level for future emissions and removals from the forestry sector and other selected land-use and land-use change categories and activities from developing countries shall be established in order to avoid carbon leakage and to ensure the environmental integrity of the mechanism.
- x.17. The methodology for the establishment of a global reference level shall:
- a. Be robust and based on objective, measurable, and verifiable criteria; and
 - b. Ensure additionality both at the national and global level compared to business as usual scenarios.
- x.18. In addition, individual country specific reference levels for developing country Parties shall be established. Such country specific reference levels shall be dynamic, adjustable over time and incentivize all developing countries to participate in the REDD-plus mechanism.
- x.19. The methodology for the establishment of individual reference levels shall be robust and based on objective, measurable, and verifiable criteria, taking into account relevant national factors, such as:
- a. Historic emissions and removal rates from the forestry sector;

- b. Forest cover;
- c. Expected future emission and removal trends;
- d. Capacity for emissions reductions and removals based on, *inter alia*, GNP per capita;
- e. Other country specific conditions and circumstances.

x.20. An expert body shall be mandated to propose individual reference levels. Any such proposal shall be subject to the approval by the concerned developing country Party before being submitted to the COP or a mandated body for final determination. The reference levels shall be updated at regular intervals.

Page 128

- x.21. The Conference of the Parties shall establish:
- a. The global reference level, subject to the requirements set out in paragraphs 16 and 17 above; and
 - b. Guidelines, and supplement and expand methodologies and procedures for the establishment of individual reference levels in accordance with the principles defined in paragraphs 10 and 11 above, for adoption at [COP 17].

x.22. A developing country Party is eligible to participate in the REDD-plus mechanism if:

- a. It is a Party to the Convention; and
- b. It is in compliance with its commitments under the Convention.

x.23. Subject to paragraphs 29, 31 and 36 below, the Conference of the Parties shall establish additional eligibility criteria for each phase, to be adopted at its [16th] session.

x.24. Parties participating in the REDD-plus mechanism shall designate a national authority for this purpose.

x.25. A Party that authorizes private and/or public entities to participate in REDD-plus activities shall remain responsible for the fulfillment of its obligations under the Convention and this Agreement. Participation of private and public entities is subject to whatever guidance may be provided by the Conference of the Parties or any mandated body.

x.26. The REDD-plus mechanism shall be subject to the authority and guidance of the Conference of the Parties and be supervised by a mandated body.

x.27. The Conference of the Parties shall elaborate modalities, rules and procedures for the REDD-plus mechanism, in particular for ensuring transparency, efficiency and accountability through independent auditing and verification of REDD-plus activities and the dispersal and expenditure of REDD-plus related compensation.

x.28. In phase 1, subject to the provisions of paragraph 29 below, a developing country Party, that meets the requirements set out in paragraph 22, will receive assistance to develop a national REDD-plus strategy, including, but not necessarily limited to:

- a. Policies and measures for the establishment of capacity and framework necessary for measuring, monitoring, analyzing, reporting and verifying emission reductions and removals from the forestry sector and other

selected land-use, land-use change categories and activities as defined in Annex [B];

- b. Initial institutional development to address the reductions of emissions and increase of removals from the forestry sector and other selected land-use, land-use change categories and activities as defined in Annex [B]; and
- c. Identification of necessary adjustments in forest law and governance.

x.29. A developing country Party is eligible to participate in phase 1 activities, if it has demonstrated a national commitment to the REDD-plus mechanism in accordance with the principles defined in paragraphs 10 and 11 above.

x.30. In phase 2, subject to the provisions of paragraph 31 below, a developing country Party will receive additional financial resources to implement the national REDD-plus strategy defined in phase 1 by adopting policies and measures, such as:

- a. Development of a comprehensive REDD-plus legal framework, including, but not limited to, reform of land tenure with due regard to collective land rights, land use planning and forest governance, where necessary and appropriate, and of respective law enforcement capabilities;
- b. Further development of MRV institutions and capacities; and
- c. Development of a REDD-plus action plan within the framework of a national low carbon development strategy.

x.31. A developing country Party is eligible for funding under phase 2, if it has demonstrated commitment to implementing the REDD-plus strategy developed in phase 1, *inter alia*, by:

- a. Establishment and/or elaboration of transparent, rule-based forest governance; and

Page 129

- b. Implementation of inclusive, multi-stakeholder consultations and cooperation, including consultations and co-operations in good faith with the indigenous peoples and local communities concerned through their own representative institutions in accordance with international instruments.
- c. Establishment of safeguards against the conversion of natural forests to forest plantations;
- d. Establishment of safeguards to protect biological diversity;

x.32. Subject to the provisions of paragraph 34 below, such funding shall be granted on the basis of performances, including measurable, reportable and verifiable indicators for the implementation of policies and measures, as well as for institution and capacity building.

x.33. Subject to the provisions of paragraph 34 below, further funding may be granted on the basis of results derived from proxy data on reduced emissions and enhanced removals from the forestry sector, and other selected land-use, land-use change categories and activities defined in Annex C. Suitable proxy data are identified in Annex D. An expert body should be mandated to propose proxies and corresponding indicators for

individual countries, to be finally determined by the COP or any body so mandated by the COP.

x.34. Where necessary, *ex ante* funding may be granted on the basis of spending plans and stated commitments, subject to *ex post* verification of delivery.

x.35. In phase 3, subject to the provisions of paragraph 36 below, a developing country Party shall be compensated for emission reductions and enhanced removals from the whole forestry sector and from other selected land-use, land-use change categories and activities as defined in Annex E, relative to the agreed country specific reference level for future emissions, provided that reductions in emissions and enhanced removals from land use activities are:

- (a) Measured, monitored, reported and verified; and
- (b) Additional to those achieved in previous phases.

x.36. A developing country Party is eligible for compensation under phase 3, if:

- a. It remains in compliance with phase 1 and 2 eligibility criteria in accordance with paragraphs 29 and 31;
- b. It can demonstrate that previously received compensation under the mechanism has been spent according to agreed guidelines for agreed purposes; and
- c. It has implemented an operational national forest greenhouse gas inventory based on measured, reported and verified data according to agreed rules.

x.37. The third phase shall end individually for each developing country Party, unless a further decision is taken by the Conference of the Parties to extend it, when the Party commits to quantified emission reduction targets for the land use sector.

x.38. The Conference of the Parties shall, at its 15th session, mandate an appropriate institutional body to ensure immediate efforts to implement the REDD-plus mechanism and define the relevant principles, rules and guidelines for the mandated body, to be adopted at its [16th] session.

Annex A –Categories and activities (potentially) covered by the REDD-plus mechanism

[...]

Annex B - Categories and activities for the purpose of phase 1 (paragraph 28)

[...]

Annex C - Categories and activities for the purpose of result-based funding in phase 2 (paragraph 33)

[...]

Annex D - Suitable proxy data for the purpose of result-based funding in phase 2, (paragraph 33)

[...]

Annex E - Categories and activities for the purpose of result-based funding in phase 3 (paragraph 35)

[...]

D. Cooperative sectoral approaches and sector-specific actions²⁵

Structural proposals:

This section should not be a separate section from NAMAs, should be included in nationally appropriate mitigation actions by developing countries. (Colombia)

Paragraphs 135 – 138. International aviation and maritime emissions should be moved to a new section separate to the general sectoral approaches. (Australia)

x.1 Cooperative sectoral approaches and sector-specific actions” shall be focused on the enhanced implementation of Article 4.1 (c) of the Convention, on:

- (a) The development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montréal Protocol, in all relevant sectors, including, but not limited to, energy, transport, industry, agriculture, forestry, health, tourism, and waste management sectors;
- (b) The provision of information on available technologies, conditions of access to and financing transfer of these technologies, including the development of effective modalities for the implementation of all stages of the technology cycle, from development, application, transfer, and diffusion;
- (c) Actions that cover the whole scope of technologies both for adaptation and mitigation, including those that control, reduce and prevent emissions, for abatement of increases in emissions and enhancement of and removal by sinks, and include those technologies that are publicly-owned, or in the public domain as well as those held by the private sector. (G77/China)

129. [Cooperative sectoral approaches and sector-specific actions {shall} {should} enhance the implementation of Article 4.1(c) of the Convention. To this end, these approaches and actions {should}:

- (a) [Be applied at the national level [only];] [Sectoral approaches and sector-specific actions should be cooperative and not imposed by one or some Parties on other Parties. (African Group)]
[Be used in the definition and implementation of mitigation actions in developed and developing countries; (EU)]
- (a).1 Cooperative sectoral approaches and sector-specific actions should not be used to circumvent or undermine the differentiation made in the Convention between Annex I and non-Annex I Parties or modify their respective commitments and obligations. (African Group)]
- (a).2 Be applicable to all sectors; (USA)
- (b) [Be tailored to][Take into account (EU)] national sector-specific needs and priorities and [consider] social and economic conditions and other relevant factors;
- (c) [Strengthen (EU)][[Be aimed at strengthening] cooperative actions within any phase of the technological cycle and facilitate the management of technical and financial resources for the implementation of NAMAs;]

²⁵ The Bali Action Plan, in its paragraph 1 (b) (iv), calls for the consideration of enhanced national/international action on mitigation of climate change, including, inter alia, cooperative sectoral approaches and sector-specific actions, in order to enhance implementation of Article 4, paragraph 1(c), of the Convention

- (d) [Assist in fostering][Foster private and public sector (EU)][national (African group)] initiatives in R&D, capacity-building and [technological] [technology] (EU) cooperation;
- (e) [[Assist in achieving [the levels of] financing and technology transfer] [necessary to address climate change] in a measurable, reportable and verifiable manner;]
[Facilitate as appropriate in obtaining finance, technology and know-how to address climate change in measurable, reportable and verifiable manner; (EU)]
- (f) [Facilitate the identification of best practices and best available technologies for each sector through cross-border analysis and promote the transfer of those best practices and best available technologies [from developed country Parties through analysing reduction potentials and setting indicators].]
[Facilitate the identification of best practices and best available technologies and promote the exchange of information. (EU)]

Page 131

129.1 Cooperative sectoral approaches and sector-specific actions should enhance the implementation of Article 4.1 (g) and (h) of the Convention through the provision of financial resources, including for transfer of technology, at agreed full incremental costs in accordance with Article 4.3 of the Convention. (China)

130. [Cooperative sectoral approaches and sector-specific actions should be implemented as analytical tools to inform national mitigation efforts, taking into account the capabilities of each sector, and should contribute to the enhancement of Parties' [measurable, reportable and verifiable] actions in order to ensure environmental integrity. Bottom-up sectoral analysis may be used as a tool for analysing mitigation potential, based on recent scientific findings and existing knowledge using a common methodology to determine sectoral baselines of Parties (Turkey). [Cooperative sectoral approaches and sector-specific actions may also be used as instruments for both market and non-market mechanisms.]]

- (a) For developed country Parties, sectoral efforts may contribute to, but cannot replace legally binding absolute emission reduction targets (QELRCs) and mitigation commitments for all Annex I Parties;
- (b) For developing country Parties, domestic sectoral efforts may be one option in the toolbox for national mitigation actions, but shall not be a basis for the imposition of trade barriers, punitive trade measures, benchmarking or standards for developing countries, or any action that would be contrary to Article 3.5 of the Convention; (G77/China)

130.1 Means of implementation

- (a) Implementation of Article 4.1 (c) shall be financed at agreed full incremental costs, in accordance with Article 4.3 of the Convention;
- (b) Provision of financial resources and promotion and facilitation of access and transfer of technology in implementation of Article 4.1 (c) shall be accomplished under the guidance of the Executive Body on Technology of the Convention and the financial mechanism to be established under the authority of the Conference of the Parties (G77/China)

131. [Priority areas shall be identified sector by sector and technology by technology. The possibilities of utilizing renewable energy resources shall be explored fully. (Iceland) The most climate-sensitive sectors, including GHG-intensive and climate-vulnerable sectors, shall be fully considered for the development, transfer and deployment of environmentally sound technologies. In line with the technology transfer mechanism and taking into account, among others, countries' technology needs assessments (TNA), if available, (Colombia) a list of major environmentally sound technology needs shall be assessed regularly, to include analysis of reliability, costs, penetration range, sectoral share of market production

capacity and market obstacles. Measures shall be taken to overcome obstacles to development, transfer and deployment of technologies in specific sectoral contexts.]

132. [The implementation of cooperative sectoral approaches and sector-specific actions should [complement and support national commitments of all Parties under Article 4.1. (USA)] [not replace the national targets of developed country Parties [or lead to [new commitments for developing country Parties, [trans-national or national emission reduction targets,]] arbitrary or unjustifiable discrimination or disguised restriction on international trade[, or the application of global uniform and equal standards for Parties]]].]

133. [Cooperative sectoral or sector-specific actions by developing countries to control their GHG emissions represent modalities of their implementation of Article 4.1 of the Convention. Annex II Parties must therefore meet their commitments for the provision of support for these actions to developing countries in accordance with Articles 4.3, 4.5 and 4.7 of the Convention.]

Alternative to paragraph 133

[Actions by developing countries to control their greenhouse gas emissions in the framework of cooperative sectoral approaches or sector-specific actions represent modalities of their implementation of Article 4.1 of the Convention. Annex II Parties must therefore meet their commitments for the provision of financial support in accordance with Article 4.3 and for the transfer of environmentally sound technology and know-how in accordance with Article 4.5 of the Convention. Article 4.7 on the balance between the provision of support by developed country Parties and implementation by developing country Parties also applies to such cooperative sectoral approaches or sector-specific actions.

Page 132

In particular, inclusion of international transport in an ETS shall not impose constraints and incremental costs on developing countries. Developing countries should be exempted or, if included they should be given financial and technological support to enable them to comply with these provisions without incurring any incremental costs. (African Group)]

Agriculture

x.1 Cooperative sectoral approaches in the agricultural sector should avoid the creation of international performance standards for the sector and any other measure that may result in barriers to or distortion of the international trade system of goods and products of the agricultural sector. (Argentina)

134. [Parties shall cooperate in R&D of mitigation technologies for the agriculture sector, recognizing the necessity for international cooperative action to enhance and provide incentives for mitigation of GHG emissions from agriculture[, in particular in [developing][developed (African Group)] countries. [Consideration should be given to the role of soils in carbon sequestration, including through [the use of biochar and] enhancing carbon sinks in drylands].]

Alternatives to paragraph 134

Alternative 1:

[Special considerations should be given to the role of sustainable land management (SLM) in general, including the role of soils in carbon sequestration and GHG emissions from sources (Switzerland)]

Alternative 2:

[All Parties should enhance efforts to reduce emissions and enhance removals from agriculture by strengthening and cooperating in research and development of mitigation technologies and methodologies for the agriculture sector. All Parties should consider means of increasing the efficiency of agricultural

production systems, enhancing soil carbon sequestration, and achieving sustainable agricultural land management benefits including for reducing emissions from deforestation. (Canada)]

Alternative 3:

[Cooperative sectoral approaches in the agricultural sector should be encouraged but such actions should not lead to:

- (a) discriminatory trade practices;
- (b) carbon offsets;
- (c) approaches that may contribute to deforestation and forest degradation in developing countries (Tuvalu)]

134.1 In considering mitigation actions in the agricultural sector, Parties should consider the interlink between population growth and food security and, therefore, focus mitigation actions on the improvements in the efficiency of the agricultural activities, taking into account past efforts countries have made in this regard. (Argentina)

International bunker fuels

135. [All sectors of the economy [, in particular those of Annex I Parties, (Argentina)] should contribute to limiting emissions, including international maritime shipping and aviation. [Multilateral collaborative action would be the most appropriate means to address emissions from international aviation and the maritime transport sector, the International Civil Aviation Organization and the International Maritime Organization dealing with this issue should prevent the adoption of trade restrictions and take into account the special economic conditions of developing countries and the principles of equity and of common but differentiated responsibilities and capabilities. (Argentina)] [Global (Australia)] [Sectoral approaches could address emissions that cannot be attributed to any particular economy, and multilateral collaborative action by all Parties (Canada) would be the most appropriate means to address emissions from international aviation and the maritime transport sector.]]

Alternative to paragraph 135

[Those developed country Parties that are not parties to the Kyoto Protocol shall undertake measures within the context of their national appropriate mitigation commitments to reduce emissions from international aviation and international maritime transport.

Page 133

Developing country Parties may undertake actions to reduce emissions from international aviation and international maritime transport within the context of nationally appropriate mitigation actions. (Tuvalu)]

136. [Option 1]

The International Maritime Organization shall be encouraged to continue without delay its activities for the development of policies and measures to reduce GHG emissions, and specifically:

- (a) [To achieve, through the use of its policies and mechanisms, total GHG emission reductions which are at least as ambitious as the total GHG emission reductions under the Convention;]

[To establish an ambitious global goal for the reduction or limitation of greenhouse gas emissions from ships to be achieved through the implementation of its policies and measures. (Canada)]

- (b) To report regularly to the COP {and its subsidiary bodies as appropriate} on relevant activities, emission estimates and achievements in this respect;
- (c) To report to the COP {at its seventeenth session} on policies, established measures, measures under development, and expected emission reductions resulting from these measures.]

Alternative to paragraph 136 [in the form of a draft decision by the COP]:

[Reduction of greenhouse gas emissions from international shipping

The Conference of the Parties,

[Being aware of the role of the IMO established in the IMO Convention, the UN Charter and UNCLOS....]

Recognizing that in order to achieve a necessary two degree scenario, global greenhouse gas emissions should follow a pathway that includes a peak year no later than 2015 and results in emission reductions of 50- 85% by 2050, in accordance with findings in the 4th Assessment Report of the IPCC,

Welcomes the report presented by the Secretary General of the International Maritime Organization (IMO) on policies and activities related to reduction of Greenhouse Gas Emissions from international shipping,

Recognizing the role of the International Maritime Organization in developing global actions to limit or reduce greenhouse gas (GHG) emissions from international shipping,

Recognizing further that the IMO has undertaken a comprehensive assessment of the total greenhouse gas emissions from international shipping, and that these emissions constitutes a significant share of the global anthropogenic emissions,

Recognizing the need to develop a long term goal as well as intermediate targets for emission reductions from the maritime sector, in order to facilitate transformation to a low carbon economy,

Being aware that the IMO activity has identified technical and operational measures which can contribute significantly to emission reductions,

Encourages the IMO to continue without delay the ongoing activities to develop policies and measures to reduce GHG emissions, and in doing so invites the IMO to:

1. achieve, through the use of its policies and mechanisms, total GHG emission reductions which are at least as ambitious as the total GHG reductions to be achieved by the UNFCCC Copenhagen agreement,
2. report regularly to COP [and its subsidiary bodies as appropriate] on relevant activities, emission estimates and achievements in this respect, and especially
3. report to COP [17] on IMO policies, established measures, measures under development, and expected emission reductions resulting from these measures, and

Requests the Secretariat of the UNFCCC to continue co-operating with the Secretariat of the International Maritime Organization.(Norway)]

137. Option 2

Parties shall take the necessary action to reduce emissions of GHGs not controlled by the Montreal Protocol from aviation and marine bunker fuels.

Page 134

[Global reduction targets for such emissions from aviation and marine bunker fuels shall be set as equal to, respectively, {X per cent} and {Y per cent} below {year XXXX} levels in the commitment period {20XX to 20XX}. Units from existing and potential new flexibility mechanisms may contribute towards achieving these targets.]

Parties shall work through the International Civil Aviation Organization and the International Maritime Organization to enable effective international agreements to achieve these targets to be approved by 2011. Such agreements should not lead to competitive distortions or carbon leakage. Parties shall assess progress in the implementation of this work, and take action to advance it, as appropriate.]

138. [Option 3]

[Taking into account the interests of developing countries, (Singapore)][All Parties (Canada)][Developed country Parties (Turkey)][Parties][Annex I Parties] shall pursue limitation or reduction of emissions of GHGs not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization, respectively.]

138.1 Option 4

[The Parties should pursue a collective reduction of [X per cent] below [year XXXX] for emissions of anthropogenic greenhouse gases not controlled by the Montreal Protocol from international aviation bunker fuels and [Y per cent] below [year XXXX] levels for emissions of anthropogenic greenhouse gases not controlled by the Montreal Protocol from international marine bunker fuels in the commitment period [20XX to 20XX].]

The Parties should commence negotiations on two global sectoral agreements to address, respectively, international aviation and maritime emissions in 2010 with a view to concluding by COP-17 in 2011, taking into account work already done in ICAO and IMO. (Australia)

Page 134

**E. [[Various approaches to enhance the cost-effectiveness of, and to promote, mitigation actions²⁶]
[Market mechanisms] (Australia)] (India)**

139. [[Parties {shall} {should}] [Encourage Parties to] (Australia) cooperate, as appropriate, to enable cost-effective mitigation [at the least economic cost] (New Zealand) through the use of environmentally effective, market-based instruments that provide economic incentives to achieve maximum [private-sector] (Australia) participation. [Policies in developed and developing countries [{shall} promote] [should contribute to promoting] (Canada) the flow of funding to developing countries in order to catalyse mitigation actions at the scale that will be necessary to address the climate challenge.] (Australia)] (African Group; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; Paraguay; Tuvalu)

139.1 Parties shall strive to establish a global carbon market through the progressive implementation of new and improved [flexible][carbon market] mechanisms as provided for under this agreement. (EU)

139.2 A robust carbon price signal should be created as a key means to deliver cost-effective GHG emissions reductions globally. A global carbon market offers a key means to meet mitigation objectives, to provide finance for the worldwide transition towards a low carbon economy, and contribute towards achieving development objectives. (EU)

139.3 The [flexible][carbon market] mechanisms are:

- (a) new mechanisms consisting of sectoral trading and crediting mechanisms established under this Agreement;
- (b) existing mechanisms consisting of international emissions trading, joint implementation and the clean development mechanisms established under the Kyoto Protocol. (EU)

139.4 The Parties shall by 20XX, revise the modalities and procedures for clean development mechanism in order to ensure a more equal geographical distribution of CDM projects, sustainable development and the environmental integrity of the clean development mechanisms including by establishing:

- (a) benchmarks for baseline setting and determination of additionality for specific project types;

Page 135

- (b) discount factors for application to issuance of certified emissions reductions for specific clean development mechanism project types as an alternative in situations where it is not feasible to establish baselines on the basis of benchmarks;
- (c) criteria on the primary technology employed in the relevant sector;
- (d) a rules based approach to decision making. (EU)

139.5 The Parties shall by 20XX revise guidelines for the implementation of Joint Implementation, including for improving its effectiveness and efficiency by extending its timing, guaranteeing its environmental integrity, and preparing for new participants. (EU)

²⁶ The Bali Action Plan, in its paragraph 1 (b) (v), calls for the consideration of enhanced national/international action on mitigation of climate change, including, inter alia, various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions.

139.6 Market based approaches shall employ market based mechanisms that shall be neutral with respect to the technology used and gas covered, except when specifically not eligible, based on well defined, objective criteria, and as result of a transparent process. These criteria shall be approved by COP. (Panama)

139.7 Developed country Parties which are not Parties to the Kyoto Protocol and developing country Parties that undertake Tier three NAMAs may trade carbon units with Kyoto Protocol Parties subject to the following provisions:

- (a) that means of measuring, reporting and verifying the generation of carbon units is compatible with reporting and verifying provisions established under Articles 5, 7 and 8 of the Kyoto Protocol;
- (b) that any system of trade with the Kyoto Protocol Parties is approved by the Conference of Parties serving as the meeting of Parties to the Kyoto Protocol;
- (c) that no carbon units generated from reducing emissions from deforestation and forest generation are used or converted into other carbon units. (Tuvalu)

140. [[Eligibility criteria for project activities linked to market-based mechanisms] [Instruments, such as financing to cover additional risk,] (Panama) should be established to ensure additionality, (Turkey) a fair distribution of projects across regions and mitigation technologies and [to ensure] fair access to financing schemes[, including through the advance payment of future carbon credits to cover the full incremental costs of project activities] (Japan).] (African Group; Australia; Canada; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; New Zealand; Republic of Korea; Switzerland; Tuvalu)

Alternative to paragraph 140:

[[Eligibility criteria for access by developed country parties to new and existing [flexible][carbon market] mechanisms shall include establishment of assigned amount pursuant to a binding national cap, and submission of the most recently required national inventory. Eligibility criteria for access by economically more advanced developing country parties to new and existing [flexible][carbon market] mechanisms shall include submission of the most recently required inventory. Further eligibility criteria may be defined by the Meeting of the Parties under this Agreement.] (EU)] (Japan)

141. [Co-benefits should be [included as eligibility criteria for project activities; these may include technology transfer, capacity-building, employment creation and positive environmental impacts] [promoted by facilitative means for project activities; which may contribute to technology transfer, capacity-building, employment creation and environmental conservation such as air pollution reduction, improvement of water quality, and proper treatment and reduction of waste] (Japan). {These criteria shall be defined by a new body to be created under the Convention.}] (African Group; Australia; Canada; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; New Zealand; Switzerland; Tuvalu)

Alternative to paragraph 141:

[Projects that demonstrate co-benefits should be promoted through a number of measures, including lower registration fees and expedited registration measures; the criteria for co-benefits may include technology transfer, capacity-building, employment creation and positive environmental impacts. [These criteria shall be defined by the CDM Executive Board or a new body to be created under the Convention.]] (Panama)

142. [Actions enabled through support that is provided by [market mechanisms] [developed countries to developing countries may] (African Group, LDCs) require [a level of] (LDCs) measurement, reporting and verification [that ensures a high degree of international confidence] (India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs).] (Tuvalu)

Page 136

142.1 The Clean Development Mechanism as defined by article 12 of the Kyoto Protocol shall continue to assist developed country Parties in achieving compliance with part of their quantified emission reduction commitments and assist developing country Parties in achieving sustainable development. (Colombia)

143. [The use of market-based mechanisms {shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments [of developed country Parties and other Parties included in Annex I of the Convention (Singapore)] (Japan)} {should comprise not more than 10 per cent, including offsets, of the quantified emission limitation and reduction commitments of developed country Parties} {shall not provide credits for offsetting the quantified emission limitation and reduction targets of developed country Parties}.] (Australia; EU; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Tuvalu; USA)

144. [[A four-year programme of work on] [Parties should take advantage of] (USA) opportunities for rapid, near-term climate mitigation [shall be established as a precautionary measure] (USA) to complement ongoing measures to mitigate climate change over the medium and long term, with the goal of achieving significant near-term results through, for example, reducing emissions of substances that are short-lived in the atmosphere such as black carbon (soot), promoting the phase-down of hydrofluorocarbons (HFCs) and biosequestration. {An arrangement shall be established to reduce emissions of HFCs}.²⁷] (African Group; Australia; China; EU; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu)

144.1 Parties shall establish an arrangement to reduce emissions of HFCs. (EU)

145. [[Mitigation commitments and actions {shall} {should} be comprehensive in addressing all GHG sources [in all sectors] (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates), as well as GHG sinks.] [Mitigation potential should be maximized through the comprehensive coverage of greenhouse gas sources and sinks.] (Australia) {A metric based on global warming potential {shall} {should} be used.} [In deciding on inclusion of new GHGs, it is important to consider whether the technical information on these gases is available and whether inclusion of each gas is appropriate from a viewpoint of effective implementation.] (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates)] (African Group; Canada, China, India, LDCs, New Zealand, Paraguay; Tuvalu)

Alternative to paragraph 145:

[For the purposes of this agreement, the global warming potentials used to calculate the carbon dioxide equivalence of anthropogenic emissions by sources and removals by sinks of greenhouse gases listed in Annex [X] shall be those provided by the Intergovernmental Panel on Climate Change in its Fourth Assessment Report based on the effects of the greenhouse gases over a 100-year time horizon. Any revision to a global warming potential by the Intergovernmental Panel on Climate Change subsequent to the Fourth Assessment Report or revisions of the approach to calculate carbon dioxide equivalence shall apply only to commitments in respect of any commitment period adopted subsequent to that revision.] (EU)

Move paragraph 145 to another section (Australia)

146. [Issues identified by Parties requiring further elaboration at the appropriate time include further modalities and procedures that prevent double counting of emission reductions (Australia) between any of the mechanisms [and other support] (Australia, India).] (Tuvalu)

²⁷ The issues relating to HFC and perfluorocarbon emissions as well as additional new gases and methodological proposals for the measurement of GHGs are also being considered by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol and by the SBSTA.

[*A crediting mechanism for nationally appropriate mitigation actions*] (African Group; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; Tuvalu; USA)

147. [A NAMA crediting mechanism {shall} {should} be established, under which credits may be generated for the verifiable emission reductions achieved by the NAMAs by developing country Parties in order to assist them in achieving sustainable development and contributing to the global efforts to combat climate change. NAMA generated credits shall be used to meet the commitments of Annex 1 Parties both under the Kyoto Protocol and the LCA and shall be fully fungible with other carbon market units under the LCA and KP. (Panama)] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Paraguay; Tuvalu; USA)

148. [The NAMA crediting mechanism shall be subject to the authority and guidance of the COP and shall be supervised by a dedicated body constituted by the COP [or by the Executive Board of the CDM] (Canada, Switzerland), advised by a body composed of stakeholders, including experts from the private sector, environmental organizations, etc. (Panama)] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Paraguay; Tuvalu; USA)

Page 137

149. [NAMAs financed through the NAMA crediting mechanism shall be verified, together with the corresponding support as measured and reported, by institutions accredited by a body under the authority of (Panama) the COP, [and] in accordance with guidelines developed under the authority of the COP. Where independent third-party verification is used, it shall result in a verification report considered by a body under the authority and guidance of the COP.] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu; USA)

150. [*Issues identified by proposing Parties requiring further elaboration at the appropriate time include modalities for the implementation of the NAMA crediting mechanism, including the scope of NAMAs eligible for crediting, appropriate criteria and standards, and methodologies for measuring and verifying emission reductions while rigidly ensuring additionality of actions for environmental integrity, based on appropriate data and robust MRV mechanisms* (Japan).] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; New Zealand; Paraguay; Tuvalu; USA)

[*Sectoral crediting*] (African Group; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; Tuvalu; USA)

151. [A sectoral crediting mechanism, subject to the authority and guidance of the COP and supervised by {a body} [a dedicated body constituted by the COP] (Switzerland), shall be established [to enable developing countries to strengthen their contribution to the ultimate objective of the Convention and to access carbon markets, to assist developed countries in achieving compliance with part of their quantified emission limitation and reduction commitments, and to promote sustainable development] (Canada).] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Paraguay; Tuvalu; USA)

151.1 A sectoral crediting mechanism is hereby established for the purpose of supporting Parties to reduce anthropogenic emissions and increase anthropogenic removals of greenhouse gases from sectoral no-lose emissions reduction thresholds registered in national schedules. (Australia)

152. [Developing countries that have absolute or intensity based (Canada) sectoral emission thresholds and meet requirements (to be developed) may participate in sectoral crediting.] (African Group; Australia;

China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu; USA)

153. [Developing countries may propose absolute or intensity based (Canada) sectoral emission thresholds, as part of their low-emission development strategies.] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu; USA)

154. [{Certified emission reductions} {other fungible units} may be issued {by a specific body} in respect of sectoral emission reductions beyond the absolute or intensity based (Canada) emission threshold and shall be fungible with other units issues under the KP and LCA such as CERs, ERUs and AAUs (Panama).] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu; USA)

155. *[Issues identified by proposing Parties in the context of paragraphs 151–154 above as requiring further elaboration at the appropriate time include:*

- (a) Preparation, submission, review and approval of proposals for inscribing absolute sectoral emission thresholds, while rigidly ensuring the adequacy of targets for environmental integrity (Japan);
- (b) Monitoring, verification and reporting of emissions and accounting of units;
- (c) Modalities and procedures for sectoral crediting including possible guidelines for management and allocation of issued credits (Japan);
- (d) Criteria for eligible countries and sectors; (Japan)
- (e) Nature of targets (absolute or intensity); (Japan)
- (f) Possible stakeholders, including public-private cooperation; (Japan)
- (g) Results of non-achievement of the target; (Japan)
- (h) Relationship with CDM activities (Japan).] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; New Zealand; Tuvalu; USA)

155.1 [The Meeting of the Parties to this Agreement shall, [at its Xth session], elaborate modalities and procedures for the:

- (a) preparation, submission, review and approval of proposals for inscribing absolute sectoral emission thresholds;
- (b) monitoring, verification and reporting of emissions and accounting of units.] (EU)

155.2 The modalities and procedures shall as a minimum ensure that:

- (a) Parties' absolute emission thresholds for the relevant sectors should deviate significantly from business as usual emissions and be established in a conservative manner taking into account, inter alia, the most efficient techniques, procedures, substitutes and alternative production processes;

- (b) independently verified data and projected emissions in the relevant sector are taken into account;

- (c) methodologies for estimating and accounting sectoral greenhouse gas emissions in a conservative manner are available;
- (d) sectoral emissions are effectively monitored, reported and reviewed;
- (e) there is a clear definition of sectoral boundaries;
- (f) the crediting period for [certified emission reductions or/other fungible units] shall be [X] years;
- (g) absolute sectoral emissions thresholds are reviewed every [X] years;
- (h) leakage is minimised to the extent possible;
- (i) revenues derived from sectoral emission reductions are additional to any other financial support for NAMAs. (EU)

[*Sectoral trading*] (African Group; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; Tuvalu)

156. [Developing countries that have sectoral emission targets and meet requirements (to be developed) may participate in international emissions trading. Developing countries may propose sectoral emission targets as part of their low-carbon development strategies. Units issued under sectoral emissions trading shall be fully fungible with other units issues under the KP and LCA such as CERs, ERUs and AAUs. (Panama)] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu; USA)

156.1 A sectoral trading mechanism is hereby established for the purpose of supporting Parties to meet sectoral quantified emission limitation or reduction commitments registered in national schedules. (Australia)

157. [Any trading pursuant to paragraph 156 above for the purpose of meeting sectoral emission targets shall be supplemental to domestic actions.] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; Japan; LDCs; New Zealand; Tuvalu; USA)

158. [*Issues identified by proposing Parties in the context of paragraphs 156–157 above as requiring further elaboration at the appropriate time include:*

- (a) Preparation, submission, review and approval of proposals for sectoral emission targets while rigidly ensuring the adequacy of targets (Japan);
- (b) Monitoring, verification and reporting of emissions and accounting of units;
- (c) Modalities and procedures for sectoral trading including possible guidelines for management and allocation of issued credits (Japan);
- (d) Criteria for eligible countries and sectors; (Japan)
- (e) Nature of targets (absolute or intensity); (Japan)
- (f) Possibly stakeholders; (Japan)
- (g) Result of non-achievement of the target; (Japan)
- (h) Relationship with CDM activities (Japan).] (African Group; Australia; China; India; Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and United Arab Emirates; LDCs; New Zealand; Tuvalu; USA)

158.1 [The Meeting of the Parties to this Agreement shall, [at its Xth session], elaborate modalities and procedures for the:

- (a) preparation, submission, review and approval of proposals for sectoral emission targets;
- (b) monitoring, verification and reporting of emissions and accounting of units.] (EU)

158.2 The modalities and procedures shall as a minimum ensure that:

- (a) sectoral emission targets should deviate significantly from [business as usual/reference] emissions and be established in a conservative manner taking into account, inter alia, the most efficient techniques, procedures, substitutes and alternative production processes;
- (b) independently verified data and projected emissions in the relevant sector are taken into account;
- (c) methodologies for estimating and accounting sectoral greenhouse gas emissions in a conservative manner are available;
- (d) sectoral emissions are effectively monitored, reported and reviewed;

Page 139

- (e) there is a clear definition of sectoral boundaries;
- (f) the trading period for [assigned amount/fungible units] shall be [X] years;
- (g) sectoral emission targets are reviewed every [X] years;
- (h) leakage is minimised to the extent possible;
- (i) revenues derived from sectoral emission reductions are additional to any other financial support for NAMAs. (EU)

158.3 The Meeting of the Parties to this Agreement shall, [at its Xth session] define modalities and procedures which:

- (a) prevent double counting between the new and existing mechanisms and other support;
- (b) provide for an orderly transition between mechanisms where one mechanism' ceases to be applicable due to the application of another mechanism;
- (c) ensure credits issued from clean development mechanism project activities registered before [XXXX] will continue to be issued [until XXXX];
- (d) exclude new clean development mechanism projects in sectors for which absolute sectoral emission thresholds or targets are defined. (EU)

158.4 Units generated from market mechanisms established under this agreement shall be available to Parties to meet mitigation commitments under the Kyoto Protocol. (Australia)

158.5 Parties which take on economy-wide or sectoral quantified limitation or reduction commitments under this agreement shall be eligible to participate in the Kyoto Protocol flexibility mechanisms. (Australia)

158.6 Units generated from the Kyoto Protocol flexibility mechanisms shall be available to Parties which take on economy-wide or sectoral quantified limitation or reduction commitments under this agreement for the purpose of fulfilling this commitment. (Australia)

Proposed new subsection on crediting and trading mechanism for nationally appropriate mitigation actions

x.1 A crediting and trading mechanism for nationally appropriate mitigation actions is hereby defined. (New Zealand)

x.2 The purpose of the mechanism shall be to assist developing country Parties in undertaking nationally appropriate mitigation actions that produce a net mitigation benefit to the atmosphere, to promote cost-effective global mitigation through the use of markets, and to assist developed country Parties in meeting their commitments under the Convention and any of its related legal instruments. (New Zealand)

x.3 This mechanism shall complement other means of implementation for nationally appropriate mitigation actions by developing country Parties. (New Zealand)

x.4 Participation in the mechanism by any Party shall be voluntary. (New Zealand)

x.5 Subject to the requirements in paragraph 158.11, each participating developing country Party may participate in the mechanism on the basis of a quantified crediting or trading threshold:

- (a) Proposed by that Party as a form of nationally appropriate mitigation action, or in conjunction with such action;
- (b) Established in accordance with rules, procedures, modalities and guidelines to be adopted by the [supreme body of this instrument]; and
- (c) Approved by the [supreme body of this instrument]. (New Zealand)

x.6 Developing country Parties shall meet the following eligibility requirements and any other requirements established by the [supreme body of this instrument]:

- (a) Establishment of a national system for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, in accordance with the requirements in the guidelines decided pursuant to this Article;
- (b) Establishment of a national registry, in accordance with the requirements in the guidelines decided pursuant to this Article; and

Page 140

- (c) Annual submission of the most recent inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, in accordance with the requirements in the guidelines decided pursuant to this Article and taking fully into account any relevant decisions by the Conference of the Parties. (New Zealand)

x.7 A crediting or trading threshold shall cover one or more eligible sectors elected by the participating developing country Party. (New Zealand)

x.8 A crediting or trading threshold shall be set at a level significantly below projected anthropogenic emissions, or above projected anthropogenic removals, of greenhouse gases within the sector boundary, taking into account the national circumstances and respective capabilities of the participating developing country Party. (New Zealand)

x.9 For each developing country Party that elects to participate on the basis of a crediting threshold:

- (a) NAMA units shall be issued to the Party following the verification of the Party's actual reductions in emissions and/or removals by sinks within the sector boundary relative to the threshold.
- (b) Where the Party's actual emissions with the sector boundary exceed the threshold, or the Party's actual removals with the sector boundary are below the threshold, no NAMA units shall be issued and there shall be no further consequences under [this instrument].
- (c) The Party may participate in emissions trading. (New Zealand)

x.10 For each developing country Party that elects to participate on the basis of a trading threshold:

- (a) NAMA units shall be issued to the Party at the start of each trading period in an amount calculated in accordance with that Party's trading threshold.
- (b) At the end of each trading period, the Party shall retire a number of NAMA units or other eligible units equal to its actual net emissions within the sector boundary during the trading period.
- (c) The Party may participate in emissions trading. Any such trading shall be supplemental to domestic actions by the Party. (New Zealand)

x.11 The mechanism shall function under the guidance of and be accountable to the [supreme body of this instrument] and shall be supervised by a body to be established or appointed by the [supreme body of this instrument]. (New Zealand)

x.12 The [supreme body of this instrument] shall adopt the definitions, rules, modalities and guidance for the mechanism, including in relation to: the determination of eligible sectors and sector boundaries; requirements for measurement, monitoring, reporting and verification; ensuring real, measurable and long-term benefits related to the mitigation of climate change; the duration of crediting and trading periods; the carry-over of units between periods; issuance and accounting of NAMA units; eligible units for the purposes of paragraph 158.15(b) above; treatment of potential leakage across sectors; and the consequences for not meeting a trading threshold including facilitative measures. (New Zealand)

A proposed new subsection on an upfront crediting mechanism for the implementation of emission trading and carbon taxes on national level

x.13 A mechanism to support developing countries in implementing cap and trade systems and carbon taxes nationally is hereby established. (Norway)

x.14 Developing country Parties eligible to allowances up front will receive emission allowances under the Copenhagen Agreement from a set aside reserve. (Norway)

x.15 The amount of allowances and the necessary capacity building for introducing such measures should be scaled up with sector scope, high price on emissions and early implementation, and scaled down with GDP/capita. (Norway)

x.16 The Conference of the Parties shall adopt further principles, modalities, rules and guidelines for the functioning of this mechanism at its [16th] session. (Norway)

A proposed new subsection on a new project based mechanism

x.17 A project based mechanism for storing CO₂ or other greenhouse gases in geological formations is hereby established. (Norway)

x.18 The Conference of the Parties shall adopt further principles, modalities, rules and guidelines for the functioning of this project based mechanism at its [16th] session. (Norway)

A proposed new subsection on addition to or subtraction from the assigned amount

x.19

- (a) Any emission reduction units, any certified emission reductions, any assigned amount units or removal units, which a Party acquires from another Party in accordance with the provisions of paragraph 158.25 or 158.26 below, shall be added to the assigned amount for the acquiring Party.
- (b) Any emission reduction units, any certified emission reductions, any assigned amount units or removal units, which a Party transfers to another Party in accordance with the provisions of paragraph 158.25 or 158.26 below, shall be subtracted from the assigned amount for the transferring Party.
- (c) Any certified emission reductions which a Party acquires from another Party in accordance with the provisions of paragraph 158.27 below shall be added to the assigned amount for the acquiring Party.
- (d) The acquisition of emission reduction units, certified emission reductions, assigned amount units or removal units under paragraphs 158.25, 158.26, or 158.27 below shall be supplemental to domestic actions for the purpose of meeting commitments under Article 3, paragraph 1 (Commitments by developed country Parties). (Japan)

A proposed new subsection on joint implementation

x.20

- (a) For the purpose of meeting its commitments under Article 3, paragraph 1 (Commitments by developed country Parties), any Party included in Annex I may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, provided that:
 - (i) Any such project has the approval of the Parties involved;
 - (ii) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur; and
 - (iii) It does not acquire any emission reduction units if it is not in compliance with its obligations under Articles 4 (Methodological issues) and 5 (Inventory and information).
- (e) A Party included in Annex I may authorize legal entities to participate, under its responsibility, in actions leading to the generation, transfer or acquisition, under this paragraph of emission reduction units.
- (f) If a question of implementation by a Party included in Annex I of the requirements referred to in this paragraph is identified in accordance with the relevant provisions of Article 6 (Review of information), transfers and acquisitions of emission reduction units may continue to be made after the question has been identified, provided that any such units may not be used by a Party to meet its commitments under Article 3, paragraph 1

(Commitments by developed country Parties), until any issue of compliance is resolved.
(Japan)

A proposed new subsection on Emissions Trading

x.21 The Parties included in Annex I may transfer and/or acquire, through emissions trading, emission reduction units, certified emission reductions, assigned amount units or removal units for the purposes of fulfilling their commitments under Article 3, paragraph 1 (Commitments by developed country Parties).
(Japan)

A proposed new subsection on Clean Development Mechanism

x.22

- (a) A clean development mechanism is hereby defined.
- (g) The purpose of the clean development mechanism shall be to promote nationally appropriate mitigation actions by Parties included in Annex C in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in meeting their quantified emission limitation and reduction commitments under Article 3, paragraph 1 (Commitments by developed country Parties).
- (h) Under the clean development mechanism:

Page 142

- (i) Parties included in Annex C will benefit from project activities resulting in certified emission reductions; and
 - (ii) Parties included in Annex I may use the certified emission reductions accruing from such project activities to meet part of their quantified emission limitation and reduction commitments under Article 3, paragraph 1 (Commitments by developed country Parties), as determined by the Conference of the Parties serving as the meeting of the Parties to this Protocol.
- (i) The clean development mechanism shall be subject to the authority and guidance of the Conference of the Parties serving as the meeting of the Parties to this Protocol and be supervised by an executive board of the clean development mechanism.
 - (j) Emission reductions resulting from each project activity shall be certified by operational entities to be designated by the Conference of the Parties serving as the meeting of the Parties to this Protocol, on the basis of:
 - (i) Voluntary participation approved by each Party involved;
 - (ii) Real, measurable, and long-term benefits related to the mitigation of climate change; and
 - (iii) Reductions in emissions that are additional to any that would occur in the absence of the certified project activity while adopting methodologies widely and efficiently applied to project activities.
 - (k) The clean development mechanism shall assist in arranging funding of certified project activities as necessary.
 - (l) The Conference of the Parties serving as the meeting of the Parties to this Protocol shall ensure that a share of the proceeds from certified project activities is used to cover

administrative expenses as well as to assist developing country Parties that are particularly vulnerable to the adverse effects of climate change to meet the costs of adaptation.

- (m) Participation under the clean development mechanism, including in activities mentioned in subparagraph 158.27(c)(i) above and in the acquisition of certified emission reductions, may involve private and/or public entities, and is to be subject to whatever guidance may be provided by the executive board of the clean development mechanism. (Japan)

x.23 The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first session or as soon as practicable thereafter, decide upon guidelines for the implementation of paragraphs 158.25, 158.26, and 158.27 above, including for verification and reporting, taking into account the characteristics of respective schemes. (Japan)

Page 142

F. Economic and social consequences of response measures²⁸

Structural proposals:

Proposal 1

Put the whole section F in abeyance until the work within the joint SBSTA/SBI contact group and the work on Art. 2.3 and Art. 3.14 within the AWG-KP deliver conclusions. (Switzerland)

Proposal 2

Include the treatment of the underlying causes of deforestation and degradation of forests. (Paraguay)

Proposal for preambular paragraphs:

Recognizing the special difficulties of those countries, especially developing countries, whose economies are particularly dependent on fossil fuel production, use and exportation, as a consequence of action taken on limiting greenhouse gas emissions, (Saudi Arabia)

Page 143

There is a need to undertake a global transition to a low emission economy in order to tackle climate change. Although this transition presents a major opportunity for all countries to follow a clean development path, it can also pose challenges for all Parties, in particular to the most vulnerable countries. Parties should work together to ensure this transition is congruent with sustainable development processes in all countries. (EU)

Mechanisms should be developed to allow for mitigating the impact of the response measures on the productive workforces, promoting a gradual and just transition in the most impacted economic sectors and contributing to building new capacities for both production and service related jobs. (Argentina)

The Parties acknowledge that the issue of adaptation to the adverse impacts of climate change is a separate issue and one to be addressed under the adaptation building block of the Bali Action Plan, while the discrete issue of the impacts of response measures is to be addressed under enhanced action on mitigation under the mitigation building block of the Bali Action Plan. (AOSIS)

159. [Developed country (Africa Group) Parties shall [strive to] implement policies and measures to respond to climate change in such a way as to minimize adverse effects, including the adverse effects of climate change, effects on international trade, and [social, [environmental] and economic impacts on other Parties] [adverse economic, social or environmental consequences](Turkey), [especially developing country Parties, and in particular those identified in Articles 4.8 [and] [,] 4.9 and 4.10 (Australia, Singapore) of the Convention, taking {fully} into account Article 3 of the Convention [, in particular Article 3.2 (Saudi Arabia), 3.3 and 3.5]].]

Alternatives to paragraph 159:

Alternative 1

²⁸ The Bali Action Plan, in its paragraph 1 (b) (vi), calls for the consideration of enhanced national/international action on mitigation of climate change, including, inter alia, economic and social consequences of response measures.

[Developed country Parties shall minimize the adverse effects of response measures, on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties, and in particular those identified in Articles 4.8 and 4.9 of the Convention.] (Iran, on behalf of Algeria , Kuwait , Libya , Qatar , Saudi Arabia and UAE; Saudi Arabia)

Alternative 2

[Parties shall strive to implement mitigation policies and measures in such a way as to minimize social, environmental and economic impacts on other Parties, especially the poorest and most vulnerable developing country Parties that are least capable to address them, taking into account Article 3 of the Convention.] (EU)

Alternative 3

[Parties shall strive to implement policies and measures to respond to climate change in such a way as to minimize adverse effects, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially those Parties most vulnerable to the adverse effects of climate change and the least able to adapt, taking {fully} into account Article 3 of the Convention {, in particular Article 3.5}. Such efforts should not constrain or hinder progress in addressing climate change.] (Canada)

Alternative 4

[All Parties shall endeavour to reduce their emissions in such a way so as to avoid economic and social consequences of taking such actions. In taking action to avoid economic and social consequences of mitigation action special attention should be given to low income countries, and in particular consequences for women and children in low income countries.] (Tuvalu)

159.1 Promotion and cooperation in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies (Article 4.1 g); (G77 and China)

159.2 Promotion and cooperation in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies (Article 4.1 h); (G77 and China)

159.3 The difficulties of assessing the complex issue of potential impacts of policies are compounded by the fact that some of these impacts are unintended and often unanticipated. Wider economic and political factors can play a role in the vulnerability of socio-economic sectors and can amplify or diminish the impacts of policies. Parties should cooperate to enhance the understanding on the potential consequences of policies and measures, taking into account of:

Page 144

- (a) The need for information from those affected;
- (b) Evidence of actual impacts;
- (c) Both positive and negative effects. (EU)

159.4 All Parties shall develop and implement policies and measures to ensure that mitigation action, including, inter alia, the use of biofuels, does not contribute to deforestation and forest degradation in developing countries. (Tuvalu)

159.5 As a means of ensuring that mitigation action, including, inter alia the use of biofuels, does not contribute to deforestation and forest degradation in developing countries, all Parties shall initiate forest law enforcement, governance and trade measures. (Tuvalu)

159.6 All Parties shall ensure all actions to reduce emissions from deforestation and forest degradation in particular countries do not result in emissions from deforestation and forest degradation in other countries as a result of emissions displacement. Measure may include regulation of demand-side use of forest products or other commodities that have resulted in deforestation or forest degradation. (Tuvalu)

160. [Adverse economic and social consequences of response measures {shall} {should} be addressed by proper economic, social and environmental actions including (Turkey) promoting and supporting economic diversification and the development and dissemination of win-win technologies in the affected countries, paying particular attention to the needs and concerns of the poorest and most vulnerable developing country Parties.]

Alternatives to paragraph 160:

Alternative 1

[Adverse economic and social consequences of response measures shall be addressed by various means, including but not limited to promoting, supporting and enabling economic diversification, funding, insurance and the development, transfer and dissemination of win-win technologies in the affected countries, such as cleaner fossil fuel technologies, gas flaring reduction, and carbon capture storage technologies.] (Iran et al; Saudi Arabia)

Alternative 2

[The understanding of adverse economic and social consequences of response measures should be enhanced by exchanging and sharing information between Parties on experience of actual impacts of climate change response measures, cooperating in developing tools and methods and building the capacity to assess potential impacts of climate change policies and measures in the affected countries, paying particular attention to the needs and concerns of the poorest and most vulnerable developing country Parties that are least capable to address them.] (EU)

161. [[Developed [and developing] countries] [Developed and developing country Parties] (Singapore) [All Parties] (New Zealand) [shall] [should:]

- (a) [[Assess] [Consider] (EU) the economic, [cultural,] [environmental] and social effects that result from their (Iran et al; Saudi Arabia; Africa Group) mitigation strategies and measures;]
- (b) [Consider [how to avoid] negative spillover effects and positive spillover effects (EU) when designing their (Iran et al; Saudi Arabia; Africa Group) policies and measures to tackle climate change;]
- (c) [Provide information in their national communications on any impacts arising from the implementation of their commitments under the Convention and any related instruments;]

[Make use of the national communications to report on impacts experienced arising from the implementation of climate change response measures taken by another Party] (EU)

[Provide information in their national communications on any impacts they are experiencing as a result of the implementation of their commitments under the Convention] (Canada)

- (d) [Request the secretariat to (Iran et al; Saudi Arabia) undertake comprehensive [studies] [a study] (Iran et al; Saudi Arabia) of direct costs and adverse (Iran et al; Saudi Arabia) impacts of response measures, as well as associated indirect costs and impacts on other Parties, especially on developing country Parties identified in Articles 4.8 [and] [,] and 4.9 and 4.10 (Singapore) of the Convention.]

Page 145

- (d).1 Compensation for damage to the LDCs' economy and also compensation for the lost opportunities, resources, lives, land and dignity as many will become environmental refugees. (LDCS)
- (d).2 Africa, in the context of environmental justice, should be equitably compensated for environmental, social and economic losses arising from implementation of response measures. (African Group)

162. [Efforts to assess the potential effects of response measures should not constrain or hinder progress in addressing climate change.] (EU)

Move paragraph 162 and insert it as a new paragraph following paragraph 159 (EU)

163. [Developed country Parties {shall} {should} provide support to developing countries, particularly those specified in Articles 4.8 and 4.9 of the Convention, in order to address issues related to social and environmental development, (Turkey) economic diversification, risk assessment, modelling and insurance to prevent the adverse effect resulting from the spillover effects.]

Alternative to paragraph 163:

[In the implementation of 159.1 and 159.2 above, through the provision of financial resources, including for access, development and transfer of technology, at agreed full incremental costs in accordance with Article 4.3 of the Convention;

Promotion of the understanding of the nature and magnitude of the impacts of climate change and its adverse effects, as well as the economic and social consequences of various response strategies;

Recognizing that there are ways and means to reduce or avoid such impacts through careful and informed selection of policies and measures, evaluate the effectiveness of existing tools, and consider new ones, to assist developing country Parties in addressing these impacts.] (G77 and China)

164. [A permanent (Iran et al; Saudi Arabia) [forum] shall be established, under the {COP} {Subsidiary Body for Implementation}, to provide a venue for Parties to share information, experiences and views on the economic [and] [,] social [and environmental] (Turkey) consequences of response measures, so as to enhance the efforts of Parties to analyse and understand these consequences and to identify innovative policy responses and technologies to address adverse consequences. This permanent (Iran et al; Saudi Arabia) forum shall be open to participation from all Parties and intergovernmental organizations and mobilize expertise from the scientific and modelling communities and the private sector. The [work of the] permanent (Iran et al; Saudi Arabia) forum should [lead to] [formulate](Iran et al; Saudi Arabia) a comprehensive framework to address adverse consequences [by] [in order to] (Iran et al; Saudi Arabia) , inter alia:]

- (x.a) Prepare guidelines on how to integrate/assess the adverse impacts of response measures;(Iran et al; Saudi Arabia)

- (a) [[Enabling] [Enable] (Iran et al; Saudi Arabia) all Parties to select appropriate and effective policies and measures that achieve the desired mitigation results while avoiding or reducing the adverse impacts of these policies and measures on the sustainable development of other Parties, particularly developing country Parties;]

- (b) [[Enabling] [Enable] (Iran et al; Saudi Arabia) developing country Parties confronted by unavoidable adverse consequences of policies and measures to strengthen their resilience and adaptive capabilities [and to] [by inter alia] (Colombia) undertake economic diversification, integrating these responses in their sustainable development processes.]

- (b).1 Report periodically to the COPs. (Iran et al; Saudi Arabia)

165. [The permanent (Iran et al; Saudi Arabia) [forum] should also formulate/(Iran et al; Saudi Arabia) implement a work programme that [includes] [addresses inter alia] (Iran et al; Saudi Arabia) the following components:]

- (a) [Insurance and financial risk management;]
- (b) [Modelling, analytical and methodological tools;]
- (c) [Economic diversification.]
- (c).1 Early warning and systematic observation; (LDCS)
- (c).2. Disaster management and preparedness; (LDCS)
- (c).3 Compensation procedures and actions including funds; (LDCS)

Page 146

- (c).4 Funding; (Iran et al; Saudi Arabia)
- (c).5 Other related matters. (Turkey)

Proposed new section on Measurement, Reporting and Verification (Australia)

Proposed new section on Compliance (Australia)

IV. Enhanced action on financing, technology and capacity-building

A. Enhanced action on the provision of financial resources and investment²⁹

Structural proposals:

Proposal 1

- A. Objectives, role of UNFCCC and guiding principles,*
- B. Sources of funds,*
- C. Actions by all Parties,*
- D. Institutional arrangements (Australia)*

Proposal 2

Move the text on compliance (para 178) to an integrated section on MRV or to a section on the review mechanism under the COP. (Canada)

Proposal 3

Paragraphs 22(c), 28-36, 41 and 42 should be moved from the adaptation chapter to the finance chapter. Paragraphs 22(c), 30, 32 and 35 should be inserted in this chapter as appropriate and bracketed, as they are duplicative. The other paragraphs should be inserted and bracketed. (Australia)

Proposal 4

Proposals on “mechanisms for facilitating financial support for NAMAs” (paras. 77–87) should be moved from the mitigation chapter into the financing chapter. (Australia)

Proposal 5

Paragraphs 113 and 114 on REDD and implementation of REDD Plus should also be moved to the finance chapter. (Australia)

Proposal 6

Text identifying the objectives and scope for the ‘enhanced action on the provision of financial resources and investment’ (elements from paras 167–170) should precede text on principles for implementation (para 166). (Canada)

Suggestions on placement reflected in other chapters that are related to chapter IV, include:

Move proposals related to finance contained in paragraphs 75–80 to chapter IV.A on Finance

Move all options included in paragraphs 77–80, except paragraph 78, subparagraph 3, to chapter IV.A on Finance

Move paragraph 81 to chapter IV.A on Finance

Move chapter III.B, subsection 2 on Means of implementation, to chapter IV

Move chapter III.B, subsection 4 on Measurement, reporting and verification of support to chapter IV

Move chapter III.B, subsection 5 on Institutional arrangements to chapter IV

Move paragraphs 125 and 126 to chapter IV.A on Finance

Move paragraph 198 to chapter IV.A on Finance

Move paragraph 201 to chapter IV.A on Finance

²⁹ The Bali Action Plan, in its paragraphs 1 (e), calls for enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation. Parties referred to the following Articles in submissions related to this section: Articles 4.1, 4.3, 4.4, 4.5, 4.8, 4.9, 11.1, 11.2 and 11.5 of the Convention.

Proposals for preambular paragraphs:

Proposal 1

To ensure the full, effective and sustained implementation of the Convention in relation to the implementation of the commitments of developed country Parties and other developed Parties included in Annex II for the provision of new and additional, adequate and predictable financial resources, on a grant or concessional basis, including for the transfer of technology, as stipulated in Article 4.3 of the Convention, and to enhance the implementation of Articles 4.1, 4.3, 4.4, 4.5, 4.8, and 4.9, in the context of Article 4.7, and in accordance with Article 11 of the Convention, the COP shall operationalize an effective financial mechanism under the Convention, [in order to bring about coherence in the global financial architecture for financing for climate change and its adverse effects,] under its authority and governance, the COP shall establish a financing mechanism under the Convention, in fulfillment of its functions as its Supreme Body, as mandated under Article 7.2 (h) of the Convention. (G77 and China)

Need for a recognition of the significant gap between the actual needs and the resources available; enhanced actions on the provisions on commitments under the Convention. (G77 and China)

Establish financial mechanism of the Convention in accordance with article 11 with structure that meets the requirement laid down under article 11.1 and 11.2 of the Convention. (Indonesia)

1. Objectives, scope and guiding principles

x.1 The objective of the provision of financial resources is to further enhance the full, effective and sustained implementation of the UNFCCC and Bali action plan on grant basis and to reach positive outcome. Concrete arrangements shall be made for financial resources to enable developing countries to take nationally appropriate mitigation and adaptation actions, in the context of sustainable development, supported by technology, financing and capacity building from developed countries. (China)

x.2 Parties agree to establish the financial mechanism of the Convention in accordance with Art. 11 with a structure that meets the requirements laid down under Art. 11.1 and 11.2 of the Convention. (G77 and China)

x.3 The objective of the provision of financial resources is to promote equity and justice so that the ultimate objective of the Convention can be achieved. (G77 and China)

x.4 The financial resources should be raised by developed country Parties and other developed Parties included in Annex II and provided to developing countries in accordance to Articles 4.3, 4.4 and 4.5 of the Convention. Deeply concerned over the substantial gap between the financial resources required for enhanced action on adaptation and mitigation in developing countries and the level of financial resources currently available. (G77 and China)

x.5 Emphasizing the urgent need for developed country Parties and other developed Parties included in Annex II to honour their commitments under the Convention including those contained in Article 4 of the Convention related to the provision of financial resources to support adaptation, mitigation and technology transfer. (AOSIS)

x.6 Stressing that the provision of financing for adaptation to address the needs of developing countries that are particularly vulnerable to the adverse effects of climate change, especially the least developed countries and small island developing States, represents an urgent and immediate global priority. (AOSIS)

x.7 Developed country Parties and other developed Parties included in Annex II shall provide new additional and predictable financial resources to support enhanced action on mitigation and adaptation in

developing countries. The provision of financial resources shall be guided by the principles of the Convention and the priorities of developing countries especially those particularly vulnerable to the adverse impacts of climate change. (AOSIS)

x.8 Considering that the current amounts of resources destined for climate change are insufficient for all developing countries, particularly low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change, (Colombia)

Page 148

x.9 Bearing in mind the specific needs and special circumstances of developing country parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing countries Parties that would have to bear a disproportionate or abnormal burden under the Convention, Should be given full consideration, (Colombia)

x.10 Bearing in mind that the last UNDP Human Development Report estimated that an additional \$ 86 billion US dollars per year would be needed for adaptation for 2015. (Colombia)

x.11 Also bearing in mind the fact that the UNFCCC Secretariat indicated that the amount required for climate change activities would be between USD 28- 67 billion for 2030. (Colombia)

x.12 Stressing the need of increasing the provision of new, additional (to ODA), predictable and sustained level of resources. (Colombia)

x.13 Highlighting the fact that financial commitments have not been met on behalf of Annex I Parties, in accordance with articles 4.3, 4.4, and 4.5 of the Convention; (Colombia)

x.13 Stressing the principle of common but differentiated responsibilities; (Colombia)

x.14 Noting that adaptation and mitigation efforts should be given equal consideration, (Colombia)

x.15 Taking into account that although adaptation needs are already an urgent necessity, it is clear that early and ambitious emission reduction by developed country Parties will decrease needed efforts and funding for adaptation. Poor mitigation commitments and actions will impose a higher demand on adaptation measures and will require additional funding. (Colombia)

x.16 Parties agree to establish, in accordance with Article 11 of the Convention, the Financial Mechanism of the Convention with a structure that meets the specific requirements laid down under Articles 11.1 and 11.2 of the Convention. This Financial Mechanism shall enable, enhance and support mitigation and adaptation actions by developing country Parties through the provision of financial resources to meet the agreed full incremental costs of such actions including the cost of technology transfer. (India)

x.17 Financial mechanism shall ensure developing countries to be able to meet the objective(s) of the convention as laid down under article 4.3, 4.4 and 4.5 of the Convention. (Indonesia)

x.18 Recognizing the urgency of taking enhanced action on Adaptation by all developing country parties, Annex I Parties shall provide adequate financial resources to meet the full cost of adaptation activities, technology transfer and capacity building needs in a timely manner. (LDCs)

166 [[[The operationalization of] With a view to enhancing the implementation of the Convention and operationalization of its Article 11 (Pakistan) [the] financial mechanism³⁰ [the provision of financial resources](Australia)][shall] be established and will be guided by the following principles:]

As an alternative to 166 chapeau

Alternative 1

[To establish a multi window financing mechanism with the following guiding principles:]
(Colombia)

Alternative 2

[Parties should seek to enhance the coherence and effectiveness of multilateral climate-change related support, guided by the following:] (Canada)

Alternative 3

[The financing {shall} {should} be guided by the following principles:] (Japan)

Alternative 4

[The financial architecture enabled by this Agreement {shall} be guided by the following] (EU):

- (a) Full transparency, fairness, predictability, stability (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE), feasibility, (Japan) adequacy, inclusive (Indonesia), efficiency and effectiveness, and [the equitable and balanced] appropriately (Japan) representation of all Parties [shall][should] be ensured;
- (a).1 Be underpinned by the principles of equity and common but differentiated responsibilities; (G77 and China)

Page 149

- (a).2 the Financial Mechanism shall fulfill the implementation of the commitments contained in articles 4.3, 4.4, 4.5, 4.8 and 4.9 in the context of Article 4.7 of the Convention. (Pakistan)
- (a).3 The principle of common but differentiated responsibilities of the Convention is the fundamental guiding principle for financial mechanism. Developed countries shall take responsibility for their historical cumulative emissions and current high per capita emissions to provide financial resources and transfer technology to developing countries. Developing countries will, in pursuing economic development and poverty eradication, take proactive measures to adapt to and mitigate climate change. (China)

The funding provided by the developed country Parties shall be new, additional, adequate, predictable and sustained. All the developing country Parties are eligible for the funding. (China)
- (b) [The financial mechanism [shall][should] (Japan) function under the [authority and] governance and (Indonesia) [guidance] of {and be [fully] accountable to} the [COP] [Meeting of the Parties to the Copenhagen Agreement] (EU) {, which [shall][should] (Japan) decide on its policies, programme priorities and eligibility criteria} } and allocation of resources for adaptation, mitigation, technology and capacity-building (India);

Alternative to subparagraph (b)

³⁰ Some proposals referred to this matter as “financial framework”, “architecture”, “financial architecture”, “global financial architecture”, “global structure” and “new financing architecture”.

[The financial mechanism shall function under the strategic guidance of the COP.] (Switzerland)

- (c) [Coherence in the global financial architecture for financing under the {authority and} governance of the COP and coordination between various financial resources and individual funds {shall} {should} be ensured in order to reduce fragmentation in the implementation of the Convention and promote access to and enhance (Pakistan) the variety of available funding sources;]

Alternatives to subparagraph (c)

Alternative 1

[Coherence in multilateral climate-change related support, including between the financial mechanism of the UNFCCC and various financial sources and funds not accountable to and outside the guidance of the COP, shall be promoted;] (Canada)

Alternative 2

[Coherence and coordination between financing under the guidance of the Meeting of the Parties to the Copenhagen Agreement and various financial mechanisms and individual funds should be encouraged and facilitated in order to reduce fragmentation, strengthen synergy and build on their comparative advantages in the implementation of this Agreement and promote access to a wide variety of available funding sources] (EU)

- (c).1 The financial mechanism shall operate and function under the authority and guidance, and be fully accountable to the COP, which shall decide on its policies, programme priorities and eligibility criteria, in order to ensure coherence in the global financial architecture and reduce fragmentation in the implementation of the Convention; (G77 and China)
- (d) [All] developing country Parties [shall][should] be eligible to [direct] (Indonesia) access [to] (Indonesia) [the] financial resources, [in accordance with the objectives and provisions under this Agreement] (EU) [particularly low- lying and other small island countries, countries with low- lying coastal, arid and semi- arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change] (Colombia) [with special attention to the [adaptation] (EU) needs of [the most] (EU) vulnerable countries, [according to their financial capacity] (Switzerland) [with special preference to the needs of LDCs and SIDS. (LDCs);]

Alternatives to subparagraph (d)

Alternative 1

[All developing country Parties {shall} {should} be eligible to access support with priority for support to poorest countries and those most vulnerable to the adverse effects of climate change and least able to adapt;] (Canada)

Alternative 2

[All parties that meet specified criteria shall be eligible to access the financial resources with special attention to the needs of vulnerable countries. The criteria set should be based on(Turkey):

- (i) National and regional development priorities;

- (ii) Natural and geographical characteristics; resource endowment;
- (iii) Relative size of the economy;
- (iv) Economic and technological capacity;
- (v) Position on the human development index.
- (vi) Being eligible to borrow from the World Bank (IBRD and/or IDA) or to be an eligible recipient of UNDP technical assistance through its country Indicative Planning Figure (IPF)] (Turkey).

(d).1 Have an equitable and geographically-balanced representation of all Parties within a transparent system of governance; (G77 and China)

(d).2 [In providing adaptation support, priority {shall} {should} be given to developing country Parties that are the most vulnerable to climate change impacts and that are the least able to adapt:

- (i) Supporting adaptation at local and national levels;
- (ii) Particularly vulnerable developing country Parties, especially:
 - Poor developing countries;
 - LDCs and SIDS, and countries in Africa affected by drought, desertification and floods;
 - Low-lying and other small island countries, countries with low-lying coastal, arid and semi-arid areas or areas liable to floods, drought and desertification, archipelagic countries, and developing countries with fragile mountainous ecosystems;
 - Countries with unique biodiversity, tropical glaciers and fragile ecosystems;
 - Particularly vulnerable populations, groups and communities, especially the poor, women, children, the elderly, indigenous peoples, minorities and those suffering from disability.

(d).3 [In addition to the above, priority consideration should also be given to ecosystem-based adaptation activities.] (Australia)

(d).4 [In prioritizing support, the level of vulnerability, determined by national circumstances, respective financial and technical capabilities, levels of risk and impacts as well as levels of poverty and climate change exposure, should be taken into account.](LDCs)

(e) [[Access to financial resources [shall][should]] be simplified and improved [including, where appropriate, (EU) through direct access by recipient countries] while ensuring internationally agreed fiduciary standards and eligibility criteria (EU), [provided that the fiduciary standards of the in-country recipient entities are effective],] and provided in an expeditious, effective, equitable and [timely manner] subject to robust governance arrangements agreed by the Parties] (Australia);

Alternative to subparagraph (e)

[Access to financial resources {shall} {should} be simple and an improved version of past experiences, and provided efficiently, effectively, and timely to eligible parties] (Turkey)

(e) 1 Enable direct access to funding (G77 and China)

(f) [Delivery of financial resources [shall][should] generally (Pakistan) [follow a programmatic and project-based(African Group) approach, using a project approach when appropriate], to be based on a programmatic approach and project approach}(Japan) , and be host (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) country-driven; and be country-driven;] The approach should ensure the involvement of recipient country on the stages of identification, definition and implementation of the programmes. (Indonesia)

Page 151

Alternative to subparagraph (f)

Alternative 1

[Delivery of financial resources should be as efficient as possible, including by following a programmatic approach if feasible, and be country-driven;] (Canada)

Alternative 2

[Delivery of financial resources {shall} {should} goal oriented and follow a programmatic approach, using a project approach when appropriate, and be country-driven;] (Turkey)

(f).1 Ensure recipient country involvement during the stages of identification, definition and implementation of activities, rendering it truly demand-driven. (G77 and China)

(g) [Delivery of financial resources ,where appropriate, (Indonesia) [shall] be for implementation and [could] (African group) [should] [strive to] [leverage] other financing, [including private-sector financing [through carbon markets and/or through (EU) other measures]] and ensure participation of LDCs and SIDS (LDCs);]

Alternative to subparagraph (g)

[Provision of financial resources {shall} {should} strive, where appropriate, to leverage financing from other sources, including private-sector financing through carbon markets and/or through other measures.](Canada)

(g).1 Financial resources shall be provided for the implementation of concrete actions. (G77 and China)

(h) [Financial resources [shall][should] be provided in the form of [grants][grants and concessional loans {for specific programmes}]as per commitments under Article 4.3, 4.4, 4.5, 4.8 and 4.9 of the Convention (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) and should not crowd out private investment or create market distortions (Australia). Financial resources shall be provided as grants on a full cost basis for LDCs and SIDS. (LDCs);]

Alternative to subparagraph (h)

Alternative 1

[Financial resources {shall} {should} be provided in a variety of forms;] (Canada)

Alternative 2

[Financial resources, for adaptation, should be provided in the form of grants, while for mitigation, a combination of grants and concessional loans may be provided.] (Indonesia)

Alternative 3

[Financial resources may be provided inter-alia, on a grant or concessional basis or in the form of guarantees, where appropriate.] (EU)

- (h).1 Financial resources may be provided for funding international, regional or national, activities that contribute to the continued fulfilment of Article 4.1 of the Convention. (EU)
- (i) Taking into account (EU) [{Mutual}] accountability, country ownership, alignment, harmonisation, focus on results, (EU) [with a compliance mechanism] and sound financial management [[taking into account] consistent with (Canada) the principles of aid effectiveness as set out in the Paris Declaration on Aid Effectiveness].]
- (i).1 In order to send clear market signals, drive expanded private investment, and attract increased international public support, domestic enabling policy with appropriate capacity-building support, should be implemented. (Canada)
- (i).2 Support for technical assistance to build the readiness of developing countries on accessing larger pools of financing shall be provided. (Indonesia)
- (i).3 Involvement of the recipient country during the stages of identification, definition and implementation of activities. (Pakistan)
- (i).4 Financing should be fully derived from multiple sources. (Japan)

Page 152

- (i).5 Existing institutions should be utilized more efficiently. (Japan)
- (i).6 Catalytic role of public financial flow to facilitate private sector funding and investment should be further strengthened. (Japan)
- (i).7 Effective, efficient, feasible, and balanced governance for financing is necessary. (Japan)
- (i).8 Need to facilitate the matching of needs and resources should be confirmed. (Japan)
- (i).9 The ownership by the developing countries is important. (Japan)
- (i).10 Recognition of the urgency to address the adverse impacts of climate change to the vulnerable countries, like LDCs and small island developing countries. (Japan)
- (i).11 Prioritization on adaptation is important. (Japan)
- (i).12 Funds shall be allocated for adaptation, mitigation, technology transfer and capacity building, in a balanced manner, with especial emphasis on adaptation with preferential allocation for the most vulnerable countries particularly LDCs and SIDS. (LDCs)
- (i).13 Access to funds by Parties shall be inversely proportional to their contribution to greenhouse gases in the atmosphere. (LDCs)
- (i).14 A specific portion proceeds from the carbon market shall flow towards Adaptation Activities for LDCs and SIDS. (LDCs)
- (i) 15 Responsiveness to evolving needs and respective roles of public and private finance. (EU)
- (i) 16 Financial resources should be provided in accordance with internationally agreed environmental and social standards and safeguard policies. (EU)

- (i) 17 In their interaction with relevant institutions, the Meeting of the Parties to the Copenhagen Agreement and individual Parties are requested to take these principles into account in pursuing the objectives of this agreement. (EU)
- (i) 18 The shares of mitigation, adaptation, and technology development and transfer actions are decided in two years and financial resources are allocated based on the decided ratios. (Turkey)
- (i) 19 Recognize, promote and strengthen effective engagement at the country level, in order to give effect to the principles given in sub-paragraphs 1 (d) and 1 (e) above. (G77 and China)
- (i) 20 Enable a shift from a project-based approach when dealing with proposals for funding, to a programmatic approach, where appropriate, in order to make optimal use of the full range of means of implementation available and to allow for implementation at scale. (G77 and China)
- (i) 21 Facilitate linkages between the various funding sources and separate funds in order to promote access to the variety of available funding sources and reduce fragmentation. (G77 and China)
- (i) 22 Maintain consistency with the policies, programme priorities and eligibility criteria adopted by the decisions of the COP, as well as all activities, including those related to funding, relevant to climate change, undertaken by institutions outside the framework of the financial mechanism. (G77 and China)
- (i) 23 Determine new and additional financial resources to be provided to meet the agreed full costs incurred by developing countries in complying with their obligations for the preparations of their national communications (Article 12.1), and such financial resources, including for the transfer of technology, needed by the developing country Parties to meet the agreed full incremental costs of implementing measures that are covered by Article 4.1 of the Convention, ensuring adequacy and predictability of such financial flows, in accordance with Article 4.3 of the Convention. (G77 and China)
- (i) 24 Define a list of agreed full costs in implementation of Article 12.1 obligations, and agreed full incremental costs in implementation of Article 4.1 obligations. (G77 and China)
- (i) 25 Take into account the need for adequacy and predictability in the flow of such funds. (G77 and China)
- (i) 26 Any other function that may be determined by the COP. (G77 and China)
- (i) 27 Full and effective repayment of climate debt, including historical emissions and adaptation debt, by developed to developing countries. (Bolivia)

Page 153

166.1 The financial needs of developing countries vary according to their national circumstances, their economic and technical capacity, and the implementation measures undertaken. (USA)

167 Option 1

[The [public sector shall be the [major] source of funds], [while market mechanisms and other private-sector sources] would play a complementary role in addressing climate change.] Public finance may also be used to leverage private investment and to provide incentives for additional efforts. (African

group) A specific portion proceeds from the carbon market shall flow towards adaptation activities for LDCs and SIDS] (LDCs).

168 Option 2

[Where it is provided, public finance should be directed to (Canada) [[Public finance shall be provided in] areas that cannot be adequately financed by the private sector to leverage private investments and to provide incentives for additional efforts]. Private funding will be, via appropriate policy frameworks and regulations (Switzerland), the main source of necessary investments as well as adaptation by providing a specific portion of proceeds towards adaptation activities for LDCs and SIDS (LDCs). [Carbon market related support also has the potential to play a significant role in reducing emissions.]]

168.1 Increases in private sector investment depend largely on public policies that create the enabling environments and demand for climate change technologies. Financing the incremental costs of technologies for adaptation and mitigation is dependent on public sources of finance and public policies. To make the best use of public funds, it is essential to leverage commercial investment, indirectly build up the target markets, and respond to market segments and national conditions. (USA)

168.2 Both public and private finance should play a major role in the implementation of this Agreement. Public finance should leverage private investments and provide incentives for additional efforts and be directed towards areas that cannot be adequately financed by private sector, in particular for adaptation. Private funding should, via appropriate policy frameworks be the main source of necessary investments for mitigation. Parties should encourage the establishment of a robust carbon price signal, including through a progressive integration into the global carbon market, as a key means to deliver cost-effective emissions reductions globally. (EU)

168.3 The main source of funding will be new and additional financial resources, defined as resources over and above the financing provided through financing institutions outside of the framework of the financial mechanism of the Convention (listed in Article 11.5), of which the major source will be the public sector. (G77 and China)

169 [Option 1

[Financial resources provided through bilateral, regional, and other multilateral channels or under (African group) mechanisms/institutions outside the Convention shall not be regarded as fulfillment of commitments by developed country Parties] and other developed Parties included in Annex II (Singapore) under Article 4.3 of the Convention, and [their [commitments for] [obligations to provide] (Singapore) measurable, reportable and verifiable financing, as referred to in paragraph 1 (b) (ii) of the Bali Action Plan.]]

170 Option 2

[[The developed country] Parties [and other developed country (Switzerland) Parties included in Annex II to the Convention [[and other Parties according to agreed eligibility criteria] [and other Parties in a position to do so]] may also provide, and developing country Parties will (Pakistan) [may] avail themselves of, financial resources through bilateral, regional and other multilateral channels [with a robust system of measurement, reporting and verification of financial resources provided through these channels] in accordance with the article 4 of the Convention. (Indonesia)] There is a need for a toolbox of financing instruments that can be applied to particular technologies or national circumstances. A portfolio approach to finance is important to maintain flexibility and to be able to tailor solutions to particular financing and technology challenges. (USA)

170.1 Parties may provide financial resources through bilateral, regional and other multilateral channels for actions carried out in fulfillment of the objectives of this Agreement. These financial resources shall be deemed as contributing to the fulfillment of the financial commitments of this Agreement, in accordance with the relevant provisions of this Agreement. (EU)

170.2 The mechanism shall assure that:

- (a) these financial resources are predictable, stable and delivered in a timely manner;
- (b) These financial resources shall be essentially grant-based, particularly for adaptation, without prejudice to possible concessional loan arrangements in appropriate form, to meet the need of a specific programme;
- (c) The level of the new funding is initially set at between 0.5 to 1% of the GDP of developed country Parties and other developed Parties included in Annex II of the Convention;
- (d) The Executive Board, established to govern and manage the financial mechanism shall determine the allocations for mitigation and adaptation, to be periodically reviewed, taking into account the historical imbalances in and the urgency of funding for adaptation. (G77 and China)

2. [Generation] [Provision] (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE), (China) of financial resources

x.1 All Parties shall implement and periodically report on policies and instruments used to mobilize public and private financial resources and investment in support of measures to mitigate and adapt to climate change. (USA)

171 [In order to meet the scale of financial resources required {and the commitments under Articles {4.1}, 4.3, 4.4 and 4.5 and 4.8 (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE)} all parties will take action to mobilise financial resources and improve enabling environments (Australia) to support [[enhanced action] on adaptation and mitigation by] developing country Parties, [including] (African Group) [and] for technology cooperation and capacity-building, developed country Parties and other developed Parties included in Annex II of the Convention (Singapore) [[and Annex II Parties] [and other Parties according to agreed [eligibility] criteria, which shall be updated through a periodic review]] {shall} provide [[scaled-up,] new and additional,] financial resources (Singapore) [over and above existing ODA commitments], in a (Singapore) sustainable, adequate, predictable and stable manner (Singapore) financial resources that is measurable, reportable and verifiable (Singapore) [, in accordance with section IIF and section IIIB4 and IIIC4a (EU) [measurable, reportable and verifiable manner, [without diverting ODA] (African group) [keeping in consideration the provisions of Article 4.7 of the Convention and the Bali Action plan. (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE)].³¹] The COP shall deal with cases of non-compliance through the mechanisms established in Article 5, paragraph 4 of this Protocol.(South Africa)

Alternative to paragraph 171

[All Parties shall take measures, according to their respective capabilities, to generate and lever additional public and private funds to support actions outlined in Article 4.1 of the Convention and other actions as appropriate. Developed country Parties and other Parties according to their capability should ensure that scaled-up, new and additional financial resources, over and above existing ODA, are provided bilaterally and multilaterally, such that climate related support can be delivered to developing countries in a manner that is, to the extent feasible, sustainable, adequate and predictable.] (Canada)

³¹ Some proposals suggest that financial resources to support action on mitigation should amount to approximately USD 200 billion per year by 2020, and financial resources to support adaptation actions should amount to at least USD 67 billion per year by 2020.

171.1 In order to meet the level of financial resources under Articles 4.3, 4.4 and 4.5 and to support enhanced action on adaptation and mitigation for developing country Parties and for technology cooperation and capacity-building, Annex I Parties provide scaled-up, new and additional, sustainable, adequate, predictable and stable financial resources, in a measurable, reportable and verifiable manner. (Colombia)

172 [The [generation][provision](Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) of financial resources [shall][should] (Japan) be guided by agreed objective criteria (Australia) the principles of the Convention the economic capacity of Parties, and the objective of internalizing appropriate climate change costs (Canada) [, in particular the principles of equity and common but differentiated responsibilities and respective capabilities, taking into account the ability to pay and emissions (EU) [[and take into account [the consideration of] [[the polluter pays principle,]] [and] historical responsibilities]]]]. The public sector shall be the major source of funds, while market mechanisms and other private sector sources would play a complementary role in addressing climate change.(South Africa)

Page 155

Alternative to paragraph 172

Alternative 1

[The generation of financial resources shall be guided by the principles of the Convention, in particular the principles of common but differentiated responsibilities, respective capabilities, on the basis of equity, and shall take into account the consideration of historical responsibilities and the right to development for developing countries.] (Indonesia)

Alternative 2

[The provision of financial resources shall be guided by the principles of the Convention, in particular the principles of common but differentiated responsibilities and respective capabilities, and shall be generated through a combination of various sources, including;

- (a) An assessed contribution from developed country parties
- (b) Developed country Parties, based on the principles of equity, common but differentiated responsibilities and respective capabilities, GDP 2 per cent per year;
- (c) The auctioning of assigned amount units at international level;
- (d) A share of proceeds of 2 per cent on CDM and 8 per cent on joint implementation and emissions trading and market-based mechanisms under the Kyoto Protocol
- (e) Penalties or fines on non-compliance of developed country Parties with their emission reduction and financial resources commitments.] (Colombia)

Alternative 3

[Funding for the Multilateral Fund for Climate Change (defined below) shall be provided by the following sources:

- (a) Contributions from all Parties based on a contribution formula developed by the COP (or Conference of Parties serving as the assembly of Parties). Criteria for such contributions shall be based on respective capability and historical responsibility for emissions;

- (b) A levy placed on international maritime transport and international aviation. Such a levy shall be developed in collaboration with the International Maritime Organization and the International Civil Aviation Organization;
- (c) A share of proceeds from the trading of units established under this agreement The COP (or Conference of Parties serving as the assembly of Parties) shall determine the appropriate level and modalities for the deriving a share of proceeds from unit trading;
- (d) Contributions from the Kyoto Protocol Adaptation Fund. Such contributions shall be directed towards specific adaptation activities agreed upon by the Conference of Parties serving as the meeting of Parties upon advice from the Adaptation Fund Board;
- (e) Additional contributions by Parties over and above assessed contributions identified in a) above;
- (f) Contributions by philanthropic organizations and other donor sources;] (Tuvalu)

172.1 Developed country Parties shall

- (a) Take substantive actions to secure adequate and predictable financial resources for the implementation of the Convention, in particular, Article 4.3, 4.4, 4.5, 4.8, 4.9 of the Convention.
- (b) make assessed contributions by a percentage of their annual GNP, e.g. 0.5-1%, in addition to the existing ODA.
- (c) fulfil their financial commitments under the Convention in a measurable, reportable and verifiable manner; any funds pledged outside the UNFCCC shall not be regarded as the fulfilment of commitments by developed country Parties for the implementation of Article 4.3 of the Convention and the Bali Action Plan.

172.2 The funding is used to enhance actions on adaptation, mitigation and technology development and transfer, as well as related capacity building. (China)

Page 156

173 [New and additional financial resources {shall} {should} be generated through a combination of various sources, including, *inter alia* (EU):

[Option 1

[An assessed contribution updated on a regular basis (EU) from

[Option 1.1

developed country Parties and other developed Parties included in Annex II of the Convention (Singapore) [, based on the principles of equity, common but differentiated responsibilities and respective capabilities, [{GDP}, [the polluter pays principle, current emission levels]] of Annex 1 parties (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) {historical responsibility}, amounting to [{0.5–1} {0.8} {2} per cent of gross national product] at least (African group){0.5–1 per cent of GDP}].^{32]}

Alternatives to Option 1.1

³² Some proposals suggest that this option be used to provide funding for adaptation.

Alternative 1

[developed country Parties, of common but differentiated responsibilities, respective capabilities, on the basis of equity, and take into account GDP, GDP per capita and historical responsibility.] (Indonesia)

Alternative 1

[developed country Parties and their historical climate debt, including historical emissions and adaptation debt, based on the principles of equity and common but differentiated responsibilities.] (Bolivia)

[Option 1.2]

[[all Parties] except LDCs based on an agreed (EU) set of criteria, reflecting the ability to pay and emissions (EU) [including GHG emissions, GDP and population.]]]

[Option 2]

Percentage of (African Group) The auctioning of [X] % of (Indonesia) {assigned amount units} [under the Copenhagen Agreement] (EU) [and of] (African group) [emission allowances] of Annex I Parties (Pakistan) at international [and domestic] level[s] by developed countries (African Group).³³

A mechanism for financing climate change actions by monetizing emission allowances through auctioning is hereby established.

This financial mechanism implies that a certain proportion of the total number of emission allowances under the Copenhagen Agreement is held back and auctioned at the international level.

The auctioning will generate revenue that shall be used to assist developing countries in implementing climate change actions.

Revenue generated by this mechanism will contribute to the fulfillment of financial obligations under the Convention of those countries taking on quantified emission reduction commitments.

The scope of this mechanism is to provide financial resources for

- (a) Adaptation
- (b) REDD
- (c) Capacity building

The Conference of the Parties shall determine the quantity of allowances to be auctioned at its [16th] session for the period [.....] to support each financial need referred to in paragraph 5 above.

In order to provide predictable funding, the method for determining the quantity to be auctioned may factor in price fluctuations in emission allowances. The quantity could be determined on the basis of a number of allowances, a fixed percentage of the total amount or a predefined revenue requirement – or a combination of these methods.

The Conference of the Parties shall adopt further principles, modalities, rules and guidelines for the functioning of this financial mechanism at its [16th] session, including adopting procedures for the determination of the quantity to be auctioned for subsequent periods. (Norway)

³³ Some proposals suggest that a percentage of these resources be used to provide funding for adaptation.

[Option 3]

[A uniform global levy] of USD 2 per tonne of CO₂ [in all the countries having per capita emissions higher than 1,5 tonne] (Switzerland) for all fossil fuel emissions, [with a tax exemption of {1.5} {2.0} tCO₂ per inhabitant with an exemption for LDCs] {Taxes on carbon-intensive products and services from Annex I Parties}.^{34]}

[Option 4]

[Levies on] [Funding from instruments addressing] (EU) emissions from international aviation {and maritime transport}, [for developed countries] (African Group)] may be auctioned through emission allowances under an international regulation scheme. (Indonesia)

[Option 5]

An international air passenger [adaptation levy/green] levy on air fares [, except on journeys originating in and destined for LDCs].]

Alternative to Options 4 and 5

[Share of proceeds from measures to limit or reduce emissions from international aviation and maritime transport;] (Singapore)

Alternative to Option 5

[An international air adaptation levy on airfares except on journeys originating from LDCs and SIDS.] (LDCs)

[Option 6]

[A share of proceeds of {2} [3–5] per cent on CDM and] extend the share of proceeds of (African Group)[[{2}]{4}]{8} {10}]{12}] per cent on {joint implementation and emissions trading.} [{market-based mechanisms under the Kyoto Protocol} {and new sectoral market mechanisms} [extended to other carbon market transactions]]]other compliance linked carbon market mechanisms. (India)^{35]}

[Option 7]

A [global] 2%(India) levy on international financial market (India) [monetary] transactions to Annex 1 Parties (India)]

[Option 8]

Agreed (Pakistan) [Penalties or fines on non-compliance of developed country Parties with their emission reduction and financial resources], technology transfer and capacity building (India) commitments.^{36]]]]}

Option 8.1

[Carbon market finance and private investment, leveraged as appropriate by domestic policy frameworks and targeted public funds.] (Canada)

Option 8.2

³⁴ Some proposals suggest that this option be used to provide funding for adaptation and/or technology cooperation.

³⁵ Most proposals suggest that this option be used to provide funding for adaptation.

³⁶ Some proposals suggest that this option be used to provide funding for adaptation.

[Mobilization of international resources and debt relief that shall contributed significantly to ensure mitigation and adaptation of climate change at all levels, especially in developing countries. Innovative sources of finance, including implementation of the principle, external debt swap/relief for sustainable development of developing countries originated from ODA and other bilateral/multilateral sources, or usage of special drawing rights for sustainable development shall be further explored.] (Indonesia)

Option 8.3

Establishing a set aside reserve (Norway).

Page 158

- (a) A mechanism for financing mitigation actions where a certain proportion of the total number of emission allowances under the Copenhagen Agreement is held back in a set aside reserve is hereby established.
- (b) The Conference of the Parties shall adopt further principles, modalities, rules and guidelines for the functioning of this financial mechanism at its [16th] session, including adopting procedures for the determination of the quantity to be set aside for subsequent periods.

Alternative to paragraph 173 including options

[New and additional financial resources {shall} {should} be generated through an assessed contribution from developed country Parties, amounting to at least 0.5% per cent of GDP per annum.

Additional sources may include:

- (a) The auctioning of assigned amount units at international level;
- (b) Additional resources from the carbon market, driven by more ambitious quantified emission reduction commitments by developed countries;] (South Africa)

Proposal for additional subheading: Action by all Parties] (Australia)

173.1 All Parties play a role in increasing efforts in addressing climate change including by taking actions to mobilise financial resources. (Australia)

Proposal for additional subheading: Funding Activities (G77 and China)

173.2 The mechanism shall fund the following (G77 and China):

- (a) the agreed full costs for the preparations of national communications of developing country Parties;
- (b) the agreed full incremental costs incurred by developing country Parties of implementing measures that are covered by Article 4.1 of the Convention, including for the transfer of technology, for, inter alia, the following:
 - (i) mitigation
 - (ii) deployment and diffusion of low-carbon and environmentally-sound technologies (ESTs);
 - (iii) research and development of technologies;

- (iv) capacity-building for mitigation and adaptation actions;
 - (v) preparations of national action plans and their implementation;
 - (vi) patents;
 - (vii) adaptation in accordance with Articles 4.4 and 4.9 of the Convention;
 - (viii) any other funding decisions as may be determined by the COP.
- (c) In accordance with Article 4.3, developing country parties are to be provided with new and additional financial resources, including for the transfer of technology, to comply with their obligations under Article 4.1 of the Convention. These financial resources shall be used for mitigation and adaptation activities of developing country Parties.
- (d) Funding for the development and transfer of technology as a means of implementation shall include, inter alia, technology development, deployment and transfer, capacity-building, and risk management, including insurance. It will cover financial for the implementation of action programmes developed under the Convention, such as the NAPAs and the TNAs, and other programmes as may be identified in the financial needs assessment project under the Convention. (G77 and China)

3. Institutional arrangements, including funds³⁷ [Institutional Structure]

x.1 Institutional arrangement shall be established for the operationalization of an effective financial mechanism under the COP. In stead of on an interim basis in line with Article 21.5 of the Convention, an international operating entity shall be well arranged and entrusted with the operation of the financial mechanism referred to in Article 11. The international operating entity of the financial mechanism shall be supported by a Secretariat, a Scientific Advisory Panel, a Monitoring and Evaluation Panel, and a Trustee or Trustees. (China)

Page 159

x.2 The institutional arrangements shall also include a Convention Adaptation Fund, a Mitigation Fund, a Multilateral Technology Acquisition Fund and a Capacity Building Fund. Innovative financial instruments, e.g. Venture Capital Fund and Climate Insurance Fund, could be developed and integrated into the financial mechanism, for addressing risks associated with climate change. (China)

x.3 The governance of these Funds should be under the authority and guidance of the COP with equitable and balanced representation of all Parties in a transparent and efficient manner. The Funds should be managed with easy accessibility and low administrative cost. (China)

x.4 The financial mechanism shall facilitate linkages between various funding sources and separate funds in order to promote access to a variety of available funding sources and reduce fragmentation. Modality/ies of determining the role of existing funds and entity/ies for the operation of the mechanism shall be developed. (China)

x.5 The Financial Mechanism, established under the Convention, will be managed by an Executive Board appointed by the COP in accordance with the Convention. The Executive Board shall have an equitable and balanced representation of all Parties within a transparent system of governance and shall function under the guidance of and be accountable to the COP which shall decide on its policies, program priorities and eligibility criteria. The Executive Board will be supported by a professional Secretariat.

x.6 The Financial Mechanism, established under the Convention, shall have separate specialized windows for funding projects, programs and actions aimed at mitigation, adaptation and technology

³⁷ Specific proposals related to REDD-plus are reflected in paragraphs 113 and 114 above.

transfer. Each of the funding windows shall be assisted by a specialized thematic assessment unit. The thematic assessment units shall be under the authority of the Executive Board and, together with the professional secretariat of the Executive Board, shall constitute the operating entity of the Financial Mechanism.

x.7 The Funding provided by the Financial Mechanism established under the Convention should be demand driven and enable direct access to funds by the ultimate beneficiaries.

x.8 A Trustee selected through open competitive bidding among reputed pre-qualified institutions would administer the funds of the Financial Mechanism established under the Convention.

x.9 The national entities, designated by the developing country Parties, shall approve funding for projects, programs, actions, subject to the guidelines and procedures established by the specialized thematic assessment units duly approved by the Executive Board. The thematic assessment units under the Executive Board shall carry out the relevant assessments for disbursement of funds to the designated national entities under their respective specialized funding windows.

x.10 A transparent, efficient and competitive procurement regime with conditionalities limited to those warranted by prudent fiduciary norms and the MRV regime foreseen under Decision 1/CP 13 should characterize funding from the Financial Mechanism established under the Convention.

x.11 The Financial Mechanism established under the Convention shall manage a certification and registry system for receiving and deploying financial resources to enable developing country Parties to count their financial contributions and technology support towards compliance of their commitments under the Convention and under paragraph 1(b) (ii) of Decision 1/CP 13.

x.12 The designated national funding entities could also accept contributions directly, as per guidelines agreed in the COP, from and facilitate linkages with other private or official national, regional, sub-regional, international bodies and/or stakeholders that may seek to implement actions relating to mitigation, adaptation and technology transfer and related activities directly.

x.13 The Executive Board of the Financial Mechanism, with approval of the COP, shall institute suitable external independent oversight as well as internal monitoring and evaluation of the management and operation of the Financial Mechanism established under the Convention.

x.14 The resources of the Financial Mechanism established under the Convention shall be used to meet the costs associated with the functioning of the Executive Board, the Secretariat and the thematic assessment units, subject to the approval of the COP. (India)

Page 160

x.15 Institutional arrangements for the operation of the financial architecture have the following functions including, inter alia:

- (a) assessment of needs for financial resources for the fulfilment of this Agreement;
- (b) effective use of resources, including those generated under paragraphs x;
- (c) coordination of financial resources, including those generated under paragraphs x for the fulfilment of this Agreement;
- (d) measurement, reporting and verification / monitoring and review. (EU)

x.16 The institutional arrangements shall be periodically reviewed to assess its fulfilment of these functions. (EU)

174 [[Institutional arrangements for [the operationalisation of] [the establishment of] (Pakistan) the financial framework(Indonesia) [mechanism] of the Convention defined in Article 11 shall [include]] entail the following:

Alternative to chapeau of paragraph 174:

[In addition to improvements to the financial mechanism of the Convention, institutional arrangements {should} be improved by:] (Canada)

Option 1

The COP shall appoint (G77 and China) a {board} {executive body} accountable to the COP to manage the financial mechanism [and the related facilitative mechanism] and bodies, with the support of a secretariat {of professional staff contracted by the board} a scientific advisory panel, a monitoring and evaluating panel, and a trustee or trustees, selected through a competitive bidding (Pakistan), to address all aspects of the means of implementation for developing countries, for both adaptation and mitigation, which shall have an equitable and balanced representation of all parties within a transparent system of governance. (G77 and China)

The Board shall be assisted by a dedicated secretariat of professional staff contracted by the Board;

The COP shall establish specialized funds and funding windows under its governance, and a mechanism to link various funds;

Funds will be administered by a Trustee or Trustees selected through a process of open bidding;

Each of the separate funds may be advised by an expert group of committee, which could also be supported by a technical panel or panels addressing specific issues addressed by the Board;

To ensure transparent and efficient governance, other possible components of the structure shall include a consultative/advisory group of all relevant stakeholders, and an independent assessment panel. (G77 and China)

Under the {authority and} guidance of the COP, the {board} {executive body} shall:

- (a) Establish, supervise and manage the current funds(Indonesia), specialized funds and funding windows under its governance, and a mechanism to link various funds;³⁸
- (b) [Establish a consultative/advisory group of all relevant stakeholders;]

Alternative to subparagraph (b)

[Establish advisory panels, constituted by representatives of all participant countries, contributors and beneficiaries, grouped in a balanced manner;] (Indonesia)

- (c) Establish an independent assessment panel, constituted by experts and specialist, (Indonesia) for transparent and efficient governance;
- (d) [{Be supportive of the existing national institutional arrangements to coordinate activities and financial resources} {. [Authorize] the national entities of developing country Parties shall act as the direct channel of access between developing country parties and the board. Such entities shall (African Group) as designated by such Parties to approve activities, projects and programmes for funding, [subject to the guidelines and procedures approved by the COP];}]

³⁸ This proposal is presented in connection with proposals on funds reflected in paragraphs 175, options 1, 4, 5 and 6, below.

Alternative to subparagraph (d)

[Be supportive of the national entities of developing country Parties as designated by such Parties to approve activities, projects and programmes for funding, subject to the guidelines and procedures approved by the COP] (Indonesia)

- (e) [Manage a [registry and [certification] system] for delivery of (Pakistan) [receiving] financial resources in compliance with the financial commitments of developed country Parties under Article 4.3, 4.4, 4.5, 4.8 and 4.9 (Pakistan) of the Convention.]]

Alternative to subparagraph (e)

[Financial resources will be made available to support an effective system to measure, report and verify developed countries support.] (African Group)

- (e). Provide annual report to the COP on matters related to a proposed fund. (Indonesia)

Alternative to Option 1:

[an Executive Board or a Governing Council, constituted by representatives of all participant countries, taking into account a balanced geographical representation, with transparent systems of governance, be fully accountable to and under the authority and governance of the COP, to manage the financial framework and the related facilitative mechanism and bodies.

The role and remit of the COP in the modalities and procedure of such mechanism must be clear, including the setting of operational guidelines, election of executive board members, approval mechanism of final budgets, and audit process or verification.] (Indonesia)

[Option 2³⁹

an executive council that will report annually to the COP on matters related to a proposed fund, constituted by representatives of all participant countries, [contributors and beneficiaries,] grouped in a balanced and practical way. Country representatives would be from finance ministries or their equivalent. The executive council will be supported by a scientific committee, to be established in consultation with the IPCC and a multilateral banks committee.]

[Option 3

[establish] a means to, inter alia, draw on public/private-sector expertise; recommend steps intended to mobilize domestic and international financing from a variety of domestic, bilateral, regional, and multilateral sources, including carbon markets; recommend ways to improve the effectiveness and efficiency of the Parties' aggregated efforts to mobilize investment; and address concerns of competition, targeting and overlap of such efforts.]

[Option 4

[make efficient and effective use of current institutions, including the GEF, multilateral development banks, specialized UN institutions and other existing (Switzerland) funds, as well as specific funding windows for adaptation, including insurance, mitigation, technology development and transfer and capacity building (African Group) with financial support provided by developed country Parties and availed of by developing country Parties through bilateral, regional and other multilateral channels, in accordance with Article 11.5 {,with a robust system of measurement, reporting and verification of financial resources provided through these channels}.]]]]

³⁹ This proposal is presented in connection with proposals on funds reflected in paragraph 175, option 7, below.

174.1 The levies from the international air passenger adaptation levy (IAPAL) on airfares shall be managed under the Convention Fund as proposed by the G77 and China and will be allocated for Adaptation Window. The COP should initiate a process to develop and implement an operational modality to manage the funds generated through IAPAL. (LDCs)

174.2 A board accountable to the COP is hereby established to manage the financial mechanism with the support of a secretariat of professional staff contracted by the Board, to address all aspects of the means of implementation for developing countries, for both adaptation and mitigation.

Page 162

- (a) The COP shall establish specialized funds, and funding windows under its governance, and a mechanism to link to various sources of funding. Under the authority and guidance of the COP, the Board shall supervise and manage specialized funds and funding windows under its governance, including:
 - (i) A Multi-Lateral Technology Acquisition Fund, to enable the wide diffusion of environmentally sound technologies in developing countries;
 - (ii) A Technology Risk Facility to assist technologies from demonstration to commercial maturity;
 - (iii) A Venture Capital Fund for start-up finance;
 - (iv) A Technology Grant programme for research and development of new technologies;
 - (v) Other funds as required
- (b) Financial resources provided through mechanisms/institutions outside the Convention shall not be regarded as fulfillment of commitments by developed country Parties under Article 4.3 of the Convention, and their commitments for measurable, reportable and verifiable financing. (South Africa)

174.3 The COP, as the supreme body of the Convention, shall exercise its authority over and provide guidance to the financial mechanism, and shall decide on its operation, and on the policies, programme priorities and eligibility criteria for financing purposes. (G77 and China)

Funds

174.4 Funding windows would serve as disbursement processes/procedures/mechanisms for climate change activities. (Indonesia)

175 [Institutional arrangements on single consolidated (Indonesia) funds {shall} include {the relevant existing funds}⁴⁰ the GEF, LDCF and SCCF (Switzerland), as well as the specific funding windows for adaptation, including economic diversification, insurance, mitigation, technology and capacity building (African Group) {as well as following new funds}:]

[Options for specialized funds]

[Option 1⁴¹

⁴⁰ In presenting their proposals, Parties have mentioned the Least Developed Countries Fund and the Special Climate Change Fund.

⁴¹ This proposal is presented in the context of the proposals reflected in paragraph 174, option 2, above.

[An adaptation fund under the guidance and authority of the COP, to complement the Adaptation Fund established under the Kyoto Protocol[, including a window to address loss and damage from climate change impacts, as well as negative impacts from response measures (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) including insurance, rehabilitation and compensatory components, and a window for risk reduction and management related to climate change.]]]

[Option 2

Multilateral adaptation fund for low and medium income countries, with revenues partly channeled into national climate change funds for financing national climate change policies according to the country's specific needs and legal frame. The multilateral adaptation fund will provide funding for a prevention pillar and an insurance pillar.]

[Option 3

Solidarity funds and insurance mechanisms, including micro-insurance.]

Alternative to paragraph 175 Options 1, 2 and 3:

[Convention Adaptation Fund

x.1 In the implementation of Articles 4.3 and 4.4 of the Convention and concerned over the substantial gap between the financial resources available and the financial resources required to meet the adaptation needs of developing countries particularly vulnerable to climate change, it is decided to establish a Convention Adaptation Fund, which is hereby defined;

Page 163

x.2 The purpose of the Convention Adaptation Fund is to provide new, additional and predictable financial resources to developing countries particularly vulnerable to climate change especially Small Island Developing States and Least Developed Countries, to meet the full costs incurred in adapting to the adverse impacts of climate change;

x.3 The Convention Adaptation Fund shall fund:

- (a) The implementation of national and regional adaptation plans and strategies, concrete adaptation projects and strategies including those contained in national communications
- (b) The implementation of the activities and actions identified under the Adaptation Committee (AC) (Please see the AOSIS proposal for the establishment of an Adaptation Committee) and all other relevant processes under the Convention.
- (c) The Multi-Window Mechanism to Address Loss and Damage

x.4 The Convention Adaptation Fund shall function under and be accountable to the Financial Mechanism (The Financial Mechanism as proposed by the Group of 77 and China) under the Convention.

x.5 It shall be managed by a geographically balanced and representative Governing Board comprised as follows: 3 members from the 5 UN regional groups, 2 members from small island developing states, 2 members from the group of Least Developed Countries.

x.6 In deciding on its policies and procedures, the Board shall ensure that the Convention Adaptation Fund adheres to sound financial management and transparency;

x.7 The Convention Adaptation Fund shall be financed from:

- (a) An assessed contribution from each countries listed in Annex II of 0.5% of their Gross Domestic Product (GDP). This assessed contribution should be additional to existing ODA commitments
- (b) An agreed share of the proceeds from new market-based mechanisms developed under the Convention
- (c) International levies, as appropriate
- (d) Voluntary contributions
- (e) Contributions from the Kyoto Protocol Adaptation Fund. Such contributions shall be directed towards specific adaptation activities jointly agreed upon by the Conference of Parties serving as the meeting of Parties of the Kyoto Protocol and the Conference of Parties serving as the assembly of Parties to this Protocol

x.8 Access to financing under the Convention Adaptation Fund for developing countries particularly vulnerable to the adverse impacts of climate change shall be direct and simplified.

x.9 The Convention Adaptation Fund shall be operationalized no later than the 16th Session of the Conference of the Parties.] (AOSIS)

[Option 4⁴²

Mitigation fund.]

[Option 5⁴³

Multilateral climate technology fund⁴⁴ {to support the implementation of the technology mechanism} for the provision of technology-related financial resources on a grant or concessional basis. The fund shall [be used [as a catalyst]] to provide stakeholders, especially owners of patented climate friendly technologies, (Pakistan) with incentives to implement the development, deployment, diffusion and transfer of technologies by meeting the full incremental costs for, inter alia, the deployment and diffusion of technologies in developing countries and full costs of activities such as technology R&D and demonstration of technologies, capacity-building, technology needs assessments, know-how and (Pakistan) information sharing and construction of national (Pakistan) policy instruments.]

Page 164

Alternative to Option 5:

[Multilateral climate technology fund {to support the implementation of the technology mechanism} for the provision of technology-related financial resources on a grant or concessional basis. The fund shall be used to implement the development, deployment, diffusion and transfer of technologies by meeting the agreed full incremental costs for, inter alia, licensing IPRs, the deployment and diffusion of technologies in developing countries and full costs of activities such as technology R&D and demonstration of technologies, capacity-building, technology needs assessments, information sharing and construction of policy instruments.] (India)

[Option 6⁴⁵

⁴² This proposal is presented in the context of the proposals reflected in paragraph 174, option 2, above.

⁴³ This proposal is presented in the context of the proposals reflected in paragraphs 174, option 2, above and 196, option 2, below.

⁴⁴ Other formulation proposed “a multilateral technology acquisition fund”.

⁴⁵ This proposal is presented in the context of the proposals reflected in paragraph 174, option 2, above.

Capacity-building fund.]]

Options for funds for multiple uses

[Option 7⁴⁶

A world climate change fund or green fund, to {establish linkages between} scale-up funds for mitigation actions, support efforts on adaptation and provide technical assistance that include financing the national meteorological services particularly in LDCs and SIDs to enhance development and establishing of early warning systems (Malawi) and promote the development (Canada), transfer and diffusion of clean technologies. All Parties with the exception of the LDCs should contribute according to specified criteria(Canada). All Parties could benefit according to specified criteria, except those developed country Parties that elect not to do so (Canada). Once its operations stabilize, the fund could establish functional connections with existing or potential carbon units, such as those from carbon market mechanisms under a post-2012 agreed outcome (Canada) [mechanisms established under the Kyoto Protocol].]]

Alternative to Option 7

Establish a global fund to support a global-feed-in-tariff programme, providing guaranteed purchase prices, over and above the retail energy price in the developing countries, of energy from renewable sources including wind, solar PV, concentrated solar, geo thermal, hydro and others, to the producers of such energy in the developing countries for a period of 20 years. The Global Fund shall aim at both inducing a shift to renewable energy without compromising the development momentum in the developing countries, and the realization of economies of scale and sustained reduction of costs of generation of renewable energy. (Pakistan)

Option 7.1

Special fund for the economic and social consequences of response measures (para 1.b(vi) of Bali Action Plan).(Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE)

Option 7.2

Special fund to assist Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products (Art. 4.8 (h) of the Convention). (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE)

Alternative to paragraphs 174 and 175 (this proposal also applies to paragraph 196):

x.1 Institutional arrangements (Para. 174, chapeau) for enhancing the implementation of Article 11 of the Convention, through finance, technology and capacity building, shall include:

x.2 The creation of a Financial and Technology Mechanism meant to ensure the full, effective, and sustained implementation of the Convention, in relation to implementation of commitments for the provision of financial resources. This is mandated under Articles 4.3, 4.4, 4.5, 4.8 and 4.9 of the Convention in accordance with Art. 11, defining the financial mechanism under the Convention.

x.3 The Financial and Technology Mechanism shall address all aspects of cooperation on technology research, development, diffusion, and transfer in accordance with Articles 4.1(c), 4.3, 4.5 and other relevant articles of the Convention, in order to enable mitigation and adaptation under the relevant paragraphs of decision 1/CP.13.

⁴⁶ This proposal is presented in the context of the proposals reflected in paragraph 174, option 3, above.

x.4 The basic architecture of the Financial and Technology Mechanism under the Convention will comprise two pillars, one on adaptation and the other on mitigation.

x.5 An Executive Body on Finance and Technology for Adaptation (EBFTA), accountable to the COP, shall be established. The EBFTA shall have, inter alia, the following functions:

- (a) The EBFTA shall organize, coordinate, monitor and evaluate the implementation of the comprehensive framework for adaptation, including the enabling means of financing, technology and capacity building.
- (b) (Para 196, Option 2, (c)) The EBFTA will guide and supervise the disbursement of the Adaptation Fund to be created under the Convention. [Further provisions on the Adaptation Fund to be inserted.]
- (c) The EBFTA shall coordinate disbursements from the Adaptation Fund according to the needs as indicated in national plans for adaptation submitted by developing countries to the EBFTA.
- (d) Financial and technical support should be available upon request by developing countries to the EBFTA for the elaboration of national plans for adaptation.
- (e) (Para. 174, Option 1, (e)) The EBFTA shall manage a certification system for receiving financial resources in compliance with the financial commitments of developed country Parties under Article 4.3 of the Convention.
- (f) (Para. 196, Option 5, (d)) The EBFTA shall articulate technology transfer and financing mechanisms under the Convention with other United Nations organizations, multilateral financial institutions established under bilateral or multilateral development programs and other relevant international forums not directly related to climate change, with the assistance of technical panels to be created.

x.6 The EBFTA will be supported by four technical panels on Research and Development, Capacity Building, Transfer of Technologies for Adaptation, and Observation systems and information management. The technical panels (Para. 196, Option 2) shall comprise government representatives elected by the COP with balanced regional representation, who are experts on matters related to each of the technical panels, and be open to input from other experts, in order to (Para. 174, Option 1, (c)) ensure transparent and efficient governance.

x.7 An Executive Body on Finance and Technology for Mitigation (EBFTM), accountable to the COP, shall be established. The EBFTM shall have, inter alia, the following functions:

- (a) The EBFTM shall organize, coordinate, monitor and evaluate the implementation of the comprehensive framework for mitigation, including the enabling means of financing, technology and capacity building.
- (b) The EBFTM will govern a Mitigation Fund to be created under the Convention. [Further provisions on the Mitigation Fund to be inserted.]
- (c) The EBFTM shall coordinate disbursements from the Mitigation Fund according to the needs as indicated in NAMAs submitted by developing countries to the EBFTM.
- (d) Financial and technical support should be available upon request by developing countries to the EBFTM for the elaboration of NAMAs.

- (e) The EBFTM shall coordinate disbursements from the Mitigation Fund according to the needs for REDD+ activities as requested by developing countries to the EBFTM.
- (f) Financial and technical support should be available upon request by developing countries to the EBFTM for the preparation of REDD+ activities.
- (g) The EBFTM will also coordinate with regional development banks concessional loan arrangements for the private sector in developing countries for the implementation of specific mitigation activities.

Page 166

- (h) (Para. 174, Option 1, (e)) The EBFTM shall manage a registry and certification system for receiving financial resources in compliance with the financial commitments of developed country Parties under Article 4.3 of the Convention.
- (i) (Para. 196, Option 5, (d)) The EBFTM shall articulate technology transfer and financing mechanisms under the Convention with other United Nations organizations, multilateral financial institutions established under bilateral or multilateral development programs and other relevant international forums not directly related to climate change, with the assistance of technical panels to be created.

x.8 The EBFTM will be supported by five technical panels on Research and Development, Capacity Building, Transfer of Technologies for Mitigation, REDD+, and Market Mechanisms. The technical panels (Para. 196, Option 2) shall comprise government representatives elected by the COP with balanced regional representation, who are experts on matters related to each of the technical panels, and be open to input from other experts.

x.9 Technical Panels

(a) Both Technical Panels on Research and Development (TPRDA and TPRDM) shall, inter alia, coordinate multilateral (Para. 186, chapeau) technology research, development and demonstration programs and provide appropriate support to developing country parties through North-South and South-South cooperation schemes, and promote (Para. 186, (b)) joint ventures to accelerate deployment, diffusion and effective transfer of technologies.

(b) Both Technical Panels on Capacity Building (TPCBA and TPCBM) shall organize, coordinate, monitor, evaluate and retrofit the implementation of capacity building activities for adaptation and mitigation and the respective financing and technology development and transfer, in developing countries. TPCBs shall also provide information and views on the fulfillment of support commitments for capacity building by developed countries. The TPCBs shall create mechanisms for sharing lessons learned, promote south-south cooperation as well as for the dissemination of successful capacity building activities in developing countries.

(c) Both Technical Panels on Transfer of Technologies (TPTTA and TPTTM) shall, inter alia, (Para. 196, Option 2, (a)) Provide advice and recommendations to the Executive Bodies on Finance and Technology on the overall implementation of technology; (Para. 196, Option 2, (d)) Promote communication and information/knowledge sharing; (Para. 196, Option 2, (e)) Monitor and assess the performance and progress of technological research, development, demonstration, diffusion, and deployment, using performance indicators, and report to the COP. In addition, this technical panel shall (Para. 196, Option 3, (a)) develop reviews on existing technologies, including information on estimated cost, risks, benefits and limitations, taking into account the circumstances of the host Party.

(d) The Technical Panel on Observation Systems and Information Management (TPOSIM) shall, inter alia, organize, coordinate, monitor, evaluate and retrofit the implementation of systematic observation and information management (including data collection and archiving, analysis, modeling,

downscaling and dissemination) activities for adaptation in developing countries. The TPOSIM shall create mechanisms for sharing lessons learned, promote south-south cooperation as well as for the dissemination of successful systematic observation and information management activities for adaptation in developing countries.

(e) The Technical Panel on REDD+ (TPREDD+) shall, inter alia, determine reference levels methodologies, support enhancement of REDD project activities within countries, and other general methodological issues.

(f) The Technical Panel on Market Mechanisms (TPMM) shall, inter alia, organize, coordinate, monitor, evaluate, and retrofit the implementation of mitigation activities in developing countries that are carried out under the market mechanisms. The TPMM will deal with issues such as country-specific sectoral baselines, additionality, monitoring and verification plans, registration of mitigation activities and actions, issuance of credits, etc.

(g) In addition, an MRV Panel to be created under the COP shall be in charge of establishing methodologies for MRV, measuring, reporting and verifying mitigation actions and the support received as required by paragraph 1.(b)(ii) of Decision 1/CP.13, and keeping records of mitigation and adaptation activities implemented by developing countries with their own resources.

Page 167

x.10 The UNFCCC Secretariat shall support and facilitate the activities of the EBFTA, EBFTM, and the technical panels.

Alternatives to paragraph 175

Alternative 1

[Institutional arrangements on funds may build upon, inter alia, the relevant existing funds and institutions inside and outside this Agreement. The Meeting of the Parties to the Copenhagen agreement and all Parties are requested to take the principles laid down in paragraph X of this Agreement into account in their interaction with relevant institutions in pursuit of the objectives of this Agreement, in particular by enhancing existing funds under the Convention and the Kyoto Protocol.] (EU)

Alternative 2

[A Multilateral Fund for Climate Change is hereby established.]

The purpose of the Multilateral Fund for Climate Change Fund is to establish, administer and deploy substantial and predictable sources of funding to support actions prescribed within this agreement.

The Multilateral Fund for Climate Change shall be subject to the authority and guidance of the COP (or Conference of the Parties serving as the assembly of Parties) and be supervised by a Board.

The constituency of the Board shall be determined by the Conference of Parties serving as the assembly of Parties and be guided by the principle of equitable geographical representation.

The Board of the Multilateral Fund on Climate Change shall regularly report to the COP (or the Conference of Parties serving as the assembly of Parties).

The secretariat of the Convention shall service the Multilateral Fund for Climate Change Fund and its Board.

The Multilateral Fund for Climate Change shall have five discrete funding windows:

- (a) a Mitigation Window

- (b) a REDD Window
- (c) an Adaptation Window
- (d) an Insurance Window
- (e) a Technology Window

The COP (or the Conference of Parties serving as the assembly of Parties) shall determine the proportion of funding that shall be allocated to each funding window and shall give priority to funding for adaptation.

The Board of the Multilateral Fund for Climate Change shall establish technical advisory panels for each of the funding windows.

The purpose of the technical advisory panels shall be to, inter alia:

- (a) identify sources of funding;
- (b) identify priorities for funding;
- (c) provide assistance to recipient countries in developing project proposals and find appropriate financial support.] (Tuvalu)

176 [Issues identified by Parties in the context of paragraph 175 above as requiring further elaboration at the appropriate time include modalities for the determination of the role of existing funds and entity/ies for the operation of the financial mechanism].

Institutional arrangements at the national level

177 Developing country (Japan) [Parties {shall} {should} establish and or strengthen (African Group) national coordinating bodies to address all aspects of the means of implementation, including (African Group) strengthening the institutional capacity of national focal points and all stakeholders, including subnational and local governments. (African group). These coordinating bodies shall be the national focal points to support the implementation of climate change projects and programmes that have received technology, finance and capacity-building assistance from developed country Parties.⁴⁷]

Page 168

177.1 The national coordinating body shall be the national “focal” point to support the implementation of climate change mitigation and adaptation projects and programmes that have received technology, finance and capacity building assistance from developed countries in line with their commitments under Article 4 of the Convention.

The administration costs of national coordinating bodies established for this purpose shall be covered through international financial resources made available specifically for this purpose. A separate pool of funding to finance national coordinating bodies through a direct line item in the Secretariat’s budget shall be established.

In achieving its objectives, the national coordinating body shall:

- (a) Ensure national ownership of and commitment to NAMAs to be registered internationally;
- (b) Ensure proper assessment of the financial, technological and capacity needs of NAMAs and national adaptation measures;

⁴⁷ This proposal is presented in the context of the proposals reflected in paragraphs 47 and 104 above.

- (c) Mobilise, coordinate and involve with existing in-country mechanisms;
- (d) Facilitate development and establishment of national expertise on adaptation and mitigation;
- (e) Coordinate climate change funding, technology transfer, and capacity building requirements, including identifying and prioritising needs and guiding the preparation of proposals;
- (f) Harness synergies across thematic activities and facilitate exchange of experience and good practice;
- (g) Identify stakeholders for direct access for financial assistance. (South Africa)

[Compliance]

178 [A [compliance mechanism][and] (Pakistan) [for commitments of developed country Parties included in Annex I and II on Articles 4.3, 4.4, 4.5, 4.8 and 4.9 of the Convention](Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) [monitoring mechanism] [shall][should]] be established to ensure [the full implementation of the commitments of [developed country] (Indonesia) (Turkey) [Annex I and Annex [B]] [II] (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE) Parties, particularly those contained in paragraph 4 of the Convention and (Pakistan) with reference to their agreed (Indonesia) assessed contributions. This body {shall}:]

Alternative to chapeau of paragraph 178:

[A compliance mechanism shall be established to ensure the full implementation of the commitments of Annex I and Annex B Parties, with reference to their provision of financial resources, (need to establish an amount of resources for climate change activities) This body shall:] (Colombia)

- (a) Review compliance of [developed country] (Indonesia)(Turkey) [Annex I and Annex [B][II] (Iran on behalf of Algeria, Iran, Kuwait, Libya, Qatar, Saudi Arabia and UAE)] Parties with their commitments on the provision of financial resources in a timely and predictable manner and in consonance with the needs identified by the developing country Party (Pakistan);
- (b) Define non-compliance parameters, penalties (Indonesia) and fines, or a combination of the two or other as appropriate (Indonesia), and implement parameters and procedures defined by the COP to retrieve funds derived from fines and penalties. (Indonesia)⁴⁸]]
 - (b).1 Impose financial penalties, at a minimum of ten times the market price of carbon, for any emissions in excess of the level implied by the emissions reduction commitment. (Pakistan)

Alternative to paragraph 178:

[All Parties shall report on an annual basis, all contributions made to the Multilateral Fund for Climate Change.

Annual reports of contributions by Parties shall be maintained by the secretariat in a contribution ledger. This ledger shall be maintained on a publicly available link on the secretariat website.

⁴⁸ This proposal is presented in the context of the proposals reflected in paragraph 68, option 1, above.

Page 169

The Board of the Multilateral Fund for Climate Change shall undertake an annual process of review of the contributions by Parties to the MFCC and shall make a report to the COP (or the Conference of Parties serving as the assembly of Parties) at its annual meeting.

The COP (or the Conference of Parties serving as the assembly of Parties) shall develop procedures for recovering finances from Parties who have not provided their assessed contributions to the MFCC.]
(Tuvalu)

179 [Issues identified by Parties in the context of paragraph 178 above as requiring further elaboration at the appropriate time include parameters and procedures to retrieve funds derived from fines.]

B. Enhanced action on development and transfer of technology⁴⁹

Structural proposals

Proposal 1:

The technology chapter should be rearranged into two sections according to the following orders (Canada):

A section on objectives, scope and guiding principles

A section on cooperation on technology research, development, diffusion and transfer for technologies for mitigation and adaptation.

- 1. A sub section on Technology needs assessments*
- 2. A sub section on Enabling environments*
- 3. A sub section on Capacity-building*
- 4. A sub section on Technology information*
- 5. A sub section on Mechanisms for enhanced cooperative action on technology development, deployment, transfer and diffusion.*
- 6. A sub section on Cooperative research and development*

Proposal 2:

The technology chapter should be rearranged into six sections according to the following orders (Australia):

- 1. A section on preambles*
- 2. A section on objectives*
- 3. A section on guiding principles*
- 4. A section on cooperative action to promote technology needs assessment, technology information, enabling environments and capacity building*
- 5. A section on cooperative action to promote technology research, development and demonstration and deployment*
- 6. A section on Institutional arrangement*

Proposal 3:

The technology chapter should be rearranged into seven sections according to the following orders (Norway):

- 1. A section on preamble*
- 2. A section on objectives*

⁴⁹ The Bali Action Plan, in its paragraph 1 (d), calls for enhanced action on technology development and transfer to support action on mitigation and adaptation. In advancing their proposals under this matter, Parties referred to Articles 4.1(c), 4.3, 4.5 and 11.5 of the Convention.

3. *A section on guiding principles*
4. *A section on enhanced national capacity*
5. *A section on cooperative actions on capacity building, information sharing*
6. *A section on cooperative actions on research, development and demonstration*
7. *A section on institutional arrangements*

Page 170

Proposal 4:

Insert a section entitled National and cooperative actions to enhance the development, application and diffusion, including transfer, of technologies, practices and processes. (United States of America)

Insert a new subsection entitled Technology action plans/technology road maps. (Australia)

Proposals for preambular paragraphs:

Proposal 1

Recognizes the existing framework for meaningful and effective actions to enhance the implementation of Article 4.5 of the Convention established under Convention 4/CP.7 and enhanced under BAP 3/CP.13 (the framework for technology development, deployment, diffusion and transfer) along with Articles 4.1(c), 4.5 and 11.5. (Australia)

Proposal 2

Enhanced action on technology shall build on and enhance the implementation of the existing framework for technology action as described in the Article 4 paragraphs 1 (c), 5 and Article 11 paragraph 5, of the Convention, and decision 4/CP.7 and decision 3/CP.13. (Norway)

Proposal 3

Recognizing that climate change poses a serious threat to social and economic development of all Parties and noting that the SIDS and LDCs are particularly most vulnerable to impacts of adverse effects of climate change and that these groups of countries will suffer disproportionately; (LDC)

Recognizing also the urgency and the immediacy of the climate change problem the Parties agreed on a legally binding Adaptation Framework as set out in subsequent sections; (LDC)

Noting the continuing growth in greenhouse gas emissions, particularly high rate of growth in developing countries; (LDC)

Aware that such growth will significantly contribute to increasing concentration level of GHGs in the atmosphere with serious potential consequence; (LDC)

Guided by the principles and provisions of the Convention and the principle of learning by doing; (LDC)

Guided also by the best available science and broad participation of stakeholders at national and local government and community levels. (LDC)

Proposal 4

Recognizing the importance of technology under the framework beyond 2012, intensive support for promotion of technology transfer such as identification of technologies to be deployed and matching of companies with of those that own the technologies and of those that require the technologies should be provided to the developing countries that have already taken policy measure, measures on GHG reductions, and made efforts to enhance the business environment to accelerate technology transfer.(Japan)

Confirming that in order to achieve the long-term goal, it is essential not only to quickly deploy practically available technologies but also to develop innovative technologies. (Japan)

Proposed additional paragraph:

x.1 To address the gaps in, and to enhance the implementation of Articles 4.1, in particular 4.1 (c), 4.3, 4.5, 4.8, and 4.9, in the context of Article 4.7 of the Convention, the COP shall: (G77 and China)

1. [Objectives, scope and guiding principles]

x.1 Parties recognize the importance to promote and cooperate in the development, deployment, transfer and diffusion of technologies that control, reduce or prevent anthropogenic emissions of greenhouse gases in all relevant sectors.(Indonesia)

x.2 Developed Country Parties shall provide new and additional financial resources, including for the transfer of technology, needed by the Developing Country Parties to meet the agreed full incremental costs of implementing such measures. (Indonesia)

x.3 Developed Country Parties shall take all practicable steps to promote, facilitate and finance, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly Developing Country Parties, to enable them to implement the provisions of the Convention. (Indonesia)

Page 171

x.4 Enhanced action on technology must give urgent and equal weight to action on technologies for adaptation in conjunction with action on technologies for mitigation and to ensuring that existing barriers to the diffusion of adaptation technologies are addressed. (Ecuador)

x.5 All Parties, taking into account their common but differentiated responsibilities and respective capabilities, shall cooperate to promote the transfer and diffusion of, or access to, technologies and know-how necessary for supporting the mitigation and adaptation actions taken by developing country Parties. (Japan)

x.6 The developed country Parties shall promote development of innovative technologies through strengthening international cooperation including sharing roadmaps for technology development. (Japan)

180. Building on the existing framework for technology as described in decision 4/CP.7, reaffirmed in decision 3/CP.13, in accordance with Articles 4.1c, 4.5 and 11.5, an (Canada) [[An] enhanced action on technology (Japan) [technology mechanism⁵⁰][framework for

⁵⁰ Other formulations proposed include a “technology transfer mechanism”, “technology facilitative mechanism”, “arrangement” and “technology institutional framework”.

technology] [[shall] be [established] [developed] [promoted]] [Existing frameworks for technology shall be enhanced] (Canada) (Switzerland) to [support the short-, medium- and long-term cooperative action on technology] [and {shall}][should] be guided by the following objectives and (Canada) principles:

Alternatives to chapeau of paragraph 180:

Alternative 1 (Colombia)

An enhanced {technology mechanism } {framework for technology} {shall} be {established} {developed} to support the short-, medium- and long-term cooperative action on technology and {shall} {should} take into account the special needs of all developing countries, particularly low- lying and other small island countries, countries with low- lying coastal, arid and semi- arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change, and should be guided by the following principles:

Alternative 2. to be reflected in a new section on Objectives (Norway)

An enhanced framework for technology shall be established, to support short- , medium- and long - term cooperative action on technology at the national and international level.

- (x.a) Establish enabling environment for technology transfer, including, according to the IPCC, inter alia, the macroeconomic policy framework: trade and foreign investment policies, financial sector regulation and energy tariffs policies; (Switzerland)
- (a) [Build on and strengthen (Mexico) [existing] activities under the Convention [and under other specialized institutions] (Switzerland) and [operate under the [authority] guidance (European Community and its member States) of the COP] and in accordance with relevant provisions of the Convention;]

Alternative to subparagraph (a) (Canada)

Build on domestic strategies that identify needs and priorities; (Canada)

- (b) Address all stages of the technology development cycle including R&D, deployment, diffusion, demonstration (LDC) and [transfer] of [affordable] state of the art (Mexico) environmentally sound technologies to [enable all Parties, particularly] developing country Parties, to enhance action on mitigation and adaptation;

Alternative to sub paragraph (b)

Address all stages of the technology development cycle including R & D, deployment, diffusion, and transfer of affordable environmentally sound technologies, processes and practices to enable all Parties, particularly developing country Parties, to gain access to technologies necessary to address the worst effects of climate change; (Malaysia)

- (b).1 Wide diffusion of existing technologies similar to scale of information communication technologies; (LDC)
- (c) [Promote coherence by integrating and expanding ongoing activities related to technology;]

- (c).1 Facilitate national actions and international cooperative actions that maximize the full potential of technology to reduce greenhouse gas emissions and build climate resilience; (Canada)
- (d) [[Aim to] achieve accessibility], Facilitate the removal of barriers for technology development and transfer, (Canada) [affordability, appropriateness] and adaptability of technologies [required] identified (Canada) by [developing countries], as appropriate, (Canada) in order to support (Mexico) [enhance] [their action on mitigation and adaptation] Articles 4, paragraphs 1 (c) and 5 of the Convention (G77 and China);
- (e) [[[Aim to] identify and (Mexico) achieve the removal of barriers for technology development, deployment (LDC) and transfer] to developing countries (LDC) by reducing tariffs on environmental goods and services and strengthening the IPRs;] (Switzerland)
- (f) [Stimulate the formation and development of local, (LDC) national and international innovation systems [and markets for technologies for mitigation and adaptation], creating enabling trade and investment environments, (Switzerland) [creating] the creation of (European Community and its member States) favourable investment and enabling environments, and [engaging] engagement with (European Community and its member States) the private sector;]
- (g) [Provide for full agreed cost and full agreed incremental cost, as referred to in Article 4.3 of the Convention;] In order to implement the framework Parties may avail themselves of resources in accordance with the relevant provisions set out in Article Z. (European Community and its member States)
- (h) [[[Take into account the important role (Mexico) [relevance] of] public finance] in supporting technology R&D and [to leverage private investment] in the demonstration, (LDC) deployment, diffusion and transfer of technologies. Parties, particularly Annex II Parties, are urged to support R&D, deployment and diffusion of technologies by public/private sector; (LDC)]

Alternative to sub paragraph (h)

Rely on developed country Parties' public finance in supporting technology R&D and to leverage private investment in the deployment, diffusion and transfer of technologies; (Colombia)

- (i) Recognize the importance of enabling environments, the engagement of the private sector, and the key roles that the public and private finance will play in the development, deployment, diffusion and transfer of technologies (Canada) [role that small and medium-sized enterprises could play in the success of adaptation and mitigation efforts and in economic development]; and take into account the obstacles they face regarding the development and transfer of technology. (Turkey)

Alternative to sub paragraphs (h) and (i):

Take into account the relevance of public financing in supporting technology R&D and to leverage private investment in the deployment, diffusion and

transfer of technologies; Recognise the role of small and medium-sized enterprises could play in the success of adaptation and mitigation efforts and in economic development; (AOSIS)

(i).1 Address the unique technology relevant issues specific to SIDS recognizing scale of economies, enabling environments, and geographical remoteness for both adaptation and mitigation. (AOSIS)

(i).2 Ensure participation of all stakeholders at all levels of decision-making on technology cooperation and sharing, especially women, youth, indigenous peoples and local communities, among others. (Ecuador)

(i).3 Efforts for enhanced action on technology development, deployment and diffusion should aim at: (Norway)

(i) reducing greenhouse gas emissions, facilitating low emission development and contribute to appropriate adaptation, to contribute to the overall objective of the convention. (Norway)

(ii) Accelerate research, development, diffusion and transfer of environmentally sound technologies among all parties (Norway)

(i).4 Improving energy efficiency and environment in upstream and downstream activities relating to fossil fuels. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

(i).5 Promote diversified energy particularly carbon capture & storage technology. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

Page 173

(i).6 Support for the promotion of inward foreign direct investment, labour-intensive exports (manufacturing and services), trade liberalisation, competition, access to developed countries' markets and human resource development. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

(i).7 Support for price and ownership reforms in energy and associated industries. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

(i).8 Technical assistance for economic diversification. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

(i).9 Be guided by the provisions of the Convention, particularly Articles, 4.3, 4.4, 4.5, 4.8 and 4.9 , and built on existing activities within the Convention, including the work of the Expert Group on Technology Transfer (EGTT), and expand ongoing activities relating to technology. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

(i).10 Aim to achieve the accessibility, affordability, appropriateness and adaptability of technologies required by developing countries for enhanced action on adaptation. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

- (i).11 Enhance R&D through supporting and improving of existing and establishment of new national and regional centres of excellence working on environment friendly technologies, in particular in developing countries.
(Egypt)

Alternatives to paragraph 180:

Alternative 1 (Australia)

An enhanced set of short-, medium- and long-term national and international cooperative actions shall be developed to support global research, development, diffusion and transfer of climate related technologies and shall be guided by the following principles:

- (a) Enhance implementation of the Convention's framework for technology development, deployment, diffusion and transfer;
- (b) Complement and build on all relevant existing and emerging national and international technology related initiatives;
- (c) Address all stages of the technology development cycle including R&D, deployment, diffusion and transfer of environmentally sound technologies to enable all Parties, particularly developing country Parties, to enhance action on mitigation and adaptation;
- (d) Promote coherence through expanded catalytic and integrated actions on technology in order to support global mitigation and adaptation responses;
- (e) Aim to achieve accessibility, affordability, appropriateness and adaptability of technologies required by all parties, in particular developing country parties, in order to enhance their action on mitigation and adaptation;
- (f) Provide Parties with pathways to low emission and climate resilient technology implementation, and promote measures that facilitate technology innovation and diffusion by all Parties, including north-south and south-south and triangular action;
- (g) Aim to achieve the removal of barriers for technology development and transfer;
- (h) Further stimulate the formation and development of national and international innovation systems and markets for technologies for mitigation and adaptation, create favourable investment and enabling environments, and promote engagement of the private sector;
- (i) Take into account the respective roles of public and private sectors in supporting technology outcomes, including the need to leverage private investment in the deployment, diffusion and transfer of technologies;
- (j) Support to be prioritised for the least developed and most vulnerable countries.
(Australia)

Alternative 2. (United States of America)

Enhanced action on technology development and transfer to support action on mitigation and adaptation should contain by the following elements:

- (a) Build on existing activities under the Convention and other efforts on technology development and transfer outside the Convention;

Page 174

- (b) Consider all stages of the technology spectrum including RD&D, deployment, diffusion and transfer of environmentally sound technologies to enable all Parties, particularly developing country Parties, to enhance action on mitigation and adaptation;
- (c) Promote coherence between ongoing activities inside and outside the convention related to technology;
- (d) Aim to achieve accessibility, affordability, appropriateness and adaptability of technologies required by developing countries in order to enhance their action on mitigation and adaptation;
- (e) Address barriers to technology development, transfer and diffusion;
- (f) Stimulate the formation and development of national and international innovation systems and markets for technologies for mitigation and adaptation, creating favourable investment and enabling environments, and engaging the private sector;
- (g) Take into consideration the full incremental costs and benefits of adopting environmentally sound technologies;
- (h) Take into account the roles of public and private finance in supporting technology RD&D and to leverage private investment in the deployment, diffusion and transfer of technologies;
- (i) Recognize the role that small and medium-sized enterprises could play in the success of adaptation and mitigation efforts and in economic development;
- (j) Accelerate innovation of environmentally sound and affordable technologies for mitigation and adaptation, in all countries and regions;
- (k) Scale up deployment of environmentally sound and affordable technologies for mitigation and adaptation, especially in developing countries;
- (l) Speed up diffusion of environmentally sound and affordable technologies for mitigation and adaptation, especially in developing countries.
- (m) Promote a shift to sustainable development paths. (United States of America)

Alternative 3. (Pakistan)

An enhanced {technology mechanism} {shall} be {established} to support the short-, medium- and long-term to enhance the implementation of article 4.3, 4.5, and 4.8 of the Convention. The technology mechanism {shall} be guided by the following principles:

- (a) Build on existing activities under the Convention and operate under the authority of the COP and in accordance with relevant provisions of the Convention;
- (b) Address all stages of the technology development cycle including R&D, deployment, diffusion, and transfer of affordable environmentally sound technologies to enable all Parties, particularly developing country Parties, to gain access to technologies necessary to address the worst effects of climate change

- (c) Aim to achieve accessibility, affordability, appropriateness and adaptability of technologies required by developing countries in order to address the worst effects of climate change and to take nationally appropriate action on mitigation and adaptation;
- (d) Serves as a primary vehicle in the removal of barriers for technology development and transfer;
- (e) Stimulate the formation and development of national and international innovation systems and markets for technologies for mitigation and adaptation, creating favourable investment and enabling environments, and engaging the private sector;
- (f) Provide for agreed full cost and agreed full incremental cost, as referred to in Article 4.3 of the Convention;
- (g) Public finances shall be allocated by the annex-I parties in supporting technology R&D and to leverage private investment in the deployment, diffusion and transfer of technologies to the developing countries;

Page 175

- (h) Small and medium-sized enterprises could play in the success of adaptation and mitigation efforts and in economic development. (Pakistan)

Alternative 4. (Indonesia)

An enhanced framework for technology shall be established to implement the technology transfer provisions of the Convention and shall be guided by the following principles:

- (a) Build on existing activities under the Convention and operate under the authority of the COP and be accountable to it in accordance with relevant provisions of the Convention.
- (b) Address all aspects of cooperation on technology research and development cycle, deployment, transfer and diffusion in accordance with Article 4 paragraph 1 (c), 3 and 5 of the Convention, in order to enable mitigation and adaptation as stipulated in Decision 1/CP.13 (Bali Action Plan).
- (c) Promote coherence by integrating and expanding ongoing activities related to technology;
- (d) Aim to achieve accessibility, affordability, appropriateness and adaptability of technologies required by developing countries in order to enhance their action on mitigation and adaptation;}
- (e) Aim to remove barriers for technology development and transfer
- (f) Stimulate the formation and development of national and international innovation systems for technologies for mitigation and adaptation.
- (g) Provide for full cost and full incremental cost, as referred to in Article 4.3 of the Convention;
- (h) Take into account the relevance of public finance in supporting technology R&D, deployment, diffusion and transfer of technologies. (Indonesia)

Alternative 5 to be reflected in a new section on Guiding Principles (Norway)

The framework for technology should be guided by the following principles:

- (a) Build on existing activities under the Convention
- (b) Complement and build on existing technology relevant initiatives, including international and non-governmental organisations
- (c) Contribute to the development of national long term strategies for low emission development and climate change adaptation
- (d) Assist developing countries in building sustainable national regulatory and institutional frameworks that promote the development, deployment and diffusion of environmentally sound technologies
- (e) Aim to achieve accessibility, appropriateness and adaptability of technologies needed by developing countries in order to enhance their action on mitigation and adaptation.
- (f) Address all stages of the technology development cycle including R&D, deployment, diffusion and transfer of affordable environmentally sound technologies to enable all Parties, particularly developing country Parties, to enhance action on mitigation and adaptation;
- (g) Promote coherence by integrating and expanding ongoing activities related to technology;
- (h) Take into account the relevance of public finance in supporting technology R&D and to leverage private investment in the deployment, diffusion and transfer of technologies;
- (i) Recognize the role that small and medium-sized enterprises could play in the success of adaptation and mitigation efforts and in economic development.]
(Norway)

2. Promoting [Cooperati[on]ive policies between the developed and developing countries (Pakistan) on technology research, development, diffusion and transfer]⁵¹

Note: Proposals for the implementation of enhanced action on technology are reflected in this section. In advancing their proposals, Parties in some cases also proposed a governance structure for such action. Such proposals are reflected in paragraphs 196–198 below.

Page 176

Proposed new section entitled National and cooperative actions to enhance the development, application and diffusion, including transfer, of technologies, practices and processes (United States of America)

National actions

x.1 Recognizing that national policies and actions drive technology financing, leverage the private sector, build capacity, create suitable investment conditions, and support technology RD&D, demonstration, deployment, diffusion and transfer, Parties will, in the context of their national strategies, and consistent with their national circumstances:

⁵¹ Technology cooperation in specific technologies and sectors is reflected in paragraphs 129–131 above.

- (a) Implement actions, consistent with relevant national social, economic, energy and environmental policies, that establish conditions which promote the development, deployment and diffusion of environmentally sound technologies;
- (b) Establish effective enabling environments with policies and regulations, economic instruments, and other related measures to foster technology diffusion;
- (c) Promote private investment and matchmaking, encourage innovative financial mechanisms and reduce market, technology and political risks to private investment in climate technologies;
- (d) Establish national programmes that support common performance standards, testing, verification and certification programmes for technologies for mitigation and adaptation;
- (e) Establish training, information and workforce development programmes to build capacity, including national centres of excellence, to ensure that all market actors understand the costs, performance and benefits of climate change technologies;
- (f) TNAs {to be fully elaborated taking into account the findings of the 2006 TNA review and expanded to cover more in-depth assessments of obstacles in the functioning of relevant technology innovation systems, including detailed assessment of technology capacity and markets. TNAs should also be shared and made publicly available} {to be carried out within the framework of the NAPAs and NAMAs in order to ensure consistency and coherence among the various efforts; TNAs should not constitute a barrier to short-term technology transfer}.
- (g) Capacity-building, taking into account the various activities completed or under way on a bilateral or multilateral basis and mainstreamed within an enhanced framework for capacity-building for mitigation and adaptation (decision 2/CP.7);
- (h) Knowledge, technical and other necessary expertise in existing institutions and organizations, including regional centres and networks {shall} {should} be developed, used, shared and sustained at regional and national levels
- (i) Parties should strengthen their national technology research and their national technology research, development and demonstration programmes and provide appropriate support to developing country Parties through, inter alia:
 - (i) Reinforcing North–South, South–South and triangular cooperation with the aim of promoting endogenous technologies of developing countries and prioritizing technologies for mitigation and adaptation that might have high costs but also high potential for GHG mitigation and/or increase resilience to negative impacts of climate change;
 - (ii) Providing opportunities for participation by developing country Parties in joint RD&D programmes for specific technologies and joint - ventures to accelerate deployment, diffusion and effective transfer of technologies
- (j) Focused voluntary technology oriented agreements, including on partnerships within and outside the Convention and engaging the private sector and civil

society organizations {shall} {should} be recognized. Such agreements could include cooperative R&D and large-scale demonstration projects, technology deployment projects, cooperation on specific sectors or gases, and cooperation on climate observation and warning systems for enhancing resilience.

Page 177

Cooperative actions

x.2 Recognizing that cooperative actions should be conducted and acknowledged that promote the development and deployment of environmentally sound technologies. Parties will engage in cooperative actions, to the extent appropriate and consistent with their national strategies that:

- (a) Strengthen technical and institutional capacity to sustain cooperative technology development, deployment, diffusion and transfer activities including enhancements in policies, standards, information and assessment, and investment programmes;
- (b) Promote greater public and private sector investment in RD&D for targeted EST technology areas through enhanced support for strengthened incentives for private-sector participation in RD&D.
- (c) Promote participation in international programmes that support the development and use of common performance standards, testing, verification and certification programmes.
- (d) Establish international partnerships to advance the development, deployment and transfer of environmentally sound technologies.
- (e) Support, strengthen and expand globally coordinated research programmes and networks or alliances of climate technology research institutes to engage developing countries.
- (f) Capacity-building, taking into account the various activities completed or under way on a bilateral or multilateral basis and mainstreamed within an enhanced framework for capacity-building for mitigation and adaptation (decision 2/CP.7);]
- (g) Knowledge, technical and other necessary expertise in existing institutions and organizations, including regional centres and networks {shall} {should} be developed, used, shared and sustained at regional and national levels
- (h) Parties should strengthen their national technology research and their national technology research, development and demonstration programmes and provide appropriate support to developing country Parties through, inter alia:
 - (i) Reinforcing North–South, South–South and triangular cooperation with the aim of promoting endogenous technologies of developing countries and prioritizing technologies for mitigation and adaptation that might have high costs but also high potential for GHG mitigation and/or increase resilience to negative impacts of climate change;
 - (ii) Providing opportunities for participation by developing country Parties in joint RD&D programmes for specific technologies and

joint - ventures to accelerate deployment, diffusion and effective transfer of technologies

- (i) Focused voluntary technology oriented agreements, including on partnerships within and outside the Convention and engaging the private sector and civil society organizations {shall} {should} be recognized. Such agreements could include cooperative R&D and large-scale demonstration projects, technology deployment projects, cooperation on specific sectors or gases, and cooperation on climate observation and warning systems for enhancing resilience. (United States of America)

[Technology action plan]

181. [A] technology action plan shall be drawn up [as a starting point] for enhanced cooperative action on technology.⁵² It shall aim to accelerate research, development, diffusion and transfer and use (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE) of environmentally sound technologies [[among all Parties], [particularly]] [to the developing countries with a view to implementing the Annex I commitments contained in the Convention] (Pakistan) [from] [Annex II Parties] [the developed Parties that have commitments under the Convention and the other developed Parties in a position to transfer environmentally sound technologies] (Turkey) [developed country Parties and other developed Parties included in Annex II of the Convention] (Singapore) [to] [non-Annex I Parties] [developing country Parties and other Parties in need of abovementioned activities], (Turkey) in accordance with Article 4.5 of the Convention, (European Community and its member States) in order to support action on mitigation and adaptation [and] [to] promote a shift to sustainable development paths. The technology action plan shall develop an effective strategy to identify and propose specific measures to overcome the economic and technical barriers and to assess the required steps to accelerate research, development and transfer of environmentally sound technologies for both mitigation and adaptation. (Mexico)

Page 178

Alternatives to paragraph 181

Alternative 1 (G77 and China)

[Develop a Technology Action Plan (TAP) to serve as a starting point for the work of the Executive Body.

- (a) It will include specific actions and timelines for the first three years, and will be updated for successive three-year periods.
- (b) To realize the full potential of technology, the TAP shall support all stages of the technology cycle, including research, development, demonstration, diffusion, and transfer
- (c) the TAP will define specific policies, actions and funding requirements for all relevant technologies under the following classifications: public domain technologies, patented technologies and know-how, future technologies
- (d) the establishment of national and regional technology centres of excellence to reinforce north-south, south-south and triangular cooperation, including joint

⁵² This proposal is presented in the context of proposals to establish an executive body on technology and a multilateral climate technology fund reflected in paragraphs 175, option 5, above and 196, option 2, below.

research and development (details can be annexed to the legal/agreed outcome)] (G77 and China)

Alternative 2 (Indonesia)

[A technology action plan shall be drawn up as a starting point for the work of a body for the technology mechanism. It should support all stages of the technology cycle, including technology research and invention through scientific and technical cooperation, technology development, technology transfer and diffusion, and ensure that financing for technology transfer, including all available means to ensure the affordability of technologies, products and related services, is available.] (Indonesia)

Parties should promote the development of innovative technologies and strengthen international technology cooperation, including through the formulation and sharing of national technology road maps as part of the their technology action plans. Such road maps should include:

- (a) Identification of technological options for specific sectors
- (b) Obstacles to the development and transfer of identified technological options
- (c) Policy instruments and infrastructure required for the deployment, diffusion and transfer of identified technological options
- (d) Capacity building needs
- (e) Opportunities for joint technology R&D between developed and developing countries. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

182. [[To realize the full potential of technology,] the action plan shall support all stages of the technology development cycle and [articulate] [linked] with the financial mechanism of the Convention in order to [secure] assist with obtaining (European Community and its member States)the necessary financing.

183. [The action plan [shall][should] include specific policies, actions, institutional arrangements (G77 and China) and funding requirements for existing and emerging [Japan] [technologies in the public domain, patented technologies and [future]] [IPRs protected] technologies to be developed in the future (AOSIS). The plan shall also include clear actions for the first three years, and be reviewed after every (Pakistan)[updated for successive] three-year periods in light of lessons learned. (Pakistan)] This should also include: public domain technologies and future and innovative technologies. (Indonesia)]]

Alternative to paragraphs 181, 182 and 183 to move to new section entitled Cooperative action to promote technology research, development and demonstration and deployment and new sub-section on Technology action plans/technology road maps: (Australia)

x.1 [Parties shall promote the development of innovative technologies and strengthen international technology cooperation, including through the following actions:

- (a) A series of prioritised technology action plans shall be developed to, inter alia, identify the potential for the technology to contribute to global, regional or national mitigation and adaptation responses, identify the gaps and barriers to commercial maturity and recommend further actions that may be required to realise this potential.

(b) Technology action plans shall be informed and supported by comprehensive technology road maps which shall identify:

- (i) the current state of development for the technology
- (ii) key stakeholders and relevant existing and emerging efforts contributing to the development of the technology
- (iii) gaps and barriers to commercial maturity
- (iv) opportunities for collaborative effort between developed and developing countries, including their respective private sectors

(c) Technology action plans and technology road maps will build on and work collaboratively with other relevant international and national efforts and institutions to maximise efficiency of effort and avoid duplication.

[Technology needs [assessments], enabling environments, [and] capacity-building, technology information, and mechanisms for enhanced cooperative action on technology development, deployment, transfer and diffusion (Canada)] [Enhanced national capacity (Norway)] [Cooperative action to promote technology needs assessment, technology information, enabling environments and capacity building (Australia)]

184. [Cooperation on technology [shall][should] be enhanced by the following elements:

- (a) [[TNAs] [[to be fully elaborated taking into account the findings of the 2006 TNA review and expanded to cover more in-depth assessments of obstacles in the [access to, development and transfer of] (Pakistan) [functioning of] relevant technology innovation systems, including detailed assessment of technology capacity, barriers and markets. TNAs] should [continue to] (Canada) [also] be [shared and] made publicly available] [and] [could] [[to] be carried out within the framework of the [NAPAs], [and] NAMAs and other relevant reports and information including national communications in order to ensure consistency and coherence among the various efforts; [TNAs should not constitute a barrier to short-term technology transfer to the developing country Parties (Pakistan).];] Technology road mapping exercises that identify, inter alia, opportunities for partnerships, as well as obstacles to technology development and deployment, could constitute an element of TNAs;] (Canada)

Alternative to sub paragraph (a):

[A single process will be carried out to identify technology needs (TNAs), nationally appropriate mitigation actions (NAMAs) and long-term planning for achieving low-emission development. This process will result in preparation of a national low-emission development strategy, as described in Article X, paragraph Y. This single document should contain an in-depth assessment of obstacles in the functioning of relevant technology innovation systems, including detailed assessment of technology capacity and markets. Assessment of technology needs for adaptation, and barriers to the deployment of these technologies, should be carried out in the context of climate resilient development, as described in Article P, paragraph Q.] (European Community and its member States)

- (b) [Enabling environments] [which create the conditions conducive to private and public sector technology development, deployment, transfer and diffusion] (Canada) [– technology-specific policies and measures with both adaptation and mitigation benefits (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)[need to] [should] be defined[[]/strengthened] and implemented]. Policies and measures [should] [may] include deployment schemes for adaptation measures and (Mexico) [low-greenhouse gas emission technologies] measures to address barriers to technology development, deployment and diffusion, (European Community and its member States) and technologies for adaptation (AOSIS) [and national energy and climate policies]];
- (c) Capacity-building, also taking into account the various activities completed or under way on a bilateral or multilateral basis [and in accordance with the capacity-building theme articulated in decision 4/CP.7 and 3/CP.13, as well as the framework for capacity building in developing countries (decision 2/CP.7)] (Canada) [and mainstream[ed]ing within an enhanced framework for capacity-building for mitigation and adaptation [(decision 2/CP.7)]], under the Convention; capacity building activities should be guided by the Convention (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE). Capacity building needs should be identified and delivered in the overall context of support for mitigation and adaptation (European Community and its member States);

Page 180

- (d) [Information to support actions that enable technologies for mitigation and adaptation.] (Canada) Knowledge, technical and other necessary expertise in existing institutions and organizations, including local and subnational authorities, (Switzerland) existing (Japan) regional centres and networks [shall] {should} be developed, strengthened, used, shared and sustained at regional and national levels.]
- (d).1 Mechanisms for enhanced cooperative action on technology development, deployment, transfer and diffusion. (Canada)
- (d).2 Global technology roadmaps to provide an overview of what needs to be done to promote wider and more rapid development and deployment of key technologies for mitigation. (European Community and its member States)

Alternatives to paragraph 184:

Alternative 1. (Australia)

Technology outcomes should be enhanced through the following catalytic actions:

- (a) Enhancement of the Technology Needs Assessment process to support full participation by all developing countries, taking into account the revision of the TNA handbook and lessons learned in the field testing and early implementation phases. The TNA process should be integrated into the low emission development strategies which could include NAMA/NAPA processes and the use of country specific technology development plans.
- (b) Parties shall improve and strengthen national and international enabling environments to promote enhanced technology development, diffusion and

transfer. The use of integrated TNAs and country specific low emission development strategies will be a key tool to support this process.

- (c) Capacity-building, taking into account the various activities completed or under way on a bilateral or multilateral basis and mainstreamed within mitigation and adaptation (decision 2/CP.7);
- (d) Knowledge, technical and other necessary expertise in existing institutions and organizations, including regional centres and networks shall be developed, used, shared and sustained at regional and national levels.
- (e) Enhancement and integration of existing and emerging technology information services to provide access to technology providers, technical information and support, best practice dissemination and sharing of experience. (Australia)

Alternative 2. as a new section entitled *Enhanced national capacity (Norway)*

Action to enhance national capacity on technology shall include the following elements:

- (a) Developing countries shall be assisted in completing Technology Needs Assessments, integrated with national low carbon development strategies. TNAs should include, inter alia, in-depth assessments of national barriers to technology deployment and diffusion, capacity for technology adoption and related capacity building needs as well as relevant market conditions.
- (b) TNAs to be fully elaborated taking into account the findings of the 2006 TNA review and expanded to cover more in-depth assessments of obstacles in the functioning of relevant technology innovation systems, including detailed assessment of technology capacity and markets. TNAs should also be shared and made publicly available} {to be carried out within the framework of the NAPAs and NAMAs in order to ensure consistency and coherence among the various efforts;
- (c) Priority areas shall be identified sector by sector and technology by technology. For the most GHG intensive sectors, nationally appropriate deployment schemes should be developed within the context of TNAs and low emission development strategies, taking into account specific barriers for technology deployment in these sectors. (Norway)

Page 181

184.1 Parties shall promote the accelerated penetration of cost-effective technologies in non Annex-1 countries through pilot projects which strengthen their capacity to develop specifications for these applications which are appropriate to national circumstances, and create human resources necessary for the design, implementation, and operation and maintenance of these applications. (India)

Proposed new paragraph 184.2 under new section entitled *Cooperative actions on capacity building and information sharing*

184.2 A programme for capacity building for accelerated technology development, deployment and diffusion in developing countries shall be developed. This programme for capacity building should include the following elements: (Norway)

- a) Analyses, information, training activities and advice on development and implementation of relevant policies, institutional and regulatory frameworks that promote the development and use of environmentally sound technologies;

- b) Advice and support for the development and implementation of national technology deployment schemes;
- c) Advice and technical assistance to developing countries in order to facilitate increased private investment in key GHG emitting sectors, including advice on the establishment of public-private partnerships for promoting environmentally sound technologies.
- d) Enabling environments – technology-specific policies and measures should be defined/strengthened and implemented. Policies and measures should include deployment schemes for low-emission technologies and national energy and climate policies;
- e) Capacity-building, taking into account the various activities completed or under way on a bilateral or multilateral basis and mainstreamed within an enhanced framework for capacity-building for mitigation and adaptation (decision 2/CP.7);
- f) Knowledge, technical and other necessary expertise in existing institutions and organizations, including regional centres and networks {shall} {should} be developed, used, shared and sustained at regional and national levels.
- g) Identification of technological options for specific sectors;
- h) Obstacles to the development and transfer of identified technological options;
- i) Policy instruments and infrastructure required for the deployment, diffusion and transfer of identified technological options;
- j) Improve access to information on existing and new technologies. (Norway)

Technology road maps

185. [In accordance with their respective commitments in the Convention, the [Parties {shall}[should] promote and support (G77 and China) the development of innovative and climate friendly technologies and [strengthen international technology cooperation,] including through the formulation and sharing of national technology road maps. Such road maps {shall}[should] [include] be consistent with TNA and should (Colombia) in accordance with Article 4, paragraph 5, of the Convention (G77 and China):

(x.a) National needs assessment; (Pakistan)

[(a) Identification of technological options for [specific] all (G77 and China) sectors;]

Alternative to sub paragraph (a):

[Identification of specific technological options for all sectors and all gases;
(Saudi Arabia)]

(a).1 Improved understanding on the role of oceans on climate changes and vice versa, and its effects on marine ecosystems, marine biodiversity and coastal communities, especially in developing countries and small island states; including marine scientific research and sustained integrated ocean observatory systems;

(b) Removing [Obstacles] barriers (G77 and China) to the development, deployment, diffusion and transfer of [win-win technological options such as carbon capture and storage, clean fossil fuel, non-energy use of fossil fuel technologies] (Saudi Arabia) [identified technological options];

Alternative to sub paragraph (b):

Identification of obstacles to the development diffusion, development and transfer of technological options; (AOSIS)

- (c) Policy instruments and enabling environments (AOSIS) infrastructure required for the deployment, diffusion and transfer of identified technological options;
- (d) Capacity-building needs;
- (e) Opportunities for joint technology R&D between developed and developing countries should be paid by developed countries.(G77 and China)]
- (e).1 R&D between developing countries, and triangular cooperation.(G77 and China)
- (e).2 All Parties shall periodically review progress and identify areas where international cooperation should be strengthened. (Japan)]

Move paragraph 185 to become a new paragraph 183.1. (G77 and China)

Move paragraph 185 to proposed new subsection entitled Technology action plans/technology road maps. (Australia)

[Cooperative actions on (Norway) research and development]

186. [[All] (Canada) [[Developed country] Parties], in accordance with national capabilities, (European Community and its member States) and other developed Parties included in Annex II of the Convention (Singapore)[The developed Parties that have commitments under the Convention and the other developed Parties in a position to transfer environmentally sound technologies] (Turkey) [shall]{should} [take efforts to] (Canada) strengthen their national technology research, development and demonstration (RD&D) programmes [and provide appropriate support] with the aim of a substantial increase of private and public energy-related RD&D compared to current levels, working towards at least a doubling of global energy-related RD&D by 2012 and increasing it to four times its current level by 2020, with a significant shift in emphasis towards safe and sustainable low greenhouse-gas-emitting technologies, especially renewable energy (European Community and its member States) [towards] (Canada) [[to developing country Parties] through], inter alia:]

Alternative chapeau for paragraph 186:

Providing opportunities for participation by developing country Parties in joint R&D programmes for specific technologies and joint - ventures to accelerate deployment, diffusion and effective transfer of technologies from developed to developing country Parties, particularly technologies for adaptation for low lying and other small island countries, countries with low- lying coastal, arid and semi- arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change, in the absence of win-win solutions and market intervention; (Colombia)

- (a) [Reinforcing] Enhancing (AOSIS) North–South, South–South [and triangular] cooperation, including city to city twinning arrangements, (Switzerland) with the aim of promoting technology development taking into account endogenous technologies [of developing [countries]][country Parties]]

and prioritizing technologies for mitigation and adaptation [towards a goal of bringing down costs and increasing the] (Singapore) that [might] have not only (AOSIS) [high costs but also high] potential for GHG mitigation and/or increas[e]ing resilience to the [negative] adverse (AOSIS) impacts of climate change;

- (b) Providing opportunities for [all] (Canada) [participation [by developing country]] [Parties] in joint R&D programmes[, as appropriate] (Canada) for specific technologies and joint - ventures to accelerate deployment, diffusion and effective transfer of technologies [from developed country Parties and other developed Parties included in Annex II of the Convention (Singapore) to developing country Parties], particularly technologies for adaptation for [SIDS] small island developing countries (Japan), LCDs and Africa consistent with the language of the Bali Action Plan and the Convention[, in the absence of win-win solutions and market intervention].

Alternative to sub paragraph 186 (b):

- (b) Providing opportunities for participation by developing country Parties in joint R&D programmes for specific technologies and joint - ventures to accelerate deployment, diffusion and effective transfer of technologies from developed to developing country Parties, particularly technologies for adaptation for low lying and other small island countries, countries with low-lying coastal, arid and semi- arid areas or areas liable to floods, drought and desertification, and developing countries with fragile mountainous ecosystems are particularly vulnerable to the adverse effects of climate change, in the absence of win-win solutions and market intervention. (Colombia)

Page 183

- (b).1 The [{technology mechanism} {framework for technology}] should assess the need for increased global or regional RD&D for targeted technologies, especially those with particular relevance to developing countries, and facilitate activities to address any gaps. (European Community and its member States)

Alternatives to paragraph 186:

Alternative 1. (United States of America)

Parties shall strengthen their national technology research, development and demonstration programmes and provide appropriate support to developing country Parties through, inter alia:

- (a) Reinforcing North–South, South–South and triangular cooperation with the aim of promoting endogenous technologies of developing countries and prioritizing technologies for mitigation and adaptation that might have high costs but also high potential for GHG mitigation and/or increase resilience to negative impacts of climate change;
- (b) Providing opportunities for participation by developing country Parties in joint R&D programmes for specific technologies and joint - ventures to accelerate deployment, diffusion and effective transfer of technologies from developed to developing country Parties, particularly technologies for

adaptation for SIDS, in the absence of win-win solutions and market intervention.

Alternative 2. (Norway)

[Stimulate the formation and development of national and international innovation systems and markets for technologies for mitigation and adaptation, creating favourable investment and enabling environments, and engaging the private sector;

Developed country Parties {shall} {should} strengthen their national technology research, development and demonstration programmes and provide appropriate support to developing country Parties through, inter alia:

- (a) Reinforcing North–South, South–South and triangular cooperation with the aim of promoting endogenous technologies of developing countries and prioritizing technologies for mitigation and adaptation that might have high costs but also high potential for GHG mitigation and/or increase resilience to negative impacts of climate change;
- (b) Providing opportunities for participation by developing country Parties in joint R&D programmes for specific technologies and joint - ventures to accelerate deployment, diffusion and effective transfer of technologies from developed to developing country Parties, particularly technologies for adaptation for SIDS, in the absence of win-win solutions and market intervention.

Focused voluntary technology oriented agreements, including on partnerships within and outside the Convention and engaging the private sector and civil society organizations {shall} {should} be recognized. Such agreements could include cooperative R&D and large-scale demonstration projects, technology deployment projects, cooperation on specific sectors or gases, and cooperation on climate observation and warning systems for enhancing resilience.

National and regional technology innovation centres and networks {shall} {should} be {established} {strengthened} to:

- (a) Promote joint R&D activities in the context of South–South, North–South and triangular cooperation;
- (b) Promote the transfer of environmentally sound technologies to developing country Parties;
- (c) Stimulate capacity-building, in particular for endogenous technologies;
- (d) Improve access to information on existing and new technologies;

The contribution to enhanced action on RD&D through voluntary agreements on research, development and demonstration of key mitigation or adaptation technologies, shall be recognized under the Convention. Such agreements shall involve parties to the Convention, and may include partnerships with the private sector, academia and civil society. (Norway)

Parties shall promote and support the accelerated development and transfer of technologies through a network of Climate Innovation Centres, each of which shall be a coordinating nodal centre to facilitate and enable the identification of one or more key technological products which have strong sustainable development and climate change benefits along with their

projected price and performance targets, the development of such products, and the markets for these products, in partnership with appropriate public and private sector organizations. (India)

Parties shall cooperate to significantly reduce or remove tariff barriers to the import and export of renewable energy and energy efficiency technologies as well as environmentally sound adaptation technologies. (Tuvalu)

[Measures to address intellectual property rights]

187. [Option 1]

[Technology development, diffusion and transfer {shall} be promoted by operating the intellectual property regime]. This process shall also make use of the flexibilities in the IPR regime to (Pakistan)][in a manner that encourages development of climate-friendly technologies and simultaneously] [such as compulsory licensing to (Pakistan)] facilitates [the (Pakistan)][their] demonstration, (LDC) diffusion and transfer to developing countries. Buy down the cost of technologies:

- (a) Full cost for LDCs; and
- (b) Partial for other developing countries taking into account the ability to pay] (LDC)

Alternative to paragraph 187:

[Parties shall cooperate to develop and deploy patent sharing and/or intellectual property free renewable energy and energy efficiency technologies.] (Tuvalu)

188. [Option 2]

Specific and urgent (Pakistan) measures {shall}[should] be [instituted in a relevant forums (Pakistan)][established] to remove barriers to development and transfer of technologies from [developed][the developed Parties that have commitments under the Convention and the other developed Parties in a position to do transfer environmentally sound technologies (Turkey)] to developing country Parties arising from the intellectual property rights (IPR) protection, including:

- (a) [Compulsory licensing for [specific] patented [environmentally safe and sound] technologies;] (Saudi Arabia)

Alternative to sub paragraph 188.(a):

[All necessary steps shall be immediately taken in all relevant fora to mandatorily exclude from patenting climate-friendly technologies held by Annex II countries which can be used to adapt to or mitigate climate change.] (G77 and China)

- (b) [Pooling and sharing] publicly funded technologies and making the technologies available in the public domain at an affordable price;

Alternative to sub paragraph 188.(b):

[Creation of a “Global Technology Pool for Climate Change” that promotes and ensures access to technologies that can be used to adapt to or mitigate climate change and associated know-how and trade secrets to developing countries including on non-exclusive royalty-free terms in order to provide better information service and reduce transaction costs.] (G77 and China)

- (c) Taking into account the example set by decisions in other relevant international forums relating to IPRs, such as the Doha Declaration on the TRIPs Agreement and Public Health;]

(c).1 Preferential pricing. (Saudi Arabia)

Page 185

- (c).2 Reviewing all existing relevant IPR regulations in order to provide certain information to remove the barriers and constraints that GHG mitigation technologies are subject to. (Turkey)
- (c).3 Promoting innovative IPR sharing arrangements for joint development of Environmentally Sound Technologies. (Turkey)
- (c).4 Differential pricing between the developed and developing countries (Pakistan)
- (c).5 Promoting Joint technological or patent pools for the development and transfer of technologies to the developing countries at low cost (Pakistan)
- (c).6 Limited/reduced time patents on climate friendly technologies (Pakistan)
- (c).7 Exclusion from patenting of climate friendly technologies (Pakistan)]

Alternative to paragraph 188: (Philippines)

- [(a) All necessary steps shall be immediately taken in all relevant fora to mandatorily exclude from patenting environmentally sound technologies which can be used to adapt to or mitigate climate change.
- (b) Biological resources including microorganisms, plant and animal species and varieties, and parts thereof that are used for adaptation and mitigation of climate change shall not be patented.
- (c) Specific measures shall be taken and mechanisms developed to remove existing barriers to development and transfer of technologies from developed to developing country Parties arising from intellectual property rights (IPR) protection, including:
 - (i) to use to the full flexibilities contained in the Trade Related Aspects of Intellectual Property Rights (TRIPS) including Compulsory licensing to access intellectual property protected technologies;
 - (ii) take steps to ensure sharing of publicly funded technologies and related know-how, including by making the technologies available in the public domain at an affordable price and on terms and conditions that promotes access for developing countries;
 - (iii) creation of a “Global Technology Pool for Climate Change” that promotes and ensures access to intellectual property protected technologies and associated know-how to developing countries including on non-exclusive royalty-free terms;
 - (iv) adoption of a Declaration on IPRs and Environmentally Sound Technologies in relevant fora to, inter alia, reaffirm the flexibilities in the TRIPS Agreement and enhance the enabling environment for implementing these flexibilities.

188.1 All necessary measures and actions shall be immediately taken to facilitate technology pools that include associated trade secrets and know-how on environmentally sound technologies and enable them to be accessed, including on royalty-free terms for developing countries.] (Philippines)

189. [Option 3]

[[LDCs]][Countries vulnerable to the adverse effects of climate change (Pakistan)] should be exempted from patent protection of climate-related technologies for adaptation and mitigation, as required for capacity-building and development needs. [Genetic resources, including germplasms of plant and animal species and varieties that are essential for adaptation in agriculture, shall not be patented by multinational or any other corporations.]]

189.1 Option 3.1 (Bolivia)

Specific measures shall be taken and mechanisms developed to remove barriers to development and transfer of technologies from developed to developing country Parties arising from intellectual property rights (IPR) protection, in particular:

- (a) Parties agree that nothing in any international agreement on intellectual property shall be interpreted or implemented in a manner that limits or prevents any Party from taking any measures to address adaptation or mitigation of climate change, in particular the development and transfer of, and access to technologies;

Page 186

- (b) Immediately to take all steps necessary in all fora to mandatorily exclude from patenting in developing countries environmentally sound technologies to adapt to or mitigate climate change, including those developed through funding by governments or international agencies;
- (c) Immediately to take all steps necessary in all fora to revoke in developing countries all existing patents on essential/urgent environmentally sound technologies to adapt to or mitigate climate change;
- (d) Immediately to take all necessary measures to facilitate technology pools that includes trade secrets and associated know-how on environmentally sound technologies and enable them to be accessed on royalty-free terms, for developing countries;
- (e) Immediately to create and provide new and additional financing that is adequate, predictable and sustainable for joint technology excellence centres in developing countries, to enable entities in these countries to do research and development especially on adaptation as well as mitigation technologies;
- (f) Immediately to ensure that any technology transfer to developing countries is appropriate for the developing countries concerned in order to enable its effective utilization. (Bolivia)

189.2 The Executive Body on Technology (EBT) should establish a committee, an advisory panel, or designate some other body, to proactively address patents and related intellectual property issues to ensure both increased innovation and increased access both for mitigation and adaptation technologies. Such a committee/panel should:

- a) Actively engage enterprises and institutions in both developed and developing countries;

- b) Develop a clear framework for evaluating and determining when intellectual property becomes a barrier to international technology research, development, deployment, diffusion and transfer and provide options for corrective action;
- c) Make recommendations back to the UNFCCC COP or COP/MOP on barriers that may require further actions. (Ecuador)

[Incentive mechanism[s (Switzerland)] for technology transfer] [Cooperative technology deployment (Australia)]

x.1 A new technology leveraging service which could form part of a broader facilitation platform should be created to provide an interactive facilitation service for actions identified through low emission development strategies and/or TNA/NAMA/NAPA processes. This service is to be provided to developing countries and would, on a voluntary basis, assess potential actions, assist in the development of rigorous projects proposals and assist in matching with the most appropriate form of investment support, particularly with a view to leveraging private sector funding. This service would work closely with relevant international financing institutions, multilateral development banks and the private sector. (Australia)

190. [[An incentive][The existing (Switzerland)] [mechanism][s (Switzerland)] for technology transfer for mitigation and adaptation (AOSIS) via projects/programmes that stimulate accelerated diffusion and transfer of existing and new environmentally safe and sound technologies to developing [countries] [country parties (Saudi Arabia)], in particular a vulnerably countries (LDC) {shall} {should} be [strengthened] [established] [offered (Japan)] in accordance with Article 4, paragraph 9 (LDC).

Alternative to paragraph 190:

The Annex-1 countries shall institute incentives at the national level notably tax exemption and subsidies for the owner of patented technology with a view to promoting transfer and diffusion of the environmentally sound technologies to the developing countries; (Pakistan)

191. [For the purpose of [meeting its quantified emission limitation and reduction commitments] and requirements for monitoring, reporting and verification, as appropriate, (AOSIS) a Party may transfer to, or acquire from, other Parties emission reduction units resulting from projects and programmes that accelerate the diffusion or transfer of environmentally sound technologies, provided that:

- (a') Host Parties establish technology targets or objectives; (AOSIS)
- (a) Voluntary participation is approved by each Party involved;
- (b) Any such project results in measurable, reportable and verifiable reductions of GHG emissions by sources or enhancements of removals by sinks;

- (c) The project contributes to the achievement of the technology targets and objectives of the [host] Party in receipt of that technology (Singapore);
- (d) The [host] Party [providing the technology shall be (Singapore)] [has] allocated assigned amount units or environmentally sound technology rewards (ESTRs) [for (Singapore)] [to] the project or programme, proportionate to volume of emissions removed (Singapore);

- (e) The project/programme is registered under the Convention;
- (f) Participants in the ESTR mechanism may involve private and public companies.]]

Alternative to paragraph 191: (Saudi Arabia)

[For the purpose of meeting its commitments, any Party included in Annex II may transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, provided that:

- (a) Any such project has the approval of the Parties involved;
- (b) Any such project provides a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to any that would otherwise occur;
- (c) It does not acquire any emission reduction units if it is not in compliance with its obligations; and
- (d) The acquisition of emission reduction units shall be supplemental to domestic actions for the purposes of meeting commitments.] (Saudi Arabia)

191.1 Parties shall promote the accelerated penetration of cost-effective technologies in non Annex-I countries through the provision of financial support as appropriate, such as concessional loans and risk guarantees, for the large-scale dissemination of these technologies. (India)

[[Voluntary agreements][Partnerships (Switzerland)]

192. [Option 1]

Focused voluntary technology oriented agreements, including on partnerships within and outside the Convention and engaging the private sector and civil society organizations and local and sub-national governments (Switzerland) [shall]{should} be [recognized][encouraged (Switzerland)], including in accordance with Article 11.5 of the Convention (Canada). Such agreements could include cooperative R&D and large-scale demonstration projects, technology deployment projects, cooperation on specific sectors or gases, and cooperation on climate observation and warning systems for enhancing resilience.]

Move paragraph 192 option 1 to national and cooperative actions above (UNITED STATES OF AMERICA)

Alternative to paragraph 192.: (Norway)

[The contribution to enhanced action on RD&D through voluntary agreements on research, development and demonstration of key mitigation or adaptation technologies, shall be recognized under the Convention. Such agreements shall involve parties to the Convention, and may include partnerships with the private sector, academia and civil society. (Norway)]

193. [Option 2]

Technological information transfer agreement/multiple agreements to facilitate the spread of environment-friendly products [and a healthy and reliable agricultural production system should be established].]

Technology information

Move the section on Technology information before section on Voluntary agreements. (Australia)

194. [Option 1]

[The development and technology mechanism under the convention can also include a (Pakistan)] [A] technology information platform, based on existing platforms, (European Community and its member States) [should be developed and be continuously updated to collect information] on sector-specific technologies and best practices [on publicly and privately held technologies, [including on IPRs and licensing], costs, abatement potentials, barriers (Japan) and manufacturers of technologies.]]

Page 188

Alternative to paragraph 194:

The existing technology information platforms should be strengthened and linked together. (Switzerland)

195. [Option 2]

[The enhanced technology mechanism will also develop a (Pakistan)][A] global database including '[green production][low-emission (Japan)]' technologies and best practices for mitigation and adaptation to be continuously updated (Mexico) [should be developed through the technology information clearing house (TT:CLEAR).]]

3. Institutional arrangements, including funds (Argentina)

[Note: Parties proposed several options for the creation or strengthening of institutional arrangements under the Convention for enhancing action on technology. In proposing these arrangements, Parties in some cases also proposed funds and/or implementation aspects. Proposals on funds for technology are reflected in paragraph 175 above and proposals on implementation aspects of enhanced action on technology are reflected in paragraphs 181–185 above.]

196. [Institutional arrangements for] enhanced cooperative action on technology [shall]{should}[include]

[Option 1]

[Strengthen cooperation (UNITED STATES OF AMERICA)][make efficient use of the current institutional arrangements] through a range of institutions by: (UNITED STATES OF AMERICA)

[[Option 1.1] (Australia) (Norway)]

engaging the private sector and encouraging cooperative partnership between governments, research intuitions (Mexico), including cities, (Switzerland) and industries, recognizing a wide variety of processes, mechanisms and organizations outside the UNFCCC and the critical role of private-sector investment, capacity and expertise as well as the role of public research institutions (Mexico).]

seeking cooperation and coordination with relevant international technology initiatives and organisations, particularly with respect to the development of technology road maps, cooperative actions on research and

development of technology, options for financing technology deployment, diffusion and transfer, and advice on issues related to IPR. (Norway)

stimulate the establishment of facilitative mechanisms to leverage private sector financing to meet developing countries' needs. (Norway)

[[Option 1.2]](Australia)

[An enhanced advisory capacity or role for (AOSIS)] [and further efforts by (UNITED STATES OF AMERICA)] the Expert Group on Technology Transfer (EGTT) [acting in accordance with decision 4/CP.7 and serving as an advisory body to] [to all bodies of the Convention (AOSIS)] [the SBI, and (United States of America)] [the SBSTA] [and SBI (LDC)] with appropriate improvements (Japan).]]

The EGTT shall

- (i) Provide advice and recommendations to the COP on the overall implementation of Technology action under the Convention;
- (ii) Elaborate a technology action plan as a starting point of its work;
- (iii) Guide and supervise the disbursement of a multilateral climate technology fund;
- (iv) Promote communication and information/knowledge sharing;
- (v) Monitor and assess the performance and progress, using performance indicators, and report to the COP. (AOSIS)

Proposal to merge Options 1.1 and 1.2 into a single option (Australia)

[Option 1.3 (Australia)]

Make maximum use of current institutional arrangements with further enhancements to provide additional capacity and technical resources, including by:

- (a) Encouraging and strengthening collaborative partnership arrangements with relevant existing and emerging national and international public and private sector institutions and initiatives, including academia, the research community, government, business and other stakeholders.
- (b) Established an enhanced technology expert advisory group with an expanded membership to encompass business, research community and other relevant expert organisations, including the financial community. This group would have responsibility for, inter alia,
 - (i) Provision of relevant technical and other expert advice relating to the process of technology development, deployment and diffusion;
 - (ii) Undertaking technology action plans and road maps;

- (iii) Provide advice as requested on TNAs, technology development plans or low emission development strategies.

[[Option 2⁵³

an executive body on technology, as a subsidiary body of the Convention, to enhance the implementation of the Convention by enhancing action on technology development and transfer to support action on mitigation and adaptation. The executive body shall, inter alia:

- (a) Provide advice and recommendations to the COP on the overall implementation of technology action under the Convention;
- (b) Elaborate a technology action plan as a starting point of its work;
- (c) Guide and supervise the disbursement of a multilateral climate technology fund;

Alternative to sub paragraph (c): (Turkey).

Guide and supervise the disbursement of a multilateral climate technology fund according to eligibility criteria such as Parties' level of development as well as their emissions reduction, limitation and adaptation potentials and their absorption capacities (human capital, depth of domestic market etc.).

- (d) Promote communication and information/knowledge sharing; and policy dialogue (G77 and China);
 - (e) Monitor and assess the performance and progress, using performance indicators, and report to the COP.
- (e).1 Identifying areas of cooperation with the private sector and making recommendations to the COP for action;
 - (e).2 Contribute to the measuring, reporting and verifying of both the actions and the support for the actions;
 - (e).3 Advise on promoting technology transfer and diffusion in all relevant sectors, especially carbon capture and storage technology;
 - (e).4 Identify best practices and best available technologies from developed countries and technologies that will be available in the future. (Iran on behalf of Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE)

Under the guidance of the COP, this body would comprise and be supported by a strategic planning committee, technical panels, a verification group and a secretariat {accountable to the executive body}.

The executive body on technology shall {comprise government representatives elected by the COP with balanced regional representation, who are experts on matters related to technology development and transfer, and be open to input from other experts.} {be open to all Parties. Members of the committee and panels shall be determined by the COP.}] A multilateral climate technology fund (MCTF) shall be established that will provide technology-related financial requirements as determined by the Executive Body under COP. (Indonesia)

⁵³ This proposal is presented in connection with proposals on funds reflected in paragraph 175, option 5, above and proposals on implementation aspects reflected in paragraphs 181–183, above.

[Option 3]

a new subsidiary body, or the EGTT, with the role of advisory centre at UNFCCC subsidiary bodies for development and transfer of technologies, and perform the following functions:

- (a) Development of special reviews on existing technologies, including information on estimated cost, risks, benefits and limitations, as well as the required infrastructure, human resources and diffusion potential, taking into account the circumstances of the host Party;
- (b) Elaboration of suggestions on the implementation of the most appropriate financial scheme for a given technology deployment in a given country, including assessment of local capability in production of its components and their servicing;
- (c) Elaboration of regulatory documents, terms and criteria and guidance, and preparation of the respective decisions of the Parties.]

[Options 4⁵⁴

[a technology committee [to advise] the COP in technology policy issues. [The committee should be serviced by a strengthened professional secretariat and advised by a technology panel comprising experts nominated by Parties.] The functions of the technology committee include][a technology panel shall have the following functions (European Community and its member States)]:

- (a) Identifying areas of cooperation with the private sector and making recommendations to the COP for action;
 - (b) [Reviewing and propose (Mexico) [and deciding] on technology investments];
 - (c) [Reviewing [and approving] technology funding requests];
 - (d) [Reviewing progress of implementation of the technology action programme;]
 - (e) [Approving procedures and modalities for technology cooperation with the private sector.]
- (e).1 Identify and promote best practices and best available technologies; (Mexico)
 - (e).2 Identify appropriate ways for promoting transfer of existing best available technologies and those that will be available in the short, medium and future terms; (Mexico)
 - (e).3 provide guidance and support to developing country Parties in producing technology needs assessments as part of their low carbon development strategies; (European Community and its member States)
 - (e).4 Gather and, where necessary, produce or commission global technology roadmaps; (European Community and its member States)

⁵⁴ This proposal is presented in connection with proposals on funds reflected in paragraphs 175, option 5, above and proposals on implementation aspects reflected in paragraph 181–183 above.

- (e).5 Assist coordinating mechanism with assessment of NAMAs and other relevant bodies. (European Community and its member States)

[Option 5]

a new body on technology transfer and financing [under the Convention] to enhance the implementation of technology transfer mechanisms as well as the associated enabling activities such as capacity-building, technical training, and R&D cooperation, including those activities identified in TNAs (Turkey) NAMAs and NAPAs. The new body on technology transfer and financing should

- (a) Coordinate the existing (Japan) financing mechanisms, either market or non-market, [to be established];
- (b) Contribute to the measuring, reporting and verifying of both the actions and the support for the actions;
- (c) Facilitate links for accessing to funds and should reduce diversification among existing sources of funds within the Convention;
- (d) Articulate technology transfer and financing mechanisms under the Convention with other United Nations organizations, multilateral financial institutions established under bilateral or multilateral development programs and other relevant international forums not directly related to climate change, with the assistance of technical panels to be created.]

Page 191

Insert a new paragraph which integrates key elements of current options 2, 3, 4 and 5.(Australia)

[Option 6]

involvement of private entities and/or relevant international organizations, at national and/or sectoral level, through, inter alia, the enhancement of public-private partnership and the provision of advisory functions by experts in public and/or private sectors. For enhancing this cooperation, (Japan) an [advisory group] for sectoral technology cooperation to support the implementation of NAMAs by removing obstacles to and promoting technology transfer and diffusion in all relevant sectors.

The advisory group for sectoral technology cooperation should, inter alia:

- (a) Identify best practices and best available technologies from developed countries and technologies that will be available in the future;
- (b) Identify appropriate ways for promoting transfer of existing best available technologies through analysing emission reduction potentials and setting indicators;
- (c) Advise on promoting technology transfer and diffusion in all relevant sectors;
- (d) Periodically report to the COP on its activities.]

Alternatives to paragraph 196:

Alternative 1 (G77 and China)

196. [Establish an Executive Body on Technology (EBT), as a subsidiary body of the Convention, in accordance with its Article 7.2 (i). The EBT shall be composed of government representatives, elected by the COP, with balanced regional representation, who are experts on matters of technology development and transfer. The EBT shall: (the following can be put in an Annex to the decision to establish the EBT, as terms of reference, organizational structure, functions, etc...)]

(a) be guided by the following principles:

- (i) operate under the authority and guidance of the Conference of the Parties;
- (ii) achieve the accessibility, affordability, appropriateness, and adaptability of technologies required by developing country Parties for enhanced action on mitigation and adaptation;
- (iii) achieve the removal of barriers for development, deployment, adoption, diffusion, and transfer of environmentally-sound technologies (ESTs);
- (iv) ensure the provision of new and additional, adequate and predictable financing resources for development, demonstration, deployment, adoption, diffusion, and transfer of ESTs;
- (v) support the development and enhancement of endogenous capacities and technologies of developing country Parties;
- (vi) accelerate the penetration of cost effective technologies, including pilot projects, capacity building and facilitating financing;
- (vii) promote win-win solutions and technologies that have great potential to minimize adverse impacts of climate change and the adverse impacts of response measure in developing countries parties including economic diversification;
- (viii) be action-oriented in the view to achieve cost effectiveness;
- (ix) promote broader involvement of relevant stakeholders;
- (x) promote public-private partnership.

(b) have the following functions:

- (i) accelerate the development, demonstration, deployment, adoption, diffusion, and transfer of environmentally-sound technologies from developed country Parties and other developed Parties included in Annex II to the Convention, to developing country Parties, in order to avoid the lock-in effects of non-ESTs, and to promote sustainable development in developing country Parties;

- (ii) provide access to technology for adaptation at national, sub-regional and regional levels, enabled by capacity-building, and the provision of new and additional, adequate and predictable financing resources to meet the costs of both integration of adaptation into the development process and stand-alone adaptation activities;

- (iii) remove barriers to technology transfer and enhance means of facilitating this transfer, to promote urgent access to advanced ESTs while balancing rewards for innovators with the common good of humankind, including, inter alia, jointly-developed technology and sharing of intellectual property rights;
- (iv) enhance enabling environments to facilitate access to technology, including through financing environments that leverages private sector financial resources, including policy dialogues, and involvement in development, demonstration, deployment, adoption, diffusion, and transfer of environmentally-sound technologies (ESTs);
- (v) build on existing activities within the Convention, including the work of the enhanced Expert Group on Technology Transfer (EGTT), to promote coherence through the integration of ongoing activities related to development and transfer of technologies;
- (vi) provide the means for the full implementation of Convention commitments on development, deployment, adoption, diffusion, and transfer of environmentally-sound technologies (ESTs), and related financing and capacity-building;
- (vii) develop strategy and technology action plans and monitor and verify the implementation of the specific operational policies, guidelines and administrative arrangements, including the disbursement of resources, for the purpose of achieving the objectives of the multilateral technology fund taking into account the cost effectiveness of the proposed activities as well as the potential for their replicability;
- (viii) coordinate action by different stakeholders at international, regional and national levels;
- (ix) assess the performance of development and transfer of ESTs in terms of speed, range and size of the technological flow.

(c) be comprised of and supported by:

(i) A Strategic Planning Committee to:

- develop strategy;
- provide regular guidance;
- assess and elaborate technology-related matters;
- continuously evaluate progress, including financial and technological flows and range and effectiveness of technologies transferred;
- develop updates for the Technology Action Plan (TAP), as described below, at regular intervals;
- perform any other functions to be assigned to it by the EBT;
- capacity-building.

(ii) Technical Panels to generate and compile current expert information related to, inter alia,

- policies and measures;
- intellectual property cooperation, sharing and partnership;
- sectoral, cross-sectoral and cross-cutting cooperation;
- assessment, monitoring and compliance related matters;
- dissemination of knowledge;
- documenting, scaling up and diffusion of indigenous adaptation technologies which already exist in developing countries.

Page 193

(iii) A Verification Group to put in place a measurement, reporting and verification system for compliance with the provision of financing and the development, demonstration, deployment, adoption, diffusion, and transfer of environmentally-sound technologies by Annex I Parties to developing countries under the mechanism, and the overall compliance with financing and technology commitments under the Convention, including the MRV requirements under the Bali Action Plan.

(iv) A Secretariat to:

- support and facilitate the activities of the Executive Body of Technology;
- compile and prepare a final report on the financial and technological contributions made and reported by Parties to the technology mechanism, including the overall MRV requirements under the Bali Action Plan.

(d) Develop a Technology Action Plan (TAP) to serve as a starting point for the work of the Executive Body.

- (i) It will include specific actions and timelines for the first three years, and will be updated for successive three-year periods.
- (ii) To realize the full potential of technology, the TAP shall support all stages of the technology cycle, including research, development, demonstration, diffusion, and transfer.
- (iii) the TAP will define specific policies, actions and funding requirements for all relevant technologies under the following classifications: public domain technologies, patented technologies and know-how, future technologies.

(e) the establishment of national and regional technology centers of excellence to reinforce north-south, south-south and triangular cooperation, including joint research and development (details can be annexed to the legal/agreed outcome).

An indicative list of activities and costs eligible for support under the EBT is attached as an Annex. (the Annex will consist of the indicative list of activities and costs eligible for support by the mechanism contained in the G77 and China submission on a Technology mechanism under the COP)]

Alternative 2. (Tuvalu)

[A Technology Development and Transfer Facility is hereby established.

The purpose of the Technology Development and Transfer Facility is to assist developing country Parties to identify and help facilitate the transfer of low greenhouse gas emitting technologies, particularly renewable energy and energy efficiency technologies, to assist in the undertaking of national appropriate mitigation actions. The Facility shall also assist particularly vulnerable developing countries to identify and help facilitate the transfer of appropriate adaptation technologies.

The Technology Development and Transfer Facility shall be subject to the authority and guidance of the COP (or the Conference of the Parties serving as the assembly of Parties) and be supervised by a Board.

The constituency of the Board shall be determined by the COP (or Conference of Parties serving as the assembly of Parties) and be guided by the principle of equitable geographical representation.

The Technology Development and Transfer Facility shall regularly report to the COP (or Conference of Parties serving as the assembly of Parties).

Advice shall be provided to the Technology Development and Transfer Facility Board by the Expert Group on Technology Transfer.] (Tuvalu)

Proposal to consolidate paragraph 196 with paragraphs 174 and 175. (Argentina): See proposal reflected as an alternative to paragraphs 174 and 175

National and regional technology innovation centres

197. Existing (Switzerland) National and regional technology innovation centres and networks among Parties, particularly in developing countries (Mexico) [shall][should] be [established][and existing centres (European Community and its member States)][strengthened][established and/or strengthened (Mexico)], as appropriate, (AOSIS) to:

- (a) Promote joint R&D activities [in the context of South–South, North–South and triangular][and (United States of America)] cooperation;

Page 194

Alternative to sub paragraph (a): (Singapore)

[Promote the joint development of new technology, which may include the sharing of IPRs.] (Singapore)

- (b) [Promote the deployment (Mexico), development and (Canada) transfer of environmentally sound technologies for mitigation and adaptation (Mexico) [to developing country Parties]];
- (c) Stimulate capacity-building[, in particular for endogenous technologies];
- (d) Improve access to information on existing and new technologies;

Move sub paragraph (d) to paragraph 183. (Norway)

- (e) [Promote the sharing of IPRs].]

Move paragraph 197 after paragraph 191. (Australia)

Alternative to paragraph 197:

[Cooperative Technology Development Centres shall be established in major developing country regions around the world.

The purpose of Cooperative Technology Development Centres shall be to provide cooperative training and development facilities supported by public-private partnerships to develop and deploy renewable energy and energy efficiency technologies and environmentally sound adaptation technologies.

Cooperative Technology Development Centres shall provide training opportunities for participants from all countries to facilitate the development and transfer of renewable energy and energy efficiency technologies as well as other environmentally sound adaptation technologies.

Funding for the development of Cooperative Technology Development Centres shall be developed from a variety of sources identified by the COP (or Conference of Parties serving as the assembly of Parties) and shall include funding from the Technology Window of the Multilateral Fund on Climate Change.] (Tuvalu)

198. [Financial resources required to support such centres and networks [shall][should] be provided by various sources including (AOSIS) the [multilateral climate technology fund referred to in paragraph 175, option 5, above] and (AOSIS) {[developed country] Parties through [an assessed contribution (Pakistan)] [existing bilateral and multilateral cooperative programmes, partnerships and initiatives]}.]

Move paragraph 198 to finance chapter. (Australia)

Alternative to paragraphs 198 and 175: (G77 and China)

x.1 [Establish a Multilateral Climate Technology Fund (MCTF) to provide technology-related financial resources as determined by the EBT. The MCTF shall operate under the Conference of the Parties as part of the enhanced multilateral financial mechanism set up under the Convention (as proposed by the G77 and China): (Note: the following can likewise form part of the Annex to the decision to establish the MCTF)

x.2 Sources of Funds:

- (a) The MCTF shall be financed by assessed contributions from developed country Parties and other developed Parties included in Annex II of the Convention. Contributions to the mechanism shall be new and additional, and adequate and predictable, in accordance with Article 4.3 of the Convention;
- (b) An agreed proportion of contributions by developed country Parties to bilateral and regional cooperation may be considered as contributions to the MCTF, provided that such cooperation is consistent with the policies and scope of the mechanism, and the guidance provided by the EBT;
- (c) Specific sources including, parts of regular fiscal budget for research and development, fiscal revenue from taxation on carbon transaction and/or auction of emission permits in carbon market, as well as fiscal revenue from energy or environmental taxation in developed countries;
- (d) Financing transfer to the MCTF shall be counted as measurable, reportable and verifiable commitments, both for mitigation and adaptation actions;

- (e) Any financial resources for technology development and transfer channelled outside the framework of the financial mechanism, and therefore outside the authority and guidance of the COP, shall not be regarded as fulfilment of commitments by developed country Parties under Articles 4.3 and 4.5 of the Convention, or in fulfilment of the Bali Action Plan;

Page 195

x.3 The MCTF will cover, inter alia,

- (a) eligible costs of activities approved by EBT;
- (b) the administrative costs of the Executive Body, the Secretariat, and other bodies serving the EBT;
- (c) costs associated with other specific decision of the Conference of the Parties related to technology development and transfer.

x.4 ANNEX I

Activities eligible for support from the mechanism include, inter alia:

- (a) Promotion, facilitation and implementation of activities along the entire technology cycle to enable the accelerated adoption of ESTs;
- (b) Support for research, development, manufacture, commercialization, deployment and diffusion of technologies for adaptation and mitigation in accordance with Decision 1/CP.13.
- (c) Adaptation technologies to address the adverse effects of climate change and finance the removal of barriers to the large-scale transfer of technologies for adaptation;
- (d) Technologies to address the adverse impact of response measures, and finance the removal of barriers to the large-scale transfer of technologies for reducing the adverse impact of response measures;
- (e) Capacity-building to manage and generate technological change, enhance absorptive capacity, create enabling conditions in developing countries, inter alia, costs of:
 - i. Research, development and demonstration of new technologies;
 - ii. Enhancing human and institutional capacity;
 - iii. Guarantees on foreign direct investment for environmentally sound technologies.
- (f) Commercialization of new and emerging technologies, inter alia:
 - i. Venture capital, with public investment leveraging private capital markets for emerging technologies;
 - ii. Research, development, and demonstration of new technologies, financed by venture capital and other sources;

iii. Joint technology development

(g) Creation of manufacturing facilities for EST, including low-GHG emission technologies, inter alia, costs of:

- i. Compulsory licensing, cost associated with patents, designs, and royalties;
- ii. Conversion of existing manufacturing facilities or of establishing new facilities;
- iii. Research and development activities, including joint research, development, design, and demonstration;
- iv. Technology adaptation;
- v. Retraining and dissemination of know-how;
- vi. Operation; and
- vii. Monitoring and verification.

(h) Procurement of low-GHG emission technologies, including software and hardware, inter alia:

- i. Cost of premature modification or of replacement of existing equipment, as well as the cost of new equipment;
- ii. Cost of retraining and dissemination of know-how;

Page 196

- iii. Cost of technical assistance for the design, installation, and stable operation of the technology;
- iv. Cost of fuel and other operational costs;
- v. Cost of technologies for fuel switching;
- vi. Cost of monitoring and verification.] (G77 and China)

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C. Capacity-building

Note: Parties have made proposals on enhanced action on capacity-building in the context of enhanced action on adaptation, mitigation, technology and finance. Such proposals are integrated in the appropriate sections. In addition, Parties have made proposals on the cross-cutting issue of capacity-building. Such proposals are reflected in paragraphs 199–201 below.

x.1 For LDCs capacity-building activities will be undertaken in the context of the article 4.9 of the Convention. This will ensure that there is capacity to utilize effectively the support given to this group to adapt to the impacts and participate in mitigation actions (LDCs).

x.2 Capacity-building is a continuous, progressive and iterative process. Parties should cooperate to address the capacity needs of developing countries taking into account the following guiding principles (EU):

x.3 Capacity-building should be:

- (a) country driven and consistent with national priorities and circumstances;
- (b) context specific and tailored to specific needs;
- (c) build on existing institutions and make use of local and indigenous knowledge;
- (d) cross cutting and integrated into development planning and implementation;
- (e) participatory, with the engagement of a broad range of stakeholders. (EU)

199. [International cooperation [shall][should] be enhanced to support the capacities of (EU) developing country Parties to implement mitigation and adaptation (EU) [capacity-building] actions, including, inter alia (EU):

(x.a) Capacity-building shall be an integral part of enhanced action on adaptation and mitigation (Switzerland);

- (a) [Creation of enabling environments at the national, subnational and local (Switzerland) level [for enhanced action on adaptation and as appropriate (LDCs) and mitigation], including [the establishment of, where necessary (LDCs) appropriate] policy and legal and regulatory frameworks;]

Alternative to sub-paragraph (a) (EU):

[Strengthening of enabling environments at the national level, including policy and legal and regulatory frameworks]

- (b) [Institutional strengthening through [the establishment or enhancement (LDCs) of national coordinating bodies, where they exist (LDCs) and] strengthening capacity of national focal points, national coordinating bodies (LDCs) and stakeholders;]

Alternative to sub-paragraph (b) (EU):

[Strengthening of relevant national coordination processes including national focal points];

- (c) [Capacity-building for the preparation, implementation and follow-up of [NAPAs] [National Adaptation Plans (Switzerland)], other national adaptation plans/strategies (LDCs) national communications, TNAs for adaptation and mitigation including (LDCs) under NAMAs and [NAPAs] [National Adaptation Plans (Switzerland)], and the readiness and implementation (LDCs) phase for REDD and (LDCs) REDD-plus activities and the carbon capture and storage project activities (Saudi Arabia);]

Alternative to sub-paragraph (c) (EU):

[Enhancing capacity to plan, prepare and implement relevant mitigation and adaptation actions;]

- (d) [Capacity-building for monitoring, reporting and verification of NAMAs, [{including} {and} REDD-plus actions] and national greenhouse gas inventories (New Zealand) and the carbon capture and storage project activities (Saudi Arabia);]

Page 197

Alternative to sub-paragraph (d) (EU):

[Enhancing the capacities to monitor and report on climate change actions, including for preparation of national communications];

- (e) [Capacity-building needs identified in national communications, (LDCs) national adaptation plans, NAMAs, national REDD-plus plans, and national technology road maps and the carbon capture and storage project activities (Saudi Arabia);]

- (e).1 Capacity-building needs specific for urban areas (Switzerland);

- (f) Promoting (EU) education, training and public awareness, with special focus on youth, women and indigenous peoples;

- (f).1 Promote gathering and exchange of information related to climate change impacts on marine ecosystems, communities, fisheries and other industries; emergency preparedness, monitoring, and forecasting climate change and ocean variability; and improving public awareness of early warning system capacity. (Indonesia, Colombia, Marshall Islands, Palau, Papua New Guinea, the Philippines, Solomon Islands, Sri Lanka, Thailand, Timor Leste, United States of America, Venezuela and Viet Nam)

- (g) Provision of technical assistance for building developing countries' capacity to 'ready' themselves for accessing larger pools of domestic and international financing.]

- (g).1 Build, develop, strengthen, enhance, improve, existing scientific and technical skills, capabilities and institutions particularly in developing countries, to enable them to assess, adapt, manage and develop technologies that have:

- (i) great potential to reduce the GHG emission;
- (ii) win-win solutions including carbon capture and storage technologies;
- (iii) great potential to minimize the adverse impact of climate change and the adverse impact of response measures in developing country parties including the economic diversification (Saudi Arabia).

- (g).2 Capacity-building in technology R&D, including innovation for adapting available technologies to national endowments and circumstance (India);

- (g).3 Capacity-building in actual deployment and servicing of technologies at operational levels (India).

Alternative to paragraph 199 (G77/China):

[A specific capacity development and support mechanism shall be established and supported by developed country parties to cater for specific capacity building needs of developing country parties, in particular LDCs, SIDS and African countries, including training (sub-regional training of trainers), mentoring, and learning by doing activities among other measures:

- (a) To empower relevant institutions at various levels taking into account also the need for stand alone capacity development activities at various levels;
- (b) To enhance observation, research and knowledge management;
- (c) To strengthen endogenous capacities;
- (d) To strengthen communication, education and awareness-raising at all levels, especially at the local and community levels;
- (e) To strengthen and use the regional networks of information and knowledge-sharing, including indigenous knowledge sharing;
- (f) To share experiences, information and best practices of developing countries regions including, African, Asia, Latin American countries within the AOSIS countries;
- (g) To assess, strengthen and mobilize the capacities of exiting relevant facilities and institutions in LDCs, SIDS, Africa and other developing countries;
- (h) To strengthen and use data for systematic observation, early warning , modelling, disaster preparedness and capacity evaluation and monitoring;
- (i) To strengthen capacity for modelling and needs assessments related to adaptation, mitigation, capacities, financing, and technologies;
- (j) To develop tools, methods and technologies and support their application;

Page 198

- (k) To encourage and strengthen participatory and integrated approaches in planning and decision-making, including the meaningful participation various non governmental actors.

Developed countries shall support developing countries to formulate and implement strategies and action plans to implement learning by doing stand alone capacity building projects/ programmes and activities within the agreed framework under the Convention. Such activities shall be measured through the use of agreed and effective performance indicators, in order to ensure that the resources provided by developed country parties are benefiting developing countries within the context of the agreed activities identified and undertaken through a bottom up, national driven process.]

199.1 Strengthening national institutions to address the emerging capacity building needs particularly those related to implementation of the provisions of the climate change regime (LDCs).

199.2 A specific capacity development and support mechanism shall be established and supported by developed country parties to cater for specific capacity building needs of developing country parties, in particular LDCs, SIDS and African countries, including training (sub-regional training of trainers), mentoring, and learning by doing activities among other measures:

- (a) To empower relevant institutions at various levels taking into account also the need for stand alone capacity development activities at various levels;
- (b) To enhance observation, research and knowledge management;
- (c) To strengthen endogenous capacities;
- (d) To strengthen communication, education and awareness-raising at all levels, especially at the local and community levels;
- (e) To strengthen and use the regional networks of information and knowledge-sharing, including indigenous knowledge sharing;
- (f) To share experiences, information and best practices of developing countries regions including, African, Asia, Latin American countries within the AOSIS countries;
- (g) To assess, strengthen and mobilize the capacities of existing relevant facilities and institutions in LDCs, SIDS, Africa and other developing countries;
- (h) To strengthen and use data for systematic observation, early warning, modelling, disaster preparedness and capacity evaluation and monitoring;
- (i) To strengthen capacity for modelling and needs assessments related to adaptation, mitigation, capacities, financing, and technologies;
- (j) To develop tools, methods and technologies and support their application;
- (k) To encourage and strengthen participatory and integrated approaches in planning and decision-making, including the meaningful participation various non governmental actors (LDCs).

199.3 Developed countries shall support developing countries to formulate and implement strategies and action plans to implement learning by doing stand alone capacity building projects/ programmes and activities within the agreed framework under the Convention. Such activities shall be measured through the use of agreed and effective performance indicators, in order to ensure that the resources provided by developed country parties are benefiting developing countries within the context of the agreed activities identified and undertaken through a bottom up, national driven process. (LDCs)

200. [The measurement of support for capacity-building actions should be in accordance with indicators and in units to be established as part of the review of the implementation of the capacity-building framework adopted under decision 2/CP.7.]

Alternative to paragraph 200 (EU):

[To facilitate the monitoring and review of commitments under the Copenhagen Agreement, all Parties should report on progress made in enhancing the capacity to address climate change, and of support provided or received.]

201. [The financial resources required to support the implementation of capacity-building actions {shall} {should} be provided {through the capacity-building fund referred to in paragraph 175, option 6, above}. Provision of capacity-building support to developing country Parties, along with delivery of financial support and technology transfer, {shall} {should} be a {legally binding} obligation of developed country Parties, {with consequences for non-compliance}.]

Page 199

Alternative to paragraph 201 (Indonesia):

[The financial resources required to support the implementation of capacity-building actions shall be provided through the mechanism referred to in paragraph 166 and 174, option 1 above. Provision of capacity-building support to developing country Parties, along with delivery of financial support and technology transfer, shall be a legally binding obligation of developed country Parties, with consequences for non-compliance.]

Move paragraph 201 to the Finance Section (EU).

201.1 Financial and technological support should be provided in the context of article 4.9 of the Convention and should be provided in a transparent, expedited, direct access, sustainable and predictable manner within the overall guidance of the COP. (LDCs)

201.2 Technical Panels on Capacity Building (TPCBA and TPCBM) shall organize, coordinate, monitor, evaluate and retrofit the implementation of capacity building activities for adaptation and mitigation and the respective financing and technology development and transfer, in developing countries. TPCBs shall also provide information and views on the fulfilment of support commitments for capacity building by developed countries. The TPCBs shall create mechanisms for sharing lessons learned, promote south-south cooperation as well as for the dissemination of successful capacity building activities in developing countries. (Argentina, Peru).

201.3 A specific capacity development and support mechanism, including training (regional, sub-regional, training of trainers), mentoring, and learning by doing approaches among other measures, shall be established:

- (a) To empower relevant institutions at various levels;
- (b) To enhance observation, research and knowledge management;
- (c) To strengthen communication, education and awareness-raising at all levels, especially at the local and community levels;
- (d) To strengthen and use the regional networks of information and knowledge-sharing;
- (e) To develop tools, methods and technologies and support their application;
- (f) To encourage and strengthen participatory and integrated approaches in planning and decision-making, including the meaningful participation of civil society;
- (g) To share experiences, information and best practices of developing countries;
- (h) To assess, strengthen and mobilize the capacities of existing relevant facilities and institutions in developing countries;

- (i) To strengthen the structural and institutional capacity for economic diversification (Algeria, Iran, Libya, Kuwait, Qatar, Saudi Arabia and UAE).