出國報告(出國類別:開會)

參加聯合國氣候變化綱要公約第 16 次締 約國會議 COP16/CMP6

服務機關:台灣電力股份有限公司

姓名職稱:莊光明-副總經理

李建平-副處長

派赴國家:墨西哥

出國期間:99年12月2日至99年12月11日

報告日期:100年1月14日

出國報告審核表

出國報告名稱:參加聯合國氣候變化綱要公約第16次締約國會議 COP16/CMP6				
出國力	人姓名(2人以上,以1人爲 代表)	職稱	服務單位	
	莊光明	副總經理	副總經理室	
	李建平	副處長	環境保護處	
出國期間:99年12月2日至99年12月11日 報告繳交日期:100年1月1			報告繳交日期: 100 年 1 月 14	
	☑1.依限繳交出國報行	生 二		
出	☑2.格式完整(本文』	2須具備「目地」、「過程」	、「心得」、「建議事項」)	
或	☑3.內容充實完備.			
計	☑4.建議具參考價值			
畫	▼5.送本機關參考或研	开辦		
主	□6.送上級機關參考			
辨	□7.退回補正,原因:□□ 不符原核定出國計畫 □□以外文撰寫或僅以所蒐			
機	集外文資料爲內容以 □ □內容空洞簡略 □□ 電子檔案未依格式辦理□ □ 未於資訊網登錄提要資料及傳送出國報告電子檔			
屬	□8.本報告除上傳至出	出國報告資訊網外,將採	行之公開發表:	
審	□辦理本機關出國	國報告座談會(說明會),	與同人進行知識分享。	
核	□於本機關業務會報提出報告			
意	□9.其他處理意見及	方式:		
見	pr g			
層	□1 回来于她搬眼索	按李月□入郊 □郊八		
轉	□1. 同意主辦機關審核意見□全部 □部分(填寫審核意見編號)□2.退回補正,原因:			
機	□3.其他處理意見:			
關金	2 Cd 10 12			
番 核	審			
意				
見				
説明:		.6		

- 一、出國計畫主辦機關即層轉機關時,不需填寫「層轉機關審核意見」。
- 二、各機關可依需要自行增列審核項目內容,出國報告審核完畢本表請自行保存。
- 三、審核作業應於報告提出後二個月內完成。

報告人 割總經理 100.1,24

單位 主管 :

主管處主 管

總 經 理副總經理

去海水



QP - 08 - 00 F06

行政院及所屬各機關出國報告提要

出國報告名稱:參加聯合國氣候變化綱要公約第16次締約國會議 COP16/CMP6

頁數 54 含附件: ☑是 □否

出國計畫主辦機關/聯絡人/電話:台灣電力公司人事處/陳德隆/(02)2366-7685 出國人員姓名/服務機關/單位/職稱/電話:

莊光明/台灣電力公司/副總經理室/副總經理/(02)2366-6249 李建平/台灣電力公司/環境保護處/副處長/(02)2366-7202

出國類別:□1考察□2進修□3研究□4實習図5其他

出國期間:99年12月2日至99年12月11日 出國地區:墨西哥

報告日期:99年10月29日

分類號/目

關鍵詞:氣候變遷、溫室氣體、減量法

内容摘要:(二百至三百字)

聯合國氣候變化會議週六在墨西哥坎昆通過一項均衡的包裹式決定後結束,所有政府更堅定地走向低排放的未來,且開發中國家也會加強對氣候變遷行動的支持。

已開發國家和發展中國家在多邊協商下分別正式承認減量目標與採取行動減少排放量。同時在京都議定書下各國同意繼續談判,以完成工作與確保協議的第一承諾期和第二承諾期之間沒有空窗期。

聯合國推動一套倡議和機制去保護貧困與易受氣候變遷的脆弱國家,並為開發中國家計畫與建立永續未來佈署了資金與技術。同時,各國也同意推動具體的行動,以保護開發中國家的森林。

此外各國也同意了維持溫度上升在 2°C 以內所必須做的工作,並設定了明確的時間表去檢視,以確保全球行動足夠反應當前的氣候變遷。

本文電子檔已傳至出國報告資訊網(http://open.nat.gov.tw/reportwork)

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壹、行程及工作內容

一、 出國緣由與目的

聯合國於 2010 年 11 月 29 日至 12 月 11 日在墨西哥坎昆舉行氣候變化綱要公約(UNFCCC)年度大會。本次會議議程包括 UNFCCC 第 16 次締約國大會(COP 16)與京都議定書第 6 次締約國大會(COP/MOP 6);以及這兩項國際公約之四個附屬團體會議,分別是第 33 次附屬科技諮詢機構會議(SBSTA 33)、第 33 次附屬履行機構會議(SBI 33)、第十三次公約長期合作行動特設工作小組會議(AWG-LCA 13),以及第十五次京都議定書特設工作小組會議(AWG-KP 15)。本次會議計有接近 12000 位與會者,包括 5200 位各國政府官員、5400 位聯合國組織與機構、政府間組織和非政府組織代表,以及 1270 位媒體工作人員參與。

2009 年在哥本哈根舉行的聯合國氣候變遷第 15 次大會,對本次坎昆會議的磋商進程和期望具有重大影響。一般認為哥本哈根會議磋商過程中,各國互不信任、混亂且充斥著由專家、國家元首和政府領袖舉行之個別平行討論會議;透過一套不尋常程序,一小群來自主要經濟體和氣候變化網要公約主要磋商團體的高層級小組擬定了哥本哈根協定。在該項文件提交全體會議通過之前,美國總統歐巴馬已經向媒體宣布為"哥本哈根成果"。接著才進行漫長而激烈的全體會議辯論,結果是該協定從未正式獲得大會通過採納,各國僅同意"注意到(take note)"到該協定而已。

本次坎昆會議之會議重點,乃是在京都議定書和在氣候公約下,加強長期合作之兩條磋商路徑下進行磋商會議。原定在 2009 年 12 月於哥本哈根舉行的聯合國氣候變化會議完成這些磋商。但因為許多議題在該次會議未能解決,因此將兩個 AWG 的任務期限延長到坎昆,兩個 AWG 也在本次會議分別向 COP 16和 COP/MOP 6提出工作成果報告。

藉由出席本次會議,除了與各國專家學者交換彼此經驗,了解各國產業界因應 氣候變化之策略與作法外,同時蒐集第一手資訊與資料。此外亦藉由真實感觸 到現場開會氛圍,引發一些節能減碳新思維或靈感。

二、 我國參加人員

我國代表團以非政府組織:工業技術研究院(Industrial Technology Research Institute, ITRI) 名義報名參加,由環境保護署、外交部、經濟建設委員會、經濟部能源局、工業局、農業委員會林業試驗所、國家安全會議、台灣電力公司、中國石油公司、台灣積體電路製造公司、工業技術研究院、綠色生產力基金會、清華大學、台灣科技大學、台北大學、環科工程顧問公司及永智顧問公司等相關部會單位同仁及專家學者代表,共計35人與會(名單如表1)。此外,高雄市政府環保局、臺灣永續能源研究基金會、環境品質文教基金會、台達電子文教基金會等民間團體亦派員約計超過30人與會,足見國內產官學各界對於此次會議之重視。

表 1、以工研院名義參與 COP16/CMP6 會議成員

中英文姓名/單位職稱
邱文彦 副署長 (環保署)
Dr. Wen-Yan Chiau
楊日昌 特聘專家 (工研院)
Dr. Robert Jih-Chang Yang
曲新生 副院長 (工研院)
Dr. Hsin-Sen Chu
楊國楝司長(外交部)
Mr. Kuo-Tung Yang
簡慧貞 副處長 (環保署)
Dr. Hui-Chen Chien
溫桂芳 秘書(環保署)
Ms. Wen, Kuei-Fang
黃偉鳴 技正(環保署)
Dr. Wei-Ming Huang
吳奕霖 高級環境技術師 (環保署)
Mr. Yi-Lin Wu
邱美璇 環境技術師 (環保署)
Ms. Mei-Hsuan Chiu
葉惠芬 環境技術師 (環保署)
Ms. Hui-Fen Yeh
王金凱 專門委員 (經建會)
Mr. Chin-Kai Wang
吳志偉 科長 (經濟部能源局)
Mr. Chih-Wei Wu
陳良楝 科長 (經濟部工業局)
Mr. Liang-Tung Chen

中央又姓名/単位職稱
林俊成 主任(農委會林試所)
Mr. Jiunn-Cheng Lin
楊登仕 組長(外交部)
Mr. Teng-Shi Yang
簡台珍 專員 (外交部)
Ms. Taichen Chien
王文娟 研究員(國安局)
Ms. Wen-Thuen Wang
陳偉華 研究員 (國安局)
Mr. Wei-Hua Chen
范建得 教授(清大)
Dr. Chien-Te Fan
顧洋 教授(台科大)
Dr. Young Ku
李堅明 助理教授(台北大學)
Dr. Chien-Ming Lee
莊光明 副總經理(台電)
Mr. Guang-Ming Chuang
李建平 環保處副處長(台電)
Mr. Chien-Ping Lee
廖滄龍 企研處處長(中油)
Mr. Tsang- Long Liao
許芳銘 環安主委(台積電)
Mr. Fang-Ming Hsu
石信智 總經理(永智顧問)
Mr. Shin-Chih Shih
余志達 資深協理 (環科顧問)
Mr. Chih-Ta Yu

中英文姓名/單位職稱
江國瑛 工程師 (綠基會)
Mr. Kuo-Ying Chiang
蔡振球 組長(工研院)
Dr. Chen-Chiu Tsai
胡文正 經理 (工研院)
Mr. Wen-Cheng Hu
馬仲立 研究員 (工研院)
Mr. Chung-Li Ma
盧裕倉 研究員 (工研院)
Mr. Yu-Tsang Lu
呂慶慧 研究員 (工研院)
Mr. Ching-Hui Lu
劉謹銓 研究員 (工研院)
Dr. Chin-Chuan Liu
李莉鈴 副研究員(工研院)
Ms. Li-Ling Li

三、 大會議程與重要會議 (詳見附件1)

本次主會場地點兩處為: Moon Palace(www.palaceresorts.com); 周邊會議及 展覽攤位 為 Cancún Messe (www.cancunmesse.com)。大會及相關會議的 開會時間如表 2。

12月1日 (三) 12月2日 (19) 12月3日 (五) 11月30日 (二) 12月5日(日) 大會体會 開幕與禮 Forest day 4周邊 SBSTAM & COP 會議及展覽鄉位 開幕先禮 SBIM基 CMP 非正式碰商會議 非正式磋商會議 非正式碰商會議 Green Solutions.III AWG-LCA SBI SBSTA 造會議及展覽機位 AWG-KP 11月27日工作基份 World Climate Summit 周邊會議及展 小组梳建 Water and Climate Dialog論理 觉御位 La Via Campesina toward Cancun进行 12月6日(一) 12月7日 (二) 都長及高階官員會 你長及高階官員會 (High-level (High-level 非正式磋商會議 非正式碰商會議 COP 順基 segment) segment) CMPM X COP MA. 工作基僚小姐離境 CMPM # ICTSD貿易與氣候變化研討會 Green Solutions 用邊會議及展覽鄉位 La Via Campesina toward Cancun 进行 **郑交關、友善國家及國際組織變邊會談** 公均周邊會職及展覽機但 IETA用途会議及基質機位

表 2、COP16/CMP6 會議及相關會議日程表

四、 本公司行程及工作內容

本次行程扣除往返行程與假日後,實際參與會議時期間為12月4日至12月8日共4天(12/5休會),配合大會會議及本次對NGO團體出席規範與環保署分配任務,主要工作內容如下:

- (一)12月4日~12月8日:參加周邊會議(Side event)、觀察及收集大會進展、公約主會場 Cancun Messe 展覽場內資訊收集、及國際碳排放交易協會 (International Emission Trading Association, IETA) 會場會議資料收集。
- (二)12月8日:出席我國與友邦之雙邊會議。

五、 觀察與會議內容

- (一) 坎昆協議主要內容
 - 1. 綠色氣候基金 (Green Climate Fund): 以援助貧窮國家因應

地球氣候暖化之災害。在 2012 年前撥出 300 億美元的快速啟動 (fast-start) 基金,2020 年前增為每年 1000 億美元。

坎昆協議明確規範了綠色氣候基金的運作細節,包括委員會的 分配比例、各國需於每年五月報告其基金提供狀況以及前三年由世界銀行代管等,但如何要求各會員國符合其基金負擔額度的機制仍是關如。雖然各國代表於 COP16 會議前後承諾提供基金,使 300 億的短程目標是可及的,但其仍有諸多因素,為綠色氣候基金的成功運作,埋下不確定性。

- 2. 減量目標:對於已開發國家設定了明確的要求,即『2020 年時,需較 1990 年減量 25%~40%』。對於開發中國家,則是要求其依照永續發展的原則下,提出國家最適減量行動 (nationally appropriate mitigation actions),至 2020 年時,相較於基本情境 (business as usual)下之排放量,有顯著的削減(對於開發中國家自願性減量的 MRV 監督機制,則仍限制在接受國際援助的部分)。
- 3. REDD: 早在 2007 年峇里會議就已定調的「減少伐林及森林退化造成之溫室氣體排放」方案(Reduction in Emission from Deforestation and forest Degradation, REDD),在本次會議談判中相對有成,乃是因為對於已開發的工業國家來說,這是最便宜與有效率的減碳機制。在歐美目前經濟還未走出陰霾之前,具體的國內碳減量立法可能性是微乎其微。因此,透過支持 REDD 方案與開發中國家共同合作減少碳排,乃是精算之後的理性選擇。短期(約3~4年)之內,REDD可以累積不少南北國家的共識,同時營造合作的氛圍。但長期觀察,全球對於 REDD的操作方式,若在資金與森林治理的管制未能形成一套制度時,前景恐不樂觀。

(二)各主要國家或組織減碳觀點彙總

國家或集團	觀點
日本	● 1990年附件一國家溫室氣體排放量佔全球 42%至 2008年已 下降為 27%。

- 希望所有締約國都能加入減量/減緩,且簽訂具有法律約束力之協議,否則日本將不參與京都議定書第二承諾期。
- 日本在11月29星期一,也就是會議的第一天就發表聲明,表示既不願將其減量承諾登錄於經修正議定書附件B中,也不接受COP/MOP決定延長議定書第一承諾期間或是建立第二承諾期間之決議。雖然許多新聞媒體報導強調日本「誓言拋棄」京都議定書,但就其聲明文字來看,並非如此的情緒性,重點應在於日本希望除原有的簽署京都議定書附件一國家(約占全球排放量的27%)外,為達成控溫2度C的目標,應也要納入許多排放量大國,當然包含了附件一確未簽KP的美國與已成為世界排放量第一的非附件一的中國,這在本次會議結束前京都議定書第二承諾期與哥本哈根協議的雙軌制將仍是要注意演變的重點。當然,仍有可能如媒體在會前之預測,本次會議仍無法在這部分取得共識。

格瑞那達 (代表小 島國)

- 強調討論法律形式的重要性,及政府與私人部門兩者關連性,格瑞那達呼籲以透明及參與分擔的態度,成立一個聯絡小組討論三項議題,包括:產出的法律形式、既有工具的連結、適當的策略,期望在南非德班召開的 COP17 中通過具法律約束力的協議。
- 將全球溫室氣體排放尖峰控制提早至 2015 年,增溫需控制在 1.5℃以下。

最低度 開發國 家集團 (LDS)

- 贊成實施京都議定書第3.9條對於已開發國家在京都議定書後續承諾期間之後續承諾進行審查之規定。我們必須避免在第一承諾期與第二承諾期之間的差距。世界必須限制全球溫度上升最高不超過攝氏1.5度與限制溫室氣體濃度至百萬分之350以下,以避免不可逆之氣候系統變化。
- 重申建立一個在 COP 下接受 COP 指導與對其負責之新氣候變化基金。我們同時呼籲建立一個特設財務委員會,以開始與帶動前述基金之作業程序。然而,若是沒有已開發國家之財務承諾,這一切努力將是空洞無目的。目前迫切需要的乃是建立一個在 COP 下考量兩個組成部分的技術機制,這兩個

	T
	部份分別是技術執行委員會(TEC)與氣候技術中心和網路
	(CTCN) °
中國	● 法律實行很重要,討論公約及京都議定書的實施問題,通過
	附件 B 修正案本身是法律問題,中國可以接受具法律約束性
	的文件,中國期待坎昆會議產出一個有意義及積極的成果;
	但是從程序上而言,不要再提出新問題,締約國所提的一些
	問題可以在兩個工作組中解決,各締約國依據公約第 17 條
	提出的提案,都在 AWG LCA 都有涵蓋,可以在 AWG LCA
	下討論,這些判斷都需要主席智慧的判斷,使協商更有效率。
	● 2009 年中國政府宣布了減緩行動,在 2020 年時較 2005 年
	水準減少二氧化碳密集度 40-45%,並已將此目標納入中國中
	長期國家經濟和社會發展計劃之強制性目標(obligatory
	target) °
美國	● 已經投入超過 900 億美元資金,以改變美國的能源生產和消
大四	費型態,採取一系列新法規和其他措施以減少溫室氣體排
	放,亦將繼續與國會找出法規解決方案,提高能源安全和減
	少溫室氣體排放量。
	● 針對快速啟動資金的第一年,已確保取得超過 17 億美元的
	氣候援助資金,將用來支持最脆弱國家打擊針對生物多樣性
	最豐富的熱帶森林摧毀行動,並幫助各國制定低碳途徑。
	● 根基於在哥本哈根會議所取得的諒解,並且針對關鍵要素進
	行必要磋商,取得有意義與可比較之進展成果。
歐盟	● 以增溫2℃為基礎,MRV且具法律約束力協議。
四人 <u>一</u>	● 歐盟願意考量京都議定書下第二承諾期,只要它屬於是包括
	所有主要經濟體之全球性與廣泛架構下成果的一部份,也必
	須是一項對抗氣候變化之有效後續步驟。
	● 歐盟不會單方面承諾將2020年時的溫室氣體排放量在1
	990年的基礎上減少30%。
	● 歐盟與 27 個成員國期望達成一套具備基本要項之成果,包
	括調適、融資、REDD+與能力建立等要項。
	● 2010年歐盟與其27個成員國就已經承諾提供23.5億歐元的

	快速啟動資金,其中 8.44 億歐元係使用於調適工作。
南非	● 在公約第17條下通過具法律約束力協議,AWG通過之成果
 	的法律地位,京都議定書如何維持下去,要統一協調是 AWG
	KP 的責任,要採取腳踏實地的作法,兩者要相輔相成、相
	互關連,公約與京都議定書要有平衡的作法,才能確保法律
	地位,要確認完整性和效率,法律的約束力要符合科學證據,
	才是解決不確定性的關鍵點;南非認為很多障礙不能克服,
	需要進行談判,要建立互相信任。
韓國	● 在公約和議定書兩條磋商路徑下都取得進展。
辞 凶 	● 我們必須具備一套健全的 MRV 系統、支持建立新氣候基
	金。透過這個過程,期望進一步加強附件一國家的減量承諾
	與 IPCC 建議相符。
	● 韓國政府表示願意主辦 COP18。

(三) 參與 Side event

1. Electricity at the core of climate mitigation

時間	12月6日	
地點	Aguila (Cancunmesse Hall C)	
主持	International Energy Agency (IEA) Ms. Jenny Gell	
重點摘要	1. IEA 之專家分就國際整體之能源供需情勢及電力部門對於減量	
7/10/14/2	之可能策略提出 2010 年 IEA 之最新預測,同時表示世界已不	
	可能再有便宜能源,其提出之資料中表示因為能源效率之提升	
	雖然成本最低,但因其執行之不確定性,可能導致預測之減量	
	成本大幅上升,其同時亦預測各類再生能源因技術進步將與上	
	升中的傳統之能源價格產生價格競爭。	
	2. 未來能源需求仍將持續成長,尤其是中國、印度、及中東地區,	
	預計全球能源需求將從 2010 年 12000Mtoe 升至 2030 年	
	16000Mtoe °	
	3. 能源業面臨重大不確性,主要因素微氣候變遷、天然氣用量、	
	交通工具(如電動車)、國家地區(如中國未來)等。	

- 4. 國際能源總署(IEA)提出達成 2035 年大氣 CO2 濃度回到 450ppm 的情境(450 scenario),80%的電力需求以低碳發電的 方式來產生,其主要靠再生能源及核能,CCS 也是很重要的角色
 5. 因為全球經濟復甦,IEA2010 年的 450 scenario 將比 2009 年的峰值(peak)高,但仍可能達 450ppm。
- 6. 智慧型電網(smart grid)引進大量再生能源及電動車所必須。
- 7. 效率提升(尤其是用戶端的效率提升)是最經濟,且可能是回收 高於成本之投資。
- 8. 再計算減碳單位成本時,通常由最低成本往高成本選擇減碳措施。若計算之碳價(carbon pricing)含效率損失措施,卻因各種原因無法達到效率提升目標時,可能因此低估碳價。

會議觀察

- 1. 基本上 IEA 提出之報告並無提出重大之策略性之改變,僅是就 現有策略再行分析,惟本年度特別側重電力部門,值得關注。
- 在供應端上,未來再生能源仍持續增加,風力、太陽光電仍為 主力。
- 3. 簡報後提問時間,有兩個問題相當值得討論:
 - 1. 有人質疑 IEA 鼓勵使用電能(以核能發電)取代油氣供應暖 氣來達到減量 CO2 排放,是一種能源浪費。IEA 答覆此 議題可討論。
 - 2. 有人認為 CCS 投資太大,未經證實長久安全有效,且商業化時程太遠等,因此質疑 IEA 不應將 CCS 的減碳角色過早放得太重。
- 2. Solar powering the plant: Fostering sustainable development and creating job today

時間	12月6日	
地點	Aguila (Cancunmesse Hall C)	
主持	European Photovoltaic Industry Association (EPIA), Alliance	
土行	for Rural Electrification (ARE), Solar Energy Industries	

	Association (SEIA) Mr. Benjamin Fontaine
重點摘要	1. 南北緯 35 度之間最適合太陽光電,稱為 Sunbelt,總人口約
王州内风又	15億,且有許多地區目前尚無電可用,因此太陽光電潛力無窮。
	2. 目前每年新增 PV 約 7.5GW , 至 2050 年可達每年
	20GW(reference scenario),甚至 175GW(accelerated
	scenario)建廠費用為2,800歐元/KW,2050年可降低至1,382
	歐元/KW (reference scenario)或 758 歐元/KW(accelerated
	scenario)
	3. 發電成本目前約 0.29-0.12 歐元/度 , 2030 年可達 0.11-0.04
	歐元/度。
	4. 美國或澳洲沙漠地區則適合發展聚光型太陽能發電(CSP)。
	5. 太陽光電成本在技術進步至足以與其他發電型式競爭前,仍需
	政策補貼,也需財務支持及網路投資的支持。
會議觀察	1. 雖然廠商簡報充滿樂觀,甚至有宣傳做秀意味,但仍可感覺其
百哦机亦	對前景(尤其未來成本)有焦慮感,因此多要求政策支持,財稅
	支持及民眾支持。
	2. 未來因再生能源為主要的能源來源,太陽光電為我國重要之新
	產業發展方向,當場因有人質疑太陽光電製造在亞洲,是否會
	有碳洩漏問題值得注意。
	3. 另會場有人提問太陽光電之補貼過高,是否仍採用 FIT 制度或
	減少再生能源目標,值得討論,惟歐洲太陽光電協會表示目前
	20-20-20 之目標未變。

3. Green economy approach in China: the reason and innovation of policy, technology and governor

時間	12月6日	
地點	Jaguar (Cancunmesse Hall D)	
<i>→</i> 14.	China Association for Science and Technology (CAST) Mr.	
主持	Rui Zhou	

1. 開發中國家尚在發展經濟狀態,應容許 CO2 排放量逐年成長, 重點摘要 未來達到峰值後再逐年下降,如此對開發中國家才算公平,也 符合哥本哈根會議揭示的 common、differential approach。 2. 開發中國家若能得到以開發國家資金、技術即能力支援助,可 降低峰值,並使峰值提早到來。 3. 因為 CO2 在大氣中之效應達百年以上,所以建議 CO2 排放累 積量應從1900年開始起算。 4. 計算維持大氣 CO2 在 450ppm 之總量可得分配給各國之排放 總量扣掉其自 1900 年以來已排放量,即可得未來各國可再排 放量。 5. 如此計算可知已開發國家多已超過容許排放量而中國至目前 為止僅使用調其容許排放量之 19%。 6. 已超過容許排放量之國家應以資金、技術幫助尚未超過容許總 量之國家減少排放,使全球排放量未來不會超過容許值。 1. 中國基本上視溫室氣體議題為已開發國家為壓制開發中國家之方 會議觀察 式,其基本上運用上一議題,向歐盟、英國等國家要求提供資金、 技術等,策略上可能是由模糊減量目標以達成技術及資金引進。 2. 中國對本議題之態度與其他開發中國家,基本上不談減量目 標,只談技術及資金等。 3. 本會議雖由清華大學、中國科技院等學術單位發表,但代表中 國政府之立場不可言喻,可視為中國在本次坎昆會議爭取開發 中國家支持之論述。

4. Clean energy technologies for the developing world

時間	12月7日
地點	U.S. Center
主持	U.S. Department of Commerce (USDOC-BCSE)
重點摘要	U.S. government programs help developing countries access
王和彻文	and use low cost technologies that tackle the twin challenges
	of successful development, with increased opportunities for

local populations, and greenhouse gas reduction, keys to effective climate mitigation.

美國提出可協助開發中國家之技術包括住宅效率提升、發展智慧電網及再生能源等,惟當場有人發問如何協助,其主持人表示目前僅提供一技術平台,資金的協助另外將有其他 side event 說明。

5. Fast start from the Marshall Islands perspective

時間	12月7日
地點	Jaguar(Cancunmesse Hall D)
主持	Marshall Islands Mr. Caleb Christopher
重點摘要	Discussion on fast start from a low-lying island perspective,
王和彻文	with a focus on adaptation. Experiences with navigating
	multiple sources and rapid national responses (balancing
	planning with results). Includes emissions cuts and leadership
	with maritime emissions as key contributions.
	本項會議係由馬歇爾群島代表團主持,參與討論包括美國、歐盟
	及聯合國專家主要針對小島國家如何因應氣候變遷進行之調適由
	技術面、資金面進行討論。

6. IEA day

時間	12月7日
地點	IEA 場地 Hyatt Regency
主持	Bo Diczfalusy, Director, Sustainable Energy Policy and Technology, IEA
重點摘要 Climate policy insights from the World Energy Outlook 2010 1. IEA 針對跨部門、建築、電氣設備、照明、交通業、工業、電	
	力業研擬了 25 個能源效率政策 2. 各國政府應擬定各種節能標準,做為提升效率的規範,其中以 日本做得最好,唯沒有一個國家完全或永續地實施上述政策

57%的比例

- 3. 能源效率的管理架構主要包括啟動機制、組織的約定及合作機 制等三部分
- 4. IEA 調查發現各層級有良好協調的國家,其能源效率經常較佳
- 5. 以德國法蘭克福為例,其綠建築每年每平方公尺僅耗用 15 度電,造價較舊有的設計約多出 3-5%,但在 9-10 年即可回收
- 6. 綠建築要有高的絕緣水準、高效的門窗、遮蔽良好、綠色得正面及高效的通風系統
- 7. 綠建築的概念:節能或零耗能、智慧型設計、創新等
- 8. 未來的建築將是零耗能的設計
- 9. 創新的建築規範是正負責無旁貸的施政政策
- 10. 碳市場的建構範疇
 - (1) 技術面:市場基本機制結構如範圍、MRV、註冊等
 - (2) 政策面:環境目的與政策追求的目標
 - (3) 法規/制度:市場運作機制的訂定
- 11. IEA 認為實施排放交易市場的目的是在於分享交易的訊息
- 12. 排放交易市場主要設計特色為訂定交易部門範圍、交易上限設定、成本的影響、價格的波動、長期投資信號
- 13. 在 IEA 新的能源政策情境分析中,雖然 2035 年化石燃料的佔比從 2008 年的 81%下降到 74%,但是仍是未來能源的主流
- 14. 當高化石燃料價格與再生能源投資成本下降之因素下,再生能源將自 2009 年的 70 億美金成長至 2035 年的 2050 億元
- 15. 由於至 2020 年 CO2 需減量 3.9Gt 的不確定與國際缺乏減量決心,如要達成維持 2 度 C(450 scenario)的目標,在 2010 至 2030年的減碳成本預測將會增加 1 萬億美金
- 16. 從 IEA 目前的政策情境方案,在 2035 年排放量為 42.6Gt,如 欲維持 2 度 C 情境(450 scenario)下的 21.7Gt 時,效率提升、 再生能源、生質能、核能、CCS 等減量策略分擔比例分別為 53%、21%、3%、9%、15%
- 17. 若無 CCS 減量技術,預測未來 2050 年減量成本將增加 70%
- 18. CCS 是減量策略,而非淨煤技術

- 19. OECD 國家現階段在 2011 年之前,將先檢視與採行現有法規 架構去規範 CCS 示範計書,俟 2020 年前研擬詳盡的 CCS 法規 架構, 俾供規範商業化的 CCS 20. CCS 未來的挑戰
 - - (1) 減量承諾不高
 - (2) 工種與政府對 CCS 技術的了解不夠
 - (3) 工業界輕忽 CCS 技術
 - (4) 研發資金不足

會議觀察

- 1. 各國承諾減量之共識不足,影響成效
- 2. 法規不足,無所適從,影響減量進展
- 3. 政府支持 CCS 與法規之研擬亟待突破
- 4. 節能減碳之財源缺乏,造成減量目標無法達成

貳、結論及建議

- 一、 有了去年哥本哈根大會的磋商經驗,各國對於坎昆會議會達成的成果,在會前 並沒有太多的期望,即很少國家預期每個待決議題,可以達成具法律約束力的 成果或協議者。但矛盾是許多國家仍然希望在坎昆會議上,針對關鍵議題可以 取得一些有意義的進展。在會議籌備階段,有幾個議題被普遍認為屬於可以納 入一套平衡決議之領域者。這些議題包括:減緩、調適、融資、技術、減少開發 中國家毀林排放量(包括保護、永續管理森林和增強森林碳匯量(REDD+)),以 及監測、報告和查證(MRV)和國際諮詢和分析(ICA)。針對這些關鍵議題之談 判,在為期兩個星期會議中,由各締約國以全體會議、聯絡小組、非正式磋商 和雙邊會議等方式持續進行磋商。在會議第二週,來自已開發國家和開發中國 家的部長們進行"配對"會議,以促進針對這些主要議題之磋商。這些磋商持 續進行一整個星期,大會並定期舉行非正式的成果盤點全體會議,以保持一定 程度之公開透明度,並向所有與會者報告磋商進展。
- 二、於12月11日星期六凌晨,各國確認「坎昆協議」內容(附件2)。該項協議涵 蓋公約和議定書兩條磋商路徑下的決議,並包括針對調適、REDD+、技術、 减缓和融資等議題之條款規定。儘管各界認為協議內容之實質成果依然不夠完

善,且留下許多重要細節未能確定,但大多數與會者對於這項結果在恢復對UNFCCC程序信心的意義感到滿意,即除了一國(玻利維亞)反對之外,其餘193個氣候公約締約國支持,且UNFCCC執行秘書 Christiana Figueres 亦表示:「希望的燈塔已被重新點燃,對於多邊氣候變化磋商程序將可取得成果的信心已經恢復」。雖然許多代表對於得以取得成果鬆了口氣,但是大多數與會者亦承認,對於因應氣候變化來說這只是一個相當小步調的進展而已。

- 三、除了達成坎昆協議之外, COP 16 與 COP/MOP 6 亦通過大約 20 項決議,針對議題包括能力建立、行政、財務和機構事項。同時, SBI 與 SBSTA 亦通過超過 20 項決議,涵蓋金融機制、政府間會議安排,以及一系列方法議題。
- 四、會議在多邊進展下,原則上明確了已開發國家和開發中國家之間的區別,規定 已開發國家每年提交一次相關改善其排放量和減緩行動的盤查彙報,開發中國 家則每兩年進行一次排放和減緩行動彙報;對於已開發中國家國內支持的減緩 行動,進行國內的 MRV,並在非侵犯,非懲罰性和尊重主權的前提下,由一 個國際技術專家諮詢組與該國進行諮詢和協商,最後以總結報告的形式提交。
- 五、本次會議達成協議說明了各方不論自願的,抑或強迫的都願意在透明、公信力原則下,推動減排的承諾。由此可知,本公司每年的溫室氣體盤查工作,各單位一定要落實,未來排放量之查證才可經 MRV 的過程,達到透明化,並具公信力。況且本公司在大林更新擴建計畫之環境說明書審查結論,已承諾「所轄位於台灣本島之各火力發電廠應於每年3月底前完成溫室氣體盤查作業,並向查驗機構提出查證申請,以確認各廠之排放量。台電公司超出前1年排放目標值之數量,應於當年以所購買或持有的同額國內外碳權抵減之,並以在地或境內購買碳權為優先」。因此,公司各單位務必重視盤查人員的訓練與傳承,尤其是各火力發電廠,才能落實本項工作,並維護公司權益。

參、附件及參考資料

附件一、COP16CMP6 大會議程 附件二、坎昆協議本文





United Nations Climate Change Conference Cancun, Mexico 29 November to 10 December 2010

OVERVIEW SCHEDULE



Sixteenth session of the Conference of the Parties (COP 16)

Sixth session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP 6)

Thirty-third session of the Subsidiary Body for Scientific and Technological Advice (SBSTA 33)

Thirty-third session of the Subsidiary Body for Implementation (SBI 33)

Fifteenth session of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP 15)

Thirteenth session of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-LCA 13)

This overview schedule is intended to assist participants with their planning prior to the sessions. It should be considered as **indicative** and will be updated as new information becomes available.

Once the sessions are underway on Monday, 29 November, please consult the Daily Programme.

Updated: 8 September 2010

PRE-SESSIONAL MEETINGS

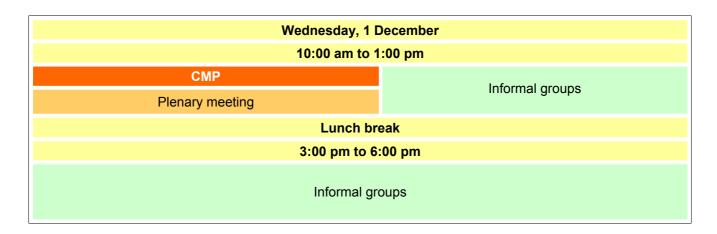
- CDM Executive Board (22 to 26 November)
- Meeting of the Expert Group on Technology Transfer (25 to 26 November)
- Least developed countries Preparatory Meetings (23 to 24 November)
- Small island developing States Preparatory Meetings (25 to 26 November)
- African Group Preparatory Meetings (25 to 26 November)
- G-77 & China Preparatory Meetings (27 to 28 November)

FIRST WEEK

Monday, 29 November		
10:00 am to 1:00 pm		
Welcoming ceremony		
СОР		
Item 1	Opening of the session	
Item 2 (a)–(g)	Organizational matters	
СМР		
Item 1	Opening of the session	
Item 2 (a)–(c)	Organizational matters	
Lunch break		
3:00 pm to 6:00 pm		
AWG-LCA ¹ AWG-KP ²		
Opening of the session Opening of the session		

Tuesday, 30 November		
10:00 am to 1:00 pm		
SBI	SBSTA	
Opening of the session and launch of work on all agenda items	Opening of the session and launch of work on all agenda items	
Lunch break		
3:00 pm to 6:00 pm		
SBI	SBSTA	
Opening of the session and launch of work on all agenda items (as needed)	Opening of the session and launch of work on all agenda items (as needed)	

¹ AWG-LCA to continue as long as necessary. Closing plenary to be determined. ² AWG-KP to continue as long as necessary. Closing plenary to be determined.



Thumsday O.D. comban			
Thursday, 2 December			
10:00 am to 1:00 pm			
СМР	Informal groups		
Plenary meeting	illiorinal groups		
Lunch break			
3:00 pm to 6:00 pm			
Informal groups			

Friday, 3 December		
10:00 am to 1:00 pm		
Informal groups		
Lunch break		
3:00 pm to 6:00 pm		
Informal groups		

Saturday, 4 December		
10:00 am to 1:00 pm		
СОР	СМР	
Plenary meeting (as needed)	Plenary meeting (as needed)	
Lunch break		

Saturday, 4 December (continued)		
3:00 pm to 6:00 pm		
SBI	SBSTA	
Closure of the session and adoption of conclusions	Closure of the session and adoption of conclusions	

No meetings are scheduled for Sunday, 5 December

SECOND WEEK

Monday, 6 December		
10:00 am to 1:00 pm		
Informal groups		
Lunch break		
3:00 pm to 6:00 pm		
Informal groups		

Tuesday, 7 December		
10:00 am to 1:00 pm		
Informal groups		
Lunch break		
3:00 pm to 6:00 pm		
Opening ceremony of the high-level segment of COP 16 and CMP 6	Informal groups	

Wednesday, 8 December			
10:00 am to 1:00 pm			
СОР	СМР		
Joint High-level segment of COP and CMP			
National statements			
Tradicital o	acomonic		
Lunch	break		
3:00 pm to	o 6:00 pm		
СОР	СМР		
Joint High-level segment of COP and CMP			
National statements (continued)			

Thursday, 9 December		
10:00 am to 1:00 pm		
СОР	СМР	
Joint High-level segment of COP and CMP		
National statements (continued)		
Lunch break		
СОР	СМР	
Joint High-level segment of COP and CMP National statements (continued)		
3:00 pm to 6:00 pm		
СОР	СМР	
Joint High-level segment of COP and CMP		
National statements (continued)		

Friday, 10 December		
10:00 am to 1:00 pm		
СОР	СМР	
Joint High-level segment of COP and CMP		
Statements from intergovernmental and non-governmental organizations		
Lunch break		
3:00 pm to 6:00 pm		
СОР		
COP closing: adoption of decisions and conclusions		
CMP		
CMP closing: adoption of o	decisions and conclusions	

Advance unedited version

Draft decision [-/CP.16]

Outcome of the work of the Ad Hoc Working Group on longterm Cooperative Action under the Convention

The Conference of the Parties

Recalling its decision 1/CP.13 (the Bali Action Plan), and decision 1/CP.15,

Seeking to secure progress in a balanced manner, in the understanding that, through this decision, not all aspects of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention are concluded, and that nothing in this decision shall prejudge prospects for, or the content of, a legally-binding outcome in the future,

Reaffirming the commitment to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to achieve the ultimate objective of the Convention,

Recalling the principles, provisions and commitments set forth in the Convention, in particular its Articles 3 and 4,

Recognizing that climate change represents an urgent and potentially irreversible threat to human societies and the planet, and thus requires to be urgently addressed by all Parties.

Affirming the legitimate needs of developing country Parties for the achievement of sustained economic growth and the eradication of poverty, so as to be able to deal with climate change,

Noting resolution 10/4 of the United Nations Human Rights Council on 'human rights and climate change', which recognizes that the adverse effects of climate change have a range of direct and indirect implications for the effective enjoyment of human rights and that the effects of climate change will be felt most acutely by those segments of the population that are already vulnerable owing to geography, gender, age, indigenous or minority status and disability.

I. A shared vision for long-term cooperative action

- 1. Affirms that climate change is one of the greatest challenges of our time and that all Parties share a vision for long-term cooperative action in order to achieve the objective of the Convention under its Article 2, including through achievement of a global goal, on the basis of equity and in accordance with common but differentiated responsibilities and respective capabilities; this vision is to guide the policies and actions of all Parties, while taking into full consideration the different circumstances of Parties in accordance with the principles and provisions of the Convention; the vision addresses mitigation, adaptation, finance, technology development and transfer, and capacity-building in a balanced, integrated and comprehensive manner to enhance and achieve the full, effective and sustained implementation of the Convention, now, up to and beyond 2012;
- 2. Further affirms that:



- (a) Scaled-up overall mitigation efforts that allow for the achievement of desired stabilization levels are necessary, with developed country Parties showing leadership by undertaking ambitious emission reductions and in providing technology, capacity-building and financial resources to developing country Parties, in accordance with the relevant provisions of the Convention;
- (b) Adaptation must be addressed with the same priority as mitigation and requires appropriate institutional arrangements to enhance adaptation action and support;
- (c) All Parties should cooperate, consistent with the principles of the Convention, through effective mechanisms, enhanced means and appropriate enabling environments, and enhance technology development and the transfer of technologies to developing country Parties to enable action on mitigation and adaptation;
- (d) Mobilization and provision of scaled up, new, additional, adequate and predictable financial resources is necessary to address the adaptation and mitigation needs of developing countries;
- (e) Capacity-building is essential to enable developing country Parties to participate fully in, and to implement effectively, their commitments under the Convention; and that the goal is to enhance the capacity of developing country Parties in all areas;
- 3. Recognizes that warming of the climate system is unequivocal and that most of the observed increase in global average temperatures since the mid twentieth century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations, as assessed by the Intergovernmental Panel on Climate Change in its Fourth Assessment Report;
- 4. Further recognizes that deep cuts in global greenhouse gas emissions are required according to science, and as documented in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, with a view to reducing global greenhouse gas emissions so as to hold the increase in global average temperature below 2°C above preindustrial levels, and that Parties should take urgent action to meet this long-term goal, consistent with science and on the basis of equity; Also recognizes the need to consider, in the context of the first review, as referred to in paragraph 138 below, strengthening the long-term global goal on the basis of the best available scientific knowledge, including in relation to a global average temperature rise of 1.5°C;
- 5. Agrees, in the context of the long-term goal and the ultimate objective of the Convention and the Bali Action Plan, to work towards identifying a global goal for substantially reducing global emissions by 2050, and to consider it at its seventeenth session;
- 6. Also agrees that Parties should cooperate in achieving the peaking of global and national greenhouse gas emissions as soon as possible, recognizing that the time frame for peaking will be longer in developing countries, and bearing in mind that social and economic development and poverty eradication are the first and overriding priorities of developing countries and that a low-carbon development strategy is indispensable to sustainable development. In this context, *further agrees* to work towards identifying a timeframe for global peaking of greenhouse gas emissions based on the best available scientific knowledge and equitable access to sustainable development, and to consider it at its seventeenth session;
- 7. Recognizes the need to engage a broad range of stakeholders at global, regional, national and local levels, be they government, including subnational and local government, private business or civil society, including youth and persons with disability, and that gender equality and the effective participation of women and indigenous peoples are important for effective action on all aspects of climate change;

- 8. *Emphasizes* that Parties should, in all climate change-related actions, fully respect human rights;
- 9. *Confirms* that Parties, especially developing country Parties that would have to bear a disproportionate or abnormal burden under the long-term cooperative action under the Convention, should be given full consideration;
- 10. Realizes that addressing climate change requires a paradigm shift towards building a low-carbon society that offers substantial opportunities and ensures continued high growth and sustainable development, based on innovative technologies and more sustainable production and consumption and lifestyles, while ensuring a just transition of the workforce that creates decent work and quality jobs;

II. Enhanced action on adaptation

- 11. Agrees that adaptation is a challenge faced by all Parties, and that enhanced action and international cooperation on adaptation is urgently required to enable and support the implementation of adaptation actions aimed at reducing vulnerability and building resilience in developing country Parties, taking into account the urgent and immediate needs of those developing countries that are particularly vulnerable;
- 12. Affirms that enhanced action on adaptation should be undertaken in accordance with the Convention; follow a country-driven, gender-sensitive, participatory and fully transparent approach, taking into consideration vulnerable groups, communities and ecosystems; and be based on and guided by the best available science and, as appropriate, traditional and indigenous knowledge; with a view to integrating adaptation into relevant social, economic and environmental policies and actions, where appropriate;
- 13. Decides to hereby establish the Cancun Adaptation Framework encompassing the provisions laid out below, with the objective of enhancing action on adaptation, including through international cooperation and coherent consideration of matters relating to adaptation under the Convention;
- 14. *Invites* all Parties to enhance action on adaptation under the Cancun Adaptation Framework, taking into account their common but differentiated responsibilities and respective capabilities, and specific national and regional development priorities, objectives and circumstances, by undertaking, inter alia, the following:
- (a) Planning, prioritizing and implementing adaptation actions, including projects and programmes, and actions identified in national and subnational adaptation plans and strategies, national adaptation programmes of action of the least developed countries, national communications, technology needs assessments and other relevant national planning documents;
- (b) Impact, vulnerability and adaptation assessments, including assessments of financial needs as well as economic, social and environmental evaluation of adaptation options;
- (c) Strengthening institutional capacities and enabling environments for adaptation, including for climate-resilient development and vulnerability reduction;
- (d) Building resilience of socio-economic and ecological systems, including through economic diversification and sustainable management of natural resources;

¹ Including in the areas of water resources; health; agriculture and food security; infrastructure; socioeconomic activities; terrestrial, freshwater and marine ecosystems; and coastal zones.

- (e) Enhancing climate change related disaster risk reduction strategies, taking into consideration the Hyogo Framework for Action² where appropriate; early warning systems; risk assessment and management; and sharing and transfer mechanisms such as insurance, at local, national, subregional and regional levels, as appropriate;
- (f) Measures to enhance understanding, coordination and cooperation with regard to climate change induced displacement, migration and planned relocation, where appropriate, at national, regional and international levels;
- (g) Research, development, demonstration, diffusion, deployment and transfer of technologies, practices and processes; and capacity-building for adaptation, with a view to promoting access to technologies, in particular in developing country Parties;
- (h) Strengthening data, information and knowledge systems, education and public awareness;
- (i) Improving climate-related research and systematic observation for climate data collection, archiving, analysis and modelling in order to provide decision makers at national and regional levels with improved climate-related data and information;
- 15. Decides to hereby establish a process to enable least developed country Parties to formulate and implement national adaptation plans, building upon their experience in preparing and implementing national adaptation programmes of action, as a means of identifying medium and long-term adaptation needs and developing and implementing strategies and programmes to address those needs;
- 16. *Invites* other developing country Parties to employ the modalities formulated to support the above-mentioned national adaptation plans, in the elaboration of their planning effort referred to in paragraph 14 (a) above;
- 17. Requests the Subsidiary Body for Implementation to elaborate modalities and guidelines for the provisions of paragraphs 15 and 16 above, for adoption by the Conference of the Parties at its seventeenth session;
- 18. Requests developed country Parties to provide developing country Parties, taking into account the needs of those that are particularly vulnerable, with long-term, scaled-up, predictable, new and additional finance, technology, and capacity-building, consistent with relevant provisions, to implement urgent, short-, medium- and long-term adaptation actions, plans, programmes and projects at local, national, subregional and regional levels, in and across different economic and social sectors and ecosystems, as well as to undertake the activities referred to in paragraphs 14–16, above and paragraphs 30, 32 and 33 below;
- 19. *Acknowledges* the need to strengthen, enhance and better utilize existing institutional arrangements and expertise under the Convention;
- 20. *Decides* to hereby establish an Adaptation Committee to promote the implementation of enhanced action on adaptation in a coherent manner under the Convention, inter alia, through the following functions:
- (a) Providing technical support and guidance to the Parties, respecting the country-driven approach, with a view to facilitating the implementation of adaptation activities, including those listed in paragraphs 14 and 15 of this decision, where appropriate;
- (b) Strengthening, consolidating and enhancing the sharing of relevant information, knowledge, experience and good practices, at local, national, regional and

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² <http://www.unisdr.org/eng/hfa/hfa.htm>.

international levels, taking into account, as appropriate, traditional knowledge and practices;

- (c) Promoting synergy and strengthening engagement with national, regional and international organizations, centres and networks, to enhance the implementation of adaptation actions, in particular in developing country Parties;
- (d) Providing information and recommendations, drawing on adaptation good practices, for consideration by the Conference of the Parties when providing guidance on means to incentivize the implementation of adaptation actions, including finance, technology and capacity-building and other ways to enable climate-resilient development and reduce vulnerability, including to the operating entities of the financial mechanism of the Convention, as appropriate;
- (e) Considering information communicated by Parties on their monitoring and review of adaptation actions, support provided and received, possible needs and gaps and other relevant information, including information communicated under the Convention, with a view to recommending what further actions may be required, as appropriate;
- 21. *Invites* Parties to submit to the secretariat, by 21 February 2011, views on the composition of, and modalities and procedures for, the Adaptation Committee, including on proposed linkages with other relevant institutional arrangements;
- 22. Requests the secretariat to compile these submissions into a miscellaneous document to be made available by the fourteenth session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, and to prepare a synthesis report based on those submissions by the fourteenth session of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention;
- 23. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, taking into account the above-mentioned submissions and synthesis report, to elaborate the composition of, and modalities and procedures for, the Adaptation Committee, for adoption by the Conference of the Parties at its seventeenth session;
- 24. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, in elaborating the above-mentioned modalities and procedures, to define, as appropriate, linkages with other relevant institutional arrangements under and outside the Convention, including at national and regional levels;
- 25. Recognizes the need to strengthen international cooperation and expertise to understand and reduce loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events³;
- 26. Decides to hereby establish a work programme in order to consider, including through workshops and expert meetings, as appropriate, approaches to address loss and damage associated with climate change impacts in developing countries that are particularly vulnerable to the adverse effects of climate change;
- 27. *Requests* the Subsidiary Body for Implementation to agree on activities to be undertaken under the above-mentioned work programme;
- 28. *Invites* Parties and relevant organizations to submit to the secretariat, by 21 February 2011, views and information on what elements should be included in the work programme, including the following:

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³ Including sea level rise, increasing temperatures, ocean acidification, glacial retreat and related impacts, salinization, land and forest degradation, loss of biodiversity and desertification.

- (a) Possible development of a climate risk insurance facility to address impacts associated with severe weather events;
- (b) Options for risk management and reduction; risk sharing and transfer mechanisms such as insurance, including options for micro-insurance; and resilience building, including through economic diversification;
- (c) Approaches for addressing rehabilitation measures associated with slow onset events;
 - (d) Engagement of stakeholders with relevant specialized expertise;
- 29. Requests the secretariat to compile these submissions into a miscellaneous document and to prepare a synthesis report based on those submissions to be made available for consideration by the Subsidiary Body for Implementation at its thirty-fourth session, and with a view to making recommendations on loss and damage to the Conference of the Parties for its consideration at its eighteenth session;
- 30. *Invites* Parties to strengthen and, where necessary, establish regional centres and networks, in particular in developing countries, with support from developed country Parties and relevant organizations, as appropriate; and to facilitate and enhance national and regional adaptation actions, in a manner that is country-driven, encourages cooperation and coordination between regional stakeholders and improves the flow of information between the Convention process and national and regional activities;
- 31. *Notes* that an international centre to enhance adaptation research and coordination could also be established in a developing country;
- 32. *Invites* all Parties to strengthen and, where necessary, establish and/or designate national-level institutional arrangements, with a view to enhancing work on the full range of adaptation actions from planning to implementation;
- 33. Decides that all Parties should use existing channels to provide information, as appropriate, on support provided and received for adaptation actions in developing countries; and on activities undertaken, including, inter alia, progress made, experiences, lessons learned, and challenges and gaps in the delivery of support with a view to ensuring transparency and accountability, and encouraging best practices;
- 34. *Invites* relevant multilateral, international, regional and national organizations, the public and private sectors, civil society and other relevant stakeholders to undertake and support enhanced action on adaptation at all levels, including under the Cancun Adaptation Framework, as appropriate, in a coherent and integrated manner, building on synergies among activities and processes, and to make available information on the progress made;
- 35. Requests the secretariat to support the implementation of the Cancun Adaptation Framework, including related institutional arrangements under the Convention, in accordance with its mandate and subject to the availability of resources;

III. Enhanced action on mitigation

A. Nationally appropriate mitigation commitments or actions by developed country Parties

Emphasizing the need for deep cuts in global greenhouse gas emissions and early and urgent undertakings to accelerate and enhance the implementation of the Convention by all Parties, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities,

Acknowledging that the largest share of historical global emissions of greenhouse gases originated in developed countries and that, owing to this historical responsibility, developed country Parties must take the lead in combating climate change and the adverse effects thereof,

- 36. *Takes note* of quantified economy-wide emission reduction targets to be implemented by Parties included in Annex I to the Convention as communicated by them and contained in document FCCC/SB/2010/INF.X⁴ (to be issued);
- 37. *Urges* developed country Parties to increase the ambition of their economy-wide emission reduction targets, with a view to reducing their aggregate anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol to a level consistent with that recommended by the Fourth Assessment Report of the Intergovernmental Panel on Climate Change;
- 38. Requests the secretariat to organize workshops to clarify the assumptions and the conditions related to the attainment of these targets, including the use of carbon credits from the market-based mechanisms and land use, land-use change and forestry activities, and options and ways to increase their level of ambition;
- 39. Requests the secretariat to prepare a technical paper based on Parties' submissions with the aim of facilitating understanding of the assumptions and conditions related to the attainment of their emission reduction targets and comparison of the level of emission reduction efforts;
- 40. *Decides*, building on existing reporting and review guidelines, processes and experiences, to enhance reporting in the national communications of Parties included in Annex I to the Convention on mitigation targets and on the provision of financial, technological and capacity-building support to developing country Parties as follows:
- (a) Developed countries should submit annual greenhouse gas inventories and inventory reports and biennial reports on their progress in achieving emission reductions, including information on mitigation actions to achieve their quantified economy-wide emissions targets and emission reductions achieved, projected emissions and on the provision of financial, technology and capacity-building support to developing country Parties;
- (b) Developed countries shall submit supplementary information on the achievement of quantified economy-wide emission reductions;
- (c) Developed countries shall improve the reporting of information on the provision of financial, technology and capacity-building support to developing country Parties;
- 41. Decides to enhance the guidelines for the reporting of information in national communications by Parties included in Annex I to the Convention, including the development of common reporting formats, methodologies for finance, and in order to ensure that information provided is complete, comparable, transparent and accurate;
- 42. *Decides* to enhance guidelines for the review of information in national communications with respect to the following:
 - (a) Progress made in achieving emission reductions;
- (b) Provision of financial, technology and capacity-building support to developing country Parties;

⁴ Parties' communications to the secretariat that are included in the INF document are considered communications under the Convention.

- 43. *Decides* that developed countries should establish national arrangements for the estimation of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol;
- 44. *Decides* to establish a process for international assessment of emissions and removals related to quantified economy-wide emissions reductions targets in the Subsidiary Body for Implementation, taking into account national circumstances, in a rigorous, robust and transparent manner, with a view to promoting comparability and building confidence;
- 45. *Decides* that developed countries should develop low-carbon development strategies or plans;
- 46. *Decides* on the following work programme for the development of modalities and guidelines described above, building on existing reporting and review guidelines, processes and experiences:
- (a) The revision of guidelines, as necessary, on the reporting of national communications, including the biennial report:
 - (i) The provision of financing, through enhanced common reporting formats, methodologies for finance and tracking of climate-related support;
 - (ii) Supplementary information on achievement of quantified economy-wide emission reductions targets;
 - (iii) Information on national inventory arrangements;
- (b) The revision of guidelines for the review of national communications, including the biennial report, annual greenhouse gas inventories and national inventory systems;
 - (c) The establishment of guidelines for national inventory arrangements;
- (d) Modalities and procedures for international assessment and review of emissions and removals related to quantified economy-wide emission reductions targets in accordance with paragraph 44, including the role of land use, land-use change and forestry, and carbon credits from market-based mechanisms, taking into account international experience;
- 47. *Invites* Parties to submit views on the items in paragraph 46, including with respect to the initial scheduling of the processes described in this section, by 28 March 2011;

B. Nationally appropriate mitigation actions by developing country Parties

Recognizing that developing country Parties are already contributing and will continue to contribute to a global mitigation effort in accordance with the principles and provisions of the Convention, and could enhance their mitigation actions, depending on the provision of finance, technology and capacity-building support provided by developed country Parties,

Reaffirming that social and economic development and poverty eradication are the first and overriding priorities of developing country Parties, and that the share of global emissions originating in developing countries will grow to meet their social and development needs,

48. Agrees that developing country Parties will take nationally appropriate mitigation actions in the context of sustainable development, supported and enabled by technology, financing and capacity-building, aimed at achieving a deviation in emissions relative to 'business as usual' emissions in 2020;

- 49. *Takes* note of nationally appropriate mitigation actions to be implemented by non-Annex I Parties as communicated and contained in document FCCC/AWGLCA/2010/INF.Y⁵ (to be issued);
- 50. *Invites* developing countries that wish to voluntarily inform the Conference of the Parties of their intention to implement nationally appropriate mitigation actions in association with this decision to submit information on those actions to the secretariat:
- 51. Requests the secretariat to organize workshops, to understand the diversity of mitigation actions submitted, underlying assumptions, and any support needed for implementation of these actions, noting different national circumstances and respective capabilities of developing country Parties;
- 52. Decides that, in accordance with Article 4, paragraph 3, of the Convention, developed country Parties shall provide enhanced financial, technological and capacity-building support for the preparation and implementation of nationally appropriate mitigation actions of developing country Parties and for enhanced reporting by these Parties;
- 53. Also decides to set up a registry to record nationally appropriate mitigation actions seeking international support and to facilitate matching of finance, technology and capacity-building support to these actions;
- 54. *Invites* developing country Parties to submit to the secretariat information on nationally appropriate mitigation actions for which they are seeking support, along with estimated costs and emission reductions, and the anticipated time frame for implementation;
- 55. Also invites developed country Parties to submit to the secretariat information on support available and provided for nationally appropriate mitigation action;
- 56. *Requests* the secretariat to record and regularly update in the registry the information provided by Parties on:
 - (a) Nationally appropriate mitigation actions seeking international support;
 - (b) Support available from developed country Parties for these actions;
 - (c) Support provided for nationally appropriate mitigation actions;
- 57. *Agrees* to develop modalities for the facilitation of support through the registry referred to in paragraph 53 above, including any functional relationship with the financial mechanism;
- 58. *Decides* to recognize nationally appropriate mitigation actions of developing countries in a separate section of the registry;
- 59. *Requests* the secretariat to record, and regularly update, information submitted by Parties, in a separate section of the registry:
- (a) Mitigation actions contained in document FCCC/AWGLCA/2010/INF.Y referred to in paragraph 49 above;
- (b) Additional mitigation actions submitted in association with paragraph 50 above;
- (c) Once support has been provided, internationally supported mitigation actions and associated support;

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⁵ Parties' communications to the secretariat that are included in the information document are considered communications under the Convention.

- 60. Decides to enhance reporting in national communications, including inventories, from Parties not included in Annex I to the Convention (non-Annex I Parties) on mitigation actions and their effects, and support received; with additional flexibility to be given to the least developed country Parties and small island developing states:
- (a) The content and frequency of national communications from non-Annex I Parties will not be more onerous than that for Parties included in Annex I to the Convention;
- (b) Non-Annex I Parties should submit their national communications to the Conference of the Parties, in accordance with Article 12, paragraph 1, of the Convention every four years or in accordance with any further decisions on frequency by the Conference of the Parties taking into account a differentiated timetable and the prompt provision of financial resources to cover the agreed full costs incurred by non-Annex I Parties in preparing their national communications;
- (c) Developing countries, consistent with their capabilities and the level of support provided for reporting, should also submit biennial update reports, containing updates of national greenhouse gas inventories including a national inventory report and information on mitigation actions, needs and support received;
- 61. Also decides that internationally supported mitigation actions will be measured, reported and verified domestically and will be subject to international measurement, reporting and verification in accordance with guidelines to be developed under the Convention;
- 62. Further decides that domestically supported mitigation actions will be measured, reported and verified domestically in accordance with general guidelines to be developed under the Convention;
- 63. Decides to conduct a process for international consultations and analysis of biennial reports in the Subsidiary Body on Implementation, in a manner that is non-intrusive, non-punitive and respectful of national sovereignty; he international consultations and analysis aim to increase transparency of mitigation actions and their effects, through analysis by technical experts in consultation with the Party concerned, and through a facilitative sharing of views, and will result in a summary report;
- 64. Also decides that information considered should include information on mitigation actions, the national greenhouse gas inventory report, including a description, analysis of the impacts and associated methodologies and assumptions, progress in implementation and information on domestic measurement, reporting and verification and support received; discussion about the appropriateness of such domestic policies and measures are not part of the process. Discussions should be intended to provide transparency on information related to unsupported actions;
- 65. *Encourages* developing countries to develop low-carbon development strategies or plans in the context of sustainable development;
- 66. Agrees on a work programme for the development of modalities and guidelines for: facilitation of support to nationally appropriate mitigation actions through a registry; measurement, reporting and verification of supported actions and corresponding support; biennial reports as part of national communications from non-Annex I Parties; domestic verification of mitigation actions undertaken with domestic resources; and international consultations and analysis;
- 67. *Invites* Parties to submit views on the items in paragraph 66, including with respect to the initial scheduling of the processes described in this section, by 28 March 2011.

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 countries

Affirming that, in the context of the provision of adequate and predictable support to developing country Parties, Parties should collectively aim to slow, halt and reverse forest cover and carbon loss, according to national circumstances, consistent with the ultimate objective of the Convention, as stated in Article 2,

Also affirming the need to promote broad country participation in all phases described in paragraph 73 below, including through the provision of support that takes into account existing capacities,

- 68. *Encourages* all Parties to find effective ways to reduce the human pressure on forests that results in greenhouse gas emissions, including actions to address drivers of deforestation;
- 69. *Affirms* that the implementation of the activities referred to in paragraph 70 below should be carried out in accordance with annex I to this decision, and that the safeguards referred to in paragraph 2 of annex I to this decision should be promoted and supported;
- 70. *Encourages* developing country Parties to contribute to mitigation actions in the forest sector by undertaking the following activities, as deemed appropriate by each Party and in accordance with their respective capabilities and national circumstances:
 - (a) Reducing emissions from deforestation;
 - (b) Reducing emissions from forest degradation;
 - (c) Conservation of forest carbon stocks;
 - (d) Sustainable management of forest;
 - (e) Enhancement of forest carbon stocks;
- 71. Requests developing country Parties aiming to undertake activities referred to in paragraph 70 above, in the context of the provision of adequate and predictable support, including financial resources and technical and technological support to developing country Parties, in accordance with national circumstances and respective capabilities, to develop the following elements:
 - (a) A national strategy or action plan;
- (b) A national forest reference emission level and/or forest reference level⁶ or, if appropriate, as an interim measure, subnational forest reference emission levels and/or forest reference levels, in accordance with national circumstances, and with provisions contained in decision 4/CP.15, and with any further elaboration of those provisions adopted by the Conference of the Parties;
- (c) A robust and transparent national forest monitoring system for the monitoring and reporting of the activities referred to in paragraph 70 above, with, if appropriate, subnational monitoring and reporting as an interim measure, 7 in accordance with national

⁶ In accordance with national circumstances, national forest reference emission levels and/or forest reference levels could be a combination of subnational forest reference emissions levels and/or forest reference levels

Including monitoring and reporting of emissions displacement at the national level, if appropriate, and reporting on how displacement of emissions is being addressed, and on the means to integrate subnational monitoring systems into a national monitoring system.

circumstances, and with the provisions contained in decision 4/CP.15, and with any further elaboration of those provisions agreed by the Conference of the Parties;

- (d) A system for providing information on how the safeguards referred to in annex I to this decision are being addressed and respected throughout the implementation of the activities referred to in paragraph 70, while respecting sovereignty;
- 72. Also requests developing country Parties, when developing and implementing their national strategies or action plans, to address, inter alia, drivers of deforestation and forest degradation, land tenure issues, forest governance issues, gender considerations and the safeguards identified in paragraph 2 of annex I to this decision, ensuring the full and effective participation of relevant stakeholders, inter alia, indigenous peoples and local communities;
- 73. Decides that the activities undertaken by Parties referred to in paragraph 70 above should be implemented in phases beginning with the development of national strategies or action plans, policies and measures, and capacity-building, followed by the implementation of national policies and measures and national strategies or action plans that could involve further capacity-building, technology development and transfer and results-based demonstration activities, and evolving into results-based actions that should be fully measured, reported and verified;
- 74. Recognizes that the implementation of the activities referred to in paragraph 70 above, including the choice of a starting phase as referred to in paragraph 73 above, depends on the specific national circumstances, capacities and capabilities of each developing country Party and the level of support received;
- 75. *Requests* the Subsidiary Body for Scientific and Technological Advice to develop a work programme on the matters referred to in annex II to this decision;
- 76. Urges Parties, in particular developed country Parties, to support, through multilateral and bilateral channels, the development of national strategies or action plans, policies and measures and capacity-building, followed by the implementation of national policies and measures, and national strategies or action plans, that could involve further capacity building, technology development and transfer and results-based demonstration activities including consideration of the safeguards referred to in paragraph 2 of annex I to this decision, taking into account the relevant provisions on finance including those relating to reporting on support;
- 77. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to explore financing options for the full implementation of the results-based actions⁸ referred to in paragraph 73 above, and to report on progress made, including any recommendations for draft decisions on this matter, to the Conference of the Parties at its seventeenth session:
- 78. *Also requests* Parties to ensure coordination of the activities referred to in paragraph 70 above, including of the related support, particularly at the national level;
- 79. *Invites* relevant international organizations and stakeholders to contribute to the activities referred to in paragraphs 70 and 78 above.

⁸ These actions require national monitoring systems.

D. Various approaches, including opportunities for using markets, to enhance the cost-effectiveness of, and to promote, mitigation actions, bearing in mind different circumstances of developed and developing countries

Acknowledging the need to maintain consistency with the principles of the Convention,

Emphasizing the importance of contributing to sustainable development, including through technology transfer and other co-benefits,

Recognizing the importance of enhancing sustainable lifestyles and patterns of production and consumption,

Aware of the need to provide incentives in support of low-emission development strategies,

- 80. *Decides* to consider the establishment, at its seventeenth session, of one or more market-based mechanisms to enhance the cost-effectiveness of, and to promote, mitigation actions, taking into account the following:
- (a) Ensuring voluntary participation of Parties, supported by the promotion of fair and equitable access for all Parties;
- (b) Complementing other means of support for nationally appropriate mitigation actions by developing country Parties;
 - (c) Stimulating mitigation across broad segments of the economy;
 - (d) Safeguarding environmental integrity;
- (e) Ensuring a net decrease and/or avoidance of global greenhouse gas emissions;
- (f) Assisting developed country Parties to meet part of their mitigation targets, while ensuring that the use of such mechanism or mechanisms is supplemental to domestic mitigation efforts;
 - (g) Ensuring good governance and robust market functioning and regulation;
- 81. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to elaborate the mechanism or mechanisms referred to in paragraph 49 above, with a view to recommending a draft decision or decisions to the Conference of the Parties for consideration at its seventeenth session;
- 82. *Invites* Parties and accredited observer organizations to submit to the secretariat, by 21 February 2011, their views on matters referred to in paragraph 81 above;
- 83. *Undertakes*, in developing and implementing the mechanism or mechanisms referred to in paragraph 80 above, to maintain and build upon existing mechanisms, including those established under the Kyoto Protocol;
- 84. *Decides* to consider the establishment, at its seventeenth session, of one or more non-market-based mechanisms to enhance the cost-effectiveness of, and to promote, mitigation actions;
- 85. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to elaborate the mechanism or mechanisms referred to in paragraph 84 above, with a view to recommending a draft decision or decisions to the Conference of the Parties for consideration at its seventeenth session;

- 86. *Invites* Parties and accredited observer organizations to submit to the secretariat, by 21 February 2011, their views on matters referred to in paragraph 85 above;
- 87. Also invites Parties and accredited observer organizations to submit to the secretariat, by 21 February 2011, information on the evaluation of various approaches in enhancing the cost-effectiveness of, and promoting, mitigation actions, including activities implemented jointly under Article 4, paragraph 2 (a), of the Convention and any other relevant activities, for synthesis by the secretariat.

E. Economic and social consequences of response measures

Reaffirming the importance of the objective of the Convention, and the relevant principles and provisions of the Convention related to economic and social consequences of response measures, in particular its Articles 2, 3 and 4,

Recognizing that the implementation of response measures to mitigate climate change taken by a Party may result in negative economic and social consequences for other Parties, and the need to take into consideration in the implementation of the commitments of the Convention the situation of Parties, particularly developing country Parties, with economies that are vulnerable to the adverse impact of the implementation of measures to respond to climate change, referred to in Article 4, paragraphs 8, 9 and 10, of the Convention,

Affirming that responses to climate change should be coordinated with social and economic development in an integrated manner, with a view to avoiding adverse impacts on the latter, taking fully into account the legitimate priority needs of developing country Parties for the achievement of sustained economic growth and the eradication of poverty, and the consequences for vulnerable groups, in particular women and children,

Recognizing the importance of avoiding or minimizing negative impacts of response measures on social and economic sectors, promoting a just transition of the workforce, the creation of decent work and quality jobs in accordance with nationally defined development priorities and strategies and contributing to building new capacity for both production and service-related jobs in all sectors, promoting economic growth and sustainable development,

Taking note of relevant provisions of the United Nations Declaration on the Rights of Indigenous Peoples,

- 88. *Urges* Parties, in the implementation of measures to mitigate climate change, to take into consideration the economic and social impacts of response measures and the needs of Parties, in particular developing country Parties, impacted by response measures, consistent with relevant provisions of the Convention;
- 89. Also urges developed country Parties to strive to implement policies and measures to respond to climate change in such a way as to avoid negative social and economic consequences for developing country Parties, taking into account Article 3 of the Convention, and to assist these Parties in addressing such consequences by providing support, including financial resources, transfer of technology and capacity-building, in accordance with Article 4 of the Convention, to build up the resilience of societies and economies negatively affected by response measures;
- 90. Reaffirms that the Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change; measures taken to combat climate change,

including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade;

- 91. Agrees that information relating to response measures should be considered in a structured manner in order to enhance the implementation of Article 4, paragraph 1(g) and (h), of the Convention, recognizing the needs of developing country Parties identified in Article 4, paragraphs 8, 9 and 10;
- 92. Decides that Parties should cooperate fully to enhance understanding of economic and social consequences of response measures, taking into account the need for information from those affected, and evidence of actual impacts, and of both positive and negative effects; and *further decides* to consider how existing channels, such as national communications, including the possible submission of supplementary information, as considered by the Subsidiary Body for Implementation, could be improved and be built upon;
- 93. Decides to provide a forum on the impact of the implementation of response measures, and to that end requests the Chairs of the SBSTA and the SBI to convene such a forum at the thirty-fourth and thirty-fifth sessions of these bodies, with the objective of developing a work programme under the subsidiary bodies to address these impacts, with a view to adopting, at the seventeenth session of the Conference of the Parties, modalities for the operationalization of the work programme and a possible forum on response measures;
- 94. *Invites* Parties and relevant intergovernmental organizations to submit to the secretariat, by 28 March 2011, their views on the issues referred to in paragraph 93 above for consideration by the SBI and the SBSTA at the thirty-fourth sessions of the subsidiary bodies:

IV. Finance, technology and capacity-building

A. Finance

Fast-start finance

- 95. Takes note of the collective commitment by developed countries to provide new and additional resources, including forestry and investments through international institutions, approaching USD 30 billion for the period 2010–2012, with a balanced allocation between adaptation and mitigation; funding for adaptation will be prioritized for the most vulnerable developing countries, such as the least developed countries, small island developing States and Africa;
- 96. *Invites*, in order to enhance transparency, developed country Parties to submit to the secretariat for compilation into an information document, by May 2011, 2012 and 2013, information on the resources provided to fulfil the commitment referred to in paragraph 95 above, including ways in which developing country Parties access these resources;

Long-term finance

- 97. Decides that, in accordance with the relevant provisions of the Convention, scaledup, new and additional, predictable and adequate funding shall be provided to developing country Parties, taking into account the urgent and immediate needs of developing countries that are particularly vulnerable to the adverse effects of climate change;
- 98. *Recognizes* that developed country Parties commit, in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries;

- 99. Agrees that, in accordance with paragraph 1(e) of the Bali Action Plan, funds provided to developing country Parties may come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources;
- 100. *Decides* that a significant share of new multilateral funding for adaptation should flow through the Green Climate Fund;
- 101. Takes note of the relevant reports on the financing needs and options for mobilization of resources to address the needs of developing country Parties with regard to climate change adaptation and mitigation, including the report of the High-level Advisory Group on Climate Change Financing;

Green Climate Fund

- 102. Decides to establish a Green Climate Fund, to be designated as an operating entity of the financial mechanism of the Convention under Article 11, with arrangements to be concluded between the Conference of the Parties and the Green Climate Fund to ensure that it is accountable to and functions under the guidance of the Conference of the Parties, to support projects, programmes, policies and other activities in developing country Parties using thematic funding windows;
- 103. Also decides that the Fund shall be governed by a board of 24 members comprising an equal number of members from developing and developed country Parties; representation from developing country Parties shall include representatives from relevant United Nations regional groupings and representatives from small island developing States and the least developed countries; each board member shall have an alternate member; alternate members are entitled to participate in the meetings of the board only through the principal member, without the right to vote, unless they are serving as the member; during the absence of the member from all or part of the meeting of the board, his or her alternate shall serve as the member;
- 104. Further decides that the Green Climate Fund shall have a trustee; the trustee for the Green Climate Fund shall have the administrative competence to manage the financial assets of the Green Climate Fund, maintain appropriate financial records and prepare financial statements and other reports required by the Board of the Green Climate Fund, in accordance with internationally accepted fiduciary standards;
- 105. The trustee shall administer the assets of the Green Climate Fund only for the purpose of, and in accordance with, the relevant decisions of the Green Climate Fund Board. The trustee shall hold the assets of the Green Climate Fund separate and apart from the assets of the trustee, but may commingle them for administrative and investment purposes with other assets maintained by the trustee. The trustee shall establish and maintain separate records and accounts to identify the assets of the Green Climate Fund;
- 106. *Decides* that the trustee shall be accountable to the Green Climate Fund Board for the performance of its fiduciary responsibilities;
- 107. *Invites* the World Bank to serve as the interim trustee of the Green Climate Fund, subject to a review three years after operationalization of the fund;
- 108. *Decides* that the operation of the fund shall be supported by an independent secretariat;
- 109. *Decides* that the Green Climate Fund shall be designed by a Transitional Committee, in accordance with the terms of reference in annex III to this decision; the Transitional Committee shall have 40 members, with 15 members from developed country Parties and 25 members from developing country Parties, with:
 - (a) Seven members from Africa;

- (b) Seven members from Asia;
- (c) Seven members from Group of Latin American and Caribbean States;
- (d) Two members from small island developing States;
- (e) Two members from least developed countries;
- 110. *Invites* the Executive Secretary of the secretariat, in consultation with the President of the Conference of the Parties, to convene the initial meeting of the Transitional Committee, with members having the necessary experience and skills, notably in the area of finance and climate change; the transitional committee meetings will be open to observers;
- 111. Requests the secretariat, in consultation with President of the Conference of the Parties, to make arrangements enabling relevant United Nations agencies, international financial institutions, and multilateral development banks, along with the secretariat and the Global Environment Facility, to second staff to support the work of the Transitional Committee for the design phase of the Green Climate Fund;

Standing Committee

112. Decides to establish a Standing Committee under the Conference of the Parties to assist the Conference of the Parties in exercising its functions with respect to the financial mechanism of the Convention in terms of improving coherence and coordination in the delivery of climate change financing, rationalization of the financial mechanism, mobilization of financial resources and measurement, reporting and verification of support provided to developing country Parties; Parties agree to further define the roles and functions of this Standing Committee.

B. Technology development and transfer

Recalling the commitments under the Convention, in particular Article 4, paragraphs 1, 3, 5, 7, 8 and 9,

Confirming the importance of promoting and enhancing national and international cooperative action on the development and transfer of environmentally sound technologies to developing country Parties to support action on mitigation and adaptation now, up to and beyond 2012, in order to achieve the ultimate objective of the Convention,

Recognizing that an early and rapid reduction in emissions and the urgent need to adapt to the adverse impacts of climate change require large-scale diffusion and transfer of, or access to, environmentally sound technologies,

Stressing the need for effective mechanisms, enhanced means, appropriate enabling environments and the removal of obstacles to the scaling up of the development and transfer of technology to developing country Parties,

- 113. *Decides* that the objective of enhanced action on technology development and transfer is to support action on mitigation and adaptation in order to achieve the full implementation of the Convention,
- 114. *Also decides* that, in pursuit of this objective, technology needs must be nationally determined, based on national circumstances and priorities,
- 115. Further decides to accelerate action consistent with international obligations, at different stages of the technology cycle, including research and development, demonstration, deployment, diffusion and transfer of technology (hereinafter referred to as technology development and transfer) in support of action on mitigation and adaptation;

- 116. Encourages Parties, in the context of Article 4, paragraphs 1(c) and 5, of the Convention and consistent with their respective capabilities and national circumstances and priorities, to undertake domestic actions identified through country-driven approaches, to engage in bilateral and multilateral cooperative activities on technology development and transfer and to increase private and public research, development and demonstration in relation to technology for mitigation and adaptation;
- 117. Decides to establish a Technology Mechanism to facilitate the implementation of actions for achieving the objective referred to in paragraphs 113–115 above, under the guidance of and accountable to the Conference of the Parties, which will consist of the following components:
- (a) A Technology Executive Committee to undertake the functions contained in paragraph 121 below;
- (b) A Climate Technology Centre and Network to undertake the functions contained in paragraph 123 below;
- 118. Also decides that the Technology Executive Committee and the Climate Technology Centre and Network, consistent with their respective functions, should facilitate the effective implementation of the Technology Mechanism, under the guidance of the Conference of the Parties;
- 119. Further decides that the Technology Executive Committee shall further implement the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention (technology transfer framework) adopted by decision 4/CP.7 and enhanced by decision 3/CP.13;
- 120. *Decides* that priority areas that could be considered under the Convention may include, inter alia:
- (a) Development and enhancement of endogenous capacities and technologies of developing country Parties, including cooperative research, development and demonstration programmes;
- (b) Deployment and diffusion of environmentally sound technologies and know-how in developing country Parties;
- (c) Increased public and private investment in technology development, deployment, diffusion and transfer;
- (d) Deployment of soft and hard technologies for the implementation of adaptation and mitigation actions;
- (e) Improved climate change observation systems and related information management;
- (f) Strengthening of national systems of innovation and technology innovation centres;
- (g) Development and implementation of national technology plans for mitigation and adaptation;
- 121. Also decides that the functions of the Technology Executive Committee shall be to:
- (a) Provide an overview of technological needs and analysis of policy and technical issues related to the development and transfer of technology for mitigation and adaptation;
- (b) Consider and recommend actions to promote technology development and transfer in order to accelerate action on mitigation and adaptation;

- (c) Recommend guidance on policies and programme priorities related to technology development and transfer with special consideration given to the least developed country Parties;
- (d) Promote and facilitate collaboration on the development and transfer of technology for mitigation and adaptation between governments, the private sector, non-profit organizations and academic and research communities;
- (e) Recommend actions to address the barriers to technology development and transfer in order to enable enhanced action on mitigation and adaptation;
- (f) Seek cooperation with relevant international technology initiatives, stakeholders and organizations, promote coherence and cooperation across technology activities, including activities under and outside of the Convention;
- (g) Catalyse the development and use of technology road maps or action plans at international, regional and national levels through cooperation between relevant stakeholders, particularly governments and relevant organizations or bodies, including the development of best practice guidelines as facilitative tools for action on mitigation and adaptation;
- 122. *Further decides* that the Technology Executive Committee shall have the mandate and composition as contained in annex IV;
- 123. *Decides* that the Climate Technology Centre shall facilitate a Network of national, regional, sectoral and international technology networks, organizations and initiatives with a view to engaging the participants of the Network effectively in the following functions:
 - (a) At the request of a developing country Party:
 - (i) Provide advice and support related to the identification of technology needs and the implementation of environmentally sound technologies, practices and processes;
 - (ii) Facilitate the provision of information, training and support for programmes to build or strengthen developing country capacity to identify technology options, make technology choices and operate, maintain and adapt technology;
 - (iii) Facilitate prompt action on the deployment of existing technology in developing country Parties based on identified needs;
- (b) Stimulate and encourage, through collaboration with the private sector, public institutions, academia and research institutions, the development and transfer of existing and emerging environmentally sound technologies, as well as opportunities for North–South, South–South and triangular technology cooperation;
- (c) Facilitate a Network of national, regional, sectoral and international technology centres, networks, organization and initiatives with a view to:
 - (i) Enhancing cooperation with national, regional and international technology centres and relevant national institutions;
 - (ii) Facilitating international partnerships among public and private stakeholders to accelerate the innovation and diffusion of environmentally sound technologies to developing country Parties;
 - (iii) Providing, on request by a developing country Party, in-country technical assistance and training to support identified technology actions in developing country Parties;

- (iv) Stimulating the establishment of twinning centre arrangements to promote North–South, South–South and triangular partnerships with a view to encouraging cooperative research and development;
- (v) Identify, disseminate and assist with developing analytical tools, policies and best practices for country-driven planning to support the dissemination of environmentally sound technologies;
- (d) Performing other such activities as may be necessary to carry out its functions;
- 124. *Also decides* to terminate the mandate of the Expert Group on Technology Transfer at the conclusion of the sixteenth session of the Conference of the Parties;
- 125. Further decides that the Technology Executive Committee shall convene its first meeting as soon as practicable following the election of its members and elaborate its modalities and procedures taking into account the need to achieve coherence and maintain interactions with other relevant institutional arrangements under and outside of the Convention, for consideration by the Conference of the Parties at its seventeenth session;
- 126. Decides that the Technology Executive Committee and the Climate Technology Centre and Network shall report, on an interim basis⁹ and without prejudice to the relationship between the Technology Executive Committee and the Climate Technology Centre and Network as referred to in paragraph 128 (a), below to the Conference of the Parties, through the subsidiary bodies, on their respective activities and the performance of their respective functions;
- 127. Also decides that the Climate Technology Centre and Network and the Technology Executive Committee shall relate so as to promote coherence and synergy;

Work programme for the Ad Hoc Working Group on Long-term Cooperative Action under the Convention in 2011 on technology development and transfer

- 128. *Underlines* the importance of continued dialogue among Parties in 2011 through the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, including on the following matters, with a view to the Conference of the Parties taking a decision at its seventeenth session, in order to make the Technology Mechanism fully operational in 2012:
- (a) The relationship between the Technology Executive Committee and the Climate Technology Centre and Network, and their reporting lines;
- (b) The governance structure and terms of reference for the Climate Technology Centre and Network and how the Climate Technology Centre will relate to the Network, drawing upon the results of the workshop referred to in paragraph 129 below;
- (c) The procedure for calls for proposals and the criteria to be used to evaluate and select the host of the Climate Technology Centre and Network;
- (d) The potential links between the Technology Mechanism and the financial mechanism;
- (e) Consideration of additional functions for the Technology Executive Committee and the Climate Technology Centre and Network;
- 129. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to convene an expert workshop, in conjunction with one of its sessions in 2011, on the matters contained in paragraph 128 above, drawing upon the preliminary work

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⁹ Until there is a decision on the issues contained in paragraph 128 (a) below.

undertaken by the Expert Group on Technology Transfer, and to report on the results of this workshop at that session;

C. Capacity-building

Reaffirming that capacity-building is essential to enable developing country Parties to participate fully in addressing the climate change challenges, and to implement effectively their commitments under the Convention,

Recalling the provisions related to capacity-building for developing country Parties contained in relevant decisions adopted by the Conference of the Parties, especially decision 2/CP.7,

Taking into account that the scope of capacity-building and related needs as contained in the annex to decision 2/CP.7 and the key factors identified in decision 2/CP.10 remain valid.

Acknowledging that capacity-building is cross-cutting in nature and an integral part of enhanced action on mitigation, adaptation, technology development and transfer, and access to financial resources,

Also acknowledging that, in addition, there may be specific capacity-building activities that require support to enable developing countries to undertake the enhanced implementation of the Convention,

Reaffirming that capacity-building should be a continuous, progressive and iterative process that is participatory, country-driven and consistent with national priorities and circumstances.

- 130. Decides that capacity-building support to developing country Parties should be enhanced with a view to strengthening endogenous capacities at the subnational, national or regional levels, as appropriate, taking into account gender aspects, to contribute to the achievement of the full, effective and sustained implementation of the Convention, through, inter alia:
- (a) Strengthening relevant institutions at various levels, including focal points and national coordinating bodies and organizations;
- (b) Strengthening networks for the generation, sharing and management of information and knowledge, including through North-South, South-South and triangular cooperation;
- (c) Strengthening climate change communication, education, training and public awareness at all levels;
- (d) Strengthening integrated approaches and the participation of various stakeholders in relevant social, economic and environmental policies and actions;
- (e) Supporting existing and emerging capacity-building needs identified in the areas of mitigation, adaptation, technology development and transfer, and access to financial resources;
- 131. Also decides that financial resources for enhanced action on capacity-building in developing country Parties should be provided by Parties included in Annex II to the Convention and other Parties in a position to do so through the current and any future operating entities of the financial mechanism, as well as through various bilateral, regional and other multilateral channels, as appropriate;

- 132. *Encourages* developed country Parties to continue to report through their national communications, in accordance with the "Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications", on the support they have provided for capacity-building in developing country Parties;
- 133. *Invites* developed country Parties in a position to do so to provide information, through annual submissions to the secretariat and other appropriate channels, on the support they have provided for capacity-building in developing country Parties;
- 134. *Encourages* developing country Parties to continue to report through their national communications, in accordance with the "Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention", on progress made in enhancing capacity to address climate change, including on the use of the support received;
- 135. *Invites* developing country Parties in a position to do so to provide information, through annual submissions to the secretariat and other appropriate channels, on progress made in enhancing capacity to address climate change, including on the use of the support received;
- 136. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to consider ways to further enhance the monitoring and review of the effectiveness of capacity-building, for consideration by the Conference of the Parties at its seventeenth session;
- 137. Also requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to further elaborate the modalities regarding institutional arrangements for capacity-building, for consideration by the Conference of the Parties at its seventeenth session;

V. Review

- 138. *Decides* to periodically review the adequacy of the long-term global goal referred to in paragraph 4 above, in the light of the ultimate objective of the Convention, and overall progress towards achieving it, in accordance with the relevant principles and provisions of the Convention;
- 139. Also decides that:
- (a) This review should be guided by the principles of equity, common but differentiated responsibilities and respective capabilities and take into account, inter alia:
 - The best available scientific knowledge, including the assessment reports of the Intergovernmental Panel on Climate Change;
 - Observed impacts of climate change;
 - An assessment of the overall aggregated effect of the steps taken by Parties in order to achieve the ultimate objective of the Convention;
 - Consideration of strengthening the long-term global goal, referencing various matters presented by the science, including in relation to temperature rises of 1.5°;
 - (b) The first review should start in 2013 and should be concluded by 2015;
- (c) The Conference of the Parties shall take appropriate action based on the review;

140. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to further define the scope of this review and develop its modalities, including the required inputs, with a view to their adoption by the Conference of the Parties at its seventeenth session.

VI. Other matters

Parties included in Annex I to the Convention undergoing the process of transition to a market economy

Recalling Article 4, paragraph 6, of the Convention and relevant decisions of the Conference of the Parties, especially decisions 3/CP.7 and 3/CP.13 relating to Parties included in Annex I to the Convention undergoing the process of transition to a market economy,

Noting that Parties included in Annex I to the Convention undergoing the process of transition to a market economy are not included in Annex II to the Convention and as such are not subject to the provisions of Articles 4, paragraphs 3 and 4, of the Convention,

Recalling that Article 4, paragraph 6, of the Convention provides that a certain degree of flexibility shall be allowed by the Conference of the Parties to Parties included in Annex I to the Convention undergoing the process of transition to a market economy,

Taking note of the submissions from Parties contained in document FCCC/AWGLCA/2010/MISC.6/Add.2,

141. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to continue consideration of these issues with a view to promoting access of the Parties included in Annex I to the Convention undergoing the process of transition to a market economy to technology, capacity-building and finance in order to enhance their ability to develop low-emission economies

Parties included in Annex I to the Convention whose special circumstances are recognized by the Conference of the Parties

Recalling decision 26/CP.7 that amended the list in Annex II to the Convention by deleting the name of Turkey,

Recalling decision 26/CP.7 that invited Parties to recognize the special circumstances of Turkey, which place Turkey in a situation different from that of other Parties included in Annex I to the Convention,

Recognizing that Turkey is in a situation different from that of other Parties included in Annex I to the Convention,

Noting that Turkey is not included in Annex II to the Convention and as such is not subject to the commitments of Articles 4, paragraphs 3, 4 and 5, of the Convention and that Turkey is eligible for support under Article 4, paragraph 5, of the Convention,

Taking note of the submission from Turkey contained in document FCCC/AWGLCA/2010/MISC.8,

142. Requests the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to continue consideration of these issues with a view to promoting access by Turkey to finance, technology and capacity-building in order to enhance its ability to better implement the Convention;

VII. Extension of the Ad Hoc Working Group on Long-term Cooperative Action

- 143. *Decides* to extend the Ad Hoc Working Group on Long-term Cooperative Action under the Convention for one year, to continue its work with a view to carry out the undertakings contained in this decision and present the results to the Conference of the Parties for consideration at its seventeenth session;
- 144. *Requests* the Ad Hoc Working Group on Long-term Cooperative Action under the Convention to continue its work drawing on the documents under its consideration;
- 145. Requests the Ad Hoc Working Group on Long-term Cooperative Action to continue discussing legal options with the aim to complete an agreed outcome based on decision 1/CP.13 (Bali Action Plan), the work done at the sixteenth session of the Conference of the Parties and proposals made by Parties under article 17 of the Convention;
- 146. *Requests* the secretariat to make the necessary arrangements in accordance with any guidance from the Bureau of the Conference of the Parties;
- 147. *Mandates* the host country of the next session of the Conference of the Parties to undertake inclusive and transparent consultations in order to facilitate the work towards the success of that session.

Annex I

Guidance and safeguards for 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. Activities referred to in paragraph 70 of this decision should:
- (a) Contribute to the achievement of the objective set out in Article 2 of the Convention;
- (b) Contribute to the fulfilment of the commitments set out in Article 4, paragraph 3, of the Convention;
 - (c) Be country-driven and be considered options available to Parties;
- (d) Be consistent with the objective of environmental integrity and take into account the multiple functions of forests and other ecosystems;
- (e) Be undertaken in accordance with national development priorities, objectives and circumstances and capabilities and should respect sovereignty;
 - (f) Be consistent with Parties' national sustainable development needs and goals;
- (g) Be implemented in the context of sustainable development and reducing poverty, while responding to climate change;
 - (h) Be consistent with the adaptation needs of the country;
- (i) Be supported by adequate and predictable financial and technology support, including support for capacity-building;
 - (j) Be results-based;
 - (k) Promote sustainable management of forests;
- 2. When undertaking activities referred to in paragraph 70 of this decision, the following safeguards should be promoted and supported:
- (a) Actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements;
- (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
- (d) The full and effective participation of relevant stakeholders, in particular, indigenous peoples and local communities, in actions referred to in paragraphs 70 and 72 of this decision;
- (e) Actions are consistent with the conservation of natural forests and biological diversity, ensuring that actions referred to in paragraph 70 of this decision are not used for the conversion of natural forests, but are instead used to incentivize the protection and

conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits; 1

- (f) Actions to address the risks of reversals;
- (g) Actions to reduce displacement of emissions.

Taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the United Nations Declaration on the Rights of Indigenous Peoples, as well as the International Mother Earth Day.

Annex II

Subsidiary Body for Scientific and Technological Advice work programme on 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

In the development of its work programme, the SBSTA is requested to:

- (a) Identify land use, land-use change and forestry activities in developing countries, in particular those that are linked to the drivers of deforestation and forest degradation, to identify the associated methodological issues to estimate emissions and removals resulting from these activities, and to assess their potential contribution to the mitigation of climate change, and report on the findings to the Conference of the Parties at its eighteenth session on the outcomes of the work referred to in this paragraph;
- (b) Develop modalities relating to paragraphs 71 (b) and (c), and guidance relating to paragraph 71 (d) of this decision, for consideration by the Conference of the Parties at its seventeenth session;
- (c) Develop as necessary, modalities for measuring, reporting and verifying anthropogenic forest-related emissions by sources and removals by sinks, forest carbon stocks, forest carbon stock and forest area changes resulting from the implementation of activities referred to in paragraph 70 of this decision, consistent with any guidance for measuring, reporting and verification of nationally appropriate mitigation actions by developing country Parties agreed by the Conference of the Parties, taking into account methodological guidance in accordance with decision 4/CP.15, for consideration by the Conference of the Parties at its seventeenth session;

Annex III

Terms of reference for the design of the Green Climate Fund

- 1. The Transitional Committee shall recommend to the Conference of the Parties for its approval at its seventeenth session and shall develop operational documents that address, inter alia:
- (a) The legal and institutional arrangements for the establishment and operationalization of the Green Climate Fund;
- (b) The rules of procedure of the Board and other governance issues related to the Board;
- (c) Methods to manage large scale of financial resources from a number of sources and deliver through a variety of financial instruments, funding windows and access modalities, including direct access, with the objective of achieving balanced allocation between adaptation and mitigation;
 - (d) The financial instruments that the Fund can use to achieve its priorities;
- (e) Methods to enhance complementarity between the Fund's activities and those of other bilateral, regional and multilateral funding mechanisms and institutions;
- (f) The role of the secretariat and the procedure for selecting and/or establishing the secretariat;
- (g) A mechanism to ensure periodic independent evaluation of the Fund's performance;
- (h) Mechanisms to ensure financial accountability and to evaluate the performance of activities supported by the fund. to ensure the application of environmental and social safeguards, as well as internationally accepted fiduciary standards and sound financial management to the fund activities;
- (i) Mechanisms to ensure appropriate expert and technical advice, including from relevant thematic bodies established under the Convention;
 - (j) Mechanisms to ensure stakeholder input and participation;
- 2. In the conduct of its work, the Transitional Committee shall:
 - (a) Convene its first meeting by March 2011;
- (b) Encourage input from all Parties and from relevant international organizations and observers;
 - (c) Take into account the findings of relevant reports;

Annex IV

Composition and mandate of the Technology Executive Committee

- 1. The Technology Executive Committee shall comprise 20 expert members, elected by the Conference of the Parties, serving in their personal capacity and nominated by Parties with the aim of achieving fair and balanced representation, as follows:
 - (a) Nine members from Parties included in Annex I to the Convention;
- (b) Three members from each of the three regions of the Parties not included in Annex one to the Convention (non-annex I Parties) namely Africa, Asia and the Pacific, and Latin America and the Caribbean, one member from a small island developing State and one member from a least developed country Party;
- 2. The decisions will be taken according to the rule of consensus;
- 3. Parties are encouraged to nominate senior experts with a view to achieving, within the membership of the Technology Executive Committee, an appropriate balance of technical, legal, policy, social development and financial expertise relevant to the development and transfer of technology for adaptation and mitigation, taking into account the need to achieve gender balance in accordance with decision 36/CP.7;
- 4. Members shall serve for a term of two years and shall be eligible to serve a maximum of two consecutive terms of office and that the following rules shall apply:
- (a) Half of the members shall be elected initially for a term of three years and half of the members shall be elected for a term of two years;
- (b) Thereafter, the Conference of the Parties shall elect every year a member for a term of two years;
 - (c) The members shall remain in office until their successors are elected;
- 5. The Technology Executive Committee shall annually elect a chair and a vice-chair from among its members for a term of one year each, with one being a member from an Annex I Party and the other being a member from a non-Annex I Party; that the positions of chair and vice-chair shall alternate annually between a member from an Annex I Party and a member from a non-Annex I Party;
- 6. If the chair is temporarily unable to fulfil the obligations of the office, the vice-chair shall serve as chair. In the absence of the chair and the vice-chair at a particular meeting, any other member designated by the Technology Executive Committee shall temporarily serve as the chair of that meeting;
- 7. If the chair or vice-chair is unable to complete the term of office, the Technology Executive Committee shall elect a replacement to complete the term of office, taking into account paragraph 5 above;
- 8. If a member of the Technology Executive Committee resigns or is otherwise unable to complete the assigned term of office or to perform the functions of that office, the Technology Executive Committee may decide, bearing in mind the proximity of the next session of the Conference of the Parties, to appoint another member from the same constituency to replace the said member for the remainder of that member's mandate, in which case the appointment shall count as one term;
- 9. The Technology Executive Committee, in performing its functions, should draw upon outside expertise, including the UNFCCC roster of experts and the Climate

Technology Centre and Network, to provide advice, including as expert advisors at its meetings;

- 10. The Technology Executive Committee should seek input from intergovernmental and international organizations and the private sector and may seek input from civil society in undertaking its work. It may invite advisors drawn from relevant intergovernmental and international organizations as well as the private sector and civil society to participate in its meetings as expert advisors on specific issues as they arise;
- 11. The meetings of the Technology Executive Committee shall be open to attendance by accredited observer organizations, except where otherwise decided by the Technology Executive Committee;
- 12. The secretariat shall support and facilitate the work of the Technology Executive Committee.

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Draft decision [-/CMP.6]

Outcome of the work of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol at its fifteenth session

The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol.

Recalling Article 3, paragraph 9, of the Kyoto Protocol,

Also recalling Article 20, paragraph 2, and Article 21, paragraph 7, of the Kyoto Protocol,

Further recalling decisions 1/CMP.1 and 1/CMP.5,

Recognizing that Parties included in Annex I (Annex I Parties) should continue to take the lead in combating climate change,

Also recognizing that the contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Climate Change 2007: Mitigation of Climate Change, indicates that achieving the lowest levels assessed by the Intergovernmental Panel on Climate Change to date and its corresponding potential damage limitation would require Annex I Parties as a group to reduce emissions in a range of 25–40 per cent below 1990 levels by 2020, through means that may be available to these Parties to reach their emission reduction targets,

Noting the reports of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol from its sessions to date and the oral report by the Chair to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol at its sixth session,

Welcoming the progress achieved by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on its work pursuant to decisions 1/CMP.1 and 1/CMP.5,

Cognizant of decision 1/CP.16 (progress of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention),

- 1. Agrees that the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol shall aim to complete its work pursuant to decision 1/CMP.1 and have its results adopted by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol as early as possible and in time to ensure that there is no gap between the first and second commitment periods;
- 2. Requests the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol to continue its work referred in paragraph 1 above on the proposals contained in document FCCC/KP/AWG/2010/CRP.4/Rev.4;

- 3. *Takes note* of quantified economy-wide emission reduction targets to be implemented by Annex I Parties as communicated by them and contained in document FCCC/SB/2010/INF.X;*
- 4. *Urges* Annex I Parties to raise the level of ambition of the emission reductions to be achieved by them individually or jointly, with a view to reducing their aggregate level of emissions of greenhouse gases in accordance with the range indicated by Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Climate Change 2007: *Mitigation of Climate Change*AR4, and taking into account the quantitative implications of the use of land use, land-use change and forestry activities, emissions trading and the project-based mechanisms and the carry-over of units from the first to the second commitment period;
- 5. Agrees that further work is needed to convert emission reduction targets to quantified economy-wide limitation or reduction commitments;

6. Also agrees that:

- (a) In the second commitment period the base year shall be 1990, or the base year or period determined in accordance with Article 3, paragraph 5, of the Kyoto Protocol, for the purpose of calculating assigned amounts; in addition, a reference year may be used by a Party on an optional basis for its own purposes to express its quantified emission limitations and reduction objectives as a percentage of emissions of that year, that is not internationally binding under the Kyoto Protocol, in addition to the listing of its quantified emission limitations and reduction objectives in relation to the base year;
- (b) Emissions trading and the project-based mechanisms under the Kyoto Protocol shall continue to be available to Annex I Parties as means to meet their quantified emission limitation and reduction objectives in accordance with relevant decisions of the CMP as may be further improved through decisions to be adopted based on the draft text contained in Chapter III of document FCCC/KP/AWG/2010/CRP.4/Rev.4;
- (c) Measures to reduce greenhouse gas emissions and to enhance removals resulting from anthropogenic land use, land-use change and forestry activities shall continue to be available to Annex I Parties as means to reach their quantified emission limitation and reduction objectives, in accordance with draft decision x/CMP.6;
- (d) 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 A for the second commitment period shall be those provided by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol together with other methodological issues based on the draft text contained in chapter IV of document FCCC/KP/AWG/2010/CRP.4/Rev.4;
- (e) Further work on the consideration of information on potential environmental, economic and social consequences, including spillover effects, of tools, policies, measures and methodologies available to Annex I Parties shall continue on the basis of proposals contained in chapter V of document FCCC/KP/AWG/2010/CRP.4/Rev.4.

The content of the table in this information document is shown without prejudice to the position of the Parties or to the right of Parties under Article 21, paragraph 7 of the Kyoto Protocol.