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气候变化框架公约

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第三十七届会议
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处理特别易受气候变化不利影响的发展中国家与
气候变化影响相关的损失和损害
从而加强适应能力的方针[1]
- 将在工作方案之下开展的活动

处理与气候变化不利影响相关的损失和损害(包括与极端天气事件和缓发事件相关的影响)的一系列方针问题区域专家会议报告

秘书处的说明*

概要

本报告简要介绍针对“研究关于处理特别易受气候变化不利影响的发展中国家与气候变化影响相关的损失和损害的方针的工作方案”主题领域 2 召开的四次专家会议，其中三次为区域专家会议，一次为小岛屿发展中国家专家会议。上述会议分别于 2012 年 6 月 13 日至 15 日在埃塞俄比亚亚迪斯亚贝巴、2012 年 7 月 23 日至 25 日在墨西哥墨西哥城、2012 年 8 月 27 日至 29 日在泰国曼谷、2012 年 10 月 9 日至 11 日在巴巴多斯布里奇敦召开。本报告概述各次会议上讨论的问题(包括差距、需求和挑战)，各区域所特有的、与气候变化影响有关的问题，以及在各级处理与气候变化影响相关的损失和损害方面可能采取进一步行动的领域。

[1] 第 1/CP.16 号决定，第 26-29 段。

* 由于最后一次会议安排在 2012 年 10 月 9 日至 11 日于巴巴多斯布里奇敦举行，本文件逾期提交。

目录

一. 导言

A. 任务

1. 缔约方会议在第十七届会议上请[2] 秘书处组织四次专家会议，其中三次为区域专家会议，一次为小岛屿发展中国家专家会议。这些会议应反映区域优先事项和经验，在附属履行机构(附属机构)第三十七届会议之前举行，以处理与“研究关于处理审议特别易受气候变化不利影响的发展中国家与气候变化影响相关的损失和损害的方针的工作方案”(以下简称“损失和损害问题工作方案”)主题领域 2 有关的问题。损失和损害问题工作方案主题领域 2 涵盖一系列处理与气候变化不利影响相关的损失和损害(包括与极端天气事件和缓发事件相关的影响)的方针，其中考虑到各级的经验。缔约方会议还请秘书处提供专家会议报告，供附属机构第三十七届会议审议。[3]

B. 本说明的范围

2. 本报告综述 2012 年 6 月至 10 月期间针对损失和损害问题工作方案主题领域 2 召开的四次专家会议上讨论的要点。[4]

3. 鉴于篇幅所限，本报告没有按先后顺序复述叙述性信息。会议报告员编写的报告提供了此类信息的详情。[5] 本报告附件二总结了各次专家会议上介绍的目前在处理损失和损害方面的做法的有关资料。各次会议网页上载有关于对各区域最相关的与气候有关的风险、灾害、部门和系统，以及关于目前正在开展的各项活动以及吸取的经验教训的发言，提供了各次会议上共享的背景信息。[6] 此外，后两次专家会议上与会代表提供的信息表介绍了处理与气候变化不利影响相关的损失和损害的措施和工具实例，包括吸取的经验教训以及扩大现有工作的潜力的有关信息。[7]

4. 本报告包括以下内容：

(a) 专家会议议事情况介绍(第二章和附件一)；

(b) 专家会议上查明的主要问题小结(第三章)；

[2] 第 7/CP.17 号决定，第 8 段(a)分段。

[3] 第 7/CP.17 号决定，第 8 段(b)分段。

[4] 与专家会议有关的文件可在《气候公约》网站上查阅<http://unfccc.int/6056>。

[5] 见各次会议网页，可查阅<http://unfccc.int/6056>。

[6] 会议网页可查阅<http://unfccc.int/6056>。

[7] 在后两次会议上引进了信息表，以方便就现行的做法开展进一步信息共享和学习。

(c) 专家会议上查明的为处理差距和需求可能采取进一步行动的领域小结(第四章);

(d) 专家会议上分享的目前正用以处理损失和损害问题的措施和工具相关实例表(附件二)。

二. 议事情况

5. 关于处理与气候变化不利影响相关的损失和损害的一系列方针的四次专家会议是针对损失和损害问题工作方案主题领域 2 举行的。共有 146 名缔约方代表和 157 名相关组织和利害关系方代表出席了会议。

6. 履行机构主席 Tomasz Chruszczow 先生主持了前三次会议，并请 Juan Hoffmaister 先生(多民族玻利维亚国)和 Angela Churie-Kallhauge 女士(瑞典)代其主持第四次会议。四次专家会议代表着在理解处理与气候变化不利影响相关的损失和损害的一系列方针方面取得的进展。这四次会议议事情况的详情见本报告附件一。

7. 专家会议的举办得到澳大利亚、加拿大、德国、日本、新西兰、西班牙、瑞典和瑞士等国政府以及欧洲联盟委员会的支持。此外，联合国非洲经济委员会非洲气候政策中心、气候与发展知识网络(通过脆弱国家损失和损害倡议)、慕尼黑气候保险倡议、联合国开发计划署(开发署)和联合国国际减少灾害战略(减灾战略)为某些专家的参与提供了支持。

三. 在专家会议上查明的主要问题小结

8. 与会者注意到，不同区域为处理与气候变化不利影响相关的损失和损害而正在采取的方针的类型极为相似。

9. 如今，从处理损失和损害的目前做法中吸取的经验教训方面的大多数知识和信息都与应对极端天气事件有关，人们对相关需求也十分了解。因此，在专家会议上共享的信息中有很大一部分涉及目前为预防[8] 和降低气候相关灾害(包括极端天气事件)所致损失和损害的风险而正在各级开展的工作。尽管保险和其他类型的风险转移方面的试点做法在不断增加，但转移风险方面的知识仍存在重大空白，管理残余风险方面的知识也很稀缺。

10. 相应地，会上针对在各级自留风险的措施以及处理缓发事件的影响的措施介绍的信息和经验教训较少。[9] 同样，各方对管理残余风险的办法的了解也很有限。至于需要哪种方法处理这类风险所致的损失和损害，仍存在诸多疑问。由于潜在损失和损害的规模，这类风险在某些情况下可给各国带来转型性变革。

[8] 例如，绘制危害区图、脆弱性评估和早期预警系统。

[9] 为本报告之目的，所使用的方针类型的定义以文件 FCCC/SBI/2012/INF.14 所载的文献回顾为依据。

11. 本章总结了在处理气候变化不利影响相关的损失和损害方面存在的主要差距和需求以及相关挑战。每一节首先介绍所有专家会议上普遍提及的重要跨部门(跨级别、跨区域)问题，然后概述各次会议上查明的其他相关问题。表 1 简要列出各区域在各级确定的差距、需求和挑战方面的主要共性。

表 1

处理与气候变化相关的损失和损害的方针问题专家会议上查明的处理损失和损害问题方面存在的主要共同挑战、需求和差距一览表[10]

地方/国家以下一级	国家一级	区域/国际一级
• 利用本地和社区知识 • 加大社区参与力度 • 需要为地方一级的行动提供更多财政和技术支持 • 生成更精确的缩尺度数据 • 处理缓发事件 • 有效传播数据 • 提高认识 • 将气候变化纳入发展规划的主流 • 建立并加强早期预警系统 • 确保国际、区域和国家三级的决策能够到达地方一级 • 利用从下至上的方法	• 加强案例研究和经验教训的共享 • 改善培训设施 • 需要为地方一级的行动提供更多财政和技术支持 • 提高技术能力和监测 • 加强机构能力 • 处理缓发事件 • 提高认识 • 加强对非经济影响的评估 • 建立并加强早期预警系统 • 评估已经采取的措施的成效 • 加强不同政府行为者之间的协调 • 将损失和损害纳入国家发展规划的主流 • 优先开展针对最脆弱群体的行动	• 编写区域倡议概述 • 提高资源使用效率 • 制定清晰的定义和准则 • 通过区域平台和论坛加强区域合作 • 处理缓发事件 • 支持早期警报系统 • 为处理损失和损害的体制安排制定统一的框架 • 给予政策指导 • 在国际一级将各种行动联系起来，提高成本效益 • 将政策界和研究界联系起来

A. 确定损失和损害的范围并理解各种不同的关联

确定损失和损害的范围

12. 若干与会者认为，损失和损害是指缓解和适应行动无法防范的残余影响。一些与会者认为，处理此类残余影响需要具体方针，而另一些人则将损失和损害视为气候变化各种不利影响的一部分，认为适应工作可加以解决。有必要加强人们对何为损失和损害的统一认识，包括对损失的类型(例如人员伤亡以及经济、非经济、直接或间接损失)和处理损失的方法的统一认识，从而在损失和损害问题工作方案下处理这一问题。

[10] 该表仅包括所有四次专家会议共同查明的主要挑战、需求和差距。

13. 与会者普遍同意，损失和损害的程度取决于缓解温室气体排放和适应气候变化不利影响的程度。因此，要尽量减少损失和损害，就必须从可持续发展的角度全面统一地考虑缓解和适应工作。不过，一些与会者提到，目前的国际文书无法以这种方式处理损失和损害问题。另有一些与会者认为，应当在现有的适应框架中处理损失和损害问题。

14. 从可持续发展的角度思考损失和损害问题对于经济基础较为薄弱的国家来说也很重要，因为应对与气候变化影响相关的灾害意味着调整国家预算，这可能会延缓可持续发展。[11]

关联

15. 为设计综合风险管理组合手段或工具包，并连贯一致地处理损失和损害问题，与会者认为，有必要更好地理解各相关政府级别(地方、国家、区域和国际)之间的关联，同时考虑到各国的国情，包括各国运作的不同尺度。同样，有必要根据将在哪些级别使用上述工具，确保工具有针对性。

16. 所有专家会议上，与会者都经常指出，国家和地方两级脱节，阻碍了对损失和损害的风险进行有效评估。很多与会者认为，加强社区一级的数据收集将能够提高模型精确性，因为包容性、参与式的方法能够使得人们了解损失和损害如何影响各种人群，包括可能没有任何经济资产的妇女和儿童。这种方式还确保人们不仅关注灾害(通过从上至下的方式)，也关注脆弱性(通过从下至上的方式)，并推动抗御能力建设，尤其是在国家和国家以下两级。[12] 为此，有必要制定方法，将处理损失和损害的各级政府联系起来，并加强高效和有效的传播战略，以解决不同级别之间脱节的问题。

17. 将各级政府联系起来，还可推动将传统知识和地方应对战略与科学数据相结合，以及将社区的社会资本纳入发展规划的主流。在为处理缓发事件所致损失和损害问题的政策和战略提供指导方面，这种结合至关重要，因为单靠过去的知识可能不足以预测未来的气候。此外，在所有专家会议上，与会者均指出，有必要确保国际、区域和国家的决策能够到达地方一级。

与损失和损害有关的成本

18. 专家会议确认，在国家一级制定风险和灾害评估进程至关重要，以便理解风险组合并告知利害关系方其脆弱性所在。同样，各国需要对各种不同的方法进行比较评估并对现有的适应办法进行成本效益分析之后，确定它们能够适应哪些

[11] 在很多情况下，这些灾难对国内生产总值产生重大影响。此外，正如一些与会者指出的，非经济损失在很多情况下对受灾国的发展产生重大影响。

[12] 在小岛屿发展中国家专家会议上由太平洋区域环境方案秘书处介绍的目前做法。秘书处汇报说，把基于社区的方法和国家一级的政策引导结合起来，能够最大程度地实现从下至上和从上至下两种方法的效益。

风险，以及它们愿意接受何种水平的风险，以便设计综合风险管理组合手段或工具包，并就采取行动作出决定。

19. 与会者承认预防行动的成本效益；[13] 还认识到，在宏观层面共担风险有助于节省风险转移的行政成本以及资本成本(溢价)，因为风险池的组成会变得更加多样。[14]

20. 尽管各次专家会议上介绍了对具体金融工具进行成本效益分析的一些结果[15]以及气候变化经济学区域研究的一些主要结论，[16] 但与会者指出，在与气候变化不利影响相关的损失和损害有关的成本方面，依然存在重大的信息空白。同样，在如何就不同类型的损失开展措施成本效益分析方面，依然面临各种挑战。[17]

21. 这就要求进一步考虑如何对损失进行建模，包括考虑比较应当依据何种基准，而不是侧重于讨论哪一项措施更好。如果不放到具体背景之下，例如一个国家或一个部门之下，这类问题很难处理。此外，与会者一再表示对量化非经济损失方面的困难表示关切，[18] 因为缺乏开展此类评估的工具。

B. 处理缓发事件[19]

22. 与会者承认，所有区域都已感受到缓发事件的影响，这些影响正在加剧极端天气事件；但各级政府现有的机构和能力并未准备好应对这些影响。所有专家会议上，与会者都强调了处理此类影响的知识和工具与处理极端天气事件的现有知识和工具之间存在的差距。[20]

23. 管理与气候变化相关的风险，尤其是与缓发事件相关的风险，要求开展长期规划和体制安排，制定适当的法律和政策，在各个部门和级别建立可靠的治理结构，并通过及时、优质的信息以及提供财政资源的可持续承诺加以支持。

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[13] 使用不同的办法，就预防的相对成本效益分享了一些统计数据和信息。例如，根据联合国拉丁美洲和加勒比经济委员会(联合国拉加经委会)开展的一项研究，每投资 1 美元用于预防，即可避免价值 5 美元的损失。而非洲风险能力组织报告说，埃塞俄比亚的证据表明，每投资 1 美元用于早期应对，一旦危机升级，即可节省 4 美元的干预成本。

[14] 从现有区域一级的风险共担倡议(例如加勒比灾难风险保险基金和非洲风险能力组织)中了解到这些信息。详情见加勒比灾难风险保险基金和非洲风险能力组织的发言。

[15] 例如，捐助方支持、预算应急需要和参数保险。详情见世界银行的发言。

[16] 详情见亚洲开发银行和联合国拉加经委会的发言。

[17] 例如，难以从挽救生命的角度比较各种措施。

[18] 例如，文化遗产的损失和生态系统服务的损失。

[19] 根据第 1/CP.16 号决定，缓发事件包括海平面上升、温度上升、海洋酸化、冰川退缩和相关影响、盐化、土地和森林退化、生物多样性损失以及荒漠化。

[20] 文件 FCCC/TP/2012/7 载有各区域所面临的气候变化影响的描述以及在各次专家会议上介绍的关于目前做法和经验教训的信息详情。

24. 迫切需要加深人们对缓发事件的特征的认识，包括缓发事件与极端天气事件的关联、确定缓发事件的基线、潜在临界点、量化损失所需要的能力和技能，以及需要哪些类型的方法。加深认识将能够帮助人们提高对渐进式气候进程所致损失和损害的广度的意识，特别是提高政策制定者的意识，并帮助阐明必要的扶持性环境，例如监管框架、政策和体制结构。这将反过来有助于避免处理缓发事件过程中不同的机构各自为政。

25. 会上介绍了一些成功的做法，[21] 而拉丁美洲区域专家会议和小岛屿发展中国家专家会议的讨论强调了使用基础设施方面的措施在适当的时空尺度上处理缓发事件的局限性。在这方面，有必要加深对长期规划和短期规划的认识。例如：缓发事件导致海洋酸化以及生物多样性损失，从而引起人们关注生物多样性损失的永久性及其对当代和子孙后代的生计造成的影响。传统的适应措施(通常采用基于项目的方法)，在处理这类问题时的成效有限。

26. 一些与会者指出，捐助方的供资周期较短，而处理缓发事件通常需要开展长期行动，因而在这方面带来挑战。

27. 小岛屿发展中国家专家会议指出，与缓发事件有关的一些可预见的损失和损害对于小岛屿发展中国家这样的国家可能是“转型性”的。[22] 在审议如何处理生计和文化价值的损失、需要哪些社会安全网、如何保护迁居社区的文化、国家主权将会发生什么演变以及经济区的定义将会发生什么变化等问题时，需要具有创新意义的方法，并通过财政和技术资源加以支持。

28. 会上建议的处理缓发事件的潜在方法包括：土地分区、综合水管理、综合沿海地区管理、利用土著知识和社区知识、通过酌情制定新型保险措施转移和分担风险、[23] 使用社会和环境债券等金融工具，以及加强区域合作，例如综合区域沿海管理以及综合水资源管理等。

29. 与会者普遍同意，为了对缓发事件的影响做好有效的准备，加强不同部门和部委之间的合作极为必要，同时应考虑到城乡之间的不同经验。

30. 此外，小岛屿发展中国家专家会议强调，气候变化的影响为小岛屿发展中国家这样的国家提出了代际挑战，这就要求进一步提高公众对缓发事件的意识，尤其要提高青年的参与力度，包括更多地投资于教育和进一步共享信息，展示小岛屿发展中国家的传统和地方社会和社区正在如何管理和处理与气候变化相关的损失和损害。

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[21] 成功做法的实例包括：目前正在孟加拉国与当地社区联合开展可抵御气候变化的基础设施工作，以解决盐化问题；以及在塞内加尔和东非部分地区种植红树林，以通过生态恢复和加强渔业活动帮助减少损失和损害的风险。

[22] 对此类情况给出的实例包括：当损失和损害的影响正导致国内生产总值损失几个百分点，或者当公共资产位于风险高发区。

[23] 人们通常认为，传统的保险工具不足以保护资产免遭缓发事件的影响。关于现有保险工具的局限性的详情，见下文第三章 C 节。

C. 综合风险管理工具包

31. 与会者普遍同意，处理损失和损害要求考虑到情况的多样性，例如各国和各区域不同的准备程度、现有的机构、社会经济情况以及与气候变化影响有关的具体需求和关切。因此，各国政府代表在开发适合本国国情的综合风险管理工具包方面广泛寻求技术支持。

32. 经专家会议讨论，在国家以下和国家两级引导方针设计工作的常见原则包括：确定威胁并评估资产；制定长期计划；走出临时应对措施和基于项目的方法，确保在规划行动时进行连贯一致、跨学科的考虑。风险融资问题，例如辅助性和基于风险的定价，也是此类引导不可或缺的一部分。

33. 仍需改善信息系统，因为了解脆弱性对于制定综合风险管理方法至关重要。

34. 尽管现有风险自留做法方面的文献相对较少，但在各次专家会议上，与会者确认，地方社区拥有大量关于使用社会风险自留方法抗御气候变化影响的知识。在处理损失和损害问题过程中，需要将各种本地风险自留方法(例如传统应对机制)与国家以下和国家两级的现有机构协同起来，以确保这些方法不至于孤立运作。与会者还认为，加强对社会安全网的作用的认识以及在不同区域之间共享现有风险自留做法方面的信息也很有用。

35. 最不发达国家专家会议强调，能否将风险保留在国家一级，取决该国经济的规模以及潜在损失和损害的规模。一些国家(例如库克群岛)预计气候变化不利影响将会为其带来重大损失和损害，因而已经设立了信托基金，作为风险自留措施的一部分。[24] 然而，据报道，由于气候变化的影响在加速，资金水平被证明不足。

36. 专家会议推动了就各种创新的风险转移做法(包括国家以下一级农业部门天气指数保险和区域一级风险共担)进行信息共享。[25] 总体而言，区域一级的风险共担在加勒比区域较为先进，太平洋岛国和非洲某些国家也正出现类似的倡议。

37. 然而，部分由于私营部门参与有限，并非所有的社区和区域都能找到风险转移方案，与会者对此表示关切。在这方面，需要开展进一步工作，以加强扶持性环境，包括在国家一级由政府划拨预算，以推动执行保险计划所需的能力，并为私营部门的进一步参与提供动力，尤其是在保险普及率较低的国家。

[24] 在专家会议上还分享了国家一级灾害基金的其他实例，例如 FONDEN。见墨西哥自然灾害基金所作的发言。

[25] 专家会议上介绍的区域计划包括加勒比灾难风险保险基金、非洲风险能力组织及太平洋灾难风险评估和融资倡议。专家会议上共享的与保险有关的现有做法的信息，见本报告附件二所载的表格，以及会议网页上公布的发言和信息表。

38. 这就要求更好地认识各国政府在创造扶持性环境以尽量减少气候变化不利影响相关的损失和损害方面的作用。此外，外部捐助方划拨资金亦可推动在国家一级加强扶持性环境。

39. 同样，各次专家会议经常提到，有必要制定处理损失和损害问题的全球性架构和多机构架构(例如，包括私营部门和不同职能的部委)。

40. 从风险转移的区域经验(例如加勒比灾难风险保险基金以及世界银行开展的工作)中吸取的经验教训包括：[26]

(a) 有必要查明各国的具体需求，以便确定风险转移是否是一种适当的方法；

(b) 广泛的协商和捐助方的支持对于执行创新保险倡议至关重要；

(c) 私营部门的参与以及对相关市场的专家知识至为关键；

(d) 设计综合灾害风险融资和保险战略十分重要，包括：抗御自然灾害的预算规划、将风险分层的方法、国家灾害基金和灾害后预算的支付；

(e) 在灾害风险管理和适应工作计划中有必要将灾害风险融资体制化；[27]

(f) 管理预期(例如对各国和各捐助方的价值主张)的重要性。

41. 尽管保险等风险转移方法为管理极端天气事件所致损失和损害的风险提供了一种潜在的解决办法，但与会者认识到，确保综合风险管理工具包的连贯性十分重要。若干与会者指出，确保连贯性的一种方式是，要求保险计划的受益人(例如一个国家或一个家庭)在买入保险之前先制定一套风险减少和管理系统，并/或要求受益人将赔付款投资于进一步减少灾害风险方面的措施。与会者还认为，为参与保险计划设定标准也很重要，以便向接收国提供有针对性的具体支持。

现有保险产品的局限性

42. 随着极端天气事件反复发生，强度不断增加，且日趋频繁，有些国家(特别是小岛屿发展中国家)在购买保险以保护其资产不受气候变化不利影响时正面临各种困难，因为保险费在上涨。目前大多数保险计划的范围较窄，阻碍了某些国家为其资产有效购买保险。[28]

43. 与会者普遍认识到，现有的风险转移方法不针对缓发事件。现有区域一级的风险转移方法(例如加勒比灾难风险保险基金)在很大程度上是为处理流动性问题而设立的。有必要将气候变化问题纳入保险模型之中。尽管参数保险对于缓发事件而言可能并不合适，但与会者指出，人寿保险模式(亦即：不确定性因素不

[26] 详情见加勒比灾难风险保险基金在小岛屿发展中国家专家会议上所作的发言以及世界银行在亚洲和东欧区域专家会议上所作的发言。

[27] 例如，把灾害风险融资和保险作为一种手段，将财政部纳入灾害风险管理和适应工作计划。

[28] 例如，在库克群岛，保险可能涵盖降雨造成的洪灾，但不涵盖风暴潮造成的洪灾。

同——知道一个事件要发生，但不知道何时发生)可能有助于为缓发事件保险进行建模。

44. 此外，与会者指出，有必要通过探索各种可在国家一级实现的风险融资工具(例如紧急情况信托基金/储备金)，进一步考虑对灾害发生前的风险融资加以体制化，将其作为处理损失和损害问题万不得已的措施。相关挑战包括了解整个方案的成本、设计有效的交付机制以及了解如何加强实现这种措施所需的支持。

45. 在小岛屿发展中国家专家会议上，与会者指出，即使已经部署了新的和现有的风险转移机制，脆弱国家仍有可能受到缓发事件的影响，例如海平面上升。同样，人员伤亡的风险无法转移，这就要求制定其他类型的创新解决办法，包括康复和赔偿。

边做边学方法

46. 非洲区域专家会议强调，适应是通过边做边学的方式、反复“试错”的过程将解决办法嵌入的程序：吸取经验教训、通过实践进行监测和评估、扩大成功执行的试点行动的规模，对于适应工作能否取得成功至关重要。

47. 非洲和拉丁美洲区域专家会议还提请与会者注意，在区域一级处理损失和损害行动时，有必要考虑该地区各国在现有能力和机构方面的准备程度上存在的差距。一些国家已经设立了负责处理风险管理的机构，[29] 而另一些设立了国家气候变化联络点，但没有与风险减轻、风险自留或风险转移形成有效关联。

48. 拉丁美洲区域专家会议强调，有必要探寻各种方法，鼓励各级采取行动；例如，如果一个国家或社区对处理公益问题(比如生物多样性和生态系统)的减少灾害风险和风险管理措施进行投资，则予以奖励。与会者认为，为决策者提供激励手段很重要，因为决策者往往只注重能为其提供短期利益、收入和关注度的活动，而风险预防只有在长期才能得到认可。

D. 能力

49. 一般认为，风险预防和风险减轻对减少损失和损害至关重要。目前的做法表明，为实现从早期预警到对灾害做好准备的转变，需要在不同的行为者之间建立起一套复杂的体制关系，并提高人们对于创建“预防文化”的意识，而建立这种文化需要时日，且应提供资源。

50. 据说，政策制定者通常可以获得关于可能解决办法的信息，应当根据这些信息对各项行动进行优先排序。然而，决策者有效使用信息的能力有限，导致无法采取适当行动。有必要通过更好地传播对灾害做好准备的益处，在国家一级提高决策者的意识，以便使用现有的工具管理气候多变性(例如早期预警服务)。同样，迫切需要在国家和国家以下两级加强将信息转化成政策和知情决策的能力。

[29] 例如埃塞俄比亚，见<http://unfccc.int/files/adaptation/application/pdf/kumar_session3.pdf>。

51. 尽管与会者普遍承认，最好在风险发生的地方对其加以处理，但常有报告说，发展中国家的社区总体缺乏应对有关气候问题的可持续解决办法，其资源最终处于不断恶化的状态。[30] 选择解决办法要求综合处理气候变化的影响，以便避免不当的适应。

52. 各次专家会议上查明的在国家一级加强能力的迫切需求包括技术方面的需求，例如创建基线信息(特别是经济数据)，以及计算非经济损失和损害。[31] 与会者认为，为推动必要数据和预测的生成，进一步投资于能力建设对于非洲区域气象服务来说尤其紧迫。

53. 国家一级的体制安排不足导致决策过程支离破碎。在拉丁美洲区域专家会议上，与会者强调了在财政规划过程中考虑到气候变化关切的重要性；[32] 但是，将损失和损害有关的数据纳入国家发展进程的挑战依然存在。

54. 决策过程中的年度预算周期是阻碍适应工作长期方案方法的另一个因素，尤其是在同时拥有联邦和地方两级政府的国家。

55. 拉丁美洲区域专家会议上，与会者强调了监管支持的重要性。拉丁美洲区域风险管理的准备程度相对先进。必要的政策通常由政府或区域实体核可，但有限的体制和技术能力以及财政需求可能阻碍这些政策的执行。为确保符合国家和国家以下两级的政策并强制执行这些政策，与会者认为，有必要加强机构能力，并通过技术和财政援助加以支持。在人口较少的国家，人力资源短缺进一步加剧了建设适当机构能力和执行必要措施的挑战。

56. 为支持国家一级的相关活动，需要有可预测的资金来源。派代表出席各次专家会议的大多数发展中国家表示需要外部支持，以投资于减少风险工作。不过，与会者注意到，不同国家所需要的支持也不尽相同。

57. 考虑到各国国情不同，有必要在区域一级查明与气候变化有关的重大宏观问题，然后将这一信息转化成区域框架，以便针对需要支持的具体领域或问题采取行动。此后，各国政府可将这一知识或强化的能力纳入自身的倡议之中，并最终支持其社区。

[30] 在非洲区域专家会议上分享的实例包括：每次旱灾之后，游牧社区的资源(牛群)都会减少；在非洲某些地方不适当和不受监管地过度开采地下水导致盐分侵入。

[31] 例如，将生物多样性(生态系统服务)的无形价值转变成可见价值。

[32] 详情见开发署国际环境和发展学会及联合国拉加经委会的发言。

E. 目前做法所产生的数据和信息[33]

58. 与会者普遍承认，了解哪些原因有可能导致一个国家或地区正面临的损失和损害是审议如何预防、减少和管理此类风险过程中的一个基本步骤。[34] 与会者还普遍承认，目前各级获取数据和信息的途径均不充分，增加获取数据和信息的途径对于查明此类风险至关重要。在这方面，还有必要收集更多数据并监测趋势，以便了解此类风险背后的原因(例如土地用途的改变、社会经济方面的变化以及与气候有关的数据)。

59. 正如在实施损失和损害问题工作方案主题领域 1 下的各项活动过程中所指出的，要开展气候变化损失和损害评估工作，就需要了解未来的气候(例如气候变化情况)以及未来的脆弱性、适应能力、科技进展、社会经济数据(例如人口)、能源部门前景以及使用建模工具的能力。出席所有专家会议的与会者均一再强调下列活动的重要性：确保对环境参数开展持续、系统和连贯一致的观测，以确定灾害和气候及环境趋势；将气候变化数据纳入天气数据；将气候变化影响连贯一致地纳入历史数据。[35]

60. 数据不足加大了不确定性，在很多情况下，进而又抑制了为采取行动筹集资源。然而，在所有专家会议上，与会者均强调，采取行动处理损失和损害问题十分紧迫和重要，不能坐等确定性来临。

61. 各区域就目前用以处理损失和损害问题的做法产生的数据和信息普遍确定了需求和差距，这些需求和差距多种多样，要求在各级采取多种技术和政策应对措施，包括：

(a) 有必要改善数据和信息的获取途径，这就要求更多地分享现有数据和信息；

(b) 现有数据和信息方面存在的空白，要求在收集数据和信息方面进一步开展工作；

(c) 以可用的格式提供数据并确保信息适用于用户以便执行基于证据的战略方面存在的挑战。

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[33] 认识损失和损害问题以及目前的差距、需求和挑战所需要的数据和信息详见在损失和损害问题工作方案主题领域 1 之下编拟的文件；见文件 FCCC/SBI/2012/INF.3 和 FCCC/TP/2012/1。

[34] 认识与气候变化不利影响相关的损失和损害问题需要广泛的数据和信息，包括水文气象数据、社会经济信息和生态信息，以及将上述数据和信息转变成行动的能力。

[35] 非洲区域专家会议的与会者强调，由于现有的数据和信息有限，非洲与天气和气候有关的灾害以及区域平均影响(包括非经济损失，例如文化损失和人员伤亡)被低估。

共享

62. 为更好地获取精确数据，并实现各国之间有效的数据和信息共享，与会者认为将数据视为一种公益产品很重要。鉴此，有必要推动各国、各区域和全世界获得开放存取数据。[36] 为提高数据可比性和兼容性，有必要进一步统一数据集。与会者认为，在区域一级建立中央信息保存中心是推动各国和各区域之间进行有效信息共享的一种办法。同样，各国政府可充当信息促进者，确保数据和信息能够传达给下级，反之亦然。

63. 尽管与会者认识到，与适应和减少灾害风险有关的一些信息门户网站提供了大量不同区域的信息，但与会者表示，有必要开展协调，以实现系统化的知识共享，从而推动从实证案例中进一步学习。这些实证案例融合了各种做法，包括灾后需求评估，以及在各级开展适应工作和减少灾害风险的工具和措施。[37]

64. 就成功案例进行进一步信息共享还可让国家和区域利害关系方更清楚地了解相关能力需求。此外，在帮助利害关系方学习以英语以外的其他语言生成的知识方面，仍有待进一步改善。[38]

65. 在专家会议上介绍的正在进行的各种减少灾害风险活动表明，有必要提供损失详情，作为一个重要措施，以改善处理气候变化不利影响相关的损失和损害的系统。[39] 现有的数据库(例如 DesInventar[40])在一个同一的空间尺度上对损失进行系统记录，从而使得人们能够直观地看到有关损失广度的总体趋势。不过，在提高质量保证以及将数据录入拥有时间和地理参考点、经过连贯一致地编排的观测数据集方面，仍需开展进一步工作。

F. 加强协同

66. 正在减少灾害风险和灾害风险管理领域开展的工作为协同处理气候变化影响相关的损失和损害(尤其是与极端天气事件有关的损失和损害)提供了巨大的潜力。与会代表认识到，减少灾害风险工作与适应工作有着不同的体制框架(通常与发展政策和规划脱节[41])，在国家和地方两级融合适应工作、减轻灾害风险工作和灾害风险管理工作的挑战依然存在。

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[36] 一些与会者提醒注意，对于某些国家而言，获取所有关于损失和损害的知识可能被认为具有敏感性。

[37] 太平洋岛国汇报的目前做法表明，在国家一级推动减少灾害风险界人士与适应－规划界人士开展更多互动能够带来成本效率和协同作用。

[38] 例如，拉丁美洲区域专家会议的与会者指出，由于该地区的信息大多是西班牙语，政府间气候变化专门委员会的报告未予以充分考虑。

[39] 如政府间发展管理局气候预测和应用中心以及减灾战略等组织的发言所述。

[40] DesInventar 的详情见拉丁美洲区域专家会议和小岛屿发展中国家专家会议上所作的发言。

[41] 例如，适应工作通常由环境部委负责，而减少灾害风险工作则通常由民防负责。

67. 为避免创造处理损失和损害的平行结构，并探索关联和协同作用，与会者认为，精心绘制各级现有的体制框架图和联合国系统中现有的体制框架图将很有帮助。[42]

68. 在制定切实办法汇聚与管理极端天气事件的风险有关的大量知识和为此设立的机构方面，各级都需要进一步指导和协调，以便制定更加综合、更加连贯的方针，处理所有与气候变化有关的风险。同样，正如与会者经常指出的，为获得私营部门中现有的大量数据和专门知识，需要进一步的指导和模式。

69. 在与现有工作、机构和框架加强协同方面，有必要明确《公约》在财政、技术和能力建设方面能够发挥的作用。

70. 小岛屿发展中国家专家会议关于现有做法的讨论提请与会者注意为信息交流和技术合作目的开展的南南合作，这是在该区域加强工作协调的一种行之有效的模式。[43]

G. 加强区域和国际合作

71. 在所有专家会议上都交流了目前在区域一级就处理与气候有关的风险方面所使用的做法，包括围绕共享资源采取的做法、[44] 根据区域政治优先事项采取的做法[45] 以及围绕网络采取的做法。这些区域倡议的侧重点各不相同，例如数据收集、系统观测和建模；综合土地和水管理；教育、提高认识和能力建设；政策支持以及风险共担和风险转移。

72. 从目前的活动中吸取的经验教训证明，进一步开发区域专门知识和信息来源，以帮助各国建设国家政策制定者的能力并在拥有国家自主权的区域优先事项方面开展研究工作，是有价值的。[46]

73. 尽管与会者普遍认为，区域中心是加强相互了解并避免重复工作方面的重要参与方，但显然，没有哪一个区域机构能够应对与损失和损害相关的所有需求。与会者认为，如能就现有中心和网络的区域倡议(宗旨和职能、吸取的教训、需要作出的改进、经验)编写一份概述，将很有帮助，以不再囿于现有的工作范围，着手解决损失和损害有关的具体需求。

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[42] 例如，平行结构的一个实例包括，为气候变化影响评估以及损失和损害风险评估分别设立单独的程序。

[43] 加勒比灾难风险保险基金与加勒比共同体气候变化中心和加勒比灾害应急管理局就减少灾害风险活动签署了谅解备忘录；太平洋灾难风险评估和融资倡议推动各国之间开展点对点信息交流与合作。

[44] 例如跨境水资源管理，比如湄公河委员会开展的工作(详情见湄公河委员会的发言以及本报告附件二表 4)。

[45] 例如加勒比共同体开展的工作。

[46] 例如加勒比共同体气候变化中心区域气候变化数据交换所在加勒比地区开展的工作。

74. 太平洋地区的一个区域倡议“太平洋灾难风险评估和融资倡议”汇报说，区域风险管理、转移和评估工具在国家一级有很多有用的应用，包括宏观经济规划和城市规划、基础设施设计以及专业能力和机构能力开发。

75. 尽管与会者认为区域方针对于处理损失和损害问题十分重要，但也指出了与区域合作和跨境合作有关的挑战，包括处理缓发事件相关影响方面的挑战。设立区域倡议是一项长期承诺，该区域各国将引发大量费用。由于国家买进十分关键，有必要审查宏观层面的现有机制以及该区域各国的需求和关切，以便明确未来区域一级处理损失和损害问题的活动的作用和目标。

76. 在拉丁美洲区域专家会议上，与会者认为，区域方针的目标是在下列方面开展合作：提高具体领域的认识和能力(例如共享自然资源以及收集数据)；政策协调；联合供资倡议等。在太平洋地区，一些区域机构已经提供了能力和区域模式，因此该地区保留了大量的专门知识，但不是在国家一级。考虑到区域情况，亚洲和东欧区域专家会议上的区域网络汇报了各国召集会议安排潜在合作时在小范围内开展工作的益处。

77. 与会者确认，不同地区的区域协调机制和模式的级别不尽相同。例如，在小岛屿发展中国家之中，加勒比和太平洋地区都已设立区域倡议，但大西洋、印度洋、地中海和中国南海则没有类似级别的协调机制。

宏观层面的体制安排

78. 发展中国家的与会者(尤其是非洲区域和小岛屿发展中国家专家会议的与会者)一再表示担心准备不足，在面对未来气候变化影响可预见的规模时，无法应对。他们提请与会者注意，贫困和脆弱国家及区域所感受到的影响将对国际社会产生级联效应，这将要求开展国际应对行动。

79. 小岛屿发展中国家专家会议上，与会者表示，迫切需要设立一项国际机制，作为综合减少和处理损失和损害方针的一部分。[47]

80. 与会者表示，需要进一步明确小岛屿国家联盟所建议的国际机制的运作问题，例如该机制将如何与其他级别和机构互动，包括该机制与能力的关联以及在国家一级执行该机制的相关结构，从而受益于这种机制提供的机遇。

H. 其他相关问题

81. 除了已经提到的与处理损失和损害有关的重要常见问题之外，各次专家会议认为下列问题是各区域所特有的重要问题：

(a) 在非洲，需要在多个方面建设机构能力，并加强机构协调与合作，尤其是跨国协调与合作以及公法实体之间的协调与合作，包括在处理气候变化导致的

[47] 小岛屿国家联盟建议的国际机制包括保险、风险管理和康复等组成部分。

跨境问题和资源稀缺问题时加强信息共享(例如水资源的水文气象数据和信息[48])。在非洲，农业是一个十分脆弱的部门。非洲高度依赖雨养农业。因此，在区域一级考虑优先行动以及处理与气候变化不利影响相关的损失和损害时，有必要予以特别关注，尽管商品农业和自给农业需要不同的战略。广泛依赖于雨养农业加剧了非洲在面对旱灾和生态系统损害时的脆弱性，进而引发国内流离失所者、城市移徙以及棚户区的增加，同时会对社会文化价值观产生相应的影响；

(b) 在与极端天气事件有关的风险管理方面，拉丁美洲区域的一些国家已经取得了重大进步；但在国家一级，与缓发事件有关的风险管理仍需开展更多工作。与会者强烈支持继续推进法律改革，以将灾害风险管理概念纳入国家公共政策和计划以及公共和私人基础设施方案和项目，从而提高投资抗御风险的水平。与会者强调，除农业和水资源管理之外，卫生部门和城市化日益加深的风险是该区域风险管理的重要组成部分；

(c) 与会者认为，开发早期预警系统是亚洲的区域优先事项，同时需向社区妥善提供信息，助其尽早采取行动。与会者注意到，在区域气候变化政策中，大多数国家都需要就与冰川退缩及其相关影响以及跨境河流流域管理等问题优先采取行动。

(d) 与会者指出，在东欧区域，相关法律法规不健全，加上能力、专门知识和获取数据的途径有限，削弱了有效管理气候变化影响的能力。与会者认为，加强对各国的支持，使其能够制定自身的国家适应工作优先事项，是一种行之有效的方式，可提高人们对气候变化的影响以及相关适应办法的认识。区域合作的优先事项包括：创建水文气象数据库，包括制定统一的格式，以确保有效的数据共享；以及分享经验教训。与会者认为，在这方面，确定哪些机构能够支持区域合作工作很有用；

(e) 小岛屿发展中国家所特有的需求基本上包括：鉴于气候变化可能导致的潜在损失和损害的规模，支持从单一农业经济转向新经济；解决气候融资的创新方法；投资于能源效率和基于海洋的技术(例如潮汐能)，以确保能源，降低进口成本，并打造未来新技术；以债务减免的形式提供国际一级的支持，并为技术支持提供国际供资模式。

四. 可能采取进一步行动的领域

82. 针对四次专家会议上讨论的主要差距、需求和挑战，与会者确定了下列可能采取进一步行动的领域：[49]

[48] 给出的实例包括：用水进行农业灌溉计划和水电方案，可通过在流域中共享信息加以解决。通过合理利用共享资源，可减少发生旱灾的机率，减轻面对气候变化的脆弱性。

[49] 这些可能采取进一步行动的领域由专家会议的与会者确定，但并不意味着所有会议的所有与会者全都支持这些领域。它们在文中出现的顺序并不意味着采取行动时的优先顺序或先后顺序。

(a) **缓发事件**。加强与缓发气候变化有关的影响的知识基础，包括缓发事件与极端天气事件的关联以及对相关非经济损失和损害的评估，以确定处理此类影响的可能方法，包括各级必要的体制安排；

(b) **缓解和适应的关联**。加强对缓解和适应之间的潜在协同行动的认识，以在可持续发展全面方针之下尽量减少未来的气候变化影响；

(c) **数据**。促进获取和检索适当数据和信息，包括：

(一) 制定一项关于数据标准化的国际协议，并在各区域设立中央数据保存中心；

(二) 创建良好做法和经验教训数据库，以在各级和各区域共享；

(d) **能力开发**。加强对国家和区域两级能力开发的支持，以减少脆弱性，并处理气候变化影响，目的包括：

(一) 在国家一级查明损失和损害的风险，包括制定国家基线和分析现有适应办法的成本效益，以制定适合各国和各区域情况的综合风险管理工具包；

(二) 将损失和损害纳入国家发展规划的主流；

(三) 在国家一级开展跨部门合作，以推动制定综合风险管理方针；

(四) 包容性方法，特别关注最脆弱群体的损失和损害问题；

(e) **区域战略**。酌情制定区域战略，以加强处理气候变化影响方面的合作，这些战略在该地区各国之间应当连贯一致，包括：

(一) 评估现有相关区域计划；

(二) 加强区域机构，以向各国提供技术援助；

(f) **全球战略**。在国际一级制定战略，以加强支持，目的包括：

(一) 以连贯一致和协同的方式开展相关国家和区域行动以及区域间合作，包括在各级和各区域连贯一致和系统性地共享有关良好做法的信息；

(二) 对处理损失和损害的行动开展长期规划，并在各级拥有可持续资金的情况下实施此类行动；

(三) 协调区域中心和区域网络在处理气候变化影响方面开展的工作；

(g) **试点举措**。促进和支持针对在各级和各区域处理与气候变化不利影响相关的损失和损害的创新方针开展试点行动。

Annex I

[English only]

Background, structure and proceedings of the expert meetings on approaches to address loss and damage associated with climate change

A. Background

1. Under the Cancun Adaptation Framework, which was adopted as part of the Cancun Agreements at the sixteenth session of the Conference of the Parties (COP), the COP established a work programme to consider 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[1] (hereinafter referred to as the work programme on loss and damage), and it requested the Subsidiary Body for Implementation (SBI) to agree on activities to be undertaken under that work programme[2] and to make recommendations on loss and damage to the COP for consideration at its eighteenth session.[3]

2. The SBI, at its thirty-fourth session, took note of the importance of addressing the following three thematic areas in the implementation of the work programme on loss and damage:[4]

(a) Thematic area 1: Assessing the risk of loss and damage associated with the adverse effects of climate change and the current knowledge on the same;

(b) Thematic area 2: A range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, taking into consideration experience at all levels;

(c) Thematic area 3: The role of the Convention in enhancing the implementation of approaches to address loss and damage associated with the adverse effects of climate change.

3. At COP 17 Parties agreed on activities to be undertaken in the course of 2012 under the work programme on loss and damage.[5] Under thematic area 1, an expert meeting took place in March 2012[6] and a technical paper[7] was developed on current knowledge on relevant methodologies and data requirements as well as lessons learned and gaps identified at different levels. In the context of thematic area 2, the secretariat was requested to organize four expert meetings, three at the regional level and one for small island developing States (SIDS), reflecting regional priorities and experiences, as well as to conduct a literature review of existing information and case studies on the topics in the context of that thematic area and to develop a technical paper on slow onset events.[8]

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[1] Decision 1/CP.16, paragraph 26.
[2] Decision 1/CP.16, paragraph 27.
[3] Decision 7/CP.17, paragraph 1.
[4] FCCC/SBI/2011/7, paragraph 109.
[5] Decision 7/CP.17.
[6] For the report on the meeting, see document FCCC/SBI/2012/INF.3, and for other documentation related to the meeting, see <http://unfccc.int/6597>.
[7] FCCC/TP/2012/1.
[8] Decision 7/CP.17, paragraph 8.

4. The expert meetings under thematic area 2 of the work programme on loss and damage were to take into consideration experience at all levels, as well as the outcomes of the expert meeting held in the context of thematic area 1 of the work programme on loss and damage referred to in paragraph 3 above and the inputs from relevant organizations and other stakeholders within and outside the Convention.[9]

5. The expert meetings also took into account the following questions, in accordance with the mandate:[10]

(a) What is the full range of approaches and tools that can be used to address the risk of loss and damage, at all levels and for a broad range of sectors and ecosystems, considering both extreme weather events and slow onset events? Such approaches and tools include, inter alia, conventional, non-conventional and innovative instruments to address specific types of loss and damage in the context of thematic area 2 of the work programme on loss and damage, especially those driven by the multiplying, magnifying and intensifying effects of climate change at the national, subnational and local levels. What is known about the relative cost-effectiveness of these tools?

(b) What are the foundational resource requirements (e.g. budget, infrastructure, and technical capacity for implementation) in order for different strategies and tools to be effectively applied?

(c) What are the lessons learned from existing efforts within both the public and private sectors, considering elements of design, limitations, challenges and best practices?

(d) What are the links and synergies between risk reduction and other instruments such as risk transfer? How can comprehensive risk management portfolios or toolkits be designed?

(e) How can risk management approaches be tailored to national contexts? How can Parties and other stakeholders evaluate which tools might be most appropriate for their particular risks and circumstances?

6. Furthermore, the SBI requested[11] the secretariat, in organizing the four expert meetings, to take into account inviting representatives of regional centres and networks, as well as a wide range of experts, including those involved in the development of the Intergovernmental Panel on Climate Change (IPCC) assessments and special reports, and experts in disaster risk reduction and in financial approaches to risk management, to attend the expert meetings.

B. Structure and proceedings

7. In line with the mandate for the expert meetings, a draft literature review, prepared in collaboration with the United Nations University and detailing existing information and case studies on the topics in the context of thematic area 2 of the work programme on loss and damage, served as input to all four of the meetings.[12] The meetings also benefited from the input of relevant key findings from IPCC assessments and special reports.[13]

[9] Decision 7/CP.17, paragraph 8(a).
[10] Decision 7/CP.17, paragraph 2, and annex, chapter II.
[11] FCCC/SBI/2012/15, paragraph 154(a).
[12] Decision 7/CP.17, paragraph 8(d).
[13] Copies of the *Summary for Policymakers* of the IPCC Special Report *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptatio*n in different languages were made available to all of the meeting participants.

8. A survey was distributed after each expert meeting to solicit participants' feedback, in order to improve the structure of the discussions at the subsequent meetings.[14] The expert meetings followed a common structure, including:

(a) Starting with a framing session, in which presentations were made on the objective of the expert meeting, an overview was provided of the work programme on loss and damage and information on the relevant climate-related risks to the region as well as key findings from the draft literature review referred to in paragraph 7 above were provided. In addition, the participants shared their views on the expectations for and outcomes of the meeting;

(b) One session being dedicated to considering approaches to address impacts related to slow onset events;

(c) The questions listed in paragraph 5(a–c) above were addressed throughout the substantive sessions of the meetings, in particular the sessions in which a range of approaches to address loss and damage from the risk management continuum and at different levels was considered;

(d) Ending with a session of which the aim was to contextualize the key discussion points by focusing on links and synergies between approaches and the role of different stakeholders and by addressing the questions listed in paragraph 5(d) and (e) above.

9. The expert meeting for the African region was held in Addis Ababa, Ethiopia, on 13–15 June 2012 and was hosted by the Ministry of Environment of Ethiopia in collaboration with the African Climate Policy Centre of the United Nations Economic Commission for Africa. It was attended by 27 representatives of Parties and 44 representatives of relevant organizations and stakeholders.[15]

10. A range of approaches to address loss and damage associated with the adverse effects of climate change was considered at the meeting, from the perspective of different types of risk management approaches: risk prevention, risk retention and risk transfer, as well as approaches to address slow onset events. One breakout group discussion session was held, in which the meeting participants were divided into subregional groups, with the aim of addressing the questions listed in paragraph 5(a–c) above.

11. The expert meeting for the Latin American region was held in Mexico City, Mexico, on 23–25 July 2012 and was hosted by the National Water Commission of the Ministry of Environment and Natural Resources of Mexico. It was attended by 30 representatives of Parties and 36 representatives of relevant organizations and stakeholders.[16]

12. Taking into consideration the feedback on the previous expert meeting, the discussion at the second expert meeting on a range of approaches to address loss and damage associated with the adverse effects of climate change was structured according to different levels: local and subnational; and national, regional and international, with the aim of looking at managing risk from an overall perspective rather than considering each type

[14] The survey was not undertaken at the expert meeting for SIDS as that was the last meeting under the same mandate.

[15] The relevant documentation related to the expert meeting for the African region is available on the UNFCCC website at <http://unfccc.int/6872>. For information on the examples of measures and tools currently employed to address loss and damage shared at the meeting, see table 2 in annex II to this report.

[16] The relevant documentation related to the expert meeting for the Latin American region is available on the UNFCCC website at <http://unfccc.int/6952>. For information on the examples of measures and tools currently employed to address loss and damage shared at the meeting, see table 3 in annex II to this report.

of approach (risk prevention, retention and transfer) in isolation. One breakout group discussion session was held, in which the group was divided by different levels, with the aim of sharing existing relevant experiences and identifying priority areas for action in the region with regard to both extreme weather events and slow onset events.

13. The expert meeting for the Asian and Eastern European region was held in Bangkok, Thailand, on 27–29 August 2012. It took place at the United Nations Economic and Social Commission for Asia and the Pacific and was attended by 48 representatives of Parties and 41 representatives of relevant organizations and stakeholders.[17]

14. The substantive discussions at the third regional expert meeting started with a session focusing specifically on approaches to address slow onset events that are currently undertaken in the region, followed by a discussion on good practices at different levels. With the aim of learning lessons from the existing work on managing the risk of loss and damage, the participants were requested to provide, prior to the meeting, 'information sheets' on a wide range of approaches currently undertaken to address loss and damage.[18] The meeting included three breakout group discussion sessions, with the aim of: (a) sharing experiences and lessons learned in addressing loss and damage associated with slow onset events; (b) sharing experiences at the national and subnational levels; and (c) identifying priorities for addressing loss and damage in the region.

15. The expert meeting for SIDS was held in Bridgetown, Barbados, on 9–11 October 2012 and was hosted by the Ministry of Environment and Drainage of Barbados. It was attended by 41 representatives of Parties and 36 representatives of relevant organizations and stakeholders. The Executive Secretary of the UNFCCC provided opening remarks at the meeting. The structure for the discussions at the meeting, including the breakout group discussions, followed that of the previous expert meeting. Similarly, information sheets on a range of current work to manage climate-related risks in the region were provided by the meeting participants.[19]

16. At all of the expert meetings, information and lessons learned were shared on a range of current practices undertaken to address loss and damage associated with climate change impacts at all levels and in a broad range of sectors and ecosystems, by means of presentations, plenary sessions, and panel and breakout group discussions, as well as through the distribution of information sheets in the case of the expert meetings for the Asian and Eastern European region and SIDS.[20]

[17] The relevant documentation related to the expert meeting for the Asian and Eastern European region is available on the UNFCCC website at <http://unfccc.int/6993>. For information on the examples of measures and tools currently employed to address loss and damage shared at the meeting, see table 4 in annex II to this report.

[18] In total, 23 information sheets were provided by the meeting participants. They are available on the meeting's webpage at <http://unfccc.int/6993>.

[19] The relevant documentation related to the expert meeting for SIDS, including the 28 information sheets provided, is available on the UNFCCC website at <http://unfccc.int/7058>. For information on the examples of measures and tools to address loss and damage shared at the meeting, see table 5 in annex II to this report.

[20] In total, 23 and 28 information sheets were prepared for the Asian and Eastern European regional expert meeting and the SIDS expert meeting, respectively, by the participants prior to the meetings. They are available on those meetings' webpages.

Annex II

English only]

Relevant examples of measures and tools for addressing loss and damage, presented at the expert meetings on approaches to address loss and damage associated with climate change

Table 2
Relevant examples of measures and tools for addressing loss and damage, presented at the expert meeting for the African region[1]

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
Risk reduction		
Integration of indigenous knowledge	The enhancement of the resilience of vulnerable communities to the negative impacts of climate variability through the integration of indigenous knowledge and western climate risk management science. Project implemented in western Kenya by the Intergovernmental Authority on Development (IGAD), including: • The interpretation of forecasts, incorporating government officers from different sectors and other users • The dissemination of information • Capacity-building	IGAD Climate Prediction and Applications Centre <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ouma_session2.pdf>
Transboundary water management	The improvement of climate resilience in Southern Africa through integrated and adapted water resources management at the regional, river basin and local levels through: • Participatory community planning • Minimizing the risk of asset destruction • Building resilience • Structural disaster reduction	United Nations International Strategy for Disaster Reduction Africa (UNISDR/AUC) <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/cadribo_session2.pdf>

[1] The definitions of types of approach used for the purpose of the tables in this annex are based on the literature review contained in document FCCC/SBI/2012/INF.14. Some measures and tools could be categorized under several types of approach; however, they have been included here only under the most relevant type of approach.

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
Risk retention		
National food security strategy	The Ethiopian Government, the World Food Programme and Oxfam America created a social safety net through: • Achieving food security through the use of early warning systems • Making use of African satellite technology • Simple insurance schemes • Village-based design processes	World Food Programme <http://unfccc.int/files/adaptation/application/pdf/kumar_session3.pdf>
Flood risk management	A project was coordinated by the Natural Disaster Management Institute, the National Institute of Water and the National Institute of Meteorology of Mozambique to create an early warning system for floods, including: • Monitoring the situation • Assessing and analysing the situation and recommending responses • Ensuring collaboration and coordinating activities • Preparing a seasonal forecast for flood prediction	UNISDR/AUC <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/cadribo_session2.pdf>
Risk transfer		
Micro and meso index insurances	Providing insurance for farmers, banks, co-ops and communities, in order to reduce risk enough to be able to unlock their productivity. The insurance is: • Engineered to enhance production • Science based • Farmer driven	International Research Institute for Climate and Society <http://unfccc.int/files/adaptation/application/pdf/osgood_session3.pdf>
Sovereign disaster risk solutions	The African Risk Capacity (ARC) supports vulnerable groups dealing with risks, by: • Pooling risk across African nations • Transferring risk from vulnerable communities • Bulking the burden to the pool so that international financial markets can handle it • Transferring ownership of disaster risk to African governments	ARC <http://unfccc.int/files/adaptation/application/pdf/kassam_session3.pdf>

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
	• Creating incentives for risk reduction • Ensuring objectivity, transparency, accountability and fairness • Providing financial management of weather-related risks through the software tool Africa RiskView Macro	
Addressing slow onset events		
Software tool, ArcGIS, for coastal management	Senegal has integrated climate change considerations into its mainstream national development priorities. It is making use of non-structural measures, such as: • Training and awareness-raising • Strengthening the protection and development of the littoral area (i.e. beach and fish processing areas) • Developing, strengthening and implementing the regulation on coastal protection and adaptation to climate change • The revision of the Environment Code and the formulation of the law on coastal zones, which are at a very advanced stage • Communication	Centre de Suivi Ecologique <http://unfccc.int/files/adaptation/application/pdf/sall_session4.pdf>

[a] The titles of the measures and tools are derived from the presentations given at the expert meeting as well as from the information sheets provided by the meeting participants.

[b] The description of the measures and tools is based on the information provided by the meeting participants.

Table 3

Relevant examples of measures and tools for addressing loss and damage, presented at the expert meeting for the Latin American region[2]

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
Risk reduction		
Climate risk management at the subnational level in the agriculture sector	To reduce the risks of reduction and variability in yields due to multiple hazards, such as temperature increase and glacial retreat, in Junin and Piura in Peru, the United Nations Development Programme (UNDP) and the International Institute for Sustainable Development (IISD) have developed solutions for agriculture in the two focus regions, involving: • Agricultural practices and ancestral knowledge around water and irrigation; organic fertilizers; crop diversification; topographical planning • Irrigation, reservoirs, use of groundwater and reforestation • Access to finance, insurance and markets • Improved collection and processing of and access to data and information on climate hazards and risks • Diversification of livelihoods away from agriculture	UNDP and IISD <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/rajeev_isaar_undp-bcpr,_marius_keller_iisd.pdf>
Climate risk management at the national level in the agriculture sector	To deal with the risks of increased water scarcity, decreasing crop yields and greater variation, and the destruction of crucial infrastructure, UNDP and IISD have developed several solutions to reduce the risks involved in smallholder agriculture in Honduras: • Strengthening local governance and social organization • Territorial planning and land titles • Protecting water resources and managing water use efficiently • Soil management and crop diversification • Access to credit and insurance • Climate-proof infrastructure • The collection, processing and accessibility of climate data	UNDP and IISD <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/rajeev_isaar_undp-bcpr,_marius_keller_iisd.pdf>
Climate risk management in the health sector	To deal with the risk of disease closely related to rainfall and extreme weather events, UNDP and IISD have developed solutions for the health sector in Nicaragua: • Universal and secure access to water and sanitation	UNDP and IISD <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/rajeev_isaar_undp-

[2] The definitions of types of approach used for the purpose of the tables in this annex are based on the literature review contained in document FCCC/SBI/2012/INF.14. Some measures and tools could be categorized under several types of approach; however, they have been included here only under the most relevant type of approach.

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
	• Water conservation, flood controls and reforestation • Expanded coverage of health services • Awareness-raising campaigns • Increased support for community disaster committees • Climate and health monitoring and early warning systems	bcpr,_marius_keller_iisd.pdf>
Integrated risk management framework	In order to address loss and damage associated with climate change, Peru has implemented several actions to reduce risk: • The determination of hazards and risks • The development of a vulnerability model • The development of hazard and risk models • The preparation and maintenance of infrastructures to withstand extreme weather events • The development of a financial risk management strategy	Deutsche Gesellschaft für Internationale Zusammenarbeit <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/philine_oft_giz.pdf>
Funding for disaster-preventive actions	FOPREDEN is a federal fund that supports disaster prevention by channelling resources to the public sector at the federal level, states and municipalities for activities related to risk assessment, risk reduction and capacity-building for disaster prevention in Mexico: • Promotes informed decision-making on investment in risk reduction • Promotes and replicates model prevention projects • Actions focused on the identification and evaluation of hazards, vulnerabilities and risks • Actions focused on risk reduction and mitigation of the damage caused by the impact of natural phenomena, as well as on avoiding the social construction of risks • Actions focused on strengthening the preventive capacities of the population and self-protection before risk situations develop	National Center for Disaster Prevention <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/enrique_guevara_cenapred.pdf>
Risk retention		
Contingency funding for natural disaster	In response to the Mexican Government's concern about increasing its capacity to attend to the damage caused by natural phenomena without altering the public finances, the natural disaster fund FONDEN was created. It serves to: • Create databases of the main public assets and infrastructure, including aspects like geographical location, building characteristics and replacement cost • Analyse risk, in order to support the design of risk transfer	Natural Disasters Fund Director General <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/rubem_hofliger_fonden.pdf>

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
	approaches	
Risk transfer		
El Niño insurance scheme	The El Niño insurance in Peru was developed on the basis of a public index that is periodically released by the National Oceanic and Atmospheric Administration. The insurance: • Pays in January before significant flooding starts in February • Improves opportunities for the mitigation of losses • Reduces financial vulnerability to El Niño	GlobalAgRisk <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/victor_cardenas_globalagrisk.pdf>
Addressing slow onset events		
Regional climate information systems	The Centro Internacional para la Investigación del Fenómeno de El Niño (CIIFEN) has established a regional climate information system for sectoral risk management to address loss and damage associated with slow onset events	CIIFEN <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/juan_jose_nieto_ciifen.pdf>

[a] The titles of the measures and tools are derived from the presentations given at the expert meeting as well as from the information sheets provided by the meeting participants.

[b] The description of the measures and tools is based on the information provided by the meeting participants.

Table 4
Relevant examples of measures and tools for addressing loss and damage, presented at the expert meeting for the Asian and Eastern European region[3]

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
Risk reduction		
Enhancement of national coping capacity	A series of studies under the Loss and Damage in Vulnerable Countries Initiative aimed at increasing Bangladesh's capacity to cope with loss and damage, by: • Understanding the science of loss and damage through, for example, a series of technical papers • Enabling discussions that further ideas on loss and damage • Examining the legal, policy and institutional aspects of loss and damage at the national level; determining the national context and next steps • Enhancing the knowledge base at the national level; engaging stakeholders and encouraging more research and activities • Engaging in international discourse	International Centre for Climate Change and Development <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/compilation_of_range_of_approaches_to_loss_and_damage_bangkok_2012_rev.pdf>
Pilot programme for climate-resilient national development planning	A pilot project of the Asian Development Bank (ADB) for integrating the consideration of climate resilience into national development planning and providing incentives for scaled-up action: • Country-led project, built on national adaptation programmes of action or equivalent, and aligned with other donor-funded activities • Technical assistance to integrate climate resilience into national and sectoral development plans • Public- and private-sector investments addressing climate resilience • At the time of the expert meeting seven pilot programmes in Asia and the Pacific existed (in Bangladesh, Cambodia, Nepal, Papua New Guinea, Samoa, Tajikistan and Tonga)	ADB <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfccc_charles_adb.pdf>
Assessment of damage to river basin	Estimations and tools for addressing loss and damage in the Mekong River Basin related to the adverse effects of climate change, which are prioritized for issues of a transboundary nature and those affecting the most vulnerable populations. Components include:	Mekong River Commission Secretariat <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/bkk_expertmeeting_anthony_mkrc.pd

[3] The definitions of types of approach used for the purpose of the tables in this annex are based on the literature review contained in document FCCC/SBI/2012/INF.14. Some measures and tools could be categorized under several types of approach; however, they have been included here only under the most relevant type of approach.

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
	• The development of shared predictive tools for assessing hydrological changes in the river regime due to climate and development scenarios • The collection and collation of tools and data, including on flood and drought damage, fisheries, and social and environmental impacts • Capacity-building in member countries for assessing climate change impacts and vulnerabilities, using the available tools and supporting pilot adaptation projects • Fostering cooperation and providing high-quality information to allow climate change adaptation to be integrated into development policies	f> <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/info_sheet_mekongrivercommission.pdf>
Reduction of vulnerability to floods	The work carried out in the Dniester River Basin aims at reducing security risks resulting from flooding by improving the adaptive capacity of Ukraine and the Republic of Moldova, including by: • Strengthening cooperative management to address the cross-border management of floods • Processing collected data and information to use as a basis for developing an agreed assessment of climate change impacts, focusing on flood problems • Assessing vulnerability: identifying the most vulnerable areas, economic activities, ecosystems and population groups and jointly planning and prioritizing risk reduction measures accordingly • Producing flood risk maps • Improving the monitoring and forecasting of transboundary floods • Enhancing knowledge through workshops for national and local experts and the production of local early warning plans and information material for the general population	ZOI Environment Network <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/info_sheet_floods_dniester_lnikolayeva.pdf> <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/bangkok.reg.expert_lnikolayeva_last.pdf>
Risk retention		
Contingency loans	The Catastrophe Risk Deferred Drawdown Option is a type of contingent loan and forms part of the World Bank Disaster Risk Financing and Insurance products and services, providing immediate liquidity following a natural disaster, in the form of a contingent loan with associated risk framework reforms	World Bank <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfcc_wb_drfi_mahul.pdf>
Risk transfer		

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
Weather derivatives	The Malawi Drought Hedge is the first weather risk management contract to protect against the risk of severe drought and forms part of the World Bank Disaster Risk Financing and Insurance products and services. The weather derivatives provide insurance against weather-related losses, on the basis of an index	World Bank <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfcc_wb_drfi_mahul.pdf>
Disaster risk financing and insurance programme	The World Bank Disaster Risk Financing and Insurance Program is a World Bank partnership to increase the fiscal resilience of States against natural disasters through the mainstreaming of disaster risk financing and insurance in national disaster risk management strategies, including: • Policy dialogue and knowledge management • Technical assistance and advisory services • Product development	World Bank <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfcc_wb_drfi_mahul.pdf>
Catastrophe bond	The catastrophe bond provides insurance-linked securities and forms part of the World Bank Disaster Risk Financing and Insurance products and services. A multi-country, multi-peril catastrophe bond platform was recently launched in order to pool and transfer risk to the capital markets	World Bank <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfcc_wb_drfi_mahul.pdf>
Addressing slow onset events		
Assessment and reduction of the risk of glacial lake outburst floods	To reduce the risk of loss and damage due to glacial lake outburst floods from the Tsho Rolpa glacial lake in Nepal, the International Centre for Integrated Mountain Development (ICIMOD) has commenced a project addressing the issue. The experience gained from the project is expected to be used by the Government of Nepal, as well as other governments in the region, to formulate and implement other risk reduction measures. The implementation strategy of the project included: • Risk assessment • A detailed geophysical study of the lake and the downstream environment • The formulation of the detailed project • Detailing the engineering design, planning and contracting • The implementation of the engineering work • Regular monitoring and controlling of the engineering structure	ICIMOD <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/info_sheet_templateglof_tshorolpa_icimod.pdf>

[a] The titles of the measures and tools are derived from the presentations given at the expert meeting as well as from the information sheets provided by the meeting participants.

[b] The description of the measures and tools is based on the information provided by the meeting participants.

Table 5

Relevant examples of measures and tools for addressing loss and damage, presented at the expert meeting for small island developing States[4]

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
Risk reduction		
Early warning systems	To reduce casualties and impacts on human life and livelihoods resulting from the adverse effects of climate change, the United Nations Development Programme (UNDP) put forward several projects to implement and increase the accessibility of early warning systems, including: • The Dewetra Platform, a forum for discussion between hydrometeorological and disaster-management communities, establishing a decision-support system that provides information on the nature and scale of the event and the likelihood of the occurrence of the event • Risk communication, public education and multi-hazard early warning systems in multiple languages, using several media to put out information	UNDP Barbados <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ms_mcdonnough_undp_oecs_session_3_barbados_2012.pdf>
Disaster loss databases	DesInventar is an inventory of databases on disasters of all magnitudes, especially on small and medium-sized disasters, which includes: • An emphasis on the spatial disaggregation of large-scale disasters • The collection of data on small disasters • A focus on local entities • Free open-source code software, distributed under the General Public License	Corporación OSSO <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ms_rosales_climent_corporacion_osso_session_3_barbados_2012.pdf>
Risk transfer		
Disaster risk financing and insurance solutions	In order to increase financial resilience against natural disasters, the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI) provides several risk transfer measures, including:[c] • Institutional building of the capacity to develop an integrated disaster risk financing strategy and risk-based financial planning • Financial disaster risk management • Fiscal risk exposure • Regional risk pooling	PCRAFI <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ms_cook_sopac_session_4_barbados_2012.pdf>

[4] The definitions of types of approach used for the purpose of the tables in this annex are based on the literature review contained in document FCCC/SBI/2012/INF.14. Some measures and tools could be categorized under several types of approach; however, they have been included here only under the most relevant type of approach.

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
	• The development of a Pacific disaster risk insurance market • A Pacific disaster risk insurance pilot The risk information system of PCRAFI provides: • Macroeconomic planning and disaster risk financing • Integration of climate change projections • Professional and institutional capacity development • Urban planning and infrastructure design	
Catastrophe risk insurance facility	The Caribbean Catastrophe Risk Insurance Facility was launched as a public–private partnership and is the World Bank's response to Caribbean governments. The facility:[d] • Covers sovereign risk via parametric insurance • Is designed to offset the financial impact of hurricanes and earthquakes by providing quick liquidity • Is capitalized by donors (Bermuda, Canada, European Union, France, Ireland, United Kingdom, Caribbean Development Bank and World Bank) and the 16 member governments (via an initial membership fee) • Is further financed by governments, which pay a premium related to the amount of risk that they transfer to the facility • Allows total objectivity and transparency and rapid payouts (14 days after an event), which are based on the coverage conditions and the parameters of the event	CaribRM, Risk Managers to the Caribbean <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/mr_young_ccrif_session_4_barbados_2012.pdf>
Addressing slow onset events		
Water resources management addressing sea level rise	In order to address sea level rise associated with the adverse effects of climate change, Kiribati has implemented a strategy for water management to protect, expand and manage the water resources on low-lying coral atolls, including: • The assessment of the water distribution system • Foreshore protection • The provision of an enabling environment for the general public to increase the capacity for water catchment • The encouragement of water conservation practices	Strategic National Policy Unit and the Kiribati Adaptation Program, Office of the President, Kiribati <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/info_sheet_water_conservation_kiribati.pdf>
Relocation	As part of its development agenda and climate change adaptation policy, Kiribati is preparing its population for the event that it wishes to migrate, through: • The introduction and improvement of internationally accredited technical and vocational programmes	Strategic National Policy Unit, Office of Te Beretitenti, Kiribati <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/info_sheet_new_relocation_kiribati.pd

Measure/tool[a]	*Description*[b]	*Information provided by/further information available at*
	• Seasonal employment programmes in Australia and New Zealand • The adaption of the skills of the population to better meet the demands of the international employment market, especially focusing on English-language training	f>
Other[e]		
Awareness-raising and education	The youth programme of UNDP was established to engage young people by increasing their understanding of climate change impacts and extreme weather events and to train them as volunteers to respond to crises, while building national capacities for climate proofing the development process, through: • Youth participation in climate change negotiations • Youth advocacy of climate-resilient development (various media) • The participation of youth volunteers in disaster response and community vulnerability assessments	UNDP Barbados <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ms_mcdonnough_undp_oecs_session_3_barbados_2012.pdf>
South–South cooperation	The UNDP Pacific Caribbean South–South Project to strengthen resilience in the Caribbean was established to: • Organize additional opportunities for the continued exchange of ideas • Share experience of vulnerability reduction replicable in the Pacific and Indian Ocean States • Promote continued partnership with international and bilateral partners to strengthen States' disaster risk reduction capabilities	UNDP Barbados <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ms_mcdonnough_undp_oecs_session_3_barbados_2012.pdf>

[a] The titles of measures and tools are derived from the presentations given at the expert meeting as well as from the information sheets provided by the meeting participants.

[b] The description of the measures and tools is based on the information provided by the meeting participants.

[c] Measure was also presented by the World Bank at the regional expert meeting for the Asian and Eastern European region. For further information, please see the World Bank's presentation, available at <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfcc_wb_drfi_mahul.pdf>.

[d] Measure was also presented by CaribRM, Risk Managers to the Caribbean, at the expert meeting for the Latin American region and by the World Bank at the expert meeting for the Asian and Eastern European region. For further information, please see <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/ekhosuehi_iyahen_ccrif.pdf> and <http://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/unfcc_wb_drfi_mahul.pdf>.

[e] Measures that could not be assigned to any of the four types of approach.