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National communications from Parties not included in Annex I to the Convention

Compilation and synthesis of initial national communications

**Possible means to implement projects pursuant to
Article 12, paragraph 4, of the Convention**

Note by the secretariat

Summary

This note contains information on possible means to implement projects proposed in initial national communications of Parties not included in Annex I to the Convention in accordance with Article 12, paragraph 4, of the Convention. Document FCCC/SBI/2004/INF.13 provides details on these projects.

The Subsidiary Body for Implementation may wish to consider the information in this note and recommend a decision on this matter for adoption by the Conference of the Parties at its tenth session.

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I. Introduction

A. Mandate

1. The Conference of the Parties (COP), by its decision 2/CP.9, requested the secretariat, in consultation with the financial mechanism of the Convention and its implementing agencies, to prepare, for consideration at its tenth session, an information document on possible means to facilitate the implementation of projects proposed for funding by Parties not included in Annex I to the Convention (non-Annex I Parties), on a voluntary basis, in accordance with Article 12, paragraph 4, of the Convention.

B. Scope of the note

2. Chapter II describes the methodology used to examine the list of project proposals compiled from initial national communications of non-Annex I Parties and contained in the UNFCCC database, in order to provide an up-to-date overview of the projects proposed, by sector and by region, and to examine the information provided in these project proposals. Chapter III describes possible means to facilitate the implementation of the projects.

C. Possible action by the Subsidiary Body for Implementation

3. The Subsidiary Body for Implementation (SBI) may wish to take note of the information in this document. It may also wish to recommend a draft decision on this matter for adoption by the COP at its tenth session.

II. Methodology

A. Approach

4. According to Article 12, paragraph 4, of the Convention developing country Parties may “on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits.”

5. The COP, by its decision 12/CP.4, paragraph 7 (d), requested the secretariat to compile and make available to Parties a list of project proposals submitted by non-Annex I Parties. In response the secretariat developed a database to facilitate the regular updating of the list of project proposals. After a careful study of the projects proposed, the secretariat determined that emission sources categories proposed in a 1996 Intergovernmental Panel on Climate Change (IPCC) technical paper on *Technologies, Policies and Measures for Mitigating Climate Change*¹ provided a comprehensive basis for classifying these proposals. The IPCC technical paper is organized by sectors: energy supply; residential, commercial and institutional buildings; transport; industrial; agriculture; forest; and solid waste and waste-water disposal.

6. In preparing this note, the information contained in the project proposal database, as well as national communications or addenda to them, were further examined. Non-Annex I Parties took different approaches to the provision of information in accordance with Article 12, paragraph 4, of the Convention in their national communications. Some presented information on activities that were being implemented, approved for funding or planned for implementation in the short term. Others identified prioritized areas for mitigation or mitigation options based on national circumstances. And some

¹ Available at <<http://www.gcric.org/ipcc/techrepI>>.

identified project concepts, profiles and profiles that refer readers to external documentation. In the light of these approaches, the secretariat determined that the projects could be grouped into three different categories. The latest updated list of the 741 project proposals submitted as of 24 September 2004 is contained in document FCCC/SBI/2004/INF.13.

7. It is recognized that due to the varying approaches (as explained above) used by non-Annex I Parties, the list of projects may not be a complete compilation of all activities proposed by them in response to Article 12, paragraph 4.

B. Classification of projects

1. Proposals identified as already implemented, approved for funding or planned for implementation

8. The 42 project proposals identified as already implemented, approved for funding or planned for implementation mainly cover the energy supply, forest, and residential, commercial and institutional buildings sectors. Subject to confirmation by the Parties concerned, it has been identified that through the Global Environment Facility (GEF) financial support, 11 proposals have either been implemented or are in the process of being implemented in Chile, Georgia, Kazakhstan, Mauritania, Senegal and Tunisia. Chile, Egypt, Indonesia, Iran and Zimbabwe have implemented or are in the process of implementing 25 projects as government initiatives. Under bilateral arrangements, Australia, Japan and the E7² have provided financial support to Indonesia to undertake five projects.

2. Prioritized areas/activities for mitigation or mitigation options

9. Of the 741 project proposals in the database, 259 could best be described as prioritized areas/activities for mitigation or mitigation options identified by some Parties as a result of mitigation assessments (see table 1). These proposals are indicative of important national enabling and capacity-building activities. In some cases, they have been presented as essential prerequisites to the process of project development. They include proposals, for example, to develop national systems for assessing potential mitigation options; baseline scenarios for the development and selection of policies and measures to mitigate climate change; the reorganization of national information in the energy sector; financing of decentralized electrification; inventories of emissions in the industrial sector; and assessment of national financial institutions and lending practices.

Table 1: Classification of proposals identified as prioritized areas/activities for mitigation or mitigation options

Emission source sectors	Number of proposals
Energy supply	58
Residential, commercial and institutional buildings	64
Industrial	41
Transport	42
Agriculture	15
Forest	25
Solid waste and waste-water disposal	14
Total	259

² Association of electricity utilities in Canada, France, Germany, Italy, Japan, United Kingdom of Great Britain and Northern Ireland and United States of America.

3. Proposals identified as project concepts and profiles

10. Of the 741 projects in the database, 440 are identified as project concepts and profiles proposed for financing in accordance with Article 12, paragraph 4, of the Convention. These 440 proposals originate from 47 initial national communications. These proposals were further differentiated by their comprehensiveness, ranging from elaborate proposals that closely follow, for example, the GEF templates for project proposal development, to simple, one-line statements of potentially interesting areas for project development. The proposals could therefore be further classified into three subcategories as shown in table 2.

Table 2: Classification of project concepts and profiles based on comprehensiveness of information provided

Project proposal type	Characteristics
Project concept (196 proposals)	An “idea” for a project, explicitly expressed in the national communication as an area/activity for project development for which implementation would depend upon financing and/or other support from the international community. Proposal contains minimal information, usually a project title and one or two lines of information
Project profile (167 proposals)	Proposal contains more information than a project concept, often the minimum information required to develop a more elaborate project proposal. For example, it may include estimates of cost, of greenhouse gas emission reduction, and of estimated impacts, and a list of stakeholders
Project profile with external documentation (77 proposals)	Similar characteristics as project profile, but refers the reader to additional documentation

C. **Compilation of project proposals by sector**

11. Due to the comprehensiveness of the information on project concepts and profiles, they were identified as having greater potential for further development than the prioritised areas/activities. As a result, the rest of this document provides further information only on the 440 project concepts and profiles and possible means to facilitate their implementation.

1. Energy supply sector (126 proposals)

12. The main activities in the energy supply sector that were identified included: more efficient conversion of fossil fuels; switching to low-carbon fossil fuels; and switching to renewable sources of energy.

13. Twenty-three proposals involve the efficient conversion of fossil fuels; 9 involve a switch to lower carbon fossil fuels; and 93 involve switching to renewable sources of energy (11 involve biomass, including waste; 10 geothermal and ocean sources; 21 hydropower; 20 solar, 9 wind; 22 involve multiple

renewable energy sources); and 1 involves decarbonization of flue gases and fuels, and CO₂ storage and sequestering.

2. Residential, commercial and institutional buildings sector (63 proposals)

14. Twelve proposals target energy-efficient lighting, 22 focus on cooking, 3 are on heating technology; 1 focuses on improved boilers; 22 involve various measures to improve energy management, for example through energy codes and national energy conservation programs in the sector; and 3 are on design and construction of energy-efficient buildings.

3. Industrial sector (63 proposals)

15. Seven proposals involve industrial energy efficiency gains; 4 involve fuel switching; 29 involve the introduction of new technologies and processes; 5 involve cogeneration and thermal cascading; and 18 target non-energy-related process improvements to reduce greenhouse gas (GHG) emissions from industrial processes.

4. Transport sector (48 proposals)

16. Seven proposals involve alternative energy sources; six involve transportation infrastructure and system changes; 13 aim to reduce transport energy intensity (including modal shifts and changing driving behaviour); and 22 aim to reduce vehicle energy intensity.

5. Agriculture sector (31 proposals)

17. Twelve proposals involve the improved management of ruminant livestock; 6 involve improved rice production practices; 3 aim to increase nitrogen fertilizer use efficiency; 7 aim to increase carbon sinks in agricultural soils; 1 focuses on improved management of livestock manure; and 2 aim for improved energy efficiency through reduction in fossil fuel use.

6. Forest sector (77 proposals)

18. Forty-one proposals target forest practices/goals; 19 target conservation of forests; 12 focus on production forestry or agroforestry; and 5 cover fuelwood conservation and use of recycled wood products.

7. Solid waste and waste-water disposal sector (32 proposals)

19. Fourteen proposals target methane recovery from solid-waste disposal and reduction from waste water; 2 focus on reducing GHG emissions through source reduction activities; 6 focus on composting initiatives; and the remaining 10 focus on various associated waste aspects.

D. Compilation of project proposals by geographic distribution

20. Of the 440 project proposals, 194 were proposed by 24 African Parties, 146 by 13 Latin American and Caribbean Parties, 83 by 8 Asian Parties, and 17 by 2 Parties from the Eastern Europe. Two common project themes emerged from the examination of the project proposals:

- (a) **Desalination of water using renewable energy sources:** Parties from Africa, Asia and the Pacific, and Latin America and the Caribbean proposed projects to desalinate water using renewable energy sources
- (b) **Improved cement production processes and efficiency:** Parties from Africa, Asia and the Pacific, Europe, and Latin America and the Caribbean proposed projects to improve cement production processes.

1. Africa

21. In the energy supply sector, Parties examined opportunities for project development in the area of solar and biomass energy. In particular, six of 24 Parties proposed mitigation projects involving photovoltaic (PV) electrification. In the residential, commercial and institutional buildings sector, nine of 24 African Parties proposed projects targeting improved cooking technologies or techniques.
22. Twelve project proposals in the industrial sector target energy efficiency gains, and, in particular, the improved efficiency of industrial boilers and furnaces.
23. In the transport sector, nine of 25 project proposals submitted aim to reduce the energy intensity of light vehicles. Four of these specifically target the development of vehicle maintenance and inspection programmes. Ten Parties proposed similar types of projects aimed at improving energy efficiency in the transport system and at removing barriers to energy conservation and efficiency.
24. In the agricultural sector, 20 projects were proposed, aimed at improving management of ruminant livestock, increasing the efficiency of nitrogen fertilizer usage, increasing carbon sinks in agricultural soils, improving rice production practices, and improving management of livestock manures.
25. Seven Parties proposed 36 projects in the forest sector. Proposals to reforest and afforest lands to create so-called conservation forests are of priority in this region.
26. Parties submitted 19 proposals in the solid waste and waste-water disposal sector aimed at increasing composting services, and at methane recovery from solid waste and waste water.

2. Asia and the Pacific

27. In the energy supply sector, six Parties proposed 14 renewable energy projects, including six solar energy projects, three on hydropower, one on biomass energy sources, one on geothermal energy sources and three targeting multiple renewable energy technologies.
28. Six proposals focus on new technologies and processes and three target energy efficiency gains.
29. Fifteen projects were proposed targeting energy demand in residential, commercial and institutional buildings. Two Parties proposed efficient lighting measures. Two projects target improvements in the thermal integrity of Asian buildings. Four proposals target improved cooking technology. Seven proposals aimed at improving energy management.
30. One proposal in the transport sector aims to reduce energy intensity through improved public transit and road pricing strategies. Four additional projects target improvement of fleet management.
31. Six Parties proposed projects for financing activities in the forest sector.
32. A mix of eight projects was identified for mitigation in the solid waste and waste-water disposal sector. This included six projects targeting methane recovery from solid waste, one involving methane recovery from waste water and one involving source reduction.

3. Latin America and the Caribbean

33. Four Parties in the region proposed projects targeting hydropower development.
34. In the industrial sector, three Parties proposed projects aimed at substitution of conventional industrial fuels with natural gas (fuel switching).
35. In the residential, commercial and institutional buildings sector, energy-efficient lighting is of most interest, addressed in proposals from seven Parties.

36. In the agriculture sector, three proposals target the improved management of ruminant livestock.

37. The forest sector is also of interest to Latin America and the Caribbean Parties. Parties proposed 32 forest projects that target conservation forests and production forestry/agroforestry and slowing deforestation and assisting regeneration.

38. Four Parties from Latin America and the Caribbean proposed projects that target a mix of activities on waste-water treatment, composting and recycling.

E. Screening the proposals against Article 12, paragraph 4, of the Convention

39. In keeping with the voluntary nature of Article 12, paragraph 4, the 440 project concepts and profiles were examined to determine if the following information was provided:

- (a) **Specific technologies, materials, equipment, techniques or practices needed to implement the proposed project.** A total of 310 project proposals provide information relating to the specific technologies, materials, equipment, techniques or practices needed. For the remainder, only inferences of the technologies, materials, equipment, techniques or practices needed to implement could be made based largely on the project titles and the sector(s) targeted for intervention
- (b) **An estimate of all incremental costs (if possible), of the reductions of emissions and increments of removals of greenhouse gases.** No project concepts or profiles provide an estimate of the incremental cost(s) associated with their implementation. Instead, 114 estimate the project costs either as a single estimate of total project cost, or as a project budget including estimated costs for specific project activities and materials
- (c) **Estimate of the consequent benefits.** A total of 197 proposals include qualitative and/or quantitative information describing the expected benefits. Of these, 123 include a quantifiable estimate of emission reduction/removal from the atmosphere, and 74 include only a description of likely global and/or local benefits.

III. Possible means to facilitate the implementation of projects proposed for funding

40. Resources for the implementation of project concepts and profiles proposed for funding by non-Annex I Parties may be obtained through several funding channels, including the GEF and bilateral, regional and other multilateral institutions as stipulated in Article 11, paragraphs 1–5, of the Convention.

41. Of the 440 proposals, 210 appear to fall into various strategic priorities and major market applications within the GEF under its operational programmes (OP) 5, 6, 7 and 11. Subject to meeting the criteria established by the GEF, these proposals could be implemented under the OPs as follows:

- (a) OP5, Removal of Barriers to Energy Efficiency and Energy Conservation (80)
- (b) OP6, Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs (99)
- (c) OP7,³ Reducing the Long-Term Costs of Low Greenhouse Gas-Emitting Energy Technologies (18)

³ All 18 of the concepts and profiles relevant to OP7 were also deemed relevant to OP6 and OP11, and so are tallied under these OPs as well.

(d) OP11; Promoting Environmentally Sustainable Transport (31).

42. The remaining 230 proposals could also benefit from resources available under the Small Grants Programme (SGP) of the GEF and the short-term response measures (STRM) of the GEF under the climate change focal area, for example:

- (a) Fuel switching in the energy, industrial and residential sectors
- (b) Waste disposal and agricultural sectors.

43. OP12 (Integrated Ecosystem Management) under the biodiversity focal area could also provide an avenue to fund some land-use change and forestry projects, which may have climate change benefits.⁴

44. An attempt was made to identify perceived gaps between the GEF OPs and their corresponding major market objectives and project proposals. For example, 24 proposals that target energy-efficiency and conservation appear to fall outside the scope of OP5. Eleven of these target improved cooking technologies and nine target energy efficient lighting in the residential sector. However, some of these proposals could benefit from resources available under the SGP.

45. Projects proposed for funding in accordance with Article 12, paragraph 4, of the Convention could be facilitated through a combination of means (financial and technical) as outlined in paragraphs 42 and 43. In this regard, GEF, bilateral, and other multilateral channels of support may be used to address the following:

- (a) Capacity-building for national and regional experts to enable them to prepare project proposals for funding
- (b) Provision of additional resources for the development of project proposals
- (c) Development of a template and other tools to assist Parties wishing to propose projects for funding in the national communications
- (d) Development of an online database to facilitate the dissemination of information on proposals submitted.

46. National circumstances appear to be the main driver of project concepts and profiles. It was not clear from information reported in initial national communications of non-Annex I Parties what steps had been taken to further the implementation of projects proposed for funding in accordance with Article 12, paragraph 4, of the Convention. However, this review of proposals suggests the following activities could be implemented on a regional basis:

- (a) Solar and biomass energy projects
- (b) Hydropower and biogas energy projects
- (c) Projects to improve industrial boiler efficiency
- (d) Projects to identify energy conservation solutions
- (e) Projects to improve energy efficiency in the transport sector.

⁴ The scope of OP12 has, over the years, been broadened from its original focus on carbon sequestration to include integrated land-use project proposals.