



CAPACITY DEVELOPMENT INITIATIVE

Country Capacity Development Needs and Priorities

A Synthesis

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GEF - UNDP Strategic Partnership

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ABBREVIATIONS AND ACRONYMS

AIJ	Activities Implemented Jointly
ALGAS	Asia Least-Cost Greenhouse Gas Abatement Strategy
ARCBC	ASEAN Regional Centre for Biodiversity Conservation
ASEAN	Association of South East Asian Nations
BPOA	Barbados Plan of Action
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CBO	Community-based organization
CCD	Convention to Combat Desertification
CDCC	Caribbean Development Cooperation Committee
CDI	Capacity Development Initiative
CDM	Clean Development Mechanism
CILLS	Permanent Interstate Committee for Drought Control in the Sahel
CTI	Climate Technology Initiative
DHM	Department of Hydrology and Meteorology, Nepal
ECA	Economic Commission for Africa
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Commission of West African States
EECA	Eastern Europe and Central Asia
EIA	Environmental Impact Assessment
EIU	Economist Intelligence Unit
ENSO	El Nino Southern Oscillation
GEF	Global Environment Facility
GHG	Greenhouse gas
IGAD	Intergovernmental Authority on Development
IPCC	Inter-governmental Panel on Climate Change
LAC	Latin America and the Caribbean
LULUCF	Land Use, Land-use Change and Forestry
NCA	National Capacity Assessment
NGO	Non-governmental organization
OECD	Organization for Economic Co-operation and Development
SADC	Southern African Development Community
SPOCC	South Pacific Organizations Coordinating Committee
SPREP	South Pacific Regional Environment Programme
STAP	Scientific and Technical Advisory Panel (of the GEF)
UCCEE	UNEP Collaborating Centre on Energy and Environment
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change

UNITAR	United Nations Institute for Training and Research
USP	University of South Pacific
UWI	University of the West Indies
V&A	Vulnerability and Adaptation
VNCCCT	Vietnam Climate Change Country Team
WCED	World Conference on Environment and Development

EXECUTIVE SUMMARY

- i. At its May 1999 meeting, the GEF Council expressed support for a Strategic Partnership between the GEF Secretariat and UNDP to produce a comprehensive approach for developing the capacities needed at the country level to meet the challenges of global environmental action. In January 2000, the GEF Secretariat and UNDP launched the Capacity Development Initiative (CDI) – a consultative process involving extensive outreach and dialogue to identify countries' priority issues and capacity development needs, and, based on these findings, to develop a strategy and action plan that addresses identified needs.
- ii. The first phase of the CDI – assessment phase – has identified the capacity development needs of countries on the one hand, and has also distilled lessons learned from GEF-financed activities and efforts of other multilateral and bilateral agencies. This report synthesizes the main findings of the former namely, priority issues and capacity development needs of countries in responding to the global environmental management challenges presented in the three thematic areas of biodiversity, climate change and land degradation. It draws from four detailed regional assessments (Africa, Asia-Pacific, Europe and Central Asia, Latin America and the Caribbean) and two cross cutting studies – one on the special needs of small island developing states and the second on scientific and technical capacity needs.
- iii. The CDI is premised on a conceptual approach that conceives of capacity development in terms of the systemic, institutional and individual dimensions of the process and also recognizes the dynamic nature of the process. Priority capacity development needs in the three thematic areas of biodiversity, climate change and land degradation (detailed in the thematic chapters of the report) are predominantly of a broad systemic nature, together with a range of supporting needs at the level of institutions and individuals.
- iv. At the systems level, regional assessments reflect a growing appreciation of the need to integrate capacity development interventions into a holistic development framework in order to ensure a more systematic integration of such needs into the overall national planning process. The perspective which is emphasized in a number of the regional reports, is perhaps most aptly reflected in the regional assessment for Latin America and the Caribbean which asserts that 'it is necessary to integrate systems for environmental management in order to achieve a better linkage among political, legal and institutional frameworks. This would include the strengthening of mechanism to initiate dialogue, seek consensus and integrate environmental considerations within sectoral policies and development plans'.
- v. The marked need for effectively integrating environmental management within a holistic development framework also poses challenges at the level of institutions. Developing capacity at the institutional level to address these challenges can frequently mean the need to adjust existing structures.
- vi. Similarly, the technical complexity inherent in the issues relating to biodiversity, climate change, and land degradation, and the need for a more integrated approach to these issues, is generating a need for strengthened national expertise in areas such as environmental economics, ecosystem management, taxonomy and bioprospecting. Consequently, capacity development at the level of the individual is also likely to involve demands for new and more vigorous forms of training.
- vii. The report also identifies a number of important lessons that are emerging on the content and process requirements for responding to capacity development needs in the areas of biodiversity, climate change and land degradation. Just as countries' continue to place more emphasis on developing capacities at the systems level, the conceptual understanding of capacity development on the part of international development cooperation agencies has also evolved from institution-specific, skill-enhancement and training-based approaches to a more systemic perspective. However, despite progress

made at the conceptual level and in corporate policies, regional assessments report that this approach is not always reflected in actual practice in terms of projects and programs.

viii. Important observations emerging from the regional assessments and cross cutting studies include a large number of capacity development needs at the overall systems levels, commonalities in thematic issues and capacity development needs between regions (with some regional variations in emphasis), the existence of synergies across conventions in terms of capacity needs, the need to emphasize long-term programmatic approaches to capacity development that are driven by national teams encompassing a broad range of stakeholders and that reflect country priorities, and the need to capitalize on opportunities for regional cooperation.

ix. Some of the key conclusions emerging from the regional and cross cutting assessments are the need for national self-assessments of capacity development needs that are participatory, nationally-driven, and that receive needed technical and financial support; targeted capacity development initiatives that enable countries to address priority issues within the framework of global environmental conventions; and to revisit the way in which capacity development activities are being designed and implemented within the context of existing projects.

RESUMEN EJECUTIVO

- i. Durante su reunión de mayo de 1999, el Consejo del FMAM manifestó su apoyo a la formación de una Asociación Estratégica entre el PNUD y la Secretaría del FMAM con el fin de elaborar un método global de desarrollo de las capacidades necesarias a nivel nacional para poder enfrentar los desafíos inherentes a la acción ambiental mundial. En enero de 2000 el PNUD y la Secretaría del FMAM lanzaron la Iniciativa de Desarrollo de Capacidades (IDC). La misma representa un proceso consultivo que conlleva actividades de divulgación y diálogo de amplio alcance con el propósito de identificar los temas prioritarios de los países así como también las necesidades de desarrollo de sus capacidades y, sobre la base de las conclusiones que surjan, desarrollar una estrategia y plan de acción para cubrir las necesidades identificadas.
- ii. La primer etapa de la IDC, denominada etapa de evaluación, ha identificado, por una parte, las necesidades de desarrollo de capacidades de los países y por la otra ha extraído las lecciones aprendidas de las actividades financiados por el FMAM y de esfuerzos de otros organismos multilaterales y bilaterales. El presente informe sintetiza las principales conclusiones respecto de la primera cuestión, es decir, los temas prioritarios y necesidades de desarrollo de la capacidad de los países en respuesta a los desafíos de gestión del medio ambiente mundial en las tres áreas temáticas correspondientes a biodiversidad, cambio climático y degradación de tierras. Se basa en cuatro evaluaciones regionales detalladas (África, Asia-Pacífico, Europa y Asia Central, América Latina y el Caribe) y en dos estudios transversales, uno de ellos sobre las necesidades especiales de los pequeños estados insulares en desarrollo y el segundo sobre las necesidades de capacidad científica y tecnológica.
- iii. La IDC se basa en la premisa de un enfoque conceptual que concibe el desarrollo de la capacidad en términos de las dimensiones sistémicas, institucionales e individuales del proceso y que reconoce asimismo la naturaleza dinámica de dicho proceso. Las necesidades prioritarias de desarrollo de la capacidad en las tres áreas temáticas de biodiversidad, cambio climático y degradación de tierras (detalladas en los capítulos temáticos del informe) tienen en su mayor parte una naturaleza sistémica amplia, junto con una gama de necesidades suplementarias en lo que concierne a las instituciones e individuos.
- iv. A nivel de los sistemas, las evaluaciones regionales reflejan una creciente valoración de la necesidad de integrar las intervenciones para el desarrollo de la capacidad en un marco de desarrollo holístico con el fin de asegurar una integración más sistemática de tales necesidades dentro del proceso general de planificación nacional. La perspectiva que se enfatiza en varios de los informes regionales se refleja probablemente con mayor exactitud en la evaluación regional para América Latina y el Caribe. Dicha evaluación afirma que "es necesario integrar los sistemas de gestión ambiental a fin de lograr un mejor vínculo entre los marcos políticos, legales e institucionales, lo cual incluiría el fortalecimiento del mecanismo para el inicio de diálogos, búsqueda de consenso e integración de las consideraciones ambientales dentro de políticas sectoriales y planes de desarrollo."
- v. La necesidad acentuada de una efectiva integración de la gestión ambiental dentro de un marco de desarrollo holístico también presenta desafíos a nivel institucional. El desarrollo de la capacidad a nivel institucional necesaria para abordar estos desafíos puede a menudo significar la necesidad de efectuar ajustes en las estructuras existentes.
- vi. Del mismo modo, la complejidad tecnológica inherente a los temas relacionados con la diversidad biológica, cambio climático y degradación de tierras, y la necesidad de un enfoque más integrador de estas cuestiones genera la necesidad de contar con una especialización nacional más sólida en áreas tales como la economía ambiental, gestión de ecosistemas, taxonomía y bioprospección. En consecuencia, es

probable que el desarrollo de la capacidad a nivel individual también implique la necesidad de nuevas y más vigorosas formas de capacitación.

vii. Asimismo, el informe identifica un número de lecciones importantes acerca del contenido y los procesos necesarios para dar satisfacción a las necesidades de desarrollo de la capacidad en las áreas de biodiversidad, cambio climático y degradación de tierras. De la misma forma en que los países continúan enfatizando el desarrollo de capacidades a nivel de sistemas, el entendimiento conceptual de desarrollo de la capacidad por parte de las instituciones internacionales de cooperación para el desarrollo también ha evolucionado desde un enfoque basado en la capacitación y el fortalecimiento de las aptitudes centralizado en instituciones específicas hacia una perspectiva más sistémica. Sin embargo, a pesar del progreso que se logró a nivel conceptual y en lo referente a políticas institucionales, las evaluaciones regionales indican que este enfoque no siempre se refleja en la práctica en términos de proyectos y programas.

viii. Observaciones de importancia que surgen de las evaluaciones regionales y de los estudios transversales incluyen un amplio espectro de necesidades de desarrollo de la capacidad a nivel de sistemas generales, características comunes en asuntos temáticos y necesidades de desarrollo de la capacidad entre regiones (con énfasis en algunas variaciones regionales), la existencia de sinergias entre las convenciones, en términos de necesidades de capacidad, la exigencia de poner énfasis en enfoques programáticos de largo plazo para el desarrollo de la capacidad que sean conducidos por equipos nacionales que involucren una amplia gama de partes interesadas y que reflejen las prioridades del país y la necesidad de capitalizar las oportunidades de cooperación regional.

ix. Algunas de las conclusiones claves que surgen de las evaluaciones regionales y transversales son la necesidad de autoevaluaciones nacionales de las necesidades de desarrollo de la capacidad que tengan carácter participativo, que tengan una orientación nacional, y que reciban el apoyo técnico y financiero necesario; iniciativas de desarrollo de capacidad específicas que permitan a los países abordar los temas prioritarios dentro del marco de las convenciones ambientales globales; y la reconsideración de la forma actual en que las actividades de desarrollo de la capacidad están siendo diseñadas y ejecutadas dentro del contexto de los proyectos existentes.

CAPITULO 7:

SINTESIS Y CONCLUSIONES

7.1 Temas prioritarios

239. La mayoría de los países han identificado temas prioritarios dentro del contexto de los compromisos nacionales asumidos en virtud de las Convenciones sobre la Diversidad Biológica y Cambio Climático así como dentro de las oportunidades establecidas en el "Plan de Acción para el Fortalecimiento del Apoyo del FMAM en temas concernientes a Degradación de Tierras"¹ del FMAM, con relación a los compromisos asumidos a través de la Convención para la Lucha contra la Desertificación. Aunque el énfasis en cada tema varía según el país de que se trate, muchos de dichos temas son comunes tanto entre los países como entre las regiones y se pueden resumir de la siguiente manera:

Biodiversidad

- (a) bajo nivel de toma de conciencia y conocimiento sobre temas relacionados con la biodiversidad
- (b) elaboración y planificación de políticas vinculadas con la biodiversidad (especialmente en respuesta al artículo 6 de la convención)
- (c) vacíos, superposiciones y conflictos entre los marcos legales y regulatorios y en las jurisdicciones y mandatos institucionales
- (d) gestión y suministro de información y conocimiento sobre diversidad biológica, incluido monitoreo y cobertura de vacíos
- (e) evitar la pérdida del conocimiento y tecnología indígena sobre la biodiversidad y mecanismos de valoración y de incentivos
- (f) mecanismos para abordar temas transfronterizos y la negociación de acuerdos y convenios internacionales
- (g) gestión *in-situ* de la biodiversidad, especialmente áreas protegidas y su integración con los paisajes circundantes
- (h) conservación *ex-situ* tanto de la biodiversidad doméstica como silvestre (jardines botánicos, zoológicos, bancos genéticos)
- (i) bioseguridad y el Protocolo de Cartagena
- (j) acceso y participación en los beneficios
- (k) conocimientos y destrezas en economía ambiental y taxonomía

¹ Plan de Acción para el Fortalecimiento del Apoyo del FMAM en temas concernientes a Degradación de Tierras del FMAM, Diciembre 1999.

Cambio Climático

Países no incluidos en el Anexo I

- (a) vulnerabilidad y adaptación
- (b) niveles bajos de toma de conciencia y de comprensión de temas vinculados con el clima
- (c) observación y medición
- (d) disminución de las emisiones de gases de efecto invernadero y de secuestro de carbono
- (e) mecanismos de desarrollo limpio
- (f) transferencia de tecnologías no perjudiciales para el medioambiente
- (g) estrategias nacionales para el cambio climático
- (h) negociación de convenciones
- (i) comprensión de sinergias entre las convenciones

Países incluidos en el Anexo I

- (a) uso eficiente de la energía (tanto por parte de la demanda como de la oferta)
- (b) uso de energías renovables
- (c) secuestro de carbono
- (d) cambio de combustibles (reemplazo de combustibles por aquellos con bajo contenido de carbono)
- (e) elaboración de estrategias de protección y de planes de acción
- (f) sistemas de información, monitoreo y de presentación de informes nacionales
- (g) toma de conciencia sobre los riesgos
- (h) adaptación

Degradación de Tierras

- (a) catalogar áreas degradadas
- (b) demarcar áreas degradadas con posibilidad de salvación
- (c) identificar las áreas que se enfrentan a un peligro inminente o posible de degradación
- (d) identificar los factores y actividades que conducen a la degradación, así como sus raíces
- (e) identificar los impactos de degradación de tierras
- (f) fortalecer el apoyo público y movilizar organismos gubernamentales, asociaciones profesionales e instituciones regionales e internacionales para participar en las actividades tendientes a prevenir la degradación de tierras
- (g) integrar las inquietudes sobre degradación de tierras con las políticas, leyes y programas existentes
- (h) establecer prioridades y elaborar planes de acción
- (i) lanzar programas de campo

7.2 Necesidades de los países vinculadas a la capacidad

240. Las necesidades de capacidad que los países han establecido para poder abordar dichos temas prioritarios, aunque varían en cuanto a sus pormenores y significación (principalmente los pequeños estados isleños en desarrollo (SIDS en inglés) debido a su tamaño y vulnerabilidad), son comunes en gran parte a todos ellos. También son comunes en lo que respecta a las áreas temáticas, es decir, existen considerables similitudes y oportunidades de sinergia entre las convenciones. Además, la abrumadora mayoría de necesidades de desarrollo de capacidad en lo referente a los temas prioritarios en biodiversidad, cambio climático y degradación de tierras son *sistémicas* por naturaleza, es decir, que están relacionadas con lo que se conoce como el más amplio "*ambiente habilitador*." Por lo tanto, aunque existen diferencias sustanciales específicas entre los temas relacionados con cada área temática, existen sinergias importantes entre ellos con relación al proceso de desarrollo de la capacidad. A continuación se efectúa un análisis de estas necesidades de capacidad comunes o transversales.

I. TOMA DE CONCIENCIA Y CONOCIMIENTO

241. Los bajos niveles de toma de conciencia y conocimiento sobre los temas, implicaciones y alternativas respecto de la Biodiversidad, Cambio Climático y Degradación de Tierras y de las correspondientes interacciones, limitan la toma de decisiones y las acciones efectivas en todos los niveles.

II. MARCOS DE POLÍTICAS, LEYES Y REGLAMENTOS NACIONALES

242. En todos los casos, aunque especialmente en las áreas de biodiversidad y degradación de tierras, es necesaria una acción efectiva dentro de una amplia gama de sectores diversos. Sin embargo, los marcos de políticas nacionales tienden a no estar eficazmente sincronizados en los diversos sectores, lo cual da lugar a una falta de coherencia e inclusive al surgimiento de conflictos. A su vez, esta situación tiende a producir una maraña de leyes y reglamentos que a veces se contradicen entre sí, los cuales, además de no encontrarse unificados en los diversos sectores a nivel nacional, se tornan más confusas debido a la superposición de reglamentos a nivel subnacionales y locales.

III. MANDATOS, COORDINACIÓN Y PROCESOS INSTITUCIONALES DE INTERACCIÓN Y COOPERACIÓN ENTRE TODAS LAS PARTES INTERESADAS.

243. La responsabilidad de considerar los temas relacionados con cualquiera de las tres convenciones corresponde a una gama de instituciones especializadas diversas. A menudo, estas cuentan con mandatos y jurisdicciones que se superponen entre sí, o bien existen brechas en los mandatos llegando al punto de generar inobservancias respecto de algunas cuestiones y competencia en cuanto al tratamiento de otros asuntos. Una acción efectiva también requiere de la participación de las instituciones sectoriales y de una gama de actores no gubernamentales que incluye el sector privado, el público en general (comunidades locales incluidas) y organizaciones no gubernamentales, aunque a menudo dicha acción es limitada y tiende a revestir un carácter *ad-hoc*. En la mayoría de los países las necesidades claves de capacidad versan sobre la dilucidación de los mandatos y responsabilidades institucionales, mecanismos de coordinación y fortalecimiento de los procesos formales de interacción y de cooperación entre las partes interesadas. Esta necesidad existe tanto a nivel nacional como subnacional como asimismo entre dichos niveles. También se necesitan dentro del ámbito de las convenciones individuales y entre las tres convenciones para poder explotar las sinergias existentes entre ellas.

IV. GESTIÓN DE INFORMACIÓN, MONITOREO Y OBSERVACIÓN

244. Todos los países consideraron limitados los arreglos para la compilación sistemática de datos relacionados con los temas de las convenciones, su análisis y el suministro de información decisiva y oportuna para los responsables de tomar decisiones a todo nivel. También consideraron que la capacidad de predecir y anticipar acontecimientos críticos con relación a las tres convenciones no resultaba

adecuada. Se consideran inadecuados tanto el monitoreo sistemático del estado y las tendencias, como, en el caso de degradación de tierras, los "sistemas de alerta temprana." La insuficiencia de indicadores es un tema que genera especial preocupación en el área de biodiversidad.

V. MOVILIZACIÓN DE LA CIENCIA EN APOYO AL PROCESO DE TOMA DE DECISIONES

245. Los temas relacionados con biodiversidad, cambio climático y, en menor medida, degradación de tierras son preocupaciones relativamente recientes para las cuales no hay soluciones satisfactoriamente desarrolladas en la actualidad o bien éstas no son conocidas aún. Ciencia y tecnología no se han unido todavía a la generación de conocimientos y alternativas nuevas así como tampoco a los procesos de toma de decisiones respecto de estos temas.

246. El estudio especial sobre la capacidad científica y tecnológica para la gestión ambiental global² determinó que existen cuatro áreas comunes en las cuales es necesario desarrollar una capacidad científica y tecnológica:

- (a) *Evaluación de la naturaleza y estado de los problemas ambientales y la generación (así como también la gestión) de información científica y conocimientos sobre los cuales fundamentar las respuestas, incluyendo prever la degradación del medio ambiente y establecer mecanismos de alerta anticipada.*
- (b) *Integración de consideraciones ambientales en las políticas nacionales científicas y tecnológicas o formulación de políticas científicas y tecnológicas que deliberadamente tengan como objetivo la consideración de problemas ambientales.*
- (c) *Creación y/o fortalecimiento de cuerpos e instituciones de investigación científica para centrarse en forma más explícita en la conducta de la ciencia en cuanto a la solución de problemas ambientales en las tres áreas.*
- (d) *Aptitudes especializadas en áreas como taxonomía (para biodiversidad), climatología (para cambio climático) y química de la tierra (para degradación de tierras) así como aptitudes comunes en el uso de, por ejemplo, GIS (Sistema de Información Geográfica) y de tecnología satelital, análisis de políticas relacionadas con la ciencia y tecnología ambiental. También se advirtió acerca de la necesidad de convergencia de las aptitudes tanto de las ciencias naturales como sociales.*

VI. RECURSOS financieros y transferencia de tecnología

247. Por lo general, la asignación de los recursos a todo nivel, dentro de las instituciones, y a nivel nacional e internacional, no es considerada adecuada para cubrir efectivamente los temas relacionados con las convenciones. Asimismo hay una ausencia, por lo general, de infraestructura y equipos. Aunque la transferencia de tecnología es importante, necesita estar acompañada por el fortalecimiento de las capacidades de entendimiento, selección y adaptación tecnológica a las condiciones locales

VII. SISTEMAS DE INCENTIVOS E INSTRUMENTOS DE MERCADO

248. Una dificultad clave de los servicios ambientales es que estos no están efectivamente contabilizados, lo cual resulta en una escasez de sistemas de incentivos e instrumentos de mercado que pueden usarse para fomentar acciones en concordancia con las convenciones. Se necesitan sistemas de

² Mugabe, septiembre de 2000. Desarrollo de la Capacidad Científica y Tecnológica: Necesidades y Prioridades. Informe elaborado por la Iniciativa de Desarrollo de la Capacidad del PNUD y FMAM.

valuación y adopción de servicios ambientales relacionados con la biodiversidad, cambio climático y degradación de tierras en los sistemas contables.

VIII. NEGOCIACIÓN

249. Los países han expresado una inquietud general respecto de la débil capacidad de conducción de las negociaciones internacionales relacionadas con las convenciones. Entre los obstáculos se citan la falta de preparación efectiva, mandatos claros para las delegaciones, aptitudes de negociación y la diseminación de las decisiones de las convenciones.

IX. COOPERACIÓN Y TRABAJOS EN RED DENTRO DE LAS REGIONES

250. Varios temas vinculados con la biodiversidad son de naturaleza transfronteriza y requieren de la cooperación internacional. Los países que se encuentran en una misma región ciertamente comparten algunos temas. Sin embargo, los mecanismos de cooperación regional e internacional respecto de los temas de las tres convenciones carecen de solidez.

X. GESTIÓN Y DESEMPEÑO INSTITUCIONAL

251. La efectividad institucional se ve limitada por una gestión débil y por las limitaciones de los recursos. También preocupa a algunos países la falta de transparencia y de presentación de informes explicativos por parte de sus instituciones. En tanto la claridad de los mandatos brinda un marco para mejorar los informes explicativos, las necesidades claves de capacidad institucional contemplan el desarrollo de gerentes capacitados y procesos efectivos de gestión institucional. Estos incluyen sistemas para el desarrollo efectivo, despliegue y motivación de empleados capacitados, la descentralización en la toma de decisiones, mejoras en el acceso a la información tecnológica y en su uso, un sistema de monitoreo y evaluación efectivo del desempeño institucional.

XI. APTITUDES INDIVIDUALES Y MOTIVACIÓN

252. A nivel individual, una prioridad importante es aquella referida al desarrollo de nuevas técnicas de especialización vinculadas con los temas relacionados con las convenciones, tanto en términos de capacitación profesional inicial o continuada. Sin embargo, las necesidades adicionales de capacidad incluyen un despliegue efectivo y movilización de los empleados capacitados, especialmente en cuanto a la provisión de incentivos adecuados y motivadores, la descentralización de toma de decisiones hacia los niveles más bajos que corresponda y el acceso a la información.

7.3 Enfoques Actuales y Lecciones Aprendidas

253. Los esfuerzos previos y actuales en el desarrollo de la capacidad ofrecen lecciones importantes sobre los procesos de desarrollo de la capacidad y la forma en que deben ser enfocados:

- i. Durante las últimas décadas las mejores prácticas en desarrollo de la capacidad han evolucionado desde la capacitación basada en las aptitudes y enfocadas en instituciones específicas hacia enfoques más sistémicos en los cuales se enfatizan las interacciones y contexto del ambiente habilitador más amplio.
- ii. También se ha reconocido la falta de enfoques basados en proyectos de corto plazo y hubo una evolución hacia enfoques de "programas" de largo plazo. Los esfuerzos de desarrollo de la capacidad deben orientarse hacia los procesos y no hacia los productos ya que el proceso en sí facilita la generación de cambios internos, lo cual constituye el objetivo de desarrollo de la capacidad.

- iii. Las iniciativas de desarrollo de la capacidad deben ser impulsadas por equipos nacionales y por prioridades nacionales, de otra manera corren el riesgo de reflejar a los donantes en lugar de las prioridades nacionales. Sin embargo, estos equipos nacionales deben poseer aptitudes para el desarrollo de capacidades, necesitando incluso de una capacitación para lograr una mejor eficacia.
- iv. Muchas de las iniciativas en desarrollo de la capacidad se basan en evaluaciones de las necesidades de desarrollo de la capacidad que no son completas ni tienen una naturaleza participativa, circunstancia que da lugar a una falta de sentido de propiedad y de efectividad. Consecuentemente, las iniciativas a menudo terminan siendo respuestas a “deseos” en lugar de a “necesidades.”
- v. La inclusión de una amplia gama de partes interesadas, incluyendo ONG, comunidades y el sector privado durante todo el ciclo de proyecto es esencial para la posterior evolución y uso de las capacidades desarrolladas. Tal inclusión necesita la incorporación de mecanismos efectivos para la resolución y conciliación de conflictos en el proceso de desarrollo de la capacidad.
- vi. Las oportunidades de sinergia entre los distintos esfuerzos de desarrollo de la capacidad se pierden con frecuencia debido a que cada una de ellas es abordada desde su propio enfoque específico. Podría resultar particularmente útil en este sentido vincular las prioridades ambientales con otras prioridades nacionales.
- vii. Las oportunidades de cooperación regional no están explotadas en forma apropiada, especialmente cuando los países que deben enfrentar problemas y temas similares comparten marcos ecológicos y culturales similares. Asimismo, dentro de la región la capacitación basada en instituciones regionales y subregionales es generalmente más exitosa que la capacitación fuera de la región ya que los temas y lecciones tienden a ser más parecidos que aquellos en otros lugares del mundo.
- viii. Es necesario acompañar los esfuerzos de desarrollo de la capacidad con indicadores detallados y generales para monitoreo y medición de los progresos.

7.4 Conclusiones

254. En base a las necesidades de capacitación prioritarias que los países identificaron y las lecciones aprendidas de esfuerzos anteriores y actuales sobre desarrollo de la capacidad, pueden extraerse las siguientes conclusiones:

- i. A pesar de todas las similitudes, en vista de las diferencias individuales entre los países, así como también dentro de éstos, y la necesidad imperiosa de asegurar un sentido de propiedad y de “adquisición” de cualquier curso de acción, el primer paso en cualquier actividad de desarrollo de la capacidad debe ser una autoevaluación de la capacidad participativa y dirigida a nivel nacional. Dado el nivel alto de similitud entre las necesidades asociadas con cada una de las tres áreas temáticas y la oportunidad de sinergias significativas entre las convenciones, se debería llevar a cabo una sola evaluación nacional en lugar de tres evaluaciones diferentes. Las necesidades específicas de desarrollo de la capacidad correspondientes a las áreas de biodiversidad, cambio climático y degradación de tierras aparecerían entonces como subcomponentes especializados de una evaluación general de las necesidades nacionales de desarrollo de la capacidad para la gestión del medio ambiente mundial.
- ii. Es necesario desarrollar el medio y las habilidades necesarias para llevar a cabo dichas autoevaluaciones nacionales de capacidad, para lo cual habrá que basarse en procesos de

colaboración, intercambio y trabajo en red “redes regionales (o comunidades) de excelencia” dentro de la región. También se requieren métodos y herramientas. Tales mecanismos locales de apoyo regional no sólo deben desarrollar la habilidad para evaluar la capacidad sino también la de diseñar y ejecutar las actividades de desarrollo de la capacidad y establecer y monitorear los indicadores de medición del progreso. Tal “preparación de la capacidad” puede ser común entre las áreas temáticas pero también puede obtenerse de especialistas temáticos, según ello fuera necesario.

- iii. Es necesario un apoyo específico para las iniciativas de desarrollo de la capacidad identificadas como objetivo que desarrollen la capacidad de los países de abarcar los temas prioritarios asociados con el cumplimiento de los compromisos asumidos frente a las convenciones ambientales mundiales. Aunque estos temas prioritarios son temas específicos, las necesidades de capacidad correspondientes a cada una cubren una serie de áreas transversales, es decir, existen sinergias importantes entre las convenciones con respecto a las necesidades de desarrollo de la capacidad. Las mismas pueden dividirse en las siguientes áreas prioritarias:
- (a) Toma de conciencia y conocimiento
 - (b) Marcos de políticas, leyes y reglamentos nacionales
 - (c) Mandatos, coordinación y procesos institucionales de interacción y cooperación entre las partes interesadas
 - (d) Gestión de información, monitoreo y observación
 - (e) Movilización de la ciencia en apoyo al proceso de toma de decisiones
 - (f) Recursos financieros y transferencia de tecnología
 - (g) Sistemas de incentivos e instrumentos de mercado
 - (h) Negociación
 - (i) Cooperación y trabajo en red dentro de las regiones
 - (j) Gestión y desempeño institucional
 - (k) Aptitudes individuales y motivación
- iv. Si el objetivo es que los proyectos del FMAM desarrollen la capacidad en forma efectiva y, por ende, sostenible, todos los proyectos del FMAM deben incluir en su preparación autoevaluaciones de capacidad participativas relacionadas con el objetivo, deben centrarse en la propiedad y liderazgo nacionales y poner énfasis en los procesos programáticos a largo plazo en lugar de proyectos a corto plazo orientados al producto.

RÉSUMÉ ANALYTIQUE

i. À sa réunion de mai 1999, le Conseil du FEM s'est déclaré en faveur de la conclusion d'un Partenariat stratégique entre le PNUD et le Secrétariat du FEM ayant pour objet de formuler une approche globale du renforcement des capacités afin de permettre aux pays de relever les défis de l'action environnementale au niveau mondial. En janvier 2000, le PNUD et le Secrétariat du FEM ont lancé l'Initiative de renforcement des capacités (IRC), processus consultatif de vaste portée et de dialogue visant à définir les questions prioritaires et les besoins de renforcement des capacités des pays et, ces éléments une fois déterminés, d'élaborer une stratégie et un plan d'action conçus pour répondre aux besoins des pays.

ii. Les travaux effectués lors de la première phase de l'IRC, phase d'évaluation, ont permis de définir les besoins de renforcement des capacités des pays d'une part et d'autre part de dégager les leçons à retenir des activités financées par le FEM et des efforts déployés par les autres organismes multilatéraux et bilatéraux actifs dans ce domaine. Le présent rapport présente une synthèse des constats concernant les questions prioritaires et les besoins de renforcement des capacités des pays en matière de gestion de l'environnement mondial dans les trois grands domaines de la diversité biologique, des changements climatiques et de la dégradation des terres. Il puise dans quatre évaluations régionales détaillées (Afrique, Asie-Pacifique, Europe et Asie centrale, Amérique latine et Caraïbes) et dans deux études transversales, l'une concernant les besoins particuliers des petits États insulaires en développement et l'autre les besoins de renforcement des capacités scientifiques et techniques.

iii. L'IRC est fondée sur une approche conceptuelle qui appréhende le renforcement des capacités dans ses dimensions systémiques, institutionnelles et individuelles, tout en reconnaissant le dynamisme du processus. Les besoins prioritaires en matière de renforcement des capacités dans les trois domaines thématiques de la diversité biologique, des changements climatiques et de la dégradation des terres (exposés en détail dans les chapitres thématiques du rapport) sont pour l'essentiel de nature largement systémique; ils sont accompagnés de toute une gamme de besoins ancillaires aux niveaux institutionnel et individuel.

iv. Au niveau des systèmes, les évaluations régionales font apparaître une appréciation croissante de la nécessité d'intégrer les interventions de renforcement des capacités dans un cadre de développement holistique de manière à assurer une prise en compte plus systématique des besoins dans le processus global de la planification nationale. Ce point de vue, souligné dans plusieurs rapports régionaux, trouve sans doute son expression optimale dans l'évaluation de la région Amérique latine et Caraïbes qui affirme : « Il est nécessaire d'intégrer les systèmes de gestion de l'environnement, de manière à établir de meilleurs liens entre les cadres politiques, juridiques et institutionnels; ceci comportera le renforcement des mécanismes permettant d'engager le dialogue, de forger des consensus et d'intégrer les considérations environnementales dans les politiques et les plans de développement sectoriels. »

v. La nécessité marquée d'une bonne intégration de la gestion environnementale dans un cadre de développement holistique présente également des difficultés au niveau institutionnel. Le renforcement des capacités au niveau des institutions pour leur permettre de résoudre ces difficultés prend souvent la forme d'indispensables modifications des structures en place.

vi. De même, la complexité technique inhérente des questions ayant trait à la diversité biologique, aux changements climatiques et à la dégradation des terres, ainsi que la nécessité d'une approche plus intégrée de ces questions, crée le besoin d'un renforcement de l'expertise nationale dans des domaines tels que l'économie environnementale, la gestion des écosystèmes, la taxonomie et la bioprospection. En conséquence, le renforcement des capacités au niveau individuel exigera aussi, selon toute vraisemblance, des modalités de formation nouvelles et plus vigoureuses.

vii. Le rapport relève également un certain nombre de leçons importantes qui émergent concernant les exigences relatives au processus à mettre en œuvre, et à son contenu, pour répondre aux besoins de renforcement des capacités dans les domaines de la diversité biologique, des changements climatiques et de la dégradation des terres. En parallèle à l'importance toujours croissante accordée par les pays au renforcement des capacités au niveau des systèmes, la pensée des organismes de coopération internationale au développement évolue, passant d'approches spécifiques aux institutions, axées sur l'acquisition de connaissances et la formation pour se réorienter vers une démarche plus systémique. Toutefois, malgré les progrès réalisés au niveau de la pensée théorique et des politiques organisationnelles, il ressort des évaluations régionales que cette réorientation n'est pas toujours reflétée dans la pratique au niveau des programmes et des projets mis en œuvre.

viii. Parmi les importantes constatations des évaluations régionales et des études transversales figurent l'existence de nombreux besoins de développement au niveau des systèmes globaux, la communauté interrégionale des problèmes thématiques et des besoins de renforcement des capacités (avec certaines variations d'importance relative d'une région à l'autre), l'existence de synergies entre les grandes conventions en termes de besoins de capacités, la nécessité de privilégier les approches programmatiques du renforcement des capacités à long terme qui soient animées par des équipes nationales réunissant une large gamme de parties prenantes et reflétant les priorités nationales, et la nécessité de tirer parti des possibilités de coopération régionale.

ix. Les quatre évaluations régionales et les deux études transversales aboutissent à un certain nombre de grandes conclusions, notamment celles de la nécessité : a) d'auto-évaluations nationales des besoins de renforcement des capacités qui soient participatives, entreprises à l'initiative des pays et appuyées par les concours techniques et financiers requis; b) d'interventions de renforcement des capacités ciblées qui permettent aux pays de faire face aux problèmes prioritaires dans le cadre des conventions mondiales relatives à l'environnement; et c) de revoir les modalités de conception et de mise en œuvre des activités de renforcement des capacités dans le contexte des projets et programmes en cours.

Chapitre 7 Synthèse et conclusions

7.1 Questions prioritaires

239. Dans le contexte des engagements nationaux en vertu des Conventions sur la diversité biologique et sur les changements climatiques, et des possibilités présentées dans le « Plan d'action pour renforcer l'appui du FEM dans le domaine de la dégradation des terres »³ par rapport aux engagements en vertu de la Convention sur la lutte contre la désertification, la plupart des pays ont identifiés les questions prioritaires les concernant. L'importance relative de ces questions varie, certes, selon les pays, mais nombre d'entre elles sont les mêmes dans tous les pays et dans toutes les régions. Elles peuvent se résumer comme suit :

Diversité biologique

- (a) Faiblesse de la sensibilisation à la diversité biologique et des connaissances des questions y ayant trait
- (b) Élaboration et planification des politiques en matière de diversité biologique (notamment au titre de l'article 6 de la Convention)
- (c) Lacunes, chevauchements et contradictions des cadres juridiques et réglementaires et des compétences et attributions institutionnelles
- (d) Gestion et transmission de l'information et des connaissances relatives à la diversité biologique, y inclus les activités de suivi et d'élimination des lacunes
- (e) Conservation des connaissances et des techniques autochtones et mécanismes de mise en valeur et d'encouragement
- (f) Mécanismes de prise en compte des questions transnationales et de négociation des conventions et d'accords internationaux
- (g) Gestion de la diversité biologique *in situ*, en particulier dans les zones protégées et intégration de celles-ci dans le paysage environnant
- (h) Conservation *ex situ* de la diversité biologique sauvage et domestique (jardins botaniques, jardins zoologiques, banques de gènes)
- (i) Sécurité biologique et Protocole de Cartagena
- (j) Accès aux ressources et partage des avantages
- (k) Connaissances pratiques en économie environnementale et en taxonomie

³ GEF Action Plan for Enhancing GEF Support to Land Degradation, décembre 1999.

Changements climatiques

Parties non visées à l'annexe I :

- (a) Vulnérabilité et adaptation
- (b) Niveaux insuffisants de sensibilisation aux questions climatiques et de compréhension de ces questions
- (c) Observation et mesure
- (d) Atténuation des émissions de gaz à effet de serre et piégeage du carbone
- (e) Mécanisme de développement propre
- (f) Transfert de technologies écologiquement rationnelles
- (g) Stratégies nationales relatives aux changements climatiques
- (h) Négociation de conventions
- (i) Compréhension des synergies existant entre les conventions

Parties visées à l'annexe I :

- (a) Efficacité énergétique (du côté de l'offre comme du côté de la demande)
- (b) Utilisation de formes d'énergie renouvelable
- (c) Piégeage du carbone
- (d) Substitution de combustibles (remplacement par des combustibles à teneur en carbone inférieure)
- (e) Élaboration de stratégies de protection et de plans d'action
- (f) Systèmes d'information, suivi et rapports nationaux
- (g) Sensibilisation aux risques
- (h) Adaptation

Dégradation des terres

- (a) Catalogage des zones dégradées
- (b) Démarcation des zones dégradées récupérables
- (c) Détermination des zones menacées de dégradation imminente ou possible
- (d) Recensement des facteurs et des activités qui mènent à la dégradation des terres et de leurs causes premières
- (e) Identification des impacts de la dégradation des terres
- (f) Renforcement du soutien du public et mobilisation des pouvoirs publics, des entités professionnelles et des organisations régionales et internationales en vue de leur participation à des activités de prévention de la dégradation des terres

- (g) Intégration des questions relatives à la dégradation des terres dans les politiques, lois et programmes en place
- (h) Établissement des priorités et élaboration de plans d'action
- (i) Lancement de programmes sur le terrain

7.2 Besoins de capacités des pays

240. Les besoins de capacités définis par les pays aux fins de leur permettre de faire face à ces questions prioritaires, s'ils varient dans leurs détails et par leur importance relative d'un pays à l'autre, tout particulièrement pour les PEID eu égard à leur petite taille et à leur vulnérabilité, sont, dans une grande mesure, des besoins communs. Leur communauté se manifeste également d'un domaine thématique à l'autre, sur des points relevant des diverses conventions relatives à l'environnement, ce qui signifie qu'il existe de grandes possibilités d'effets synergiques entre ces divers domaines. En outre, pour la grande majorité, les besoins de renforcement des capacités liés aux questions prioritaires en matière de diversité biologique, de changements climatiques et de dégradation des terres sont de nature *systémiques*, en ce qu'ils concernent ce que l'on dénomme parfois plus généralement « *l'environnement porteur* ». De sorte que, s'il existe effectivement des différences de fond entre les questions à résoudre dans les divers domaines thématiques, il existe également entre ces domaines des possibilités de synergie significatives au niveau du processus de renforcement des capacités. Ces besoins communs de capacités sont exposés ci-dessous.

I. SENSIBILISATION ET CONNAISSANCES

241. La faiblesse de la sensibilisation et des connaissances relatives aux questions, implications et solutions de substitution dans les domaines de la diversité biologique, des changements climatiques et de la dégradation des terres, et des interactions entre ces domaines, fait obstacle aux prises de décision et aux interventions efficaces à tous les niveaux.

II. CADRES DE POLITIQUE NATIONAUX ET DISPOSITIONS JURIDIQUES ET RÉGLEMENTAIRES

242. Dans tous les cas, mais tout particulièrement dans les domaines de la diversité biologique et de la dégradation des terres, l'efficacité des interventions exige que celles-ci soient multi-sectorielles. Or, les cadres de politique nationaux ne sont généralement pas synchronisés au niveau des secteurs, d'où un manque de cohérence, voire des oppositions. Ceci se traduit aussi fréquemment par l'existence de multiples dispositions juridiques et réglementaires complexes parfois contradictoires qui, outre leur manque d'harmonisation intersectorielle au niveau national, sont encore compliquées par la présence de strates supplémentaires de dispositions réglementaires aux niveaux sous-national et local.

III. MANDATS INSTITUTIONNELS, COORDINATION ET PROCESSUS D'INTERACTION ET DE COOPÉRATION ENTRE TOUTES LES PARTIES PRENANTES

243. La responsabilité des questions relatives aux trois conventions est répartie sur toute une gamme d'institutions spécialisées dont les mandats et les compétences se chevauchent; il existe également des lacunes dans les mandats et les domaines de compétence, qui font que certaines questions sont négligées et que les institutions se trouvent en situation de concurrence sur d'autres questions. La participation d'autres institutions sectorielles et de toute une gamme d'acteurs non gouvernementaux, à savoir du secteur privé, du grand public (y inclus des collectivités locales) et des organisations non

gouvernementales, est également requise pour assurer l'efficacité des interventions; toutefois, cette participation est souvent limitée et plutôt ponctuelle. Dans la plupart des pays, les principaux besoins de capacités consistent en une clarification des mandats et des responsabilités institutionnels, en l'établissement de mécanismes de coordination interinstitutionnels, et en un renforcement des processus formels d'interaction et de coopération entre toutes les parties prenantes. Ces mesures sont nécessaires au niveau national comme au niveau sub-national et entre ces niveaux; elles le sont également dans le cadre de chacune des trois conventions et entre ces conventions, afin de tirer parti des synergies qui existent entre elles.

IV. GESTION DE L'INFORMATION, SUIVI ET OBSERVATION

244. Les arrangements concernant le recueil systématique des données relatives aux questions relevant des conventions, leur analyse et la transmission des informations critiques en temps utile aux décideurs de tous les niveaux ont été considérés par la quasi totalité de pays comme insuffisants. La capacité de prévoir les événements critiques et d'y parer, dans les domaines relevant des trois conventions, a également été jugée inadéquate. Les dispositions concernant le suivi de la situation et des tendances et, dans le cas de la dégradation des terres, les « systèmes d'alerte précoce » sont considérés comme inadéquats. L'insuffisance des indicateurs est particulièrement préoccupante dans le domaine de la diversité biologique.

V. MOBILISATION DE LA SCIENCE POUR APPUYER LES PROCESSUS DÉCISIONNELS

245. Les questions relatives à la diversité biologique, aux changements climatiques et, dans une moindre mesure, à la dégradation des terres, sont des questions relativement nouvelles et les solutions à y apporter restent insuffisamment développées ou inconnues. Les ressources scientifiques et technologiques disponibles n'ont pas encore été mises en œuvre pour élucider les problèmes et formuler les alternatives, ni pour informer les processus décisionnels dans ces domaines.

246. L'étude spéciale sur les capacités scientifiques et techniques de gestion de l'environnement mondial⁴ a mis en évidence quatre domaines communs dans lesquels ces capacités doivent être renforcées :

- (a) *Évaluation de la nature et de l'état des problèmes environnementaux ainsi que de l'acquisition et de la gestion des informations scientifiques et des connaissances sur lesquelles les interventions pourront être fondées, y inclus la prévision de la dégradation de l'environnement et l'établissement de mécanismes d'alerte précoce.*
- (b) *Intégration des considérations environnementales dans les politiques nationales relatives aux sciences et aux technologies ou formulation de politiques scientifiques et technologiques spécifiquement axées sur la prise en compte des problèmes environnementaux.*
- (c) *Création d'entités et d'institutions de recherche scientifique et/ou renforcement des entités et institutions existantes afin d'orienter les efforts scientifiques plus spécifiquement sur la résolution des problèmes environnementaux relevant des trois domaines thématiques.*

⁴ Mugabe. Septembre 2000. *Scientific and Technical Capacity Development: Needs and Priorities*. Rapport établi pour l'Initiative de renforcement des capacités du PNUD-FEM.

- (d) Acquisition de connaissances spécialisées dans des domaines tels que la taxonomie (pour la diversité biologique), la climatologie (pour les changements climatiques) et la pédochimie (pour la dégradation des terres), ainsi que de connaissances communes en matière d'utilisation, par exemple, des SIG et de l'imagerie satellitaire, et d'analyse des politiques relatives aux sciences et aux technologies environnementales. La nécessité d'une association des connaissances en sciences naturelles et en sciences sociales a également été notée.

VI. ALLOCATION DE RESSOURCES FINANCIÈRES ET TRANSFERT DE TECHNOLOGIES

247. Les allocations de ressources à tous les niveaux, au sein des institutions ainsi qu'aux niveaux national et international, sont considérées comme généralement insuffisantes pour prendre en compte de manière efficace les questions associées aux trois conventions. On relève aussi un manque général d'infrastructure et de matériel. Les transferts de technologie, d'une importance indéniable, doivent être accompagnés d'un renforcement des capacités afin d'assurer la bonne compréhension, le choix judicieux et l'adaptation des technologies aux circonstances locales.

VII. SYSTÈMES D'ENCOURAGEMENT ET INSTRUMENTS DU MARCHÉ

248. L'une des grandes difficultés concernant les services environnementaux provient de ce qu'ils ne sont pas comptabilisés à leur juste valeur, ce qui se traduit par la rareté des systèmes d'encouragement et des instruments du marché disponibles pour promouvoir les interventions conformes aux dispositions des conventions. Il est nécessaire d'établir des systèmes d'évaluation et de prise en compte des services environnementaux ayant trait à la diversité biologique, aux changements climatiques et aux terres dans les systèmes comptables.

VIII. NÉGOCIATION

249. Les pays se sont déclarés généralement préoccupés par leur manque de capacités à gérer les négociations internationales associées aux conventions. Les difficultés en la matière concernent l'efficacité de la préparation, la définition sans ambiguïté des mandats aux représentants, les capacités de négociation et la diffusion des décisions des organes des conventions.

IX. COOPÉRATION ET ÉTABLISSEMENT DE RÉSEAUX INTRARÉGIONAUX

250. Bon nombre des questions du domaine de la diversité biologique sont de nature transfrontières et exigent une coopération internationale. Les pays d'une même région font incontestablement face à des problèmes communs, mais les mécanismes de coopération régionale et internationale concernant les questions liées aux trois conventions sont faibles.

X. GESTION DES INSTITUTIONS ET EFFICACITÉ DES PRESTATIONS INSTITUTIONNELLES

251. Les faiblesses de la gestion et l'exiguïté des ressources limitent l'efficacité des institutions. Certains pays sont également préoccupés par le manque de transparence et de responsabilisation de leurs institutions. La clarification des mandats contribuera d'une part à responsabiliser les institutions, mais il faudra également prévoir dans le renforcement des capacités institutionnelles la formation de gestionnaires capables et l'application de processus efficaces de gestion institutionnelle. Parmi ceux-ci figurent notamment la mise en œuvre de systèmes de développement, de déploiement et de motivation de travailleurs compétents, la décentralisation des processus décisionnels, un accès élargi aux technologies de l'information et un usage accru de ces technologies, et un suivi et évaluation efficace des prestations institutionnelles.

XI. ACQUISITION DE CONNAISSANCES ET MOTIVATION AU NIVEAU INDIVIDUEL

252. L'acquisition de nouvelles connaissances spécialisées liées aux interventions dans les domaines des conventions constitue une priorité importante au niveau individuel, tant dans la formation initiale que dans le perfectionnement professionnel en cours de carrière. Toutefois, il faut également assurer le déploiement effectif et la mobilisation de travailleurs compétents, notamment par des mesures d'encouragement et de motivation appropriées, par la décentralisation du processus décisionnel au niveau le plus bas possible et par l'accès à l'information.

7.3 Approches actuelles et leçons à retenir

253. Les efforts passés et en cours en matière de renforcement des capacités sont porteurs d'importantes leçons sur le processus du renforcement des capacités et sur les approches qu'il convient d'adopter dans sa mise en œuvre :

- i. Les meilleures pratiques du renforcement des capacités ont évolué au cours des dernières décennies et, d'une formation spécifique aux institutions et à base de connaissances, se sont orientées vers des approches plus systémiques qui mettent l'accent sur la création d'un environnement général porteur et sur les interactions dans ce contexte.
- ii. Les défauts des approches à court termes axées sur les projets ont également été reconnus et l'on note une évolution en faveur d'« approches-programmes » à plus long terme. Les efforts de renforcement des capacités doivent aussi être axés sur le processus plutôt que sur les produits, étant donné que le processus facilite le changement interne, objectif du renforcement des capacités.
- iii. Les initiatives de renforcement des capacités doivent être animées par des équipes nationales, selon des priorités nationales, faute de quoi elles risquent de refléter les priorités des donateurs au lieu de celles du pays. Toutefois, il faut que ces équipes nationales possèdent des compétences en matière de renforcement des capacités et il pourra convenir de leur dispenser une formation pour s'assurer de leur efficacité.
- iv. De nombreuses initiatives de renforcement des capacités sont fondées sur des évaluations des besoins de renforcement des capacités qui ne sont ni complètes ni pleinement participatives, ce qui se traduit par une appropriation et une efficacité réduites. En conséquence, ces initiatives répondent souvent davantage aux « désirs » qu'aux « besoins ».
- v. La participation d'une large gamme de parties prenantes, réunissant les ONG, les communautés et le secteur privé, tout au long du cycle du projet est essentielle pour entretenir le renforcement des capacités et pour assurer l'utilisation des capacités renforcées. Une telle participation exige l'intégration de mécanismes de résolution des conflits et de compromis dans le processus de renforcement des capacités.
- vi. Les possibilités de mise en œuvre des synergies entre les différents efforts de renforcement des capacités restent souvent inexploitées en raison de l'approche spécifiquement axée sur les buts propres des divers efforts. La mise en relation des priorités environnementales et des autres priorités nationales devrait se révéler d'une grande utilité à cet égard.

- vii. Les possibilités de coopération régionale sont, elles aussi, insuffisamment exploitées, notamment dans le cas de pays qui font face à des problèmes semblables et qui possèdent des cadres écologiques et culturels analogues. Par ailleurs, la formation dispensée au sein d'une région par des institutions régionales et sous-régionales donne généralement des résultats supérieurs à ceux de la formation dispensée hors de la région, en raison de la plus grande similitude des problèmes et des leçons au niveau intrarégional.
- viii. Les efforts de renforcement des capacités doivent être assortis d'indicateurs exhaustifs et détaillés qui permettent de suivre et de mesurer les progrès accomplis.

7.4 Conclusions

254. On peut, sur la base des besoins de renforcement des capacités identifiés par les pays et des enseignements des efforts précédents et actuels de renforcement des capacités, tirer un certain nombre de conclusions :

- i. Malgré les nombreuses similitudes, en raison des différences qui se manifestent entre les pays ainsi qu'au sein de chaque pays et compte tenu de la nécessité critique d'assurer l'appropriation et l'intégration de toutes les mesures prises, la première étape de toute activité de renforcement des capacités doit impérativement consister en une auto-évaluation des capacités participative menée par chaque pays. Eu égard aux fortes similitudes qui existent entre les besoins associés à chacun des trois domaines thématiques et de la possibilité de synergies entre ces domaines, il est préférable de mener une seule évaluation nationale plutôt que trois évaluations distinctes. Les besoins de renforcement des capacités dans les domaines de la diversité biologique, des changements climatiques et de la dégradation des terres apparaîtront alors comme des composantes spécialisées qui se dégageront de l'évaluation générale des besoins de renforcement des capacités au niveau national, visant à assurer la gestion de l'environnement mondial.
- ii. Il est nécessaire de réunir les moyens et les aptitudes voulus pour appuyer ces auto-évaluations nationales, en faisant appel aux processus intrarégionaux de collaboration et d'échanges et par le jeu de mises en relations au sein de « réseaux d'excellence régionaux ou communautaires ». L'évaluation des capacités exige également des méthodes et des outils constituant des mécanismes d'appui régionaux, propriété des instances locales; ces mécanismes doivent non seulement établir la capacité d'évaluer les capacités, mais également celle de concevoir et de mettre en œuvre les activités de renforcement des capacités et de définir et de surveiller les indicateurs de progrès. Cette « élaboration guidée de capacités » peut constituer un tronc commun pour les trois domaines thématiques, mais faire appel à des spécialistes de chaque domaine en tant que de besoin.
- iii. Un appui spécifique doit être accordé aux initiatives ciblées de renforcement des capacités afin de développer les aptitudes des pays à traiter des questions prioritaires conformément aux engagements qu'ils ont pris en vertu des conventions environnementales mondiales dont ils sont signataires. Bien que ces questions prioritaires aient leur spécificité thématique, les besoins de capacités relatifs à chacune d'elles appartiennent à une série de domaines transversaux et il existe des synergies considérables entre les trois conventions au niveau des besoins de renforcement des capacités. Les domaines prioritaires à cet égard sont les suivants :

- (a) Sensibilisation et connaissances

- (b) Cadres nationaux de politique, juridiques et réglementaires
 - (c) Mandats institutionnels, coordination et processus d'interaction et de coopération entre toutes les parties prenantes
 - (d) Gestion de l'information, suivi et observation
 - (e) Mobilisation de la science pour appuyer les processus décisionnels
 - (f) Ressources financières et transfert de technologies
 - (g) Systèmes d'encouragement et instruments du marché
 - (h) Négociation
 - (i) Coopération et établissement de réseaux intrarégionaux
 - (j) Gestion des institutions et efficacité des prestations institutionnelles
 - (k) Acquisition de connaissances et motivation au niveau individuel
- iv. Pour que les projets du FEM renforcent les capacités de manière efficace, et soient de ce fait durable, ils devraient tous comprendre dans leur préparation des auto-évaluations de capacités participatives liées aux buts visés, s'attacher à l'appropriation locale et à l'exercice d'un leadership national, et privilégier les interventions programmatiques s'inscrivant dans le long terme, de préférence aux actions à court terme axées sur les produits.

CHAPTER 1 INTRODUCTION

1.1 Background and Objectives of the Capacity Development Initiative

1. The CDI is a Strategic Partnership between the GEF Secretariat and UNDP to produce a comprehensive approach for developing the capacities needed at the country level to meet the challenges of global environmental action. In January 2000 the CDI launched a consultative process that included extensive outreach and dialogue with countries. It also worked with the GEF Implementing Agencies, STAP and the Secretariats of the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the Convention to Combat Desertification. Multilateral development organizations, including regional development banks, bilateral organizations, and non-governmental organizations have also taken part in the effort of identifying countries' capacity development needs, lessons learned, and begin developing a strategy and action plan. The consultative process has also benefited from informal discussions during the fifth session of the Conference of the Parties to the Framework Convention on Climate Change (October/ November 1999), the fifth meeting of the Conference of the Parties to the Convention on Biological Diversity (May 2000), and the Twelfth Session of the Subsidiary Body for Implementation of the Conference of the Parties to the Framework Convention on Climate Change (June 2000).

2. The work plan for the CDI is divided into two stages: (1) assessment of capacity development needs, (2) strategy development to meet identified needs and action plans for the GEF.

3. The assessment phase of the CDI assessed:

- (i) Country needs in the context of country priorities prepared for four regions;
- (ii) Priorities of Small Island Developing States;
- (iii) Scientific and technical capacity development needs;
- (iv) Capacity development activities undertaken through GEF projects;
- (v) Capacity development efforts of other multilateral and bilateral institutions; and
- (vi) Compilation of decisions of the Conferences of the Parties for the Convention on Biological Diversity and the UN Framework Convention on Climate Change concerning capacity development, including guidance to the financial mechanism, together with relevant decisions of the Convention to Combat Desertification

4. These assessments provide the basis for developing a strategy and action plans to address the capacity development needs of GEF-eligible countries in the area of the global environment, together with an appreciation of the role the GEF, its implementing agencies and others can play in implementing such a strategy.

1.2 Conceptual Framework for Capacity Development

5. In a global context, "capacity" refers to the ability of individuals and institutions to make and implement decisions and perform functions in an effective, efficient and sustainable manner. At the individual level, capacity building refers to the process of changing attitudes and behaviors-imparting knowledge and developing skills while maximizing the benefits of participation, knowledge exchange and ownership. At the institutional level it focuses on the overall organizational performance and functioning

capabilities, as well as the ability of an organization to adapt to change. It aims to develop the institution as a total system, including individuals, groups and the organization itself. Traditionally, interventions at the systemic level were simply termed "institutional strengthening." This reflected a concern with human resource development as well as assisting in the emergence and improvement of organizations. However, capacity development further emphasizes the overall policy framework in which individuals and organizations operate and interact with the external environment, as well as the formal and informal relationships of institutions.⁵ Capacity is not the mere existence of potential but rather existing potential must be harnessed and utilized to identify and solve problems in order to be considered as capacity.

6. Capacity development can thus be considered at three levels, the individual, institutional, and the systemic (see Annex 1). Interactions between these levels are also important to overall capacity. Capacity is relevant in both the short term (for example, the ability to address an immediate problem) and the long term (the ability to create an environment in which particular changes will take place). Capacity may imply "action," or "inaction," depending on the result desired. Capacity bottlenecks can occur at local, national, or global levels and amongst any individual or group of stakeholders.

7. The capacity needs outlined in Annex 1 are dependent on *what* the capacity is *for* and cannot be assessed independently of some substantive objective. For a meaningful assessment of capacity development needs at the systemic, institutional and individual levels, it is, therefore, important to identify under each thematic area the "what for." In conducting the assessments regional experts used indicative reference lists to define the substantive context under each thematic area (Annex 2). These reference lists were supplemented with other issues that were identified as important by the regional experts in different regions and thematic areas.

8. Capacity development is a dynamic process with many facets: *mobilization* of existing potential that may not be utilized because it does not reside in the institution that is charged with the respective responsibility or individual expertise may not be utilized because of organizational deficiencies, among other reasons; *enhancement* of capacity to avoid obsolescence through continuous utilization and by providing short-term courses, workshops, seminars and other training services; *conversion* or adjustment of existing capacity to deal with the new problems; *creation* of capacity through formal training programs; and finally *succession* or the improvement of capacities by subsequent generations.⁶

1.3 Methodology for Assessing Countries' Capacity Development Needs and Priorities

9. Countries were grouped into the following regions for assessing country needs – Africa, Asia Pacific, Eastern Europe and Central Asia, and Latin America and the Caribbean – with a separate assessment for Small Island Developing States (SIDS). A team was identified for each region comprised of regional experts in biodiversity, climate change, land degradation and capacity development issues. The assessment of country needs was carried out over a period of 3 months (April to June) using the following approaches.

10. Review of background materials and documents: *including Regional Development Banks Capacity Development Assessments, OECD's Development Assistance Committee studies and country reports, Capacity 21 country reports, countries' Agenda 21 Reports, National Environmental Action Plans, UNDP Country Programmes, World Bank Country Assistance Strategies, National Communication Reports to the Biodiversity, Climate Change and Land Degradation Conventions,*

⁵ United Nations Development Programme, *Capacity Building for Environmental Management: A Best Practices Guide*, October, 1999

⁶ The regional assessment for Africa offers a more detailed discussion on the dynamics of capacity development.

National Biodiversity, Climate Change and Land Degradation Strategies and Action Plans, as well as relevant capacity development projects among others.

11. *Questionnaires:* sent out to over 3,000 recipients that included all GEF Political and Operational Focal Points, UNFCCC Focal Points, CBD Focal Points, CHM Focal Points, UNCCD Focal Points, INFOTERRA Focal Points, GEF's NGO Network Regional Focal Points, Climate Change NGOs in Global Climate Action Network, STAP experts in Biodiversity, Climate Change and Land Degradation, Field Office Director/Resident Representatives of the World Bank, UNDP and UNEP, and Small Grants Programme National Coordinators, among other recipients (Annex 3). *Country-level assessments of capacity needs:* undertaken in the following 14 countries: Senegal, South Africa, Uganda, Indonesia, Nepal, Samoa, Vietnam, Estonia, Hungary, Kazakhstan, Barbados, Colombia, Guatemala, and Peru (see Annex 4). Carried out by more than 42 national experts, these country level studies informed the Assessment Phase through more in-depth, albeit rapid, national capacity needs assessments

12. *Discussions with national delegations:* at the Conference of the Parties of the CBD in Nairobi (May 2000) and at technical consultations of the UNFCCC in Bonn (June 2000).

13. *Regional Workshops:* held in July 2000 in Cairo (Egypt), Prague (Czech Republic), Beijing (China), and Rio de Janeiro (Brazil) to enable all countries to further discuss and provide inputs and information on their constraints and capacity needs of their respective regions. An additional workshop, supported by the GEF, was held in Samoa to discuss capacity development issues relevant to SIDS. At these workshops more than 270 GEF, biodiversity and climate change focal points from over 160 countries provided extensive comments and inputs on the initial findings of regional experts. Participants also identified and discussed in detail a broad range of capacity constraints limiting their ability to address global environment concerns in the region. These discussions have provided significant additional information for the regional reports and have also served as the primary forum for presenting findings. (See Annex 5 for more details on the regional workshops.)

CHAPTER 2 CAPACITY NEEDS IN BIODIVERSITY (FAIZAL PARISH / HAMID ZAKRI)

14. While biological diversity is an important foundation for economic development and generates a range of economic values, it is under increasing threat as manifested in reduction in habitat, species loss, and loss in genetic diversity. The Global Biodiversity Assessment (UNEP, 1995) indicates that recent rates of deforestation of 1% per year translate into rates of species extinction of about 0.25% per year, and that, even if these numbers are regarded as crude estimates at best, current extinction rates are dramatically higher than background extinction rates.

15. The main threats facing biodiversity worldwide include:

- (a) Habitat loss and degradation through conversion of forests and wetlands for agriculture, overgrazing of grasslands, conversion of coastal ecosystems for industrial and urban development.
- (b) Overexploitation of species, for example over fishing, over hunting of wildlife, unsustainable forestry practices.
- (c) Introduction of alien invasive species that impact aquatic systems (for example, the covering of water bodies by water hyacinth) as well as terrestrial systems (for example, eucalyptus and acacia trees outcompete native vegetation for scarce water in Africa).
- (d) Air pollution, including acid rain, is affecting forest and aquatic diversity especially in Europe, North America and Asia.
- (e) Water pollution is one of the major negative impacts on aquatic biodiversity.
- (f) Overuse of water resources is having a major impact on both aquatic and dryland ecosystems (where main species depend on the small amounts of water available).
- (g) Climate change effects, based on climate change scenarios, are likely to include coral bleaching, loss of coastal ecosystems due to sea level rise, loss of forests following increased incidence of forest fire in certain regions, loss of wetlands due to reduced rainfall in some regions.

16. Many countries have instituted conservation programs and policies, with protected areas being a cornerstone of such efforts. Gradually, conservation concerns are being integrated with the wider landscape by promoting land uses that are more compatible with biodiversity conservation such as sustainable forest management, agroforestry, etc. However, promoting conservation and sustainable use of biodiversity in ways that take into account other land use objectives and livelihoods of rural people remains a challenging issue, and countries must identify important priorities in this regard.

2.1 National Commitments under the Convention on Biological Diversity

17. The overall objectives of the Convention on Biological Diversity (CBD) are the conservation of biological diversity; the sustainable use of the components of biodiversity; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. These guiding objectives are translated into binding commitments in its substantive provisions contained in Articles 6 to 20 of the Convention.

18. Under the Convention, governments are required to implement actions related to three categories of obligations that these countries have. The first category is those obligations that deal with *national domestication* (involving formulation and/or reform of policies, laws and institutions or establishment of programs at national level) of the provisions of the Convention. The second category is those obligations on *reporting* to the Conference of Parties and the Secretariat. The third category is those obligations that require Parties to *participate in the further elaboration and enrichment* of key policy issues and achievement of consensus of matters that are still unresolved. These main national actions prescribed under the Convention are listed in Box 2.1.

19. Contracting Parties are also expected to participate in Conference of Parties and its subsidiary bodies (such as the Subsidiary Body on Scientific, Technical and Technological Advice) to make decisions associated with the implementation of the Convention and to address such unresolved issues as how to protect and promote indigenous knowledge and innovations, control of alien invasive species, and the need for international guidelines on access to genetic resources and benefit-sharing.

20. Subsequently, each of the Contracting Parties is also obliged to implement decisions of the Conference of Parties. However, the Convention provides the necessary flexibility for Parties to sequence their actions, programs and processes to implement their obligations on the basis of their national priorities. Parties are thus expected to set clear priorities for implementation without compromising the Convention's provisions and obligations.

BOX 2.1: NATIONAL CBD ACTIONS

- (a) Developing national strategies for the conservation of biodiversity and sustainable use of its components and integration of them into relevant sectoral and cross-sectoral plans, programs and policies
- (b) Identification and monitoring of components of biological diversity which are important for its conservation and sustainable use
- (c) Identification of processes and activities which have or are likely to have adverse effect on biological diversity or sustainable use of its components, including, inter alia, control of alien species and releases into the environment of genetically modified organisms
- (d) Establishing and managing systems of protected areas
- (e) Restoration of degraded ecosystems and promotion of the recovery of threatened species
- (f) Respecting, preserving and maintaining knowledge, innovations and practices of indigenous and local communities and encouraging equitable sharing of benefits arising from the utilization of such knowledge and practices
- (g) Adopting measures for the ex-situ conservation of components of biological diversity
- (h) Promoting public participation, particularly when it comes to assessing the environmental impacts of development projects that threaten biological diversity
- (i) Educating people and raising awareness about importance of biological diversity and the need to conserve it
- (j) Integrating considerations of conservation and sustainable use of biological resources into national decision making
- (k) Developing systems of measures that act as incentives for conservation and sustainable use of components of biological diversity
- (l) Promotion and encouraging research which contributes to conservation and sustainable use of biological diversity
- (m) Creating conditions to facilitate access to genetic resources and technology
- (n) Information sharing through a clearing-house mechanism for use by all stakeholders
- (o) Provision of financial assistance to support national plans and priorities
- (p) Reporting on national processes and activities

Source: Convention on Biological Diversity Secretariat

21. One of the general reference points for national implementation of the obligations of the Convention is the ecosystem approach adopted by the Second Conference of the Parties (UNEP, 1996). This is the main framework for action under the CBD for facilitating balance between the three CBD objectives. This allows for an operational scale for adaptive and decentralized institutional management and, most of all, recognizes that both cultural and biological diversity are essential elements of ecosystems and that institutional management should take this relationship into account.

22. There are two avenues of priority setting in the context of the Convention. The first is the Conference of Parties where collective priority setting takes place and the second is the national level where the sequence or scope of particular actions may be adjusted to local situations and capacities. For example, Parties at the Conference of Parties may decide that a particular provision or set of actions be accorded priority in national implementation. This is clearly the case with the implementation of Article 6 for example. The second meeting of Conference of Parties held in Jakarta Indonesia in November 1995 decided that Article 6(a) be accorded priority in national implementation. Decision II/7 (Consideration of

Articles 6 and 8 of the Convention) also "emphasizes the importance of capacity-building as well as the availability of adequate financial resources to assist Parties in the implementation of Articles 6 and 8 of the Convention, and ...requests the ...financial mechanism under the Convention to facilitate urgent implementation of Articles 6 and 8 of the Convention by availing to developing country Parties financial resources for projects in a flexible and expeditious manner."

23. An example of one of the new areas of action arising from discussions under the framework of the Convention relates to actions to implement the **Cartagena Protocol on Biosafety** (January 29, 2000) to protect biological diversity from potential risks posed by living modified organisms resulting from modern biotechnology.

2.2 National Priorities and Processes for Addressing Global Biodiversity and CBD Obligations

24. Most countries have developed or refined their national priorities and processes for addressing biodiversity issues by using the frameworks and processes provided by the various CBD obligations, frameworks and guidelines, in particular the use of National Strategies and Action Plans for the conservation and sustainable use of biodiversity. Some countries, however, have prior or underlying national frameworks for biodiversity based on elements of biodiversity management such as nature conservation strategies, wildlife policies, national park and protected areas plans and legislation. However, as a result of the establishment and subsequent operation of the CBD a range of new concepts have been introduced such as access and benefit sharing, bioprospecting, biosafety, protection of indigenous knowledge and several of these are now considered as high priorities for some countries.

25. In addition many countries are parties to other biodiversity related conventions including: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Wetlands (Ramsar Convention) and Convention on the Conservation of Migratory Species of Wild Animals (CMS). The obligations under these conventions have also guided national strategies and priorities. For example, a number of countries have developed national wetland strategies or action plans. Some of these have been developed prior to the biodiversity strategies while others have been prepared to follow up or fill gaps in the biodiversity strategies.

26. Most biodiversity strategies and action plans have common features such as: building institutional capacities; enhancing management efficiency for in situ and ex situ conservation; sustainable utilization of biodiversity through incorporation of appropriate actions in sectoral strategies; promoting national and international cooperation; enhancement of public awareness; research, survey, and monitoring; and, promotion of community participation.

27. National priorities for the implementation of the Convention can generally be derived from national reports (under Article 26), national strategies and action plans (Article 6), statements by delegations at Conference of Parties, project proposals submitted to the financial mechanism (the Global Environment Facility), responses to the questionnaire used in this assessment, and reports of national and regional workshops as well as country studies. A careful review of the information from these sources shows that there are some broad similarities in the priorities of Contracting Parties though they may be at different stages in the implementation of the Convention.

28. On the basis of the regional reports and other documentation, the following problems or issues have been recorded as priority areas for action:

- (a) Low levels of awareness and knowledge of biodiversity issues on the part of key stakeholders (decision makers, private sector, local people and the general public)
- (b) Difficulties in biodiversity policy making and planning because of the cross-sectoral nature of biodiversity issues
- (c) Gaps in, overlap and conflict between legal and regulatory frameworks, particularly with regard to new issues such as access, benefit sharing and biosafety
- (d) Gaps in, and overlap and conflict between, institutional mandates and jurisdictions
- (e) Management and delivery of biodiversity information, including gaps in both data and monitoring
- (f) Avoiding the loss of indigenous biodiversity knowledge and technologies for its use
- (g) Systematic development of new information and knowledge through applied research on conservation and sustainable use
- (h) Valuation systems and incentive mechanisms to encourage conservation and sustainable use of biodiversity
- (i) Participation of the full range of biodiversity stakeholders, in particular local communities, indigenous groups and non-governmental organizations, in biodiversity management
- (j) International policy cooperation frameworks and other mechanisms to address trans-national biodiversity issues and opportunities
- (k) The effectiveness of developing countries in the negotiation of international biodiversity agreements and their implementation
- (l) Management and financing of institutions responsible for biodiversity, whether governmental or non-governmental
- (m) While personnel and skills are sometimes lacking, available human resources are often unable to realize their full potential
- (n) Financial resources, infrastructure and equipment are often inadequate
- (o) In-situ management of biodiversity, in particular protected areas and their integration into the surrounding landscapes
- (p) Ex-situ conservation of natural and agrobiodiversity
- (q) Biosafety and implementation of the Cartagena protocol

2.3 Capacity Constraints and Needs

29. A closer analysis of the above identified priority biodiversity issues reveals specific capacity development constraints and needs to address each issue, and these are discussed below. Capacity constraints are not divided specifically according to the level (i.e. systemic, institutional and individual),

but in general the systemic or macro issues are dealt with first followed by those related to institutional or individual levels.

I. AWARENESS AND KNOWLEDGE

30. In almost all countries there tends to be low awareness of the benefits of biodiversity protection and the options for sustainable use both among the general public and among key stakeholders, in particular decision makers, the private sector, and local resource users. In addition, the Convention has introduced a number of new concepts such as biosafety, access and benefit sharing, and protection of traditional knowledge. Many of these are poorly understood.

31. Capacity needs:

- (a) Public awareness and understanding of biodiversity issues and benefits
- (b) Understanding of practical measures that can be used to successfully implement the Convention
- (c) Delivery of specific targeted information regarding biodiversity values, implications and opportunities to political representatives and decision makers
- (d) Opportunities for decision makers to receive training in novel concepts relevant to sustainable development, including biodiversity conservation
- (e) Better knowledge of successful approaches applied elsewhere in order to replicate success and avoid "reinventing of the wheel"

II. NATIONAL POLICY FRAMEWORKS

32. National policy frameworks are generally inadequate for the effective implementation of the CBD in a number of respects. They tend to refer to national issues and priorities rather than international commitments, they have not been revised in light of the new issues and priorities in biological diversity, they are often poorly harmonized or in conflict across different sectors, and they tend to treat biodiversity as a sector. Integration of Biodiversity concerns into sectoral policies is critical to the success of implementing the CBD objectives since there is no "biodiversity" sector and the measures for conservation and sustainable use of biodiversity have to be implemented through different sectors.

33. Similarly, national biodiversity planning is a country-driven process often narrowly translated as the response to Article 6(a) of CBD which requires Parties to the CBD to "*develop strategies, plans and programs for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programs.*" However, many countries also have strategies, plans and programmes related to other conventions such as Ramsar, CITES, and the Convention on Migratory Species. National biodiversity planning should be managed so that it is harmonized with and complementary to the requirements of other international instruments which are relevant to conservation and sustainable use of biodiversity and to which countries are a Party.

34. Where biodiversity policies do exist, such as in Malaysia, in addition to lacking implementation strategies and plans which identify responsible agencies, together with timelines and agreed resource

allocations, they also tend to lack effective monitoring and reporting systems for ensuring implementation.

BOX 2.2: ON THE NEED FOR EFFECTIVE POLICY FRAMEWORKS

The lack of harmonized policies and laws has been cited as one of the main limitations to the conservation of biodiversity and sustainable use of its components in the Africa region. In particular, Kenya, Gambia, Uganda, Zambia, Egypt, Zambia, Namibia, Senegal, and Rwanda in their first national reports have identified this limitation. Tanzania has also identified the absence of harmonized policies and laws in its draft national strategy and action plan. At least 75% of the responses to the questionnaire in the Africa region listed the absence of harmonized policies and laws as one of the major limitations to the implementation of the Convention

Source: John Mugabe, Shakespeare Maya, Thomas Tata, and Simeon Imbamba. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Africa*, GEF-UNDP, Capacity Development Initiative.

35. Capacity needs:

- (a) Policies related to the implementation of the Convention on Biological Diversity, including the exploitation of synergies between the CBD and the other global conventions
- (b) Cross-sectoral dialogue and policy formulation
- (c) Cohesive planning frameworks that eliminate conflicts between policies in different sectors such as conflicts in sectoral policies between agricultural land conversion and forest retention
- (d) Better linking of biodiversity objectives with social and economic priorities
- (e) Involvement of all stakeholders, including particularly local resource using communities, the private sector, and NGO's, in the policy process

III. LEGAL AND REGULATORY FRAMEWORKS

36. National legal and regulatory frameworks are often inadequate to comprehensively address the complexity of issues covered by the CBD. As with policy frameworks, legal and regulatory frameworks are often not harmonized across the various sectors, leading to conflict, confusion, and difficulties in enforcement. Newly emerging issues, such as access to genetic resources for commercial use and associated benefit sharing or protection and use of indigenous knowledge, may not be covered at all.

BOX 2.3: ON THE NEED FOR REGULATORY FRAMEWORKS

Lao PDR has recently introduced a broad range of legislation such as the Forest Law (1996), The Land Law (1997), The Water and Water Resources Law (1996) and the Environmental protection Law (1999). However, there are still some constraints or confusion in implementing some of these laws because of the lack of detailed regulations or lack of detail and tangible definitions in the laws leading to misinterpretation.

Malaysia is currently finalizing three draft laws dealing with Access and Benefit Sharing, Biosafety, and the establishment of an overall Biodiversity Council.

Source: A. H. Zakri, Shekhar Singh, and Jose T. Villarin. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*. GEF-UNDP, Capacity Development Initiative.

Costa Rica proposes the harmonization of national and international legislation on access, technology transfer and intellectual rights on genetic resources in its national conservation and sustainable biodiversity use strategy. In Brazil the issue of regulation and monitoring instruments for genetic resources access, the project from Law 306/95, has been under discussion since 1995. The efforts of the Andean Community, in issuing a decision with the strength of a framework law, stand out in terms of advances in regulatory frameworks related to access to genetic resources.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

37. Capacity needs:

- (a) Resolution of conflicts and overlaps between different laws and regulations
- (b) The development of new legislation to fill gaps in existing legislation
- (c) The development of supporting regulations
- (d) Better enforcement and the development of new mechanisms such as self-enforcement provisions for industries or communities

IV. INSTITUTIONAL MANDATES AND JURISDICTIONS, COORDINATION, AND DECENTRALIZATION

38. A consequence of the multi-sectoral or crosscutting nature of issues associated with biodiversity conservation and use is that responsibility for biodiversity is often spread amongst a variety of agencies and institutions. In addition, a wide range of other sectoral agencies and institutions, as well as private and public organizations, have responsibilities or carry out actions that have direct impacts on biodiversity. This leads to considerable overlapping and duplication in responsibilities and activities, which in turn can cause confusion, conflict and inefficiency. Gaps in responsibility are also left.

BOX 2.4: INSTITUTIONAL FRAMEWORKS IN EASTERN AND CENTRAL EUROPEAN COUNTRIES

Establishment of the new independent states and associated economic problems in Eastern and Central Europe caused a breakdown of institutional frameworks which had been developing for decades and resulted in institutional gaps in some countries. The gaps occur especially in the former Soviet Union countries, which at the same time belong to the least developed countries within the region.

Source: Zuzana Guziova, Jaroslav Marousek, and Valery Neronov. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Eastern Europe and Central Asia*. GEF-UNDP, Capacity Development Initiative.

39. In addition to occurring between agencies and institutions, responsibilities can be confused between national, sub-national and local levels. Success of the implementation of CBD depends in many cases on the implementation on the local levels where people interact directly with their surrounding environment. This puts a number of challenges particularly in the process of decentralization of decision-making powers and responsibilities.

BOX 2.5: INSTITUTIONAL ARRANGEMENTS

The Seychelles, for example, has stated that: "Experts are available in limited numbers but the effectiveness is diluted because they may be scattered in different institutions...As a result, inadequate or inappropriate institutional arrangements are a major constraint to effective management."

Source: Republic of Seychelles, 1997. National Report on the Implementation of the Convention on Biological Diversity — National Biodiversity Strategy and Action Plan. November, 1997, p.22

In the last two decades Latin American countries have given environmental authorities a higher status in the political hierarchy through the establishment of environmental ministries (e.g., Argentina, Brazil, Colombia, Costa Rica, Cuba, Ecuador, Mexico, Venezuela), national environmental committees (e.g., Chile, Guatemala, Panama, Peru), or specialized institutes (e.g., Jamaica) and almost all of the region's governments have concentrated responsibility for coordinating the national implementation of the CBD in their national environmental authorities. Some of these have in turn established national intersectoral biodiversity committees that have frequently had the support of the GEF. However, most still consider the clarification of institutional mandates and jurisdictions a priority need in strengthening their capacity to implement the CBD

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

40. Capacity needs:

- (a) Clarification of mandates, jurisdictions and roles of the various institutions involved in biodiversity
- (b) Mechanisms to coordinate actions across agencies and institutions, including strengthening the role of the biodiversity focal points
- (c) Mechanisms to effectively decentralize decision making and management of biodiversity to the appropriate sub-national levels, and to coordinate actions between the different levels
- (d) Enabling local governments to develop and implement local sustainable development policies which would also address conservation and sustainable use of biological resources
- (e) Development of partnerships with NGOs, local businesses and other local actors whose activities directly impact biodiversity

V. INFORMATION AND DATA MANAGEMENT

41. Effective policy making and management is dependent on the delivery of high quality, relevant and timely information to the decision-making loci. Information and data gaps occur widely, partly due to the breadth and scope of the convention, and information delivery systems tend to be weak. Particularly weak areas include: inventory and status of biodiversity; the preservation of indigenous knowledge; and information regarding management options for sustaining biodiversity.

42. Similarly, few countries consider themselves to have a functional biodiversity monitoring system. While sectoral institutions may operate monitoring systems that cover certain components of biodiversity, these are tailored to their own specific needs and are not consistent or effectively shared with, or integrated into, broader systems. There is also a lack of integration between national, sub-national and local levels.

43. Capacity needs:

- (a) Strengthened mechanisms for overall management of biodiversity information including coordination, integration, and delivery to identified targets, and particularly those in the policy and decision making process
- (b) Coordinated and compatible systems for data gathering, validation, storage, manipulation and analysis, access and dissemination
- (c) Filling of key information and data gaps, including extensive biodiversity assessment particularly in biodiversity hot spots and mega diversity countries
- (d) Skills in monitoring system design, choosing indicators, etc
- (e) Better preservation and use of indigenous knowledge
- (f) Elaboration of working systems for the conservation and sustainable use of biodiversity

BOX 2.6: THE NEED FOR RESEARCH CAPACITY

In the Latin American region while national budgets for research and technological development have declined over the last decade, some positive developments can be observed. For example, in Mexico and Brazil in particular there are successful projects developing new knowledge on the interface between biodiversity and agriculture. The National Program on Biodiversity Research in Peru, INBio in Costa Rica, the National Institute for Amazonian Research in Brazil, the Humboldt Institute in Colombia, and the biotechnology research programs in Cuba, show impressive results in generating new knowledge on both the natural ecosystems in the region and biotechnological development.

A number of indigenous and rural communities in Latin America have programs and self-managed research centers that seek to recover and systematize their traditional knowledge and prepare community specialists and co-researchers. A number of these activities have as their goal the reinforcement of cultural practices based on conservation and sustainable use systems for biodiversity.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

VI. INCENTIVE SYSTEMS, VALUATION AND ECONOMICS

44. There is a need to supplement traditional command-and-control approaches to conservation with market-based incentives that would encourage different stakeholders to conserve biodiversity and use its components in a sustainable manner. Biodiversity generates a range of services, the environmental, social, or economic values of which, particularly in the long term, are often not understood, are underestimated, or are not being factored into decision-making (for example, the role of catchment forests and wetlands in water supply, or the potential revenues from bioprospecting). There is a need to develop techniques for valuing these services, coupled with the design and implementation of fiscal or other instruments so as to establish appropriate incentive/disincentive structures for conserving biodiversity and associated services.

45. Capacity needs:

- (a) Mechanisms for incorporating the values associated with biodiversity into national, and other, policy and planning processes and accounting systems
- (b) The incorporation of incentive systems into national policies
- (c) The human skills necessary to design systems of valuation and incentives

BOX 2.7: MARKET INSTRUMENTS IN LATIN AMERICA

In Colombia the establishment of "polluter pays" mechanisms has lowered pollution levels in the rivers of an industrial region of the country (World Bank, 2000). In Costa Rica the novel instruments introduced to recognize payments associated with the environmental services provided by forest ecosystems (basin protection, carbon sequestration, biodiversity protection) is well known amongst forest owners and results in voluntary conservation (FMMA, Interagency Committee, 2000). Elsewhere in Latin America tools such as forest certification, promoted by the Forest Stewardship Council and the ISO 9000 and ISO 14000 modality, are making significant progress.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

VII. PARTICIPATION OF THE FULL RANGE OF STAKEHOLDERS, IN PARTICULAR LOCAL COMMUNITIES, INDIGENOUS GROUPS AND NON-GOVERNMENT ORGANIZATIONS, IN THE MANAGEMENT OF BIODIVERSITY

46. Enhanced participation of non-governmental stakeholders, in particular local communities, indigenous groups, and NGO's, in the assessment and management of biological resources is a key strategy to enhance the protection and sustainable use of biodiversity. However, NGOs and CBOs face a broad range of constraints. One of the greatest existing restrictions is insufficient capacity of indigenous organizations to defend and develop their legal rights. In turn, the government agencies responsible for indigenous affairs, including environmental ones, seem to be increasingly less capable to adequately address the growing pressures on indigenous cultures and to make their rights effective.

47. Capacity needs:

- (a) Mechanisms for active consultation and involvement of local communities in planning and management of biodiversity and associated land resources.
- (b) Recognition of rights of local and indigenous communities to rights over ancestral lands and traditional resource uses
- (c) Planning processes that provide for adequate participation of non-governmental stakeholders in that process
- (d) Non-governmental stakeholders with the skills to become equal participants in planning processes

BOX 2.8: PUBLIC PARTICIPATION IN LATIN AMERICA

Many national environmental laws in Latin America establish rights for public participation in environmental decision-making at various levels. These include public access to information, rights to intervene in public hearings, and requirements to be consulted or to agree to environmental impact assessments (EIAs) or the issuance of permits for the use of forests or fisheries, etc. Some laws provide legal instruments or public agencies for the defense of citizens' environmental rights. These have proven to be especially effective in Brazil and Colombia for ensuring compliance with the law. Other functions can be identified that have been granted to prosecutors' offices and public defenders for this, manifesting themselves at times in the establishment of entities specialized in these measures.

In the countries of Latin America there are many examples of successful projects, supported by both governmental and non-governmental organizations, for the preparation and execution of management plans that are based on traditional knowledge of biodiversity, complemented, when relevant, by western technologies. Likewise, there are numerous projects that, from the perspective of environmental sustainability, have made progress in rural communities in forestry, agriculture and fishing. Rural and community based partnerships in the region have several protected areas, organic products (e.g., organic coffee), and forestry and craft fishing projects.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

VIII. REGIONAL AND INTERNATIONAL POLICY COOPERATION FRAMEWORKS

48. Although the majority of activities associated with the implementation of the CBD are focused at national levels, mechanisms are required for regional and international cooperation on issues of common concern such as protection and management of shared or common biological resources, including for example: migratory species, trade in endangered species, shared coastal and inland water bodies, trans-boundary river basins and pollution. In some instances multi-country bioregional planning may also be a requisite for full implementation of the ecosystem approach. Another area of regional cooperation is the exchange of information and management solutions between countries with similar problems and the options of cost effective collective action.

49. Capacity needs:

- (a) Mechanisms for regional or bilateral cooperation in policy, legal and regulatory and management activities
- (b) Mechanisms for the exchange of information and experience.

BOX 2.9: MULTI-COUNTRY COOPERATION

The "Mesoamerican Biological Corridor," coordinated by the Central American Committee on Environment and Development (CCAD), is a good example of multicountry cooperation in biodiversity. The Forum of Environment Ministers of Latin America and the Caribbean have also identified bioregional planning as an appropriate strategy for the simultaneous attainment of conservation and sustainable biodiversity use and the fulfillment of the populations basic needs. The Andean Community, has urged member countries of the Cartagena Agreement to recognize the historic contribution of indigenous, Afro-American and local communities to biological diversity and the need to protect knowledge and traditional practices. Caribbean countries also have a Cartagena Convention for the Protection of the Marine Environment in the Greater Caribbean.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

There are also a number of specific interventions based around shared ecosystems such as the Aral and Black Sea Action Plans and work on the assessment and management of aquatic biodiversity in the Mekong, Nile, Danube and Parana River Systems.

Source: A. H. Zakri, Shekhar Singh, and Jose T. Villarin. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*, GEF-UNDP, Capacity Development Initiative.

IX. NEGOTIATION

50. Delegations to meetings of the Convention from developing countries are often small and frequently lack continuity. Due to limited awareness and knowledge of the issues and their implications, and difficulties of communication and coordination between national institutions, preparatory discussion is limited and negotiating mandates are weak. Delegation members may lack negotiation skills or a full understanding of the implications of decisions made at convention and meetings. Similarly, the outcome of convention meetings may be poorly interpreted and disseminated.

51. Capacity needs:

- (a) Mechanisms for effective preparation, mandating, and reporting of convention discussions
- (b) Negotiating skills

X. INTERNAL ORGANIZATIONAL AND INSTITUTIONAL CONSTRAINTS

52. In many countries key agencies with responsibility for the environment are weak and poorly resourced. In addition, there is often a lack of proper management within the government agencies, due to various constraints in human and financial resources. Management systems tend not to reward individual initiative and achievements and this does not create an environment for effective or optimal use of individual skills. Further, most agencies have highly centralized decision making systems which, in addition to being inefficient, is contrary to effective resolution of biological diversity problems which often require decentralized decision making systems with staff and functions being able to operate independently at local levels.

53. While national and local NGO's and Community Based Organizations (CBA's) can also play important roles in biodiversity management and may face fewer capacity constraints associated with centralization and motivation, they also tend to be constrained by managerial and resource challenges, particularly at start up.

54. Capacity needs:

- (a) Skilled institutional managers and staff
- (b) Efficient financial management
- (c) Efficient and effective deployment of human resources and use of skills
- (d) Decentralization of decision making, staff and functions to lowest appropriate levels
- (e) Effective planning, particularly of programmes and projects
- (f) Access to and use of Information Technology
- (g) Effective monitoring and evaluation

XI. HUMAN RESOURCES

55. Availability of human resources for conservation and sustainable use of biological diversity within the country is influenced by a number of factors including, but not limited to, government policies on staff allocation, quality of education and professional training, attractiveness of certain professions, pay and incentive systems in different sectors, etc. In many cases the lack of staff allocated to biodiversity management is directly linked to the shortage of financial resources, but in others it is a case of inappropriate staff allocations or government policies to downsize the civil service. The problems seem to be particularly significant at the provincial and district level whereas national level agencies tend to have greater or adequate staffing levels. In response some countries have initiated decentralization programs, but these may be of limited effectiveness, with well-trained or experienced staff being reluctant to move to the local level.

56. Capacity needs:

- (a) Mechanisms, such as appropriate pay and incentive systems, to attract and retain qualified experts to work within the public sector
- (b) Increased opportunities for, and higher quality, training in key fields relating to the convention including in particular environmental economics, taxonomy (Article 7), negotiation (CBD and WTO), data and information management (Article 18), trade policy and law.
- (c) Incentive mechanisms to provide motivation, encourage excellence, reward individual initiative and achievement and promote ongoing expertise development

XII. FINANCIAL RESOURCES, INFRASTRUCTURE AND EQUIPMENT

57. The CBD itself acknowledges in the preamble that:

"Substantial investments are required to conserve biological diversity and that there is the expectation of a broad range of environmental, economic and social benefits from those investments..."

58. It is difficult to assess how much is actually spent on conservation of biological diversity and sustainable use of its components, since the activities are implemented through and financed by different sectors and data on such spending is not easily available. However, in general the amounts spent by countries directly on biodiversity conservation and sustainable use is low.

59. Many of the sectoral agencies whose activities impact biological diversity are facing problems of insufficient funding and biodiversity related activities are often among the first to be cut. A number of African countries, for example, have articulated poor and inadequate staffing of institutions as one of the main challenges in institutional building. However, the retrenchment of the civil service under World Bank and IMF programmes is further reducing the number of staff available to agencies for biodiversity management.

BOX 2.10: BUDGET ALLOCATIONS FOR THE CONSERVATION OF BIODIVERSITY

In LAO PDR only five permanent staff are allocated by the Provincial government of Champassak for the management of 12 protected areas covering 500,000ha. (Fortunately external donors and projects support an additional 50 temporary staff).

Source: A. H. Zakri, Shekhar Singh and Jose T. Villarin. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*, GEF-UNDP, Capacity Development Initiative.

In Kazakhstan, "37 projects on the conservation of biodiversity were implemented in the period 1998–2000, with financing from domestic sources, for the total sum of 500 thousand USD."

Source: *National Report of the Republic of Kazakhstan on Needs Assessment*, 2000, as cited in Zuzana Guziova, Jaroslav Marousek, and Valery Neronov. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Eastern Europe and Central Asia*, GEF-UNDP, Capacity Development Initiative.

More than 23 African countries listed an insufficiency of equipment, particularly computers, vehicles and research laboratories, in their National Reports to the CBD.

Source: John Mugabe, Shakespeare Maya, Thomas Tata, and Simeon Imbamba. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Africa*, GEF-UNDP, Capacity Development Initiative.

"Compared to the resources needs of biodiversity related institutions, the level of funding in the Gambia...(is) grossly inadequate for any meaningful biodiversity ...programmes... The present government moratorium on new recruitment, the policy of zero-growth and continuous budgetary cutbacks to meet IMF conditionalities means ...needs (will) not be met at all."

Source: Republic of the Gambia, 1998. *National Report on the Implementation of the Convention on Biological Diversity*. Publication of the Agriculture and Natural Resources Working Group/ Task Force on the NBSAP Process—January 1998.
<http://www.biodiv.org>

60. Resource insufficiencies are compounded by the tendency towards financial centralization such that national agencies, focusing on strategy and planning, have disproportionately more resources than those working at provincial and local levels to directly protect or manage biodiversity. One consequence of this is diminishing capacities for conservation and sustainable use of biodiversity from the national to the local level.

BOX 2.11: MANAGEMENT OF BUDGETARY RESOURCES

One constraint in preventing and fighting the forest fires in Indonesia in 1996-7 was that resources were administered centrally and the provincial governments had insufficient resources to respond. In response to the massive economic and biodiversity losses, central resources were allocated post facto to the regions.

Source: A. H. Zakri, Shekhar Singh and Jose T. Villarin. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*, GEF-UNDP, Capacity Development Initiative.

61. In a few countries, there are government operated environment funds that are replenished through government contribution and through environmental fines. In other countries conservation or biodiversity trust funds have been established through external financing. However, in general the resources available through these funds are insufficient to meet demands.

BOX 2.12: ENVIRONMENTAL FUNDS

Environment Funds have been used particularly in Latin America in countries such as Brazil, where in 1989 FONAMA was the first major environment trust fund to be established, and in Mexico and Peru where special funds for the management of protected areas have been established.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

62. Capacity needs:

- (a) Mechanisms to ensure the availability of sufficient funds, including soft loans and grants, for biodiversity conservation and sustainable use activities.
- (b) Mechanisms to return revenues from biodiversity management, including fees associated with resource utilization and the provision of environmental services, to the local and provincial governments responsible for their management
- (c) Stronger abilities to access and coordinate international financial support for biodiversity activities
- (d) Enhanced transfer of technology and equipment from developed countries, along with the capacities to operate and maintain such equipment

XIII. IN-SITU MANAGEMENT AND PROTECTED AREAS

63. *In situ* conservation is one of the key modalities for biodiversity management identified in the CBD and successive COP's have endorsed programmes of work to address priority ecosystems. While protected areas are one of the most important strategies for ensuring *in-situ* conservation they have limitations and additional strategies are needed. These include protection measures targeted at specific species, protection of biodiversity in managed ecosystems such as forest plantations and agricultural lands, and the protection of biodiversity in land managed communally or by indigenous communities.

64. In most countries the financial resources allocated for administration of parks and other protected areas has been inadequate. This situation has become more drastic in recent years as a result of measures for reducing fiscal deficits and policies for reducing government. This has manifested itself in many countries in a freeze in the number of park agency personnel, or in increases that are far from responding to the growth in protected areas in the last two decades. In some cases staffing has been reduced. Similarly, budgets for research, environmental education, and work with communities in the parks and their buffer zones have suffered relative reductions.

65. Responses to declining resources include the promotion of self-financing mechanisms for protected areas based on revenues generated and efforts to capture the values associated with their environmental services, in particular in hydrological regulation, carbon sequestration, and the supply of genetic resources.

BOX 2.13: PROTECTED AREAS AND BIODIVERSITY CONSERVATION

Protected areas have been a relatively successful forest management policy in Latin America and, without a doubt, the most relevant *in situ* biodiversity conservation strategy. It comparing protected areas with other unsuccessful conservation and sustainable use policies it has been pointed out "there is not a single area of protected forests in Latin America that has been completely deforested"

Source: Dourojeanni, p. 81; 1999, as cited in Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

66. Capacity needs:

- (a) More effective mechanisms for the *in-situ* management of freshwater biodiversity
- (b) New mechanisms for *in-situ* management of biodiversity outside strict protected areas
- (c) Strengthening protected area institutions, in particular through the design and implementation of self-financing plans for protected areas
- (d) Enabling the adoption of new approaches to protected area management, in particular the establishment of biological corridors and eco-regional approaches, systems of co-management with local communities, and private sector reserves.

XIV. BIOSAFETY AND THE CARTAGENA PROTOCOL

67. The requirement to respond to the potential risks associated with release into the environment of organisms produced through modern biotechnology is rather new to most countries. The majority of countries need to create biosafety frameworks and develop capacities to cope with these risks and the associated provisions of the Cartagena Protocol on Biosafety.

68. In general there is very limited experience. There are also no social controls or public alarm systems because biosafety is a new concern with issues unknown to most people. Where efforts have been made so far they are largely limited to sanitary measures by the agricultural and livestock authorities for blocking the cross-border movement of biological elements that threaten to affect national production either as aggressive invaders or transmitters of pathogens. A few, such as Brazil, have updated their norms for regulation of the import of vegetable germ plasma and live land or water organisms, including insects and microorganisms that can endanger national biodiversity and ecosystem functions.

69. Capacity needs:

- (a) An understanding by decision makers of the biosafety concept and the requirements for implementation of the protocol
- (b) Filling gaps in the policy and legislative and regulatory frameworks
- (c) Abilities to assess and manage the risks posed by living modified organisms

2.4 Conclusions

70. Capacity needs in biodiversity lie primarily at the systemic level, reflecting the non-sectoral or crosscutting nature of biodiversity and the threats to it. While demanding specific individual skills and effectively functioning institutions, the majority of biodiversity issues can only be addressed through adjustments in the overall national (and sub-national and local) policy, legal and regulatory frameworks, the jurisdictions and mandates of government institutions, and the levels of resources made available to these. These in turn can only be addressed if there is an appropriate level of political and public awareness, and the supporting information required to generate knowledge and inform decisions. Since a number of these basic systemic capacity needs are common across other thematic areas such as climate change and land degradation, as well as other biodiversity related conventions such as Ramsar and the Convention on Migratory Species, there are significant opportunities for integrated and synergistic approaches.

71. In addition to creating an overall enabling environment for biodiversity conservation and sustainable use, particular attention must be given to the development of the capacities required for in-situ conservation, both inside and outside protected areas, and implementation of the Cartagena protocol on biosafety. Further, recognizing that biodiversity and natural ecosystems frequently cross national borders such that cooperation in management is either required, or there are significant opportunities for sharing knowledge and experiences, bilateral and regional cooperation frameworks should also be enhanced.

CHAPTER 3 CAPACITY NEEDS IN CLIMATE CHANGE (DANIEL BOUILLE)

72. "Climate change is probably the most complex and challenging environmental problem facing policy makers today. Some of the complexities involved include the wide range of greenhouse gas emissions sources and sinks, the long time lags between these emissions and their effects on the climate, equity issues related to the global nature of the problem and, last but not least, the considerable remaining scientific uncertainties related to climate change."⁷

73. To effectively incorporate climate change issues into national sustainable development agendas, countries need to strengthen special management capacities that include: analyzing and formulating responsive policies; weighing various alternatives under conditions of high uncertainty; and recommending specific courses of actions in keeping with the country's economic and socio-political realities. No single capacity development action can meet these ability requirements. A series of mutually reinforcing actions, phased over a long-term period, are necessary.

3.1 National commitments under the Convention

74. The UNFCCC includes commitments for all signatory Parties and additional commitments for Annex I countries (industrialized countries plus the countries with economies in transition of Central and Eastern Europe) and Annex II countries (only industrialized countries). The CDI needs assessment spanned four regions that covered countries that belong partly to Annex I and partly to the Non-Annex I group.

75. All countries have certain commitments to the UNFCCC. The Non-Annex I countries have the possibility of receiving support from Annex II countries to meet their commitments. Annex II countries' commitments to the UNFCCC include that support to the Non-Annex I countries.

1. Main commitments

76. The Framework Convention on Climate Change establishes that the Parties that comprise it should carry out actions for stabilizing the degree of concentration of greenhouse gases at acceptable levels.

77. Taking into account their common though differentiated responsibilities, the Convention recognizes that all of the Parties, aside from presenting their corresponding national communications, should take actions on climate change.

78. The main action of the Non-Annex I countries is to communicate to the Conference of the Parties information on: national inventories, a general description of the steps developed to implement the Convention and any other relevant information to achieve the objectives of the Convention. These actions are linked to the Articles 4, 5, 6 and 12 of the Convention, including:

- (a) Preparation and implementation of abatement plans on climate change.
- (b) Integration of climate change considerations into the development of environmental, social, and economic policies, that is, in development policies.

⁷ UCCEE. 1997. The Economics of Greenhouse Gas Limitation – Methodological Guidelines. UNEP Collaborating Centre on Energy and Environment, Risoe National Laboratory, Denmark

- (c) Promoting the sustainable management of sinks and GHG reservoirs.
- (d) Promoting research and cooperation in information exchange.
- (e) Development of education, training and public awareness raising programs.
- (f) Preparation of reports and communications to the Convention on the actions developed or under development.
- (g) Promoting and developing research and systematic observation.

79. These activities are related to seeking and processing of information, building long-term scenarios, identification and evaluation of abatement options and strategies, climate change vulnerability evaluation of the most likely scenarios, policy design for the implementation of abatement and/or adaptation activities, evaluating the social and economic impacts of activities that are to be implemented and integrating them into the global and sector development objectives, evaluating the viability of the scenarios foreseen. The execution of these obligations implies that the country should have the human, organizational, institutional and scientific resources for developing the tasks and functions on a permanent basis.

80. Additionally, Parties included in Annex I will have to:

- (a) Adopt national policies and take corresponding measures to limit the anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs
- (b) Submit a first communication within six months of the entry into force of UNFCCC, and periodically thereafter
- (c) Include a detailed description of policies and measures and specific estimates of the effects of those policies and measures to the national communications

81. Parties included in Annex II shall provide new and additional financial resources:

- (a) To meet the agreed full costs incurred by developing country Parties in complying with their commitments considering developing of national communications
- (b) To meet the costs of implementing climate protection measures by the developing country Parties

2. Additional commitments of the Kyoto Protocol

82. Annex I countries have the following commitments towards climate change protection and sustainable development:

- (a) The implementation of energy efficiency measures
- (b) Promotion of renewable energy sources
- (c) The enhancement of sinks and reservoirs
- (d) The reduction of market imperfections.

83. Each Annex I country shall incorporate in its national communication:
- (a) An annual inventory of anthropogenic emissions by sources and removals by sinks of greenhouse gases
 - (b) Information to demonstrate the compliance with its commitments under this Protocol
84. Article 3 of the Kyoto protocol commits Annex I countries to decrease their aggregate emissions of greenhouse gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012. This reduction will be based on the net changes in GHG emissions by sources and removals by sinks. Emission reduction or limitation targets are based on the sum of six greenhouse gases.⁸
85. Countries with economies in transition will have the possibility to choose another base year, which has to be mentioned in their first national communications.
86. The Kyoto Protocol introduces some mechanisms to facilitate the achieving of the commitments; the most important are Joint Implementation and the Clean Development Mechanism.
87. The principle of Joint Implementation is defined as follows:
- (a) Joint Implementation gives Annex I countries the possibility to acquire from any other such Party emission reduction units resulting from projects aimed at reducing greenhouse gas emissions by sources or enhancing anthropogenic removals by sinks of GHG
 - (b) Joint Implementation will make it possible to reach GHG emission reductions in those countries where the lowest abatement costs exist.
88. The purpose of the clean development mechanism is defined as follows:
- (a) To assist Non-Annex I countries in achieving sustainable development and in contributing to the ultimate objective of UNFCCC
 - (b) To assist Annex I countries in achieving compliance with their quantified emission limitation and reduction commitments under Article 3

3.2 National issues for addressing global environmental convention obligations

89. National issues and priorities are closely related to different situations: commitments under the convention and the Kyoto protocol, expected vulnerability to climate change and other socio-economic conditions.
90. Considering these matters, regional assessments include a wide range of situations. The objectives of this section are to show commonalities across the regional reports and to stress, when necessary, particular situations related to specific regions or countries.
91. Many common issues can be detected in relation to Non-Annex I countries:
- (a) In general, they expect potential adverse impacts of climate change.

⁸ Carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆)

- (b) Economic and social dimensions of sustainable development are priority issues.
- (c) Many of them have made or are making profound transformations in their economic systems.
- (d) In many cases environmental structures are being created at a time of slimming down of the governmental capacity.
- (e) Many of them show very good skills in human resources dedicated to environmental issues.

92. It must be recognized that there are substantial differences within and among the regions in terms of level of development, socio-cultural aspects, awareness for environmental issues, and involvement in the international negotiation, among others. There are, nevertheless, important common elements.

93. As far as potential impacts of climate change are concerned, countries may be divided in five major groups:

- i. In countries with important low coastal zones, the major climate change issue is the exposure to the adverse impacts of sea level rise and other geophysical climate-related hazards such as shifting rainfall patterns and typhoons.
- ii. In semi-tropical areas, shifts in forest cover and grasslands, reduction in livestock production, vanishing mountain glaciers and continental ice, and threats to water supply are the projected impacts of climate change. One of the more crucial determinants here is the impact of a warming earth on the Asian monsoon and El Niño-Southern Oscillation (ENSO). Both the monsoon (in Asia) and ENSO (in all the regions) are critical factors in many countries.
- iii. In Tropical areas, climate change stands to threaten food security and human health due to stresses on water availability, shifts in forest cover, losses in crop yield, and coastal flooding. High population densities and intensity of use in the coastal plains compound the impacts of sea level rise such as coastal erosion, saline intrusion, and land loss. Additionally, as a consequence of the increase in the sea level, heavy losses of coastal lands and biodiversity are foreseen (including coral reefs, mangrove swamps, estuaries, wetlands, marine mammals and birds) as well as damage to the infrastructure and intrusion of seawater in aquifers.
- iv. In Arid areas, the most critical limiting factor is water. Shifts in the hydrological cycle due to climate change may exacerbate the scarcity of this important resource in the region.
- v. In temperate areas, many of the impacts mentioned before are possible, but agriculture, forest and energy (hydropower) could be the main affected activities.

94. In all five areas, climate variability (changes in precipitation patterns and in distribution of moisture, as well as regional warming) could have negative impacts for power production and contribute to expanding geographic distribution of vectors and endemic areas of infectious diseases.

95. The climate change issues listed above must be further interpreted in the context of socioeconomic issues. The regional reports address critical national issues that include:

- (a) Poverty alleviation
- (b) Enhanced economic growth

(c) Improved equity

96. The economic and social dimensions of sustainable development remain matters of great importance and so does the need to identify policies leading to a reversal of that trend. Undoubtedly, such critical realities influence priorities vis a vis the environmental dimension. Clearly, it is socio-economic objectives and vulnerability to climate change that drive issues and priorities in Non-Annex I countries.

97. In summary, socio-economic objectives and vulnerability to climate change are identified as the driving issues among Non-Annex I countries.

98. In regards to Annex I countries (all countries that were included as part of the Eastern Europe and Central Asia region for this CDI assessment, except for Central Asian countries),⁹ issues and priorities are related to commitments to the convention and Kyoto protocol.

99. The regional assessment for Eastern Europe and Central Asia refers to the "overall environment" and its importance for effective application of any environmental policy. "The level of general capacities and the socioeconomic framework crucially influence the capacities needed to address global environmental issues. In this general area, previous assistance to Eastern Europe focused on democratization and development of civil society, human resource development for the market economy, private-sector development, public administration reform, capacity building for governance and economic management on all levels and environmental and sustainability management."

100. Within the Eastern Europe and Central Asia region, we find economies where the current priority of many industrial and commercial entities is the struggle for mere survival. In such an unfavorable environment it is difficult to give national priority to the climate change protection, and much harder to achieve the development of sustainable capacities compared to other countries.

101. Annex I priorities are commitments driven in a framework of transformation and modernization of their economic system.

102. Finally, it is significant to remark that all the regions have singled out, for different reasons, the existence of an unfavorable political and economic environment, in which it is difficult to give national priorities to addressing global environmental problems and much harder to achieve the development of sustainable capacities.

3.3 National Priorities and Key Capacity Needs

103. Combining the issues presented above and references made to systemic, institutional and individual capacity constraints, a synthesis of the most relevant capacity constraints and needs are presented below in a table format.

Priorities of Non-Annex I Countries and related capacity constraints and needs

I. VULNERABILITY AND ADAPTATION (V&A):

104. V&A has been identified as a common high priority across all regions. Many developing countries' economies are still largely natural resource dependent; hence the projected impact on water,

⁹ For the CDI Assessments, Central Asian countries were grouped together with Eastern Europe to comprise the Eastern Europe and Central Asia region. However, for the purposes of the analysis in this chapter, Central Asian countries are discussed as part of the Asia Pacific grouping given their status as non-Annex I countries.

agriculture, and fishing resources is the primary motive for concern. In this context V&A translates into concern for the survival and sustainability of many of the developing economies. For coastal nations, V&A includes the impact of climate change and sea level rise on their coastal resources and coral reef. The economic concern is compounded by direct physical impacts: health and human settlements, LULUCF, energy and natural disasters, are issues included in this category.

BOX 3.1: A CASE FOR VULNERABILITY AND ADAPTATION

The need for V&A is well illustrated by the islands of Tuvalu, which are only a few meters above sea level. Any rise in sea level will have very serious impact on human health, houses and infrastructure, food crops, groundwater sources, land and marine biodiversity, vegetation and the shoreline sea level rise could also cause serious coastal erosion and land loss on all the islands, lower crop yields and in some cases might lead to the loss of entire islets.

Source: Tuvalu Initial National Communication to the UNFCCC, October 1999. Also cited in A. H. Zakri, Shekhar Singh and Jose T. Villarin, September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*, GEF-UNDP, Capacity Development Initiative.

105. Information and understanding of the vulnerability of countries' ecological and economic systems to climate change is still meager and remains a general concern. It is thus crucial that countries undertake assessments to establish their levels of vulnerability, especially that of their economic systems. Such assessments should be linked to those that focus on impacts. Having clear national vulnerability statements would form the basis for establishing adaptation strategies and actions with high levels of confidence.

106. The main capacity needs in this area are:

- (a) An overall policy framework to direct what is by necessity an integrated multi-sector, multi-disciplinary approach to V&A.
- (b) Clearly defined institutional mandates and responsibilities
- (c) Specialized institutions in V&A with special capacity to develop analysis in the economic impacts of climate change (economic vulnerability).
- (d) Access to data from climate measurement/monitoring systems deployed in countries within the region
- (e) Generally trained human resources to address global climate change.
- (f) Specifically trained individuals with analytical skills to evaluate adaptation projects and identify abatement and adaptation options (especially in non-energy sectors), undertake vulnerability assessment and adaptation planning, evaluate barriers to specific policies, and introduce the economic dimension to V&A policy planning.

BOX 3.2: THE NEED FOR CLEARLY DEFINED AND UNDERSTOOD INSTITUTIONAL MANDATES

Vietnam's in-country assessment that states that the carefully laid out institutional arrangements among the various agencies that compose the Vietnam Climate Change Country Team (VNCCCT) with the Hydro Meteorological Service (HMS) as focal agency has not necessarily led to actual coordination and integration of climate change activities. Among the factors that make integration difficult to achieve in practice is the lack of understanding among those who participate in this team.

Source: A. H. Zakri, Shekhar Singh and Jose T. Villarin. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*, GEF-UNDP, Capacity Development Initiative.

II. COMPREHENSIVE AWARENESS AND UNDERSTANDING OF THE CLIMATE CHANGE ISSUE:

107. This high priority seems to underpin many of the concerns and current capacity constraints identified across all the regions. Capacity for identifying phenomena and impacts attributable to climate change and their separation from impacts caused by other events (climatic variability, socio-economic conditions). The challenge to assess and understand the nature of impacts and their severity is a major issue. A priority remarked is raising awareness about the climate change risks.

108. The capacity constraints associated with this priority area cut across all levels of the systemic, institutional and individual and focus largely on the lack of a managed system of information, consequently the main capacity needs in this area are:

- (a) Environmental education for policy makers and the general public. The ability to assess and understand the nature of impacts and their severity is an essential capacity need.
- (b) Trained individuals that can identify phenomena and impacts attributable to climate change and separate these from impacts caused by other events (climatic variability, socio-economic conditions, etc.).
- (c) Social participation and debate (among government, NGOs, civil society and private sectors)
- (d) Prioritizing climate change in national scientific policy programs
- (e) National and regional scientific and technical institutions dedicated to the issue of climate change
- (f) A managed data information system (quantitative and qualitative) showing the multiples impacts of climate change

BOX 3.3: UNDERSTANDING THE ISSUES

As an example, in the case of Vanuatu, "the majority of the population including many policy and decision makers within government and non-government organizations in Vanuatu have minimal understanding of the various aspects of global climate change, its implications and ramifications at a local and national level.

Source: Vanuatu National Communication to the UNFCCC, July 1999

III. OBSERVATION AND MEASUREMENT:

109. This topic is particularly related to a clear comprehension of the phenomena and the commitments related with national communications. Acquiring better knowledge is based on adequate information and databases. The information needs must generate studies to implement, support and maintain networks at national and regional level to feed the basic quantitative and qualitative information needs.

110. This priority includes the following specific objectives:

- (a) Revising and enhancing guidelines for the preparation of national communications, especially for the identification of adaptation options and the standardization of methodologies and models for future national communications.
- (b) Developing emission coefficients for the regions, especially those related to land-use change and agricultural and farming activities.
- (c) Strengthening the preparation of national communications and inventories and development of IPCC methodologies.
- (d) Ensuring the continuity of preparation activities and updating of inventories and communications.
- (e) Systematic observation networks for hydro-meteorological phenomena.

111. The main capacity needs in this area are:

- (a) Clear policies that create and maintain climate change programmes.
- (b) Consultations with IPCC for revision of guidelines and recalculation of emission coefficients to reflect the context of SIDS or countries with relevant agricultural and livestock activities.
- (c) Financing to regularly address climate change.
- (d) Multi-disciplinary teams (of traditionally less engaged professionals such as lawyers, economists, social scientists, etc) in institutions that address climate change.
- (e) Institutional staff technically trained in preparation of inventories and national communications.

- (f) Know-how to access available regional and international information and to create specific databanks for particular issues.

IV. ABATEMENT OF GREENHOUSE GAS EMISSIONS AND CARBON SEQUESTRATION:

112. Despite the high growth rates in some regions (notably Southeast Asia and China), the prevalent notion that cumulative emissions and per capita emissions are not comparable to those of Annex I countries seems to reduce the urgency of country action in this area. Interestingly enough, some national economies assign this objective a high priority even if for reasons other than GHG abatement.

113. Under this priority, the development of sinks, the role of biomass as an energy source and its relationship to deforestation, energy production and efficiency are activities considered particularly relevant. Similarly relevant to emissions are the transportation, livestock and agricultural sectors.

114. The main capacity needs in this area are:

- (a) An overall short and long-terms policy framework.
- (b) A coherent legal and regulatory framework that addresses emission reduction.
- (c) Public awareness of, and demand for, sound technologies and practices.
- (d) An integrated climate dimension in relevant sector policies (reflecting the interrelated processes between environmental effects and objectives of general and sector policies).
- (e) An institutional framework (led potentially by a catalyst institution) that effectively guides and coordinates abatement actions.
- (f) Identification of current barriers to effective enforcement of legal framework.
- (g) Market strategies and economic incentives that promote sound environmental technologies.

BOX 3.4: THE ROLE OF THE REGULATORY FRAMEWORK

The new institutional and regulatory context existing in, for example, the Argentine Power sector is an important barrier to the implementation of environmentally healthy policies. The (legitimate) rationality of decentralized actors is aimed at avoiding risks and uncertainty, minimizing investment, expediting payback, guaranteeing reasonable cost-efficiency and maximizing their competitiveness, leads them to decisions that generate increasing specific emissions in the sector. This new environment scarcely leaves space for sound environmental technologies, hence a need for market strategies that provide economic incentives in the new framework of indirect policy actions is urgent.

Source: Enrique H. Bucher, Daniel Bouille, Manuel Rodriguez, and Hugo Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

- (h) Institutional staff trained in policy design and indirect intervention, preparation of guidelines and methodologies to evaluate policy actions, and use of the market as a tool of abatement options (instruments, tools and strategies to overcome market barriers).
- (i) Technical staff knowledgeable on theories and models to capture cross cutting issues, relationships and mutual influences of sector policies.

BOX 3.5: DEVELOPING LARGE SCALE ABATEMENT PROPOSALS

"The climate change projects implemented in Vietnam were small technical assistance projects. These were not large-scale projects. The reason for this is a lack of skills in developing climate projects. It is difficult for national experts to understand the criteria and requirements for climate change projects, how to differentiate the local interest and global benefit. The capacity need is in having a very good group of experts across relevant sectors. They can act as skilled experts that can provide advice to the sector experts when it is necessary."

Source: Dang Huy Huynh, Le Nguyen Tuong, Hoan Xuan Ty, Nguyen Dac Hy *Capacity Development Initiative: Vietnam In-country Assessment*, 2000

V. CLEAN DEVELOPMENT MECHANISM (CDM):

115. Developing country participation in this mechanism is hampered by a lack of understanding and information of the institutional and legal framework, technical infrastructure, enforcement capacity, and human resources needed to implement the mechanism. As many countries see the CDM as a medium to develop and facilitate new projects and investments, they give a high priority to the implementation of CDM. The controversy on the mechanism itself and the conditions for its implementation are significant. An important share of the controversy is related to the lack of knowledge on the multiple implications and effects related with the design and implementation of the mechanism.

116. The main capacity needs in this area are:

- (a) An adequate institutional framework that reflects the type of institutions, property rights (private or public), technical capacity, scopes, scale, responsibilities, and missions required.
- (b) Policy makers and technical staff knowledgeable on the multiple requirements needed to set up the mechanism, the effects of different rules on the organization of the mechanism, and the consequences of including or excluding sectors and activities, and other options to be included such as additionality, supplementarity, etc. and their consequences.
- (c) Policy makers and legal experts knowledgeable on the effects of different legal frameworks
- (d) Technical staff that defines needs, institutions to be engaged, additional criteria, and evaluates future offset markets (including market conditions, structure, scope, property rights, and vertical and horizontal integration)
- (e) Technical staff that defines project baselines, monitors, verifies, audits and certifies.

VI. TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGIES:

117. Most countries have recognized that the extent to which they will be able to implement adaptation and abatement measures largely depends on how well they achieve capital accumulation and economic growth.

118. Identifying needs, selecting the appropriate and adapted environmentally sound technologies, and expediting the process of their effective transfer has also been noted as an important common objective.

119. The process of technology transfer is a very complex one, that includes many stakeholders, such as government, private sector entities, financial institutions, NGO's and research/education institutions. In a broad sense, it's includes technology transfer between developed and developing countries but also amongst developing countries and comprises the "process of learning to understand, utilize and replicate the technology, including the capacity to choose it and adapt it to local conditions and integrate it with local technologies."¹⁰

120. As a consequence, the capacity needs in this area are very broad and significantly important, including issues like:

- (a) A country assessment of existing local practices or traditional technologies and gaps in technological needs.
- (b) An evaluation of the degree of adaptability of technology to local needs
- (c) A legal, regulatory and institutional framework that coordinates technology transfer, adaptation and enforcement.
- (d) Professional expertise. In many cases there is a need for financial support of existing national and regional training institutions that can develop a wide range of technical, business management and regulatory skills.
- (e) An information system that links the country to regional or international networks, information specialty firms, trade publications, electronic media, NGO's or community groups to collect data on availability, quality and flows of technologies

VII. NATIONAL CLIMATE CHANGE STRATEGY:

121. Another common country priority across the regions has been the design and implementation of a National Climate Change Strategy. There is a need to develop from that basis national programs and modernize institutional structures. This includes the development of comprehensive long-term, consensus-based strategies, programs and action plans for climate change, as well as integration of respective concerns into policies of sectors that affect these natural resources. The latter is crucial given the crosscutting nature of the instruments.

122. The specific capacity needs in this area are:

- (a) Continuous awareness raising of environmental and sustainable development issues among political representatives, decision-makers and general public.

¹⁰ IPCC - Methodological and Technological Issues in Technology Transfer - Cambridge University Press - 2000.

- (b) Participation in climate change strategies by both government but particularly non-governmental stakeholders and civil society
- (c) A multi-agency institutional framework that addresses the diverse dimensions of climate change, defines institutional structures and functions, in support of international commitments and the implementation of internal policies
- (d) A long term policy framework focused on a "no regret policy" of GHG reduction
- (e) An integrated planning and management framework with realistic links to social and economic priorities and cohesive and clear functions across sectors.
- (f) Institutional mechanisms of coordination, monitoring and exchange, and flow of information among the different public and private sectors most involved in climate change activities.
- (g) National staff to prepare technical, financial and economic analyses to be used in the planning process
- (h) Human and financial resources at a district level to enable the of transfer national priorities to the regional and local levels.

BOX 3.6: THE EFFECT OF CLIMATE CHANGE STUDIES

In Nepal, the institution that has the most capacity in managing climate-related activities is the Department of Hydrology and Meteorology (DHM) under the Ministry of Science and Technology. DHM carried out the bulk of the studies of the US Country Studies Program and has also submitted proposals to other donors to carry out additional activities to update this study. It is the focal point for the Intergovernmental Panel on Climate Change (IPCC). DHM is also the designated executing agency for the ongoing GEF project. DHM has recently developed expertise in abatement against Glacial Lake Outburst Floods especially through carrying out the Tsho-Rolpa GLOF Risk Reduction Project (HMG/MOST/DHM 2000). This project is successfully lowering the water level of the Tsho-Rolpa Lake and has also installed an early warning communication system for the safety of residents downstream. Increased glacial lake outburst activity is expected to be a major impact of global warming in the Himalayas.

Source: A. H. Zakri, Shekhar Singh and Jose T. Villarin, September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*, GEF-UNDP, Capacity Development Initiative.

VIII. CONVENTION NEGOTIATION CAPACITY:

123. The convention is a process of negotiation related with how to afford the actions and costs related to the reduction of greenhouse concentration in the atmosphere. A full understanding of the consequences of any decision of the convention, commitments, and obligations, is a necessary condition to participate actively and positively in the search for an adequate and equitable solution. Strengthening capacity to increase the action in international negotiation processes to attain equitable and fair solutions requires implementation of specific training programs for negotiators.

124. In this respect the main capacity needs are:

- (a) Public awareness on the commitments made by the country as signatory of the convention, and the implications on national development policies and programs.

- (b) A managed system for distribution and exchanging of information between governmental and non-governmental entities
- (c) Funding to sustain adequate participation in the convention (on line conferences and conventions).
- (d) Financial resources to request advisors from technical institutions with knowledge in particular issues under negotiation
- (e) A coordinated consultation mechanism between the negotiation team and policy makers, scientific and technical advisors and representatives of private sector.
- (f) A critical mass of skilled national negotiators in key institutions (continuous presence by the key persons), particularly prepared for negotiating positions and assessing options.
- (g) Multi-disciplinary teams of qualified government officials, researchers and consultants with economic, financial and legal knowledge that can backstop the negotiation issues and implications.
- (h) Skilled personnel in related sectors (agriculture, forest, energy, transport, industry, etc.)

IX. CROSS-CONVENTION SYNERGIES:

125. Several regions ask for a better understanding of the **synergies** between possible activities in response to the mandates and commitments of the different Conventions (in particular those relating to conserving biodiversity, addressing climate change, and preventing land degradation).

126. The capacity needs in this area are:

- (a) Programs, workshops, seminars at international or regional levels that regularly promote interaction across conventions.
- (b) Identification and evaluation of ancillary national benefits of joint approaches to convention objectives
- (c) A policy on integrated global change for climate change, biodiversity and land degradation objectives
- (d) Adequate institutional structure that captures the cross-cutting issues (through interactions between sector institutions dedicated to the issues)
- (e) Information exchange mechanisms among academic and research institutions dedicated to the different issues
- (f) National or regional multi-disciplinary and multi-convention activities
- (g) Evaluation of potential for cross participation of experts and official government representatives in the conventions and subsidiary bodies activities

- (h) Experts dedicated to analyzing the cross cutting issues, interface and synergies among the conventions

Priorities of Annex I Countries and related capacity constraints and needs

127. In Annex I countries (Central and Eastern European countries from the EECA grouping of the CDI), GHG emissions are produced from the energy cycle, particularly from the extraction, transformation, distribution and consumption of fossil fuel energy. Therefore, national priorities in climate change protection within the region rely mainly on:

- (a) Energy efficiency both on supply and demand side
- (b) Renewable energy utilization
- (c) Carbon sequestration (land use change, forestry management, etc.)
- (d) Fuel shift (replacement by fuels with lower carbon content)
- (e) Development of climate change protection strategies and action plans
- (f) Information system, monitoring and national reporting
- (g) Raising awareness about the climate change risks
- (h) Adaptation to climate change

128. The above priority objectives can be aggregated into three groups:

I. MITIGATION AND ADAPTATION

129. In this area the main capacity needs are:

- (a) Political control more equitably distributed between the environmental authorities vis a vis other sectors – e.g. energy authorities. (The polluters' lobbies are strongly linked in some countries to the state).
- (b) Economic and market instruments. (The selection of instruments is currently predominated by the command and control approach that can often be much more costly than economic and market instruments).
- (c) Knowledgeable financial institutions (i.e. banking sector) capable of evaluating energy efficiency and renewable energy projects and assess real, rather than perceived, investment risks.
- (d) Networking between groups concerned with issues pertaining to climate change protection, and cooperation between initiatives of active stakeholders
- (e) Specialized training programs, sessions and seminars to support current process of energy performance.

- (f) Know-how to identify, prepare, finance and implement climate change projects
- (g) Skills to design and manage incentive systems, including regular assessments of its effects

BOX 3.7: THE NEED FOR ECONOMIC AND MARKET INSTRUMENTS

In Georgia for example, the importance of financial intermediation in the economy is low and there is still the significant problem of bad loans. The firms that are viable desperately need investment, but there are few domestic sources of funding and little foreign-investor interest. As a result, most investment comes from lending by the World Bank, the IFC and EBRD.

Source: EIU, Country Report-Georgia, 1999. As cited in Zuzana Guziova, Jaroslav Marousck, Valery Neronov. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Eastern Europe and Central Asia*, GEF-UNDP, Capacity Development Initiative.

II. STRATEGIES AND ACTION PLANS

130. The development of strategies and action plans for climate change protection and awareness raising is a shared underlined priority. For example, there is currently a lot of duplication in planning in response to demands from different international instruments and initiatives. This generates an effect of "inflation" of planning products that is detrimental to implementation and contributes to wasting of human and financial resources.

131. In this area the main capacity needs are:

- (a) Political commitment to environmental and sustainable development issues
- (b) A mechanism that rationalizes environment related legislation.
- (c) Linking of social and economic priorities with environmental objectives. A planning process that takes due consideration of the country's economic and social situation (so that strategy or plan set realistic objectives)
- (d) A cohesive planning framework that avoids "inflation" of planning processes and makes efficient use of scarce human and financial resources.
- (e) A culture of discussion and communication with all affected parties that enhances general political dialogue and consensus development, and gives access to non-governmental stakeholders to the law making and planning processes.
- (f) Public awareness of climate change risks, climate change policy instruments, measures and all their potential benefits. Promotion of successful stories about application of relevant conservation and sustainable measures among public and decision-makers, particularly those generating benefits to local population

- (g) A central institution that coordinates and guides activities for climate change mitigation and adaptation.
- (h) Clarity of distribution of responsibilities for implementing different instruments – related activities among government agencies, the private sector and civil society (i.e. audits of institutional accountability with special focus on consistency with commitments under the Rio Convention).
- (i) Efficient institutional enforcement of new and existing laws
- (j) Salary structures and incentive systems within public institutions that encourage individuals' motivation and positive performance.
- (k) Human and financial resources to carry out necessary technical, financial and economic analyses for drafting new laws and planning and enforcing policy instruments.
- (l) Public sector staffing of social science specialists and skilled managers. Currently an unbalance in favor of technical professionals is often apparent.
- (m) Qualified environmental journalists.
- (n) Academic human resources for education in environmental economics and policy. The economic education appropriate for a market economy framework has only been available in the last decade and access to it is still very scarce.
- (o) Human and financial resources at a district level to enable them to implement local sustainable development plans.
- (p) Strengthened skills of non-government stakeholders so that they become equal participants at the planning processes

BOX 3.8: INSTITUTIONAL MISSIONS AND MANDATES

"Modification of mission and mandate is actually a necessity for both the institute and its staff in order to survive. Many universities and research institutions compete for commissions from different projects, considering them as financial means of their survival. It depends on the accounting system, how this influences the level of implementation. Under such conditions and with the supposition that the conservation and sustainable use of biodiversity (as well as climate change protection and land degradation control) is a strategic question, a clear appointment of the tasks would be necessary, followed by a strict accounting. The market system must function in this respect as well, what means that failure of the accomplishment as well as delayed or insufficient implementation of the undertaken tasks should bring about serious financial and other consequences."

Source: Turcsanyi, 2000, Hungary case. As cited in Zuzana Guziova, Jaroslav Marousek, Valery Neronov. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Eastern Europe and Central Asia*, GEF-UNDP, Capacity Development Initiative.

In Estonia, a high-level governmental commission on sustainable development has been established. The members include representatives of various ministries, members of the parliament and the scientific community. The commission works as an advisory institution for the government. However, the commission does not have any secretary or administrative base and has at its disposal only a small budget.

Source: Zuzana Guziova, Jaroslav Marousek, Valery Neronov. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Eastern Europe and Central Asia*, GEF-UNDP, Capacity Development Initiative.

III. INFORMATION SYSTEMS, MONITORING AND NATIONAL REPORTING

132. Data gaps occur widely since new approaches pursued under the Conventions require more comprehensive data to be gathered and processed.

133. The capacity needs in this area are:

- (a) A monitoring system of biodiversity and land degradation, including designed indicators
- (b) Financial resources to ensure continuity of implementation of monitoring system
- (c) Skills in methodologies and know-how for effective monitoring. Logistic support to monitoring systems
- (d) An institutional structure that secures a system of data gathering, integration and analysis. In particular, information gathering of country specific data for GHG inventories, and cost evaluations of different scenarios.
- (e) A mechanism for the design of integrated information products.
- (f) Regular inventories and projections of GHG emissions and assessment of the costs and benefits of climate protection measures to allow compliance with the FCCC requirements on monitoring and reporting
- (g) "Nationalized" schemes (i.e. key documents translated into national languages, local liaison officers appointed, or a liaison office staffed with local professionals in a particular country).
- (h) Clear terms and conditions on access to data (i.e. rules on access to data, including confidentiality, pricing, etc.), and a mechanism for data exchange.
- (i) Computer based databases available on-line
- (j) Monitoring equipment

3.4 Preliminary Conclusions

134. The following cluster of issues, together with the necessity to develop a "critical mass" of human resources, form the core of essential capacity development needs for climate change.

I. TECHNICAL AND SCIENTIFIC MATTERS

135. A clear and comprehensive understanding of climate change is needed. However, the knowledge of the phenomena itself is not sufficient given the many uncertainties around the issue such as magnitude, effects and consequences. Technical and scientific knowledge must be strengthened for a more effective management of climate change issues and the process of negotiation. Some of the outstanding capacity issues and needs that will need to be considered include: considerations of multidimensional implications; importance of the socio-economic context; character and level of uncertainties; appropriate models; theories and methodologies to address the problem; capacity to assess instruments and tools;

knowledge on the best potential actions; impacts, effects and consequences of these actions on other sectors; expertise to analyze the phenomenon.

II. ORGANIZATIONAL ISSUES -- INSTITUTIONAL ORGANIZATION

136. The general political, social, economic and legal framework must be complemented by the adequate articulation of public and private institutions. The outstanding capacity needs to be addressed in this regard include: organization and management of the institutional structure; relationships management; coordination role of different sectors (public, private, NGO's, civil society); role of different stakeholders; role of the lead institution; consideration of the multi-sector, multi-agency, and multidisciplinary nature of required actions.

III. POLICY AND DECISION MAKING PROCESS

137. The need for methodologies to analyze and assess alternative policies and their consequences on sustainable development emerge not only at the global, but also at the national level. The lack of skills to develop and evaluate adequate policies is a very important handicap that Non Annex I countries face in the process of looking for an equitable solution. The actions to address climate change are, essentially, planning activities that have to be articulated with national objectives and priorities.

138. Given the needs assessed, the development of capacity required at the domestic level includes: actions, policies design and implementation, restrictions, barriers and obstacles to policy intervention; instruments and tools used to develop diagnosis, possible scenarios, feasible actions, international and domestic constraints (i.e. border constraints); stakeholders participation in the decision making process; public awareness; potential conflicts, potential alliances and consequences; policy feasibility; links to other policies; and sector policies that can act as a "locomotive" for climate change policy.

139. At the international level there are clear needs to address capacity to evaluate policies, strategies, alliances, crosscutting effects, interfaces with other conventions and with other areas of international policy relations.

CHAPTER 4 CAPACITY NEEDS IN LAND DEGRADATION (SHEKHAR SINGH)

140. Land degradation is a critical problem that affects all continents of the world and threatens survival in regions most affected by it. UNEP estimates that most countries, including more than 80 developing countries, are affected by land degradation. More than one billion people living in these areas are at risk from the effects of serious declines in productivity and livelihood. The Global Assessment of Soils Degradation (1994) concluded that 1.97 billion hectares - 23 percent of globally used land - had been or is in the process of degradation. Thirty eight percent of all agricultural land worldwide is now wasteland or severely degraded, including some 21% of permanent pasture and 18% of forest and woodland. Water erosion has generated the most degradation, followed by wind erosion, soil nutrient depletion, and salinization resulting from overgrazing, deforestation, and increased agricultural activities.¹¹ Degradation is also associated with off-site problems of sedimentation, carbon emissions affecting climate change, impaired watershed and waterbody functions, and changes in natural habitats leading to loss of genetic stock and biodiversity. These causes are predominantly associated with land use and development practices in agriculture, forestry and water resources management. (Adapted from GEF/C.14/4, November 17, 1999, Clarifying linkages between land degradation and the GEF focal areas: an action plan for enhancing GEF support.)

141. Despite the importance of the land degradation issue and its close link to economic survival of the poorest populations, it does not receive adequate attention from governments often because of the complex challenges it poses and the need for a better understanding of the issue. As highlighted in the regional assessment for Latin America and the Caribbean, governments are not always aware of the potential to avert "environmental emergencies" by addressing the land degradation/ desertification issue in a systematic way. The degradation of land and its subsequent impacts on economic and environmental systems imply the need for action on several fronts.

4.1 National Commitments under the Convention

142. The obligations of affected country parties under the CCD are as follows:

- (a) Give due priority to combating desertification and mitigating the effects of drought, and allocate adequate resources in accordance with their circumstances and capabilities;
- (b) Establish strategies and priorities, within the framework of sustainable development plans and/or policies, to combat desertification and mitigate the effects of drought;
- (c) Address the underlying causes of desertification and pay special attention to the socio-economic factors contributing to desertification processes;
- (d) Promote awareness and facilitate the participation of local populations, particularly women and youth, with the support of non-governmental organizations, in efforts to combat desertification and mitigate the effects of drought; and
- (e) Provide an enabling environment by strengthening, as appropriate, relevant existing legislation and, where they do not exist, enacting new laws and establishing long-term policies and action programs.

³ Of all the degraded soils, 58% were in drylands and 42% in humid areas. Of these, more than 70% of drylands in Africa, Asia, and South America are degraded; 30% of irrigated drylands, 47% of rainfed drylands, and 73% of rangelands (UNEP, 1997. *World Atlas of Desertification*, 2nd Edition, London).

4.2 GEF's role and approach to land degradation prevention and control

143. The GEF supports country driven activities aimed at preventing and/or controlling land degradation, particularly through its interface with GEF's focal areas: biodiversity, climate change and international waters. As stated in the GEF Instrument: "The agreed incremental costs of activities concerning land degradation, primarily desertification and deforestation, as they relate to the four focal areas shall be eligible for funding."¹² This is consistent with Articles 4.8(c) and 4.8(e) of the UN Framework Convention on Climate Change (UNFCCC), Article 20.7 of the Convention on Biological Diversity (CBD), and Article 20.2(b) of the Convention to Combat Desertification (CCD).

144. In order to respond to country needs for preventing and controlling land degradation, the GEF has developed an action plan,¹³ wherein it has clarified the linkages between land degradation and the GEF focal areas and also developed an action plan for enhancing GEF support in this regard. The action plan identifies three main elements:

- (a) operationalizing the linkages between land degradation and the GEF's focal areas through on-the-ground activities;
- (b) strengthening public policy and enabling environment for addressing land degradation including promoting integrated and cross-sectoral approaches to natural resources management; and
- (c) engaging key stakeholders and mobilizing resources to develop measures to prevent and control land degradation.

4.3 National priorities for the prevention of land degradation

145. For the purpose of this study, land degradation means loss of soil, loss of soil fertility and loss of vegetative cover. Broadly speaking, land degradation can be caused by climate variability and because of human activities. Also, in some cases, variation in soil fertility, soil loss and changes in vegetation are natural phenomena. Where these occur naturally, they are not ordinarily considered to be land degradation (see Annex 2 for the more detailed definition of land degradation that has been used in conducting the capacity needs assessment under the CDI). According to the CCD, desertification comprises reduction or loss in arid, semi-arid and dry sub-humid areas of the biological or economic productivity and complexity of rain-fed cropland, irrigated cropland, or range, pasture, forest and woodlands.

146. However, what is to be considered land degradation finally depends on what the objective of the land in question is. For example, land that is earmarked for agriculture would not be considered degraded if natural vegetation is removed from it. But the same land, if it were to be developed into a wilderness area or a watershed, would be considered degraded if it lost its vegetative cover.

147. Based on the various national and regional reports, and on the consultations held in each of the regions, the national priorities for addressing the problems of land degradation can be categorized as follows.

¹² Global Environment Facility. October 1994. *Instrument for the Establishment of the Restructured Global Environment Facility*. Washington D.C.

¹³ Global Environment Facility. November 17, 1999. *Clarifying linkages between land degradation and the GEF focal areas: an action plan for enhancing GEF support*. GEF/C.14/4.

I. Assessment

148. The first priority for each country is to take stock of its land resources and to:

- (a) **Catalogue the areas that are already degraded**, assessing the nature of degradation, its extent and severity, the current status, trends over time including the rate of change, the direct and indirect causes of degradation.
- (b) **Demarcate**, from among the degraded areas, **those that can still be salvaged** if immediate remedial action is taken, and the type of remedial action that is required. There are areas where, for example, deforestation has occurred but the soil is still intact and, if soil and water conservation measures are immediately initiated and vegetative cover provided, the soils could be saved with relatively little effort and expenditure.
- (c) **Identify those areas that are facing an imminent or possible threat** of degradation, either because of established trends or because of imminent or probable changes in land use. Examples of the first type include areas where there are unsustainable human pressures that would result in land degradation if not checked and reversed soon. Changes in land use, in terms of initiating infrastructure projects, mining activities, clear felling, introduction of irrigation, withdrawal or diversion of water resources, etc. are examples of the second type.
- (d) **Identify those factors** and activities that inevitably, or are likely to, lead to land degradation, including deforestation, pollution and contamination, inappropriate construction, changes in land use, changes in water use and storage patterns, inappropriate agricultural practices, destruction of coastal vegetation, coral reefs and sand banks, etc.
- (e) **Identify the root causes** for actual and potential land degradation, including poverty and underdevelopment, lack of planning, lack of expertise, lack of resources, lack of institutional capacity, etc.
- (f) **Identify the impact** of land degradation, especially the social, economic and environmental impacts and the impacts on inter and intra generational equity.

II. Awareness

149. The next priority would be to raise the awareness of various stakeholders in the country, the region and the World about the problems, threats and opportunities relating to the control and prevention of land degradation and desertification. This would include:

- (a) Making **the people of the country aware** of the status and threat of land degradation, the implications that these have on their lives and on the lives of future generations, and the methods, possibilities and opportunities available to them to prevent and reverse the trends of degradation. This is critical both to help spur the governments into action and also, once action has been initiated, to ensure that there is public support and participation, without which most action is doomed to failure.
- (b) Making **the decision makers and professionals in the country aware** of the problems and solutions relating to land degradation. They must be presented with the detailed findings of the assessment phase and the costs of land degradation and the costs of

inaction must be spelled out. Whereas the costs and benefits must not be understood as only economic ones, but also as social, cultural and environmental costs, as most national planning processes are preoccupied with economic development and growth, efforts must also be made to translate them into economic and financial ones, both actual costs and opportunity costs. This is necessary to ensure the cooperation and participation of the government and other professional bodies in the action that needs to follow.

- (c) **Raising the awareness of regional, global and international agencies** and bilateral and multilateral donor organizations and professional bodies so that appropriate financial, material and professional support becomes available.

BOX 4.1: PUBLIC PRESSURE AS A DRIVER OF TIMELY ACTION

The importance of public support and awareness is well illustrated by the situation in the Patagonian region of Argentina, or the dry valleys in the Andes from Colombia to Argentina where political visibility of the problem was achieved only once the consequences were irreversible and the level of degradation so severe that it led to impoverishment. Underpinning the lack of public pressure was an inadequate understanding and comprehension of the problem of desertification and land degradation by rural and urban dwellers.

Source: Bucher, Bouille, Rodriguez, and Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*, GEF-UNDP, Capacity Development Initiative.

III. Action

150. Based on the assessment and building on the awareness levels created, the next priority is to initiate and sustain appropriate action. This involves:

- (a) **Developing action plans** for national and sub-national levels, right down to the smallest cohesive habitation or land management unit (village or sub-watershed). These action plans must be time bound, with clear objectives and strategies, but with the flexibility required to benefit from, and be responsive to, feed-back and monitoring. They must specify clear milestones against which progress and achievements, both quantitative and qualitative, can be measured. Responsibilities must be clearly identified and appropriate financial budgets, again with the required flexibility, must be included and the sources of financial support identified. The plan must be developed in participation with all the major stakeholders, especially the local communities, and must involve all these stakeholders in its implementation.
- (b) **Establishing priorities for action**, keeping in mind the priorities set out in the Convention for Combating Desertification.
- (c) **Integrating the action plans** and the concerns for land degradation into the multi-sectoral national and sub-national plans and assuring the interface of these action plans with plans of other critical sectors like agriculture, forestry, rural development and water resources.

- (d) Initiating **additions and modifications to the existing body of policies, laws and programs** in order to adequately and appropriately address concerns about desertification and land degradation.
- (e) Initiating **capacity development activities**, at institutional and individual levels.
- (f) Strengthening or setting up the **required institutional structures** at the various relevant levels, especially at the co-ordination level.
- (g) Setting up a **consultative process** to facilitate interaction between the key stakeholders.
- (h) Setting up a mechanism to **involve key international partners** and to coordinate efforts at securing their support and participation.
- (i) Securing both internal and international **financial support**.
- (j) Securing national and international **technical cooperation**.
- (k) Initiating **field level programs** and activities, involving all concerned government departments, professional and research institutions, NGOs, local groups, and the community.
- (l) Initiating actions for **strengthening local level capacities**.
- (m) Developing **partnerships with local institutions** and entering into agreements and understandings.
- (n) Setting up a **monitoring and evaluation** mechanism.

4.4 Key capacity needs

151. Based on various inputs received through the four regional studies (one each for South America, Africa, Eastern Europe and Central Asia, and the Asia Pacific), a special study on SIDS, in-country studies, and regional workshops the main national priorities and key capacity needs that emerge in relation to the prevention and control of land degradation are described below.

I. ANTICIPATION AND MONITORING OF LAND DEGRADATION

152. The ability to anticipate and monitor land degradation has been identified as an important priority issue across all regions. If countries do not have a clear picture of the extent and severity of land degradation, the magnitude of the problem will most likely not be recognized and adequate attention and priority will not be given to it. Furthermore, if unable to adequately anticipate and monitor land degradation the subsequent costs of delayed action in social and economic terms are likely to be much higher and chances of success in reversing adverse trends much lower.

153. Such early detection and prevention is possible where water tables are rising or falling, vegetation is being gradually destroyed, unsuitable agricultural activities are being practiced or other activities that inevitably lead to land degradation are prevalent.

154. If land that has lost its vegetative cover, or has otherwise been disturbed, is treated quickly and before it loses its top-soil, the cost of stabilizing the soil is relatively low and the chances of success high.

However, if the topsoil is allowed to erode, then subsequent rehabilitation becomes prohibitively expensive and uncertain. In mountainous countries and regions where there is the added danger of landslips and slides, the ability to get advance warning and to anticipate and address threats can prevent these from occurring, or at least minimize the damage they cause.

155. In coastal regions and island countries, the threat of coastal erosion and degradation and the consequent climatic and socio-economic threats can be prevented or minimized with advance notice.

156. In arid and semi arid regions, there is a need to anticipate changes in soil fertility and in ground water levels. Advance warning of these could make it easier to prevent them and minimize their negative impacts.

157. Forested regions, especially those with tropical rain forests, have a critical need to monitor forest cover and to get immediate warning of any opening up of forest areas so that they can act before the soil is lost.

158. In SIDS, there is a need to monitor coastal erosion, pollution, watershed degradation, deforestation and impacts of tourism.

159. The main capacity needs for anticipating and monitoring land degradation are:¹⁴

- (a) A network of early warning and monitoring institutions mandated to provide advance and detailed information.
- (b) The ability to acquire and operate early warning and monitoring technology (for example, GIS and remote sensing).
- (c) The ability to tap financial resources.
- (d) Motivated personnel trained in GIS, remote sensing and information technology systems.
- (e) Supporting infrastructure to operate the early warning and monitoring system.

II. INFORMATION SHARING AND DISSEMINATION

160. This is a priority issue that has been reported from all regions, and particularly from Hungary, Zimbabwe, SADC, CILS/ECOWAS, IGAD and Angola. Access to information that highlights the magnitude of the problem and that can make a compelling case for the need to address the problem is central to gaining the attention of the public, politicians, policy-makers and the international community. The ability to widely publicize dramatic events can be an important driver of action.

161. Key capacity needs for effective information sharing and dissemination are:

- (a) Ability to collate and effectively present available information.
- (b) Ability to collect and update additional information.

¹⁴ Reported from countries in all regions and specifically from Angola, Egypt, Eritrea, Kenya, Morocco, Lesotho, Sudan, South Africa, Uganda, Zambia, Zimbabwe, SADC (Southern Africa), CILS/ECOWAS (Sahel and Coastal West Africa), IGAD (Eastern Africa), Guyana, in the Andes (from Colombia to Argentina), Bhutan, Cambodia, and the Maldives.

- (c) Information systems and clearing houses that can respond to specific needs and disseminate data and information on nature and causes of land degradation and methods of prevention, control and rehabilitation (traditional and modern), especially in local languages.
- (d) Networks for sharing information and expertise among professionals and practitioners.
- (e) Expertise in public communication.

III. PUBLIC SUPPORT FOR BETTER LAND MANAGEMENT PRACTICES

162. Though land degradation is a historical issue with historical remedies and controls, in recent times the traditional patterns of land holdings and land management have disintegrated. Consequently, there is a need to recreate public support systems especially for lands that are now under the control of the government or other non-traditional institutions.

163. Even for private owned land, the traditional methods of conserving such lands have in some cases become inadequate or inappropriate, given new, emerging threats (such as chemical contamination and climate change) that lands are being subjected to. Public support is therefore required to develop and apply appropriate methods in the face of new challenges.

164. Also, traditional social structures are disappearing and in many cases economic pressures have led to the abandoning of time-tested and rational methods of land use and conservation. Public support is required to reverse this trend and to develop and apply strategies that are realistic given the current socio-economic reality.

165. Advances in science and technology have, in many cases, supplemented traditional understanding about the nature, causes and methods of prevention and control of land degradation. Public support is needed to recognize these as supplements to traditional wisdom and to operationalize them.

166. Public support and participation is not only critical for applying and implementing methods of prevention and control, but also for applying public pressure on governments to formulate, implement and enforce effective policies and laws relating to land management.

167. Public involvement in planning and implementation of government programs is also critical. The type of public participation and involvement considered desirable and feasible depends on the political system operating in a country, the social homogeneity or heterogeneity and the educational, economic and information levels prevalent.

168. The main capacity needs for enhancing public support are:

- (a) Strengthening the ability of existing institutions,¹⁵ both within and outside the government, to promote public awareness¹⁶ and education on land degradation issues.

¹⁵ Given the frequent concern that existing institutions do not always run well and that coordination between a multiplicity of institutions is difficult, it is perhaps better to focus on improving the public awareness and communication functions of existing institutions whose activities have an impact on land degradation, rather than setting up new institutions.

¹⁶ The need for public awareness has been reported from countries of all the regions, specifically from Hungary, Zambia, Zimbabwe, Indonesia, Iran, Jordan, Republic of Korea, Myanmar, Mongolia, Papua New Guinea.

- (b) Appropriate extension services for the public and specific groups of stakeholders (such as farmers, pastoralists, etc.)
- (c) Individuals trained in public communication and motivated to spread awareness.
- (d) Effective communication materials.
- (e) Enhancing systemic accountability and transparency.¹⁷
- (f) Provision of fiscal incentives and the ability to minimize fiscal and/ or economic disincentives for the prevention of land degradation.¹⁸
 - (i) Institutional capacity to design and operationalize fiscal incentives for better land management.
 - (ii) Institutional capacity to identify and minimize fiscal and/or economic disincentives (such as potential impact of subsidies¹⁹ and administered prices on irrational land use).
- (g) Empowerment of people and their participation in the formulation and implementation of policies, laws, and programs.

IV. SUPPORT FROM POLITICIANS AND OTHER DECISION-MAKERS FOR ENFORCING PROPER LAND USE PRACTICES

169. Like the conservation of many other natural resources, the conservation of land has medium to long-term economic benefits that are often in conflict with short-term economic interests. Unfortunately, in many countries of the South the economic space to accommodate medium and long-term economic interests, over short-term interests, is limited. For land conservation to be accommodated as such, there has to be strong support from politicians and other decision makers.

170. Various sectoral policies and laws are often not in harmony with each other. This is especially so in the case of land, because the activities of a large number of sectors could potentially have an impact on land. In order to ensure that conflicts, where they occur, are resolved in a manner that is land-friendly, the support of decision makers is required.

171. Similarly, support from decision makers is key for ensuring that adequate financial resources are directed to the prevention and control of land degradation.

172. The key capacity needs for enhancing political support are:

- (a) Delivery of critical information to policy makers, especially that which highlights the state of and trends in land degradation, impending disasters, gaps in implementation, and the financial, economic and social costs of degradation.²⁰

¹⁷ This is common to all regions. Transparency is required not only to allow the work of government and other agencies to be monitored by the people, but also to ensure intra agency monitoring.

¹⁸ Reported from countries in all the regions and specifically from Estonia, Hungary, Bhutan and Sri Lanka. Where the conservation of land, especially public land, exacts a heavy economic toll from the poor peasantry, it is difficult to get their support. Also, where pricing and subsidies reward land degradation, it is again difficult to get public support for land conservation.

¹⁹ The in-country study for Hungary notes that revisions to the state subsidy for soil protection are critical for controlling water erosion and soil acidification.

- (b) Institutions with the mandate and capacity for promoting awareness among politicians and policy makers.
- (c) Training in the culture of information-based decision making.
- (d) Effective trainers and training materials targeted to policy makers.

V. EFFECTIVE IMPLEMENTATION OF CURRENT POLICIES AND ENFORCEMENT OF LAWS

173. Almost all countries have some policies and laws regarding the environment in general and forests in particular. Some countries also have policies and laws specifically covering one or more aspects of land degradation. However, a universal problem is that these policies and laws are not effectively implemented or enforced.

174. Perhaps because of this ineffective implementation and enforcement, there is a common demand for more laws and policies. However, unless the implementation and enforcement of existing policies and laws can be improved there seems little point in formulating more policies and laws.

175. Enhanced public participation, particularly in formulation and implementation, is also an important requirement for effective implementation of policies and enforcement of laws.

176. Key capacity needs for addressing *conflicts in policies* affecting land management are:

- (a) The ability to formulate, get consensus on and operationalize an overarching and agreed to policy and strategy for sustainable development, with details of each sector and their interface with each other.
- (b) The capacity to set up and operate a conflict resolution mechanism, with an appropriate mandate and adequate authority, particularly where there are apparent conflicts between policies or in the interpretation of specific policies.
- (c) Strengthening of institutions and processes that would assess the environmental impacts of all policies and harmonize each of the policies with the requirements of environmental conservation in general and land management in particular.
- (d) Strengthening institutions and processes that ensure that each specific project and programme is environmentally benign.
- (e) Strengthening of institutions that can integrate environmental concerns in general and land management concerns in particular into all sectors of governance.
- (f) Strengthening of institutions that can harmonize and integrate the various environmental sectors, especially land management, biodiversity conservation and the prevention of climate change.

²⁰ The assessment of such costs would help make politicians and decision makers, who are mostly preoccupied with economic and social development, recognize how land degradation is an important factor in economic and social development, and what the social, financial and economic costs of land degradation are.

- (g) Mechanisms that have the mandate and are empowered to ensure inter-departmental communication and co-ordination.²¹
 - (h) Expertise in developing appropriate national strategies for sustainable development, in assessing the environmental and social impacts of policies and projects, and in integrating various environmental concerns with other sectoral concerns and with each other.
177. Key capacity needs for tackling *difficulties in implementation of policies and laws*²² are:
- (a) A mechanism to assess each policy and law from the socio-economic perspective and to determine whether it was a desirable policy and could be implemented.
 - (b) An ability to assess, for each policy and law, the costs that affected people, especially the local communities, have to incur by its implementation and, where appropriate, the ability to defray these costs.
 - (c) The ability to justify the costs that a policy or law might imply, especially in terms of the benefits such a policy might have in the medium to long term.
 - (d) Enhanced ability to formulate effective policies and laws.²³
178. Key capacity needs for addressing the problem of *unplanned land use* are:
- (a) A rational and scientific land use plan.²⁴
 - (b) Strengthening of mechanisms and institutions that can administer and implement such a land use plan.
 - (c) Strengthen the skills required to develop and maintain such a plan, including skills in assessing carrying capacities of ecosystems.
179. Key capacity needs for enhancing *institutional support for effective policy implementation and enforcement of laws* are:
- (a) Mechanisms to ensure systemic and institutional transparency.
 - (b) Mechanisms to make institutional functioning more democratic and decentralized.

²¹ The Regional Assessment for Latin America and the Caribbean points out the high degree of institutional fragmentation in the region in terms land use planning and natural resource management. There are an endless number of institutions addressing these issues with little or no coordination among them.

²² In some cases, policies cannot be implemented, in whole or in part, when their implementation would deprive local communities, especially the poor among them, of basic survival resources without offering any alternatives. Difficulties also occur when enforcement would result in significant losses to many people and, conversely, their violation would benefit a large number.

²³ Sometimes the poor implementation and enforcement of policies and laws is seen as being due to the policies and laws themselves being weak or otherwise inappropriate. Reported from all the regions and specifically from Estonia, Hungary, Bangladesh, Bhutan, Mongolia, Myanmar, Laos, Zambia, Bahrain, Indonesia, Nepal, Philippines, Cambodia, China, Iran, Papua New Guinea and Pakistan.

²⁴ The absence of a land use plan allows arbitrary allocation of land and makes the system susceptible to irrational pressures while allocating land.

- (c) Provision of a clear mandate to each institution and, within the mandate, an appropriate amount of autonomy.

180. Key capacity needs for addressing *poor morale of staff charged with implementation* of policies and laws are:

- (a) Mechanisms for assessing and monitoring the morale of the staff and the factors that affect it.
- (b) An ability to motivate the staff by sharing with them the importance of the overall goal of land conservation and the importance of their individual contributions.
- (c) Capacity to assess and improve personnel management policies and strategies and to rationalize compensation packages.

VI. RESEARCH AND DEVELOPMENT ON THE NATURE AND CAUSES OF LAND DEGRADATION AND METHODS FOR PREVENTING AND CONTROLLING IT

181. The nature of land degradation, especially in terms of its inter-relationship with other elements of the ecosystem, is not very well understood. Understanding the nature of land degradation becomes more challenging in light of the fact that it is a phenomenon that varies from region to region, country to country, and location to location. The result most often is that generalizations are being applied inappropriately or similarities being assumed where there are none.

182. Similarly, the ecological and socio-economic causes of land degradation are not always well understood, especially in their variations from location to location. It becomes difficult to design preventive and curative strategies that have a chance of succeeding unless there is an understanding of what caused the degradation in the first place and an effort to address the root cause.

183. In many instances, the ecological and socio-economic settings are difficult to change and the only option to prevent or reverse land degradation lies in the introduction of appropriate technologies and methodologies (modern and traditional) that are equal to the challenge. There is a special need for technologies and methodologies relating to alternate energy sources and to water management and harvesting, including trans-boundary water issues and regulation of river flows.²⁵ The acquisition, adaptation and development of environmentally sound agricultural production technologies have also been identified as important for the prevention and control of land degradation.²⁶

184. The main capacity needs for building the knowledge base on land degradation are:

- (a) Establish and strengthen regional co-operation between research and development institutions in the field of land degradation.²⁷

²⁵ Specifically Estonia, Hungary, Zimbabwe, CILSS, SADC, ECOWAS, IGAD, Iran, Sri Lanka.

²⁶ For example, the regional assessment for Africa highlights that in countries of the Sudano-Sahelian region agriculture and livestock production systems are inimical to the integrity of land.

²⁷ Regional co-operation is seen as critical, especially by the smaller countries, like the SID countries, to effectively negotiate at the international level and to enhance indigenous research and development capacities by the pooling of human and financial resources and the sharing of experiences and findings.

- (b) Enhance abilities to understand and appropriately use traditional knowledge and methods of research.
- (c) Ability to identify, assess, access, and adapt appropriate modern technological options.
- (d) Create effective links between research and development institutions and those tasked with applying land management policies and practices.
- (e) Develop abilities to negotiate funds for research.
- (f) Establish incentives for motivating people to take up research in the field.
- (g) Expertise in soil sciences and geology in particular, and, given the complex and multi-sectoral nature of land degradation, supporting expertise in fields such as botany, zoology, agricultural science, ecology, hydrology, climatology, forestry, marine science, sociology, and environmental economics.²⁸

VII. FINANCIAL RESOURCES²⁹

185. Most countries of the South, almost by definition, are short of financial resources. Therefore, to say that there are inadequate resources for the prevention and control of land degradation is almost a truism. Perhaps the more important issue is whether the funds allocated for land management are an appropriate proportion of the over-all budget.

186. Article 8 of the CCD states that: "The Parties shall encourage the coordination of activities carried out under this Convention and, if they are Parties to them, under other relevant international agreements, particularly the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, in order to derive maximum benefit from activities under each agreement while avoiding duplication of effort."

187. The key capacity needs are:

- (a) Strengthening the capacity to negotiate with international and national agencies for increased financial support.
- (b) Developing the capacity to better manage and deploy existing financial resources.
- (c) Strengthening capabilities to coordinate with regional, global and international agencies.³⁰

²⁸ In many countries the complete range of expertise is not available, nor are the facilities to train staff in all the required areas. Whereas for larger countries it might be possible to set up national training facilities and to have adequate expertise available within each country, for the small countries a regional approach might be the only practical one.

²⁹ Reported from all regions, particularly from Zambia, Estonia, Hungary, Indonesia, Iran, Mongolia, Pakistan, Vietnam.

³⁰ Better interactions with such institutions and organizations (like the GEF) would help increase the availability of funds and also ensure that adequate attention is given to land degradation issues and that all their programs are sensitive to land management concerns.

4.5 Conclusions

188. Broadly speaking, the capacity needs that have emerged through this exercise are of three types. First, there are capacity needs relating to **knowledge and awareness**. There is a need to understand the nature and extent of land degradation, its causes at various levels, the linkages it has with other phenomena and resources, and its effects and implications. There is a need to discover and develop methods by which land degradation can be prevented or, at least, controlled and reversed. There is also a pressing need to share this knowledge with everyone, especially with those who are primarily responsible for determining the priorities for social action and concern.

189. Second, there are capacity needs relating to **managerial structures and processes**. There is a need to have policies and laws relating to land degradation that not only interface well with each other but also with policies and laws relating to other sectors of work. There is a need to ensure that the process and institutions through which these policies are to be implemented and these laws enforced, are appropriate and up to the task. There is a need to have adequate financial resources and supporting infrastructure to implement the policies and to form strategic alliances with institutions within and outside the country.

190. Finally, there are capacity needs relating to **human resources**. There is a need for trained and skilled persons who are in the right place at the right time and who are motivated and professional. There is a need for persons with the right attitudes and perspectives who can facilitate cooperation between all the different stakeholders and who are open to diverse views and standpoints. There is a need for leadership and there is also a need for people to own up to their social responsibilities and to use their energy and voice to move society in the right direction.

191. Logically, in order to prevent land degradation, the first step would be to gather together the available data and information and to use this to make the people and the policy makers aware of the seriousness and the importance of land degradation issues. Once this has been achieved, the pressure on, and from within, the government would ensure that adequate resources become available for collecting more data, for monitoring the trends, and for setting up and operationalizing the required institutions and processes. There would also then be a context within which existing policies and laws can be assessed for their 'land friendliness', new ones formulated or the old ones strengthened. This would, in turn, provide the momentum for motivating individuals to develop skills in this area and to focus their energies and time on land degradation issues. Consequently, the sequencing of capacity development activities must also follow this pattern and respond to the capacity needs and gaps, as have been identified.

CHAPTER 5 SPECIAL NEEDS OF SMALL ISLAND DEVELOPING STATES (ALBERT BINGER)

5.1 The Challenge of Sustainable Development

192. Since the early 1970s there have been growing concerns regarding the accelerated and sometimes irreversible degradation of the natural environment. By the late 1980s, concerns focused on atmospheric pollution and global warming, contamination of water bodies, harmful methods of solid waste disposal, destruction of biodiversity, and land degradation. Thus, the sustainability of development, and the systemic, institutional and individual capacity required to support it have become priority items on the global agenda.

193. *Sustainable development* was defined by the WCED in 1987 as a strategy that satisfies the needs of present generation without compromising the ability of future generations to meet their needs. In other words, such a strategy recognizes and balances economic, socio-cultural, equity and biophysical environmental interactions, synergies and constraints on development initiatives. In particular, it must meet the needs of the poorest, to which overriding priority should be given, while recognizing limits based on the state of technology, social organization, and the biophysical environment.

194. Clearly, implementing such a sustainable development strategy and developing comprehensive capacities at the level of individuals, institutions and the overall system to do so is fraught with both difficulties and opportunities. Even advanced economies have difficulties grasping and implementing these concepts; it is easy to see that the task is magnified for *Small Island Developing States* (SIDS) that have limited experience in tackling such complex issues, and limited resources with which to do so. Two critical constraints, as highlighted by the UN Secretary-General in reviewing the implementation of the Barbados Programme of Action (BPOA), are the limited availability of human resources and a lack of financial resources for developing and strengthening institutions/mechanisms.³¹

5.2 The SIDS Context

195. SIDS may comprise a single island (Barbados), a few islands (Cape Verde - 15), numerous islands (Maldives - 1,200), or even a low-lying coastal state (Belize). Terrain varies from low oceanic islands, including atolls and reef islands, to high volcanic, limestone or continental islands (including low-lying coastal states).

196. Biodiversity — per unit area or absolutely — is often rich, with a significant degree of endemism. Since many SIDS are located in the tropics and fall within the influence of tropical cyclones, they are prone to extreme weather events: most are influenced by the El Niño Southern Oscillation, by associated high inter-annual variations in rainfall, and are typically vulnerable to impacts of long-term increases in mean sea level due to climate change. (Droughts, floods and saline intrusion into underground water bodies are concomitant concerns.) Land degradation, typically due to deforestation and/or unsustainable hillside farming practices also poses significant challenges. Thus, the CBD, UNFCCC and CCD are very relevant to the environmental management challenges faced by SIDS.

³¹ UN Economic and Social Council, (E/CN.17/199) "Report of the Secretary General: Addendum, National institutions and administrative capacity in small island developing States, page 5 and "Report of the Secretary General: Addendum: Regional institutions and technical cooperation for the sustainable development of small island developing States, page 5-6.

197. Economic activities in SIDS are frequently dominated by specialized agriculture such as sugar,³² and/or by tourism,³³ which will be vulnerable to climate change impacts. Agriculture, forestry and fisheries are important sources of export earnings in many SIDS.³⁴ Arable land resource varies from 0.5 percent in the Bahamas to 50 percent in Mauritius. Forests and woodlands are economically important in about one of every three SIDS, where it accounts for 40 to 94.4 percent of land use.

198. SIDS maritime claims are disproportionately large (especially in the Pacific) and extend to approximately one-sixth of the earth's surface. Marine resources are not limited to fish resources but also include mineral deposits and hydrocarbons.³⁵

199. The general consensus³⁶ is that SIDS share a number of typical characteristics that pose special economic, social and environmental development challenges: remoteness and isolation, openness to the rest of the world, susceptibility to natural disasters and environmental change, limited economic diversification, and poverty. Many of them are currently facing an uncertain and difficult economic transition to the changing world trade regimes and they suffer from limited capacity in the public and private sectors.

5.3 SIDS capacity status, priorities/needs and challenges³⁷

200. In some SIDS the selection of a department to execute specific environmental responsibilities is more a consequence of tradition than institutional capacity. Often, legislative and policy frameworks have gaps and overlaps. Scarcity of human resources is also a capacity-limiting factor in most SIDS.

201. However, most COP country reports, and those of analysts, suggest that financial constraints are the single most limiting factor in environmental management in SIDS. Even where financial allocations are made in the budget, its lack of timely availability too often adversely impacts on the ability to conduct time-sensitive environmental programs. Further, infrastructure deficits are, generally speaking, symptoms of poor financing. Projects requiring substantial investments, such as air and maritime transport, adaptation to sea level rise, recycling and sound waste disposal, tourism infrastructure, road and telecommunication infrastructure lie beyond the resources of most SIDS.

³² The sugar economies include Barbados, Cuba, Dominican Republic, Fiji, Guyana, Mauritius, St. Kitts and Nevis and Trinidad and Tobago.

³³ Tourism is either very important or growing rapidly in Antigua and Barbuda, Bahamas, Barbados, Belize, Fiji, Grenada, Jamaica, Maldives, Malta, Papua New Guinea, Samoa, Seychelles, Solomon Islands, St. Kitts and Nevis, St. Lucia, and Tonga.

³⁴ Agriculture contributes more than 40 percent to GDP in Comoros, Guinea Bissau, Haiti, Samoa, and Tonga.

³⁵ See FAO (1999), "Environment and Natural Resources in Small Island Developing States", Special Ministerial Conference on Agriculture in Small Island Developing States, Rome, March 12.

³⁶ See, for example, UNEP (1999) Caribbean Environment Outlook and Pacific Island Environment Outlook; Commonwealth Secretariat-World Bank (2000) Small States: Meeting Challenges in the Global Economy; Haitink (1998) Small Island Developing States and International Organizations: The Attention for SIDS in the Work of the European Union, the United Nations and the Commonwealth, background paper to the Seminar on Small Island Developing States in Brussels; Ishmael (1998) "Small Island Developing States Programme of Action for Sustainable Development: Opportunities and Constraints".

³⁷ For a more comprehensive discussion of the capacity development needs of SIDS for biodiversity conservation, climate change mitigation and prevention of land degradation, please see Binger, A. September 2000. *Country Capacity Development Needs and Priorities: Report for Small Island Developing States*. Capacity Development Initiative, GEF-UNDP Strategic Partnership..

202. These capacity challenges — lack of adequate funding, inappropriate scale and scope of initiatives and policy frameworks, scarcity of technical expertise, and poor infrastructure — have forced regional states to turn to regional institutions for help in specialized assistance.

203. Pacific SIDS have therefore developed a well-organized structure of regional intergovernmental organizations,³⁸ each with a particular focus and funded by member contributions.³⁹ In order to avoid duplication and harmonize their activities, the South Pacific Organizations Coordinating Committee (SPOCC) was set up. A key function of SPOCC is to coordinate regional programs. In 1995, an agreement was reached to establish SPREP, formerly part of the South Pacific Forum, as an independent intergovernmental organization providing cooperation and assistance for the protection and improvement of environment in the South Pacific.

204. In the Caribbean, the Economic Commission for Latin America and the Caribbean (ECLAC), collaborating with the Caribbean Development and Cooperation Committee (CDCC) and the Caribbean Community (CARICOM), has served as the regional coordinating mechanism for implementation of the BPOA. In the African region, the Economic Commission for Africa (ECA) is mandated to monitor and coordinate implementation of the BPOA but has not demonstrated much engagement. Only one regional intergovernmental organization in the region — the Indian Ocean Commission (IOC), whose membership includes islands in the southwestern Indian Ocean — is actively engaged in the implementation of the BPOA.

205. These capacity challenges also underscore the potential role for regional and national universities based in SIDS. However, tertiary institutions in SIDS have faced many challenges in making the transition from conventional education, to producing the transdisciplinary information, education, research and consulting services needed to develop regional capacity required to respond to the challenge of sustainable development.

5.4 Conclusion

206. Overall, SIDS continue to be deficient in terms of comprehensive legislative and policy frameworks, financial resources, national and regional institutions and qualified personnel that are needed to develop and implement sustainable development policies and projects, in the face of the environmental challenges. However, the development and adequate funding of regional SIDS-based institutions, especially those focused on technical and institutional environmental management capacity (e.g. SPREP), and SIDS-based universities (e.g. USP and UWI), offers a potentially cost-effective initial capacity development path. Specific lessons and conclusions for developing the capacities of SIDS to address global environmental challenges at the national, regional and international levels can be summarized as follows.

I. NATIONAL LEVEL

207. National capacity plays an essential role in promoting sustainable development. Recent experience in implementing the BPOA attests to the significance of that role. In general, more progress

³⁸ These include the: Forum Fisheries Agency, Forum Secretariat, Pacific Islands Development Programme, South Pacific Commission, South Pacific Regional Environment Programme (SPREP), South Pacific Geoscience Commission, the Tourism Commission of the South Pacific and University of the South Pacific.

³⁹ UN (1999). "Progress in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States: Regional institutions and technical cooperation for the sustainable development of small island developing States." Report of the Secretary General, Economic and Social Council, Commission on Sustainable Development, 19-30 April 1999 (E/CN.17/1999/6/Add.7).

has been made in those SIDS with, than in those without proper institutions in place. Most SIDS have realized that their inherent characteristic disadvantages make it all the more necessary for them to develop effective institutional capacity in order to meet the multitude of challenges arising from the imperatives of resource conservation and environmental protection and economic development.⁴⁰

208. Governments of SIDS should take a proactive stance towards systemic capacity building by strengthening national sustainable development bodies, enhancing their political and legal status, increasing their staffing levels and improving their modalities of operation. SIDS that have not established such bodies should take action to ensure that a national mechanism for guiding and coordinating sustainable development policy is put in place and is given adequate status and resources for effective functioning.

209. Specialized institutions devoted to specific sectors should be established and provided with adequate staff and budgetary resources for their operations; such institutions are required particularly to deal with major resource conservation issues, such as those involving fisheries, coastal zones, energy and biodiversity.

210. Well-articulated national development policies that come to grips with sustainability issues are required to effectively integrate environmental considerations into the social and economic dimensions of planning to encourage and harmonize priorities at the country level.

211. SIDS should ensure that appropriate environmental laws and regulations are enacted and creatively enforced, national sustainable development strategies implemented, monitoring and follow-up activities carried out. Particular attention should be given to training of technical staff to enable them to effectively implement relevant legislation and regulations in a professional manner. In this context, national action should be taken to promote the use of EIAs and economic instruments.

212. Systems of internal communications within countries must be streamlined to facilitate efficiency in resource allocation, the reduction of bureaucratic red tape, and the establishment of clear lines of authority, responsibility and accountability towards effective coordination. (Absence of such a coordinated approach to project planning and implementation causes missed opportunities for the creation of synergies.) For example, in many SIDS interpersonal relations are the sole basis for communications between Ministries and departments. Naturally, communication breaks down when one or more of these officers are transferred.⁴¹ Consequently, there is an urgent need for a comprehensive, "big-picture" approach.

II. REGIONAL LEVEL

213. SIDS should also widen and deepen regional and sub-regional cooperation in capacity-building, especially in areas where they are lacking in expertise and where joint activities in research and training could help to overcome national resource constraints, facilitate the exchange of national experiences and increase the cost-effectiveness of regional cooperation.

⁴⁰ UN (1999). "Progress in the implementation of the Programme of Action for the Sustainable Development of Small Island Developing States: National institutions and administrative capacity in small island developing States". Report of the Secretary General, Economic and Social Council, Commission on Sustainable Development, Seventh session, 19-30 April 1999 (E/CN.17/1999/6/Add.6).

⁴¹ See Ishmael, Len (1998). "Small Island Developing States Programme of Action for Sustainable Development: Opportunities and Constraints". Keynote address to Seminar on Small Island Developing States: Their Vulnerability, Their Program of Action for Sustainable Development, Their Opportunities for Post-Lomé, held in Brussels, 1-2 September

214. Existing and emergent sustainable development-oriented regional institutions should be provided with adequate resources by member states to carry out research and training activities, undertake critical assessments of priorities and needs, and facilitate the exchange of experience and dissemination of information. Regional institutions with the right expertise should assist member countries in the preparation of new legislation, as necessary, and in the formulation and implementation of national strategies.

III. INTERNATIONAL LEVEL

215. The international community should provide adequate financial resources to enable SIDS to carry out necessary institutional reforms to improve their capacity. Agencies of the UN system, such as GEF and other organizations, should increase training activities to help update and improve the skills of staff engaged in sustainable development activities. Organizations with the appropriate technical capacity, including funds and programs and specialized agencies, should also provide technical assistance or advisory services to SIDS in respect of building up their national institutions.

216. Donors should:

- (a) Provide financial and technical support to SIDS to facilitate their ratification and implementation of relevant international obligations, including scholarships, particularly in areas where SIDS suffer from serious lack of local expertise;
- (b) Support current efforts at building information networks (e.g. SIDSNet) so that they may have better access to information on state-of-the-art technology and become active participants in the exchange of experience and dissemination of information; and
- (c) Provide financial and technical assistance to the regional organizations of SIDS to enable them to adequately meet the technical assistance needs of member countries.

CHAPTER 6 CURRENT APPROACHES TO CAPACITY DEVELOPMENT AND LESSONS LEARNED

6.1 Current approaches

217. Approaches to capacity development have evolved over the past decades from a more institutions-specific, skills-enhancement and training-based approach into one that takes into consideration both the overall system within which institutions and individuals interact and operate and the institutions and individuals themselves as critical components of a comprehensive approach to capacity development. This systems perspective is emerging as a common conceptual framework for capacity development, a framework that lays emphasis on the process of capacity development and local ownership of it.⁴² However, while much progress has been made at the conceptual level and at the corporate policy level of development cooperation agencies, regional assessments report that the new approach is not always reflected in actual practice in terms of projects and programs.

1. Emphasis on individual and institutional levels

218. On the one hand, regional assessments acknowledge the need for a systems approach to capacity development. Across the regions, there seems to be a call for greater emphasis on the "enabling environment" as an essential complement to assure effective implementation and sustainability of projects. Regional assessments emphasize the importance of a favorable political and socio-economic environment if one is to see an elevated priority being given to global environmental management.

219. On the other hand, all regional assessments note that emphasis continues to be placed on short-term projects that focus on enhancing individual skills and institutional competencies. As highlighted in the regional assessment for Africa:

"Many of these initiatives have been implemented as short term projects with a focus on ensuring that institutional and individual capacities are sustained. They have not addressed, at least adequately, organizational development challenges, associated clarifying mandates and changing overall policy context." (Mugabe, J., S. Maya, T. Tata, and S. Imbamba. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Africa*. Capacity Development Initiative, GEF-UNDP Strategic Partnership.)

220. In terms of developing capacities at the individual level, all regional assessments report on training courses that have been and continue to be conducted to enhance specific skills of individuals in the biodiversity thematic area. Some specific areas identified include: access to genetic resources, transfer of technology, financial mechanisms and resources, incentive measures, biosafety, environmental economics, valuation of biodiversity components, biodiversity conservation and forest management training, access to biodiversity information, funding and technical assistance to NGOs, community based organizations and biodiversity research institutions, capacity building and community empowerment in sustainable use of biodiversity, ecological restoration, initiation of community based management of protected areas, integrated conservation and development, community based tourism for conservation and

⁴² For a more comprehensive assessment of the change in conceptual thinking of development cooperation agencies the reader is referred to another report undertaken as part of the first phase of the CDI (and parallel to the regional needs assessments) titled *Assessment of Capacity Development Efforts of Other Development Cooperation Agencies*, prepared by A. Lafontaine (2000).

development. Target groups have ranged from focal points for the Convention, officials from national wildlife and forest departments, NGOs, to research organizations, among others.

221. The Latin America and Caribbean assessment (Bucher, E., D. Bouille, M. Rodriguez, H. Navajas, September 2000, *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*. Capacity Development Initiative, GEF-UNDP Strategic Partnership) refers to various projects, studies, workshops, seminars and courses in the climate change thematic area that cover the following:

- (a) Energy, science (multidisciplinary focus), environmental management, forest and land management, adaptation, public awareness, mitigation, Kyoto Protocol, Clean Development Mechanism, Technology Transfer, CTI, AIJ, efficient use of energy, early warning, climate change economy, agriculture and stock breeding, implementation of models among others.
- (b) Actions by multilateral agencies, according to reported information, relate to subjects such as Kyoto Protocol, CDM, conduit development, inventory, renewable energies, technology transfer, economics of GHG, vulnerability and adaptation, AIJ.

222. In addition to efforts at the individual level, capacity development activities are targeting the institutional level by focusing on strengthening national agencies to network, develop databanks, review policies and laws, and build infrastructure. It is also important to note that despite the current emphasis on developing capacities at the individual level, in many countries these programs have played a catalytic role in the consolidation of institutional units and the beginning of a participatory process that involves key national institutions. In general, an attempt has been made to build capacities for dialogue and involvement of all stakeholders in the decision-making process and consensus building. Current efforts do address the issue of raising awareness, particularly among government agencies, research NGOs, and the general public among others.

223. Having said this, regional assessments note that the system level is being considered to some extent in current efforts, albeit leaving much scope for enhancing efforts at this level. Some efforts are underway to enhance capacities at the policy level, as described below.

224. At the policy level, current efforts, such as GEF Enabling Activities, are assisting countries to enhance their capacity to formulate and implement national biodiversity strategies and action plans. In addition, the GEF-funded Biodiversity Planning Support Programme is providing additional support to this process by focusing on promoting best practices, exchange of information and expertise, and strengthening national capacity for information/data management.

225. Various country studies (funded by the US and GTZ among others), GEF Enabling Activities, and the CC: Train Program of the United Nations Institute for Training and Research (UNITAR) are building national capacities for fulfilling obligations to the UNFCCC, including the development and implementation of national policies and measures on climate change. The GEF-funded National Communications Support Programme is providing technical support to enhance the capacity of Non-Annex I parties to prepare their initial National Communications. It also aims to promote the quality, comprehensiveness, and timeliness of initial National Communications.

Limited regional cooperation

226. The regional assessments, while highlighting some efforts in regional cooperation and south-south cooperation on developing capacities for addressing biodiversity loss, climate change and land

degradation, reveal a much greater need for such cooperation. Regional cooperation would be particular useful where countries share similar ecological, cultural and legal frameworks, may share common problems and solutions, and where there is a need for cost-effective collective action. In particular, the regional assessments for Asia Pacific and Latin America and the Caribbean note some positive experiences in this regard.

- (a) South Pacific Regional Environment Programme (SPREP): SPREP was established through agreement between 22 nations in the South Pacific region as a mechanism to support regional cooperation and capacity building related to the environment. Biodiversity has been a focal area over the past five to ten years and a broad range of workshops, training, policy and institutional support activities have been undertaken. SPREP also aims at building capacities to assess vulnerability and adaptation options in the Pacific SIDS.
- (b) ASEAN Regional Center for Biodiversity Conservation (ARCBC) was recently established in The Philippines to enhance the capacity of ASEAN countries to promote biodiversity conservation through institutional linkages, collaborative partnerships, strengthening human resources capability, dissemination of information and formulation of proposals to coordinate regional initiatives on biodiversity conservation.
- (c) Planning for Ecological Networks pursued by the Pan-European Biological and Landscape Diversity Strategy is underway. Ecological Networks are being designated on the national, district and local levels. Some countries, for example the Czech and Slovak Republics have recognized ecological networks in their respective nature conservation legislation as an important approach to area based conservation.
- (d) Regional assessment of climate change mitigation options in SADC countries.
- (e) Asia Least-Cost Greenhouse Gas Abatement Strategy (ALGAS, 1994-1998) that was designed to assist 12 developing countries in Asia in building their capacity to conduct their own GHG inventory, and to formulate least-cost strategies to reduce GHG emissions.
- (f) System for Analysis Research and Training (START) activities for South Asia, Southeast Asia, and Temperate East Asia which aim to strengthen the scientific capacity of the region by linking scientists and institutions.

2. Lack of needs assessment

227. A concern raised in many of the reports is the limited emphasis placed by current capacity development activities on a clear and participatory assessment of needs of the institutions and countries prior to undertaking specific activities. The regional assessment for Latin America notes in the context of climate change that:

"It is necessary to identify the types of capacity that are required by public employees and decision makers according to their level of decision making, specific field and function. The clear identification of at whom any process of capacity is aimed and what goal does it seek generally are not clearly understood." (Bucher, E., D. Bouille, M. Rodriguez, H. Navajas. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Latin America and the Caribbean*. Capacity Development Initiative, GEF-UNDP Strategic Partnership)

6.2 Lessons learned

228. The analysis contained in the various regional reports and also in the views expressed by participants in the regional workshops highlight important issues relating to both content and process of capacity development experiences in the areas of biodiversity, climate change and land degradation and also identify a number of lessons for responding to the challenges presented in the thematic areas.

229. In particular, there is increased recognition of the need to link individual and institutional dimensions of capacity development with the capacity of the overall system in order to ensure sustainability of capacity development efforts. An inadequate emphasis on **capacity development at the overall system level** may diminish the impact of efforts at the individual and institutional levels. A proper balance, therefore, needs to be established between all three, closely interlinked, levels.

BOX 6.1 THE CASE FOR DEVELOPING SYSTEM LEVEL CAPACITIES IN THE EECA REGION

In the EECA region current aid for capacity development has either been targeted at the overall system or has been channeled through projects targeting specific priority areas. Examples of the systems approach in the context of climate change include:

- (a) Support and development of markets for GHG emissions mitigation projects, especially energy efficiency and renewable energy projects.
- (b) System level capacities for designing effective policies that enhance the role of markets.
- (c) Institutional and individual capacities on identifying, preparing, financing and implementing projects (including support for ESCOs, third-party financing, consulting services)

The important lessons emerging from this experience are that since the aim of capacity development is the development of a self-motivating process, which would take place gradually from within, priority should be placed on the systems approach. Sound capacities at the systems level would then greatly facilitate the implementation of specific climate protection related projects.

Some countries of the EECA region, particularly those associated with the EU, are prepared for the systems approach. In other countries, however, it will only be possible to implement the systems approach over a very long period of time due to the prevailing unfavorable socio-economic framework. In such cases, while it is suitable to use the project-based approach, projects should be implemented within the framework of a long-term strategy to secure the sustainability of capacities that might be strengthened or created.

The merits of programmatic approaches at the systems level on the one hand and project-based approaches on the other were also discussed at the regional workshop (Prague, Czech Republic, July 17-18, 2000). Some countries put emphasis on immediate actions and asked for the support of the "project based approach," which usually relies on foreign aid providing expert advice and financing. Other countries preferred gradual improvement of local capacities and strove for building all the domestic prerequisites for future implementation of climate change actions using indigenous sources. For example, instead of direct financial sources, the improvement of local financial institutions was required. Nevertheless, discussions during the regional workshop showed that the two strategies are not conflicting. As the former approach brings immediate results it should be implemented as an emergency tool in order to meet requirements of the convention. The latter one is sustainable and should become a long-term objective for all countries.

(Source: Guziova, Z., J. Marousek and V. Neronov. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Eastern Europe and Central Asia*. Capacity Development Initiative, GEF-UNDP Strategic Partnership.)

230. Experience suggests that, in the context of the promotion of capacity development initiatives, **environmental priorities should be linked to other national priorities** as a basis for the promotion of an overall integrated program of social and economic development. For example, in Georgia the lack of energy supply creates scope for renewable energy promotion that would support economic development while not increasing greenhouse gas emissions.

231. There is a need to **enhance coordination between various capacity development efforts**, because the lack of effective coordination noticeably decreases the opportunity to effect operational synergies in project implementation.

232. Comprehensive and detailed **indicators** must accompany capacity development efforts so as to evaluate success in terms of cost-effectiveness and usefulness.

233. The **involvement of a broad range of stakeholders**, including the private sector, in the entire project cycle is essential to gain their commitment to the further development and utilization of capacities that have been strengthened and/ or created. Project success depends on the effective engagement and participation of stakeholders in all stages of the project cycle. Given the wide range of stakeholders and interests, experience indicates that in many countries unless appropriate conflict resolution mechanisms are established, no acceptable compromise is likely to be arrived at, as highlighted in the Regional Assessment for Asia Pacific. This insight is important for the conceptualization and implementation of capacity development initiatives since it underlines the need to build into the project implementation framework a mechanism to force consultation and promote compromise.

234. Program design must be informed by **detailed assessment of capacity needs** before embracing capacity development projects to avoid the design of programs driven by "wants" rather than "needs." A related aspect is the appropriate selection of the target audience for training and skills development once capacity needs are identified.

235. Capacity development efforts should be **process-driven** in order to **reflect national priorities** rather than donor priorities. As highlighted by the Regional Assessment for Asia Pacific (Zakri, A. H., S. Singh, and J. Villarin. September 2000. *Country Capacity Development Needs and Priorities: Regional Report for Asia and the Pacific*. Capacity Development Initiative, GEF-UNDP Strategic Partnership, process driven approaches are preferable to product-driven ones because even if the former might be slower to produce printed outputs or products, it focuses on the engagement of a wide range of stakeholders, determining needs and facilitating a process of internal change in line with locally agreed objectives thus resulting in more lasting change that has local support and ownership.

236. The concern for country driven assessment is echoed by UNITAR/CC:Train when it acknowledges that: "National projects" should be implemented and directed by national teams and the so-called "implementing agencies" should facilitate the implementation by the national teams. This means that in providing services like training, technical support, project management, country teams should be consulted and actions must be taken to meet their concerns and needs. (FCCC/SB/2000/INF.9)"

237. The development of expertise and overall human capital formation, especially in the scientific and managerial fields, remains one of the highest priorities. The Regional Assessment for Asia Pacific also highlights as an important lesson that **training and development of needed expertise should be based in regional or sub-regional training institutions**. If based in Europe or North America, as has been the case in the past, trainees find it difficult to directly utilize and apply knowledge learned. For instance, in the area of biodiversity assessment and management, where the ecosystems, species and management options in Europe and North America are very different from those in the Asia Pacific.

238. Finally, given the new and complex challenges in the areas of biodiversity, climate change and land degradation, greater emphasis needs to be placed on a **regional approach** to capacity development projects where projects are supported by regional implementation and regional learning institutions.

CHAPTER 7 SYNTHESIS AND CONCLUSIONS

7.1 Priority Issues

239. Within the context of national commitments under the Conventions on Biodiversity and Climate Change, and opportunities laid out in the GEF "Action Plan for Enhancing GEF Support to Land Degradation"⁴³ with respect to commitments under the Convention to Combat Desertification, most countries have identified priority issues. While the emphasis on each issue varies from country to country, many are common across both countries and regions and can be summarized as follows:

Biodiversity

- (a) low levels of awareness and knowledge of biodiversity issues
- (b) biodiversity policy making and planning (particularly in response to article 6 of the convention)
- (c) gaps, overlaps and conflicts in legal and regulatory frameworks and institutional jurisdictions and mandates
- (d) management and delivery of biodiversity information and knowledge, including both monitoring and gap filling
- (e) avoiding the loss of indigenous biodiversity knowledge and technology and valuation and incentive mechanisms
- (f) mechanisms to address trans-national issues and the negotiation of international agreements and conventions
- (g) in-situ management of biodiversity, in particular protected areas and their integration into the surrounding landscape
- (h) ex-situ conservation of both wild and domestic biodiversity (botanical gardens, zoos, gene banks)
- (i) biosafety and the Cartagena Protocol
- (j) access and benefit sharing
- (k) skills in environmental economics and taxonomy

⁴³ GEF Action Plan for Enhancing GEF Support to Land Degradation, December 1999.

Climate Change

Non-Annex I countries

- (a) vulnerability and adaptation
- (b) low levels of awareness and understanding of climate issues
- (c) observation and measurement
- (d) abatement of greenhouse gas emissions and carbon sequestration
- (e) the clean development mechanism
- (f) transfer of environmentally sound technologies
- (g) national climate change strategies
- (h) convention negotiation
- (i) understanding synergies between conventions

Annex I countries:

- (a) energy efficiency (on both the supply and demand side)
- (b) renewable energy utilization
- (c) carbon sequestration
- (d) fuel shifting (replacement of fuels with those of lower carbon content)
- (e) development of protection strategies and action plans
- (f) information systems, monitoring and national reporting
- (g) awareness of the risks
- (h) adaptation

Land Degradation

- (a) cataloguing degraded areas
- (b) demarcating degraded areas that are salvageable
- (c) identifying areas facing imminent or possible threat of degradation
- (d) identifying factors and activities that lead to degradation, and their root causes
- (e) identifying the impacts of land degradation
- (f) building public support and mobilizing government, professional bodies, and regional and international agencies to participate in actions to prevent land degradation
- (g) integrating land degradation concerns into existing policies, laws and programmes
- (h) establishing priorities and developing action plans
- (i) launching field programmes

7.2 Country Capacity Needs

240. The capacity needs identified by countries to enable them to address these priority issues, while varying in detail and importance between countries, most notably with respect to the SIDS because of their small size and vulnerability, are largely common. They are also largely common across the thematic areas, ie. there are considerable cross-convention similarities and opportunities for synergy. Further, the overwhelming majority of capacity development needs associated with the priority issues in biodiversity, climate change, and land degradation, are *systemic* in nature, ie. they relate to what is sometimes known as the broader "*enabling environment*." Thus, while there are specific substantive differences between the issues associated with each thematic area, there are significant synergies between them with respect to the capacity development process. These common or cross-cutting capacity needs are discussed below.

I. AWARENESS AND KNOWLEDGE

241. Low levels of awareness and knowledge of the issues, implications, and alternatives associated with Biodiversity, Climate Change and Land Degradation, and of the interactions between them, limit effective decision-making and action at all levels.

II. NATIONAL POLICY, LEGAL AND REGULATORY FRAMEWORKS

242. In all cases, but particularly biodiversity and land degradation, effective action is required across a wide range of different sectors. However, national policy frameworks tend not to be effectively synchronized across sectors, leading to a lack of coherence and even conflict. This in turn tends to result in a tangle of sometimes contradictory laws and regulations which in addition to not being harmonized across sectors at national levels, are further confused by additional layers of regulation at sub-national and local levels.

III. INSTITUTIONAL MANDATES, COORDINATION, AND PROCESSES FOR INTERACTION AND COOPERATION BETWEEN ALL STAKEHOLDERS

243. Responsibility for dealing with issues associated with any of the three conventions is spread across a range of different specialized institutions. These often have overlapping mandates and jurisdictions, or there are gaps in mandates such that there is a neglect of some issues, and competition to address others. The involvement of other sectoral institutions and a range of non-governmental actors including the private sector, the public at large (including local communities), and non-governmental organizations, is also required for effective action, yet this is often limited and tends to be rather ad-hoc. Key capacity needs in most countries are a clarification of institutional mandates and responsibilities, mechanisms to coordinate between them, and strengthening the formal processes for interaction and cooperation between all stakeholders. These are required both at national and sub-national levels, and between these levels. They are also needed both within the scope of the individual conventions, and across the three conventions, in order to exploit the synergies between them.

IV. INFORMATION MANAGEMENT, MONITORING AND OBSERVATION

244. Arrangements for the systematic collection of data relating to convention issues, the analysis of this, and the delivery of critical and timely information to decision makers at all levels, was considered limiting by almost all countries. The ability to predict and anticipate critical events was also considered inadequate in relation to all three conventions. Systematic monitoring of status and trends, and in the case of land degradation "early warning systems," are considered inadequate. The inadequacy of indicators is a particular concern in biodiversity.

V. MOBILIZATION OF SCIENCE IN SUPPORT OF DECISION MAKING

245. Biodiversity, climate change, and, to a lesser extent, land degradation are relatively new concerns for which solutions are currently either poorly developed or unknown. Science and technology is not yet harnessed to the generation of new knowledge and alternatives, nor to decision making processes on these issues.

246. The special study of scientific and technical capacity for global environmental management⁴⁴ found that there are four common areas where scientific and technical capacity needs to be developed:

- (a) *Assessment of the nature and status of the environmental problems and the generation (as well as management) of scientific information and knowledge on which to base responses, including anticipating degradation of the environment and establishing early warning mechanisms.*
- (b) *Integration of environmental considerations into national science and technology policies or formulation of science and technology policies that are deliberately aimed at addressing environmental problems.*
- (c) *Creation and/or strengthening of science research bodies and institutions to focus more explicitly on the conduct of science for the solution of environmental problems in the three areas*
- (d) *Specialized skills in such areas as taxonomy (for biodiversity), climatology (for climate change), and soil chemistry (for land degradation), as well as common skills in the use of, for example, GIS and satellite technologies, and policy analysis related to environmental science and technology. The need for a convergence of skills from both the natural and the social sciences was also noted.*

VI. FINANCIAL RESOURCES AND TECHNOLOGY TRANSFER

247. Resource allocations at all levels, within institutions, at national levels, and at international levels, are considered generally inadequate to enable issues associated with the conventions to be effectively addressed. Infrastructure and equipment are also generally lacking. While technology transfer is important it needs to be accompanied by the strengthening of capacities to understand, choose, and adapt technology to local conditions.

VII. INCENTIVE SYSTEMS AND MARKET INSTRUMENTS

248. A key difficulty with environmental services is that they are not effectively accounted for, resulting in a paucity of incentive systems and market instruments that can be used to encourage action in line with the conventions. Systems for valuing and adopting biodiversity, climate change, and land related environmental services into accounting systems are required.

VIII. NEGOTIATION

249. Countries expressed a general concern relating to a weak capacity to manage international negotiations associated with the conventions. Difficulties include effective preparation, the provision of clear mandates to delegations, negotiating skills, and the dissemination of convention decisions.

⁴⁴ Mugabe. September 2000. Scientific and Technical Capacity Development: Needs and Priorities. Report Prepared for the UNDP and GEF Capacity Development Initiative.

IX. COOPERATION AND NETWORKING WITHIN REGIONS

250. A number of biodiversity issues are transboundary in nature and require international cooperation. Countries in the same region certainly share common issues. However, mechanisms for regional and international cooperation on issues related to the three conventions are weak.

X. INSTITUTIONAL MANAGEMENT AND PERFORMANCE

251. Weak management as well as resource constraints limit institutional effectiveness. A lack of transparency and accountability on the part of their institutions is also a concern in some countries. While the clarification of mandates provides a framework for improved accountability, key institutional capacity needs include the development of skilled managers and effective institutional management processes. These include systems for the effective development, deployment and motivation of skilled workers, the decentralization of decision making, improved access to and use of information technology, and effective monitoring and evaluation of institutional performance.

XI. INDIVIDUAL SKILLS AND MOTIVATION

252. The development of new specialized skills dealing with convention related issues is an important priority at individual levels, both in terms of initial and on-going career training. However, additional capacity needs include the effective deployment and mobilization of skilled workers, in particular the provision of appropriate incentives and motivators, the decentralization of decision making to the lowest appropriate levels, and access to information.

7.3 Current Approaches and Lessons Learned

253. Previous and ongoing efforts in capacity development provide important lessons about the process of capacity development and how it should be approached:

- i. Best practice in capacity development has evolved over the past decades from institution specific and skill based training into more systemic level approaches in which the interactions and context of the broader enabling environment are emphasized.
- ii. The shortcomings of short, project based, approaches have also been recognized and there has been an evolution towards longer term "programme" approaches. Capacity development efforts should also be process rather than product oriented since the process itself facilitates the processes of internal change, which is the objective of capacity development.
- iii. Capacity development initiatives should be driven by national teams and national priorities, otherwise they risk reflecting donor rather than national priorities. However, these national teams must also have skills in capacity development and may require training in order to be effective.
- iv. Many capacity development initiatives are based on assessments of capacity development needs that are neither complete nor fully participatory, resulting in a lack of ownership and effectiveness. Consequently initiatives often end up being responses to "wants" instead of "needs."
- v. The involvement of a broad range of stakeholders, including NGO's, communities, and the private sector, throughout the project cycle is essential to the further evolution and utilization of

capacities developed. Such involvement requires the incorporation of effective mechanisms for conflict resolution and compromise into the capacity development process.

- vi. Opportunities for synergy between different capacity development efforts are often missed because each is approached from its own specific focus. The linking of environmental priorities to other national priorities might be particularly helpful in this regard.
- vii. Opportunities for regional cooperation are inadequately exploited, particularly where countries facing similar problems and issues share similar ecological and cultural frameworks. Further, within region training based on regional and sub-regional institutions is generally more successful than out of region training since issues and lessons tend to be more similar than those in other parts of the world.
- viii. Capacity development efforts need to be accompanied by comprehensive and detailed indicators for monitoring and measuring progress.

7.4 Conclusions

254. On the basis of the priority capacity needs identified by countries and the lessons learned from previous and ongoing efforts at capacity development, a number of conclusions can be drawn:

- i. Despite the many similarities, in view of the individual differences between countries, as well as within countries, and the critical need to ensure ownership and "buy-in" to any course of action, the first step in any capacity development activity must be a participatory, nationally driven, capacity self-assessment. Given the high degree of similarity between the needs associated with each of the three thematic areas and the opportunity for significant cross convention synergies, a single national assessment should be carried out rather than three separate ones. Biodiversity, climate change, and land degradation specific capacity development needs would then appear as specialized sub-components of an overall national capacity development needs assessment for global environmental management.
- ii. A means and ability to support such national self-assessments of capacity must be developed. This should be based on processes of within region collaboration, exchange and networking - "regional networks (or communities) of excellence." Methods and tools are also required for capacity assessment. Such locally owned regional support mechanisms must not only develop capacity to assess capacity, but also to design and implement capacity development activities, and to establish and monitor indicators to measure progress. Such "capacity coaching" can be common across the focal areas, but would draw on thematic specialists as required.
- iii. Specific support is required for targeted capacity development initiatives which develop the ability of countries to address the priority issues associated with meeting their commitments under the global environmental conventions. While these priority issues are theme specific, the capacity needs relevant to each fall into a series of cross cutting areas, ie. there are considerable synergies between the conventions with respect to capacity development needs. These fall into the following priority areas:
 - (a) Awareness and Knowledge
 - (b) National Policy, Legal and Regulatory Frameworks

- (c) Institutional Mandates, Coordination, and Processes for Interaction and Cooperation between all Stakeholders
 - (d) Information Management, Monitoring and Observation
 - (e) Mobilization of Science in Support of Decision Making
 - (f) Financial Resources and Technology Transfer
 - (g) Incentive Systems and Market Instruments
 - (h) Negotiation
 - (i) Cooperation and Networking within Regions
 - (j) Institutional Management and Performance
 - (k) Individual Skills and Motivation
- iv. If GEF projects are to effectively develop capacity, and thus be sustainable, all GEF projects should include goal related participatory self-assessments of capacity in their preparation, should focus on national ownership and leadership, and emphasize long term programmatic processes, rather than short term product oriented projects.

ANNEX 1:
GUIDING QUESTIONS FOR ASSESSING CAPACITY NEEDS AT SYSTEMIC, INSTITUTIONAL, INDIVIDUAL LEVELS

Systemic Capacity <i>(The overall country environment)</i>	Entity / Institutional <i>(The institutions with designated responsibility)</i>	Individual <i>(The individuals whose task it is to do this)</i>
Policy Framework Is the overall policy environment conducive?	Mission / Strategic Management Do the institutions have clearly defined and understood missions and mandates?	Job requirements and skill levels Are jobs correctly defined and are the required skills available?
Legal and Regulatory Framework Is the appropriate legislation in place and are these laws effectively enforced? (These may be both formal and informal, such as cultural mores)	Culture / Structure / Competencies Are the institutions effectively structured and managed?	Training / retraining Is the appropriate learning taking place?
Management Accountability Framework Are institutional responsibilities clearly defined and are responsible institutions held publicly accountable?	Processes Do institutional processes such as planning, quality management, monitoring and evaluation, work effectively?	Career progression Are individuals able to advance and develop professionally?
Economic Framework Do markets function effectively and efficiently?	Human Resources Are the human resources adequate, sufficiently skilled, and appropriately deployed?	Accountability / Ethics Is responsibility effectively delegated and are individuals held accountable?
Systems Level Resources Are the required human, financial and information resources available? (These may be in any or all of national and local government, private sector, and civil society – including NGO's)	Financial Resources Are financial resources managed effectively and allocated appropriately to enable effective operation?	Access to Information Is there adequate access to needed information?
Processes and Relationships Do the different institutions and processes interact and work together effectively? (Including national and local government, private sector, and civil society)	Information Resources Is required information available and effectively distributed and managed?	Personal / professional networking Are individuals in contact and exchanging knowledge with appropriate peers?
	Infrastructure Are material requirements such as buildings, offices, vehicles, computers, allocated appropriately and managed effectively?	Performance / conduct Is performance effectively measured?
		Incentives / security Are these sufficient to promote excellence?
		Values, integrity and attitudes Are these in place and maintained?
		Morale and motivation Are these adequately maintained?
		Work redeployment and job sharing Are there alternatives to the existing arrangements?
		Inter-relationships and team work Do individuals interact effectively and form functional teams?
		Interdependencies Are there appropriate levels of interdependence?
		Communication skills Are these effective?

ANNEX 2:

INDICATIVE REFERENCE LISTS USED BY REGIONAL EXPERTS TO DEFINE SUBSTANTIVE CONTEXT FOR CAPACITY DEVELOPMENT UNDER EACH THEMATIC AREA

I. BIODIVERSITY

1. Effective National Biodiversity Planning
2. Identification and Monitoring of components of biological diversity important for its conservation and sustainable use
3. In-situ conservation of biological diversity
4. Respect for and preservation of knowledge, innovations and practices of indigenous and local communities.
5. Ex-situ conservation of components of biological diversity, including for collection of biological resources from natural habitats for ex-situ conservation purposes
6. Develop and introduce economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity.
7. Establish and maintain programs for scientific and technical education and training
8. Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity
9. Introduce appropriate arrangements to ensure that environmental consequences of relevant programs and policies are subject of environmental impact assessment and that significant adverse impacts on biological diversity are minimized
10. Develop and introduce appropriate measures to ensure safety regulations in handling living modified organisms resulting from biotechnology
11. Develop and introduce measures regulating the access to genetic resources and to provide access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biological diversity
12. Take legislative, administrative or policy measures, as appropriate, with the aim of sharing in a fair and equitable way the results of research and development and the benefits arising from the commercial and other utilization of genetic resources
13. Establish and operate clearing-house mechanism to promote and facilitate technical and scientific co-operation
14. Implement Cartagena Protocol on Biosafety
15. Access financial resources provided via the financial mechanism of the Convention and/or via other donors
16. Other National Priorities (describe them)

II. CLIMATE CHANGE

<p>1. Understanding, Observation and Measurement Public education and awareness Systematic observation and measurement Data sharing and dissemination Others (please specify)</p> <p>2. Abatement of Climate Change GHG Emissions Inventory and Prediction Abatement planning and implementation Energy sector: - electricity generation, fugitive emissions - consumption (transportation, industry, household) - energy efficiency/conservation - renewable energy Other sectors (agriculture, industry, waste management) Carbon sequestration / sink enhancement (land use change, forestry, etc.) Others (please specify)</p>	<p>3. Vulnerability and Adaptation Coastal zone management Agriculture and aquaculture Water resources Mining and Extraction Industries Tourism Fisheries Construction Natural Disasters and early warning Health Insurance Others (please specify)</p> <p>4. Implementation of the Kyoto Protocol</p> <p>5. Clean Development Mechanism</p>
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III. LAND DEGRADATION

1. Soil erosion (wind, water, others)

- Due to loss of forests/vegetation
Because of
 - Commercial felling/extraction
 - Impacts of infrastructure development
 - Agricultural/horticultural activities
 - Overgrazing
 - Fire
 - Community biomass and income needs
 - Acid rain
 - Urbanization
 - Others (Please specify)
- Due to coastal erosion
Because of
 - Destruction of mangroves
 - Destruction of other vegetation
 - Destruction of coral reefs
 - Extraction of sand
 - Curtailing of river flows
 - Destruction of back-waters
 - Others (Please specify)
- Due to aridity
Because of
 - Climatological droughts
 - Diversion of natural water flows
 - Depletion of ground water
 - Changes in other hydrological patterns
 - Destruction of vegetative cover
 - Others (Please specify)
- Due to other reasons
Because of
 - Inappropriate agricultural activities
 - Climate change
 - Inappropriate land use
 - Others (please specify)

2. Loss of Soil Fertility

- Due to water logging
Because of
 - seepage from dams/canals
 - Inappropriate irrigation
 - Inappropriate agricultural practices
 - Floods
 - Blockage of natural drainage
 - Others (please specify)
- Due to pollution/contamination of the soil
Because of
 - Salinity/alkalinity
 - Land/soil pollution
 - Dumping of mining residues
 - Release of industrial/municipal/agricultural wastes
 - Others

ANNEX 3:
LIST OF QUESTIONNAIRE RECIPIENTS

1. STAP Biodiversity Experts
2. STAP Climate Change Experts
3. STAP Land Degradation Experts
4. UNFCCC Focal Points
5. UNCCD Focal Points
6. CBD National Focal Points
7. CBD CHM Focal Points
8. GEF Operational Focal Points
9. GEF Political Focal Points
10. UNDP Residents Representatives in Africa, Arab States, Europe, Latin America & The Caribbean.
11. UNDP Project Coordinators/Chief Technical Advisors
12. National Coordinators Of GEF Small Grants Programme
13. UNEP Field Office Directors in Africa, Arab States, Europe, Latin America & The Caribbean.
14. UNEP Deputy Directors & Programme Officers in Africa, Arab States, Europe, Latin America & The Caribbean
15. Infoterra Focal Points
16. World Bank Country Officers
17. GEF NGO Network Regional Focal Points
18. Climate Change NGOs in the Global Climate Action Network

ANNEX 4:
AGREED CRITERIA FOR THE SELECTION OF IN-COUNTRY STUDIES

1. It is agreed that an average of three to four countries per region, including two small island developing countries, be selected for in-country assessment of capacity development needs, in coordination with the assessment efforts undertaken by regional experts. The aim in selecting countries is naturally to make the final configuration as representative as possible, but also to extend the reach of the assessment exercise further. An important consideration is the ability to prepare the assessment in the given time-frame of the CDI.

2. In consultation with the regional experts, the following broad criteria have been agreed for country selection:

- a. size of country (area and population): a mix of sizes would be desirable;
 - b. sub-regional balance;
 - c. range and extent of climate change issues, including abatement of emissions and vulnerability/ adaptation, and biological diversity and land degradation related problems.
 - d. submission of first national reports/ communications to the Conventions(as indicator of progress in country's thinking about capacity building issues);
 - e. participation in the Convention processes (as indicators of interest in the issue);
 - f. size of GEF portfolio in the country (indicating possibility of speedier assessment);
- The GEF Secretariat would be able to provide information for some of these criteria (such as sub-regional grouping, submission of national reports, size of GEF portfolio).

3. The following additional factors were considered for selection:

- a. ready availability of national experts or an institution
- b. mix of size and variety of environmental problems across the regions
- c. inclusion of a small island developing states
- d. participation/representation in other activities of the CDI (to maximize reach of the CDI)

4. The selected countries were contacted by UNDP-GEF and the GEF Secretariat to determine their willingness to participate in the assessment process (in the time frame envisaged) and to nominate experts.

**ANNEX 5:
REPORT ON CDI REGIONAL WORKSHOPS**

AFRICA

A regional workshop was held in Cairo, Egypt on July 31 and August 1, 2000 as part of Phase I of the CDI (Assessment of Countries' Capacity Development Needs).

The workshop was the primary forum at which regional teams presented their draft assessment of capacity development needs of countries in the Africa region for global environmental action. At the workshop countries were able to further discuss and provide inputs and information on their constraints and capacity needs. Following the workshop, regional teams revised the draft assessments in light of comments and views received from countries.

The target audience for the workshop was representatives from governments and NGOs. The workshop was attended by a total of 75 people. Participants included government representatives from 37 countries of the region (most countries sent two representatives) and three NGOs from the region. Representatives from the GEF and its Implementing Agencies also attended.

The full list of participants is as follows:

Capacity Development Initiative, 31 July - 1 August 2000, Conrad Hotel, Cairo

List of Participants

Name	Country
Faraja Narageza	Tanzania
Jean Claude Bomba	Central African Republic
Demlew Aweke	Ethiopia
Yaya N. Tamboura	Mali
Robert F. Lajoie	Seychelles
John Mugabe	Kenya
Christophe Gepin	USA
Zeinab Faughaly	Egypt
Asmerom Meugisteals	Eritrea
Shongwe Samuel	Swaziland
Masuku Bovege	Swaziland
Moustafa M. Jordin	Egypt
Bahsidahmed	
Amb. Michael Koech	Kenya
Reshtutu	Uganda
Estere Tsoika	Malawi
Benon B. Yassin	Malawi
Thomson Musonoa	Zambia
Mohamed Bacar Dossar	
Alfred A. Oteng-Yeboah	Ghana
Albert Katalco	Ghana
Jato Sillah	The Gambia
Edith Kateme-Kasajja	Uganda
Mohamed Moussa	Djibouti
Ogouchi Raphael James	Benin
Ratovoson Setti	Madagascar

Mohamed M. Maalim
 Amougou Emile Sebastian
 Maya
 Nubil Hamada
 Mohamed Ismail
 Kebba Bojang
 Grace Akumu
 Jane Malephaul
 Dirieh Abdi
 Dr. Esam Elbadry
 Kasulu Seya
 Nlenoi Pierre
 Doungoube Gustave
 Mr. Moses D. Munemo
 Mr. Ahmed A. Moshen
 Dr. Hespina Rukato
 Ms. Joalane Mphete
 M. Worou C. Theophile
 Raketevao Sole
 Ahdelillah Bensar
 Djiti Dakar
 Mme. Kone Alimata
 Krabow Jean Baptiste
 Mamadou Sangare
 M. Aliarenga
 John Hough
 Ismail A.R. El Gizouli
 Yassin Eisa Mohammed
 Ahadada Mohamed Said
 Fredrick Rugiga
 Castano Bizantino
 Victor Oyaua
 Alexandre Cabral
 Pedia Patrick
 Mebrahtu Iyassu

Kenya
 Cameroon
 Zimbabwe
 Tunisia
 Tunisia
 The Gambia
 Kenya
 Lesotho
 Djibouti
 Egypt
 DRC
 DRC
 Central African Republic
 Zimbabwe
 Egypt
 South Africa
 Lesotho
 Benin
 Madagascar
 Morocco
 Burkina Faso
 Cote D'Ivoire
 Burkina Faso
 Senegal
 Guinea Bissau
 USA
 Sudan
 Sudan
 Comoros
 Tanzania
 Guinea Ecq
 Guinea Ecq
 Kenya
 Cote D'Ivoire
 Eritrea

ASIA AND THE PACIFIC

A regional workshop was held in Beijing, China on July 27 and 28, 2000 as part of Phase I of the CDI (Assessment of Countries' Capacity Development Needs).

The workshop was the primary forum at which regional teams presented their draft assessment of capacity development needs of countries in the Asia and Pacific region for global environmental action. At the workshop countries were able to further discuss and provide inputs and information on their constraints and capacity needs. Following the workshop, regional teams revised the draft assessments in light of comments and views received from countries.

The target audience for the workshop was representatives from governments and NGOs. The workshop was attended by a total of 89 people. Participants included government representatives from 29 countries of the region (most countries sent two representatives) and three NGOs from the region. Representatives from the UNFCCC Secretariat and the GEF and its Implementing Agencies also attended.

The full list of participants is as follows:

Capacity Development Initiative: July 27-28, Beijing P. R. China

Name	Nationality
Kenneth King	Australian
John Hough	British
Abdel Majid Khabour	Jordanian
Abdul-Hakim Abdullah Rajeh Aulaiah	Yemeni
Abdul Sattar Murad	Afghan
Ahmed Mohammed Abdullah Al-Darwish	Yemeni
Aishath Faiz	Maldives
Asipeli Palaki	Tonga
Attaullah Khan Afridi	Pakistani
Baskaran Nair	Fiji citizen
Chuluunhuyag	Mongolia
Ernest Kalofia Kalalahetau Nemaia	Niuean
Goh Siok Eng	Malaysian
Hari Prasad Pandey	Nepali
Harihar Sigdel	Nepali
Harry Harsono Amir	Indonesia
Hoang Thi Thanh Nhan	Vietnam
Javad Aghazadeh	Iranian
Jeannic Katsigis	American
Jose Ramon Tizon Villarin	Filipino
Kalimullah Shirazi	Pakistan
Khaled Al-Shraa	Syrian
Khamis M. Al-Zidi	Oman
Khieu Muth	Cambodia
Khondoker Rashidul Huq	Bangladeshi
Kol Vathana	Cambodia
Maria Lourdes de Guzman Ferrer	Filipino
Marie-Antoinette Nirua	Ni-vanuatu
Mohammed A. Al-Muharrami	Oman

Name	Nationality
Mohamed Khaleel	Maldives
Mohammad Fawaz Msouti	Syrian
Mosharraf Hossain	Bangladeshi
Nadiah Mohammad Khalil Jouhari	Jordanian
Najmudin Bakhshudin	Afghan
Nguyen Dac Hy	Vietnam
Nirawan Pipitsombat	Thai
Patama Domrongphol	Thai
Peggy Fairbairn Dunlop	Western Samoa
Phetsingleuang Sathit	Lao
Raman Mehta	Indian
Reza Hossein Pour-T	Iranian
Ricardo Pronove	Philippines
Roger Kara	Papua New Guinea
S. Enkhtuya	Mongolia
Said Mustapha H. Jalala	Palestinian
Samuel Antiko	Papua New Guinea
Samuel Calleja Ferrer	Filipino
Saut Maruli Lubis	Indonesia
Sengchandala Syamphone	Lao
Shaker A. A. Khamdan	Bahraini
SHEKHAR SINGH	Indian
Sufian A. S. Sultan	Palestinian
U Aung Aung Lay	Myanmar
U San Lwin	Myanmar
Wilfredo Jarmin Obien	Filipino
Zakri A. Hamid	Malaysian
Dennis Fenton	UNDP Beijing
Eugenia Kagsigvis	UNDP Beijing
He Ping	UNDP Beijing
Jia Lasheng	UNDP Beijing
Yannick Glemarec	UNDP Beijing
Gao Pronove	UNFCCC
Richard Switzer	Global Village of Beijing
Shalini Pananatna	Global Village of Beijing
Chen Kelin	Chinese/ Wetland International
Faizal Parish	British/ Global Environment Center
Looi Chee Choong	Malaysian/ Global Environment Center
Xie Hong	Chinese
Gao Guangsheng	Chinese
Zhu Guangqing	Chinese
Sheri Liao	Chinese
Zhou Huang	Chinese
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EASTERN EUROPE AND CENTRAL ASIA

A regional workshop was held in Prague, Czech Republic on July 17 and 18, 2000 as part of Phase I of the CDI (Assessment of Countries' Capacity Development Needs).

The workshop was the primary forum at which regional teams presented their draft assessment of capacity development needs of countries in the Eastern Europe and Central Asian region for global environmental action. At the workshop countries were able to further discuss and provide inputs and information on their constraints and capacity needs. Following the workshop, regional teams revised the draft assessments in light of comments and views received from countries.

The target audience for the workshop was representatives from governments and NGOs. The workshop was attended by a total of 63 people. Participants included government representatives from 25 countries of the region (most countries sent two representatives) and a representative from the regional GEF-NGO network. Representatives from the UNFCCC Secretariat and the GEF and its Implementing Agencies also attended.

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LATIN AMERICA AND THE CARIBBEAN

A regional workshop was held in Rio de Janeiro, Brazil on July 31 and August 1, 2000 as part of Phase I of the CDI (Assessment of Countries' Capacity Development Needs).

The workshop was the primary forum at which regional teams presented their draft assessment of capacity development needs of countries in Latin America and Caribbean region for global environmental action. At the workshop countries were able to further discuss and provide inputs and information on their constraints and capacity needs. Following the workshop, regional teams revised the draft assessments in light of comments and views received from countries.

The target audience for the workshop was representatives from governments and NGOs. The workshop was attended by a total of 41 people. Participants included government representatives from 16 countries of the region (most countries sent two representatives) and 5 representatives from NGOs. Representatives from the GEF and its Implementing Agencies also attended.

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SMALL ISLAND DEVELOPING STATES

As part of the Second AOSIS (Alliance Of Small Island States) workshop on climate change negotiations, management and strategy, consultations were held on the capacity development needs for global environment action in the context of the UNDP-GEF CDI. The consultations were held in Apia, Samoa on July 28 and 29, 2000 as part of Phase I of the CDI (Assessment of Countries' Capacity Development Needs).

The workshop was the primary forum at which the regional team presented its draft assessment of capacity development needs of Small Island Developing States for global environmental action. At the workshop countries were able to further discuss and provide inputs and information on their constraints and capacity needs. Following the workshop, regional teams revised the draft assessments in light of comments and views received from countries.

The target audience for the workshop was representatives from governments and NGOs. The workshop was attended by a total of 110 people. Participants included government representatives from 33 small island developing states. Representatives from the UNFCCC Secretariat and the GEF's Implementing Agencies also attended.

The full list of participants is as follows:

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