

# Table of Contents

<b>List of Abbreviations</b> .....	13
<b>Executive Summary</b> .....	15
<b>Chapter 1. Putting Climate Change in the Development Mainstream: Introduction and Framework</b> .....	23
1. Introduction .....	24
2. Weather, climate variability and climate change .....	25
3. Climate change and development: key links .....	26
4. Responses to climate change and the “mainstreaming” challenge .....	30
5. Status of adaptation policy and mainstreaming efforts .....	32
6. Objectives and scope of this study .....	38
7. Framework of analysis .....	42
8. Outline of this volume .....	43
<b>Chapter 2. Climate Analysis</b> .....	45
1. Introduction .....	46
2. Baseline climate .....	48
3. Climate change projections .....	49
4. Towards prioritising adaptation responses .....	55
Annex 2.A1. General Circulation Model Abbreviations, Names and Citations .....	59
<b>Chapter 3. Analysis of Donor-supported Activities and National Plans</b> .....	61
1. Introduction .....	62
2. Analysis of development aid statistics .....	63
3. Analysis of development plans and projects .....	68
4. Concluding remarks .....	80
Notes .....	81
Annex 3.A1. DAC Purpose Codes in the Selection of Climate-Affected Projects .....	82

<b>Chapter 4. Climate Change and Natural Resource Management:</b>	
<b>Key Themes from Case Studies</b> .....	85
1. Introduction .....	86
2. Glacier retreat and glacial lake outburst flooding in the Nepal Himalayas. ....	86
3. Ice cap melt and forest fire risk on Mount Kilimanjaro.....	94
4. Climate change and Nile water availability in Egypt .....	100
5. Climate change and coastal mangroves in Bangladesh and Fiji. . .	106
6. Mainstreaming GHG mitigation in agriculture and forestry in Uruguay .....	116
7. Themes emerging from case studies .....	122
<b>Chapter 5. Bridging the Gap Between Climate Change and Development</b> .....	133
1. A summary assessment .....	134
2. The challenge of implementation.....	136
3. A time of opportunity .....	140
4. Five priorities for the road ahead .....	143
<b>References</b> .....	147
<b>List of boxes</b> .....	
1.1. Climate change sensitivity, adaptive capacity and vulnerability . . . .	27
1.2. Mitigation and adaptation .....	30
1.3. UNFCCC and Kyoto Protocol articles in support of adaptation .....	34
2.1. A brief description of MAGICC/SCENGEN .....	50
3.1. Key definitions and abbreviations .....	64
3.2. Development plans and projects examined.....	68
4.1. Tsho Rolpa Risk Reduction Project.....	93
4.2. Benefits and services of mangrove ecosystems.....	107
4.3. Forestry promotion policy based on Law No. 15939 .....	120
5.1. EU action plan on climate change in the context of development co-operation .....	141
5.2. Attention to climate-development links in the IPCC Fourth Assessment Report.....	142

## List of tables

1.1. Estimates of confidence in observed and projected changes in extreme weather and climate events . . . . .	26
1.2. Potential implications of climate change for Millennium Development Goals . . . . .	28
2.1. Priority ranking of climate change impacts for Nepal . . . . .	57
3.1. Overview of annual official flows to case study countries, 1998-2000 . . . . .	65
4.1. GLOFs recorded in Nepal . . . . .	89
4.2. Estimated economic value per hectare of preserved mangroves for Viti Levu, Fiji . . . . .	114
5.1. Location of UNFCCC national focal points within governments . . . . .	139

## List of figures

1.1. Climate change impacts on infrastructure maintenance costs . . . . .	29
1.2. International architecture for adaptation funding . . . . .	35
1.3. Levels of adaptation responses and links to other priorities . . . . .	39
1.4. Case study countries with focus areas for in-depth analysis . . . . .	41
1.5. Three-tier framework for analysis . . . . .	42
2.1. Representative time horizons (in years) for climate risk assessments . . . . .	46
2.2. Schematic of MAGICC/SCENGEN . . . . .	51
2.3. Projections for country-average temperature increase . . . . .	53
2.4. Projections for percentage change in country-averaged precipitation . . . . .	54
3.1. Official and private financial flows to developing countries . . . . .	63
3.2. Annual official flows and share of activities potentially affected by climate change . . . . .	67
4.1. Forest succession after continued fires . . . . .	97
4.2. Variation in Nile flows and in the level of Lake Victoria . . . . .	102
4.3. Multi-scale drivers affecting Nile water availability in Egypt . . . . .	104
4.4. Changes in soil carbon content due to land use change . . . . .	119
4.5. Evolution of commercial forest plantation area in Uruguay over 1975-2002 and projected “business-as-usual” plantation to 2010 . . . . .	121
<b>Colour insert</b> . . . . .	125-132
5.1. Uncertainty perception among producers, communicators and users of climate information . . . . .	138