



COMD5004

Climate Change Adaptation & Development

Term Two // 2020

Course Overview

Staff Contact Details

Convenors

Name	Email	Availability	Location	Phone
Zeenat Mahjabeen	, ,	appointment	Morven Brown, Casual Teacher's room (Rm # 167)	0470030001

School Contact Information

School of Social Sciences

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Morven Brown C20

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Course Details

Credit Points 6

Summary of the Course

Have you ever wondered how climate change affects the lives and livelihoods of the poorest people in developing countries? This course exposes you to key themes in the climate change adaptation and international development debate and enables you to critically understand the climate change and development issues affecting the capacity and well-being of local communities in Australia and developing countries. The course examines how local level responses to climate change are shaped by multi-level climate governance processes, exposes inequities in adaptation responses to climate change impacts, and explores how these adaptations can better respond to the needs of poor and disadvantaged communities

Course Learning Outcomes

- 1. Identify and explain the range of concepts, policies and practice of climate change adaptation in relation to development studies
- 2. Critically analyse climate change adaptation policy and practices in different contexts using case studies
- 3. Propose pathways and options for reducing community vulnerability and enhancing resilience
- 4. Undertake critical social science research and analysis, independently and in a team environment, and further develop research, interpersonal, communication and teamwork skills

Teaching Strategies

All aspects of this course follow a student-focused approach to teaching and learning. The learning outcomes of this course will be addressed through a balanced combination of different teaching activities. You will actively participate in seminars, in-class reading, discussion groups and online Moodle forums. Seminars are conceived of as an interactive learning activity where you can ask questions, clarify concepts and explore solutions to climate change problems.

Assessment

Assessment Tasks

Assessment task	Weight	Due Date	Student Learning Outcomes Assessed
Essay	30%	10/07/2019 11:59 PM	1,3,4
Presentation and Summary – Group (online)	20%	Not Applicable	2,3,4
Policy Analysis Report	50%	07/08/2019 11:59 PM	2,3,4

Assessment Details

Assessment 1: Essay

Start date: Not Applicable

Length: 800 words

Details:

Maximum length: 800 words (Including footnotes, but excluding references)

Presentation: Typewritten with line spacing of 1.5, 12 point font size and margins no less than 2 cm, consistent formatting and referencing style.

ESSAY THEME:

Provide a critical review of concepts related to vulnerability to climate change and equitable adaptation

What is your take on recent conceptual advances related to the interface between vulnerability to climate change and equitable adaptation to climate change, and what are the limitations and opportunities at the local level?

Please note that you will need to formulate a set of specific aims of the essay, followed by several sub-aims/questions within the above theme and guiding question. In developing an essay, for instance, you might like to employ one of the following strategies: a) involve the application of material from one or more seminars and discussion modules of the course in exploring a specific conceptual and practical aspect, or b) integrate materials from two or more seminars/discussions from the course to explore a

specific problem or issue.

The essay should demonstrate your understanding and application of concepts and principles learnt in this course. It should involve critical analysis and application of material and not simply be a regurgitation of material provided in the readings.

Additional details:

ESSAY THEME:

Provide a critical review of concepts related to vulnerability to climate change and equitable adaptation

The essay should demonstrate your understanding and application of concepts and principles learnt in this course. It should involve critical analysis and application of material and not simply be a regurgitation of the material provided in the readings. The readings in the course should be a starting point for further substantial research. This is an excellent opportunity for you to foster your own interests with substantial research into an appropriate topic area. Some theoretical/conceptual literature that you review in this assignment can also be used as a foundation for the next assignment – planning/policy report. The essay should be prepared as a critical literature review paper. It must be completely your own work. Ideas and material drawn from the work of others must be fully acknowledged.

Additional guidance on writing the essay will be offered through the Moodle.

Turnitin setting: This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Assessment 2: Presentation and Summary – Group (online)

Start date: Not Applicable

Details:

This assessment task has two elements:

- a) **Group presentation during the Intensive day** including PowerPoint slides and 200 words summary of the group presentation (15%)
 - Student group will work together and develop a presentation, summarising the key ideas, issues and questions based on their readings and discussion relevant to their particular theme

- All members must deliver the presentation. But the group can decide strategies e.g. how one member is going to present in relation to the other member, how they are going to respond to questions, and how they are going to organise group work, and engage the rest of the class during and after the presentation, posing questions to stimulate thinking and discussion.
- Marks are equally distributed to all members.
- PowerPoint slides and summary must be submitted to the Lecturer via email within two days of the presentation.
- b) Moodle positing and participation in class discussions (Mark 5%)
 - Active participation in Moodle posting and discussion in group presentations and also all aspects
 of the class face-to-face and online contributions to learning within the class. This will be
 assessed by the course coordinator on basis of active engagement with learning questions and
 contributions in class, responses to others, offering resources, submission of online learning
 activities etc.

Turnitin setting: This is not a Turnitin assignment

Assessment 3: Policy Analysis Report

Start date: Not Applicable

Length: 1500 words

Details:

Maximum length: 1,500 words (Including footnotes, but excluding bibliography)

Presentation: Typewritten with line spacing of 1.5, 12 point font size and margins no less than 2 cm, consistent formatting and referencing style. The case study provides you with the opportunity to investigate in some depth the case study region of your interest and a choice of any one of these themes: forest, agriculture, human health, food security, coastal settlements, and urbanisation.

Additional details:

You are advised to follow the following steps in planning your policy / planning analysis report:

1. choose a thematic focus (such as gender, or poverty) and a region (such as Bangladesh). This makes your topic something like this: Gender in climate adaptation policy and planning in

- Bangladesh: a critical analysis. You can frame your topic for your choice of region and theme in the similar way.
- 2. collect and analyse data and organise your report according to the following outline:
- Introduction say what you are going to say; define the objectives of your essay (~100 words).
 You formulate a set of aims/objectives and structure the report according to the ideas you will
 present. You may like to expand (not to repeat) the ideas and arguments presented in the
 Assignment 1.
- 2. **General context** of the region and the theme of your choice provide general contextual information, trends, issues related to the theme and regions and the nature of climate challenge (~300 words)
- 3. The policy and planning dynamics ('playing field') map out actors, policies, plans, including their histories, how formulated, key highlights of the plans/policies (~800 words). The use of relevant data tables, figures, maps and other evidence are helpful to develop and present the case in a more convincing manner.
- 4. Analysis of the links between policy frameworks / plans (including the playing field) on the adaptation practices (or in exacerbating vulnerability), including an analysis of challenges and opportunities created by the policy/plans for fair and equitable adaptation (~200 words).
- 5. **Conclusion** identify main points about how policy / planning have affected adaptation, and what lessons can be learnt from the case/theme (~100 words)
- 6. **Bibliography**
- 7. Endnotes

Assessments should be referenced in accordance with the *School of Social Sciences Referencing Guide*, available at https://socialsciences.arts.unsw.edu.au/students/resources/policies-guidelines/.

Turnitin setting: This assignment is submitted through Turnitin and students can see Turnitin similarity reports.

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Course Schedule

View class timetable

Timetable

Date	Туре	Content
Week 1: 1 June - 5 June	Seminar	3 June
		Course Introduction and framework for the course: Introducing a framework for COMD5004 in climate change adaptation Group formation, planning and scheduling of activities, communication etc.
Week 2: 8 June - 12	Seminar	10 June
June		Vulnerability and climate change adaptation
		We explore concepts and issues related to and vulnerabilities to climate change. what do we mean by vulnerability? What are the critical perspectives and major issues? Discussions are embedded within the seminar where student groups are expected to share their views drawing on readings
		Lecturer will discuss how group presentation (online) will be implemented with a topic and finalise the group membership
Week 3: 15 June - 19	Seminar	17 June:
June		Climate change adaptation and resilience
		Group 1: Bangladesh (online group presentation)
		Climate change adaptation in Bangladesh: Key issues, opportunities and achievements
		Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm of 19 June.
Week 4: 22 June - 26	Seminar	24 June

June		Climate justice and equity
		Group 2: The Pacific Region (online group presentation)
		Climate justice in the Pacific Region: Opportunities and risks for local accountability
		Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm 26 June.
Week 5: 29 June - 3 July	Seminar	1 July
		Community participation in climate change adaptation
		Group 3: The Philippines (online group presentation)
		Community-based climate change adaptation in the Philippines: who wins, who loses?
		Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm of 3 July.
Week 6: 6 July - 10 July	Online Activity	8 July:
		Reading and online activity week – Adaptation and Resilience
		After completing your reading allocated for this week, each student will write a 300 words summary and submit via cours'e moodle site by 8 July by 11.59pm. No submission or late submission will result in you being absent for this seminar.
		Essay due on 10 July, Friday by 11.59pm (submission online using turnitin)
Week 7: 13 July - 17 July	Seminar	15 July

		Adaptation planning and policy
		Group 4: Australia (online group presentation) Climate change adaptation planning in Australia: Issues and opportunity at the local government level
		Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm of 17 July.
Week 8: 20 July - 24 July	Seminar	22 July
		Climate change policies and urban poverty in South Asia
		Group 5: India
		Slums development in a changing climate of India: context, issues and way forward
		Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm of 24 July.
Week 9: 27 July - 31 July	Seminar	29 July
		Community□scale adaptation
		Group 6: Nepal
		Local Adaptation Plan of Action (LAPA) in Nepal: Limits and achievements of State institutions
		Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm of 31 July.
Week 10: 3 August - 7 August	Seminar	5 August
		Climate change and disasters
		Group 7: Indonesia
		Responses to climate change adaptation and disaster management in Indonesia: achievements,

challenges and lessons.
Group's Moodle task: submission of a 200 words summary on Moodle's discussion forum by 11.59pm of 7 August. CASE ANALYSIS REPORT: Due: 11.59pm Friday, 7 Aug (50%)

Resources

Prescribed Resources

Week 1 INTRODUCTION

Introductory readings:

Adger, W.N., (2006) Fairness in adaptation to climate change: The MIT Press.

Adger, W.N., Huq, S., Brown, K., Conway, D. & Hulme, M. (2003). Adaptation to climate change in the developing world. *Progress in Development Studies*, 3, 179-195.

Adger, W.N., S. Agrawala, M.M.Q. Mirza, C. Conde, K. O'Brien, J. Pulhin, R. Pulwarty, B. Smit and K. Takahashi (2007), Assessment of adaptation practices, options, constraints and capacity. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 717-743.

Barnett, J. & J Campbell (2010) Climate change and small island states: power, knowledge, and the South Pacific: Earthscan.

Barnett, Jon, and Saffron O'Neill (2010) "Maladaptation." Global Environmental Change 20 (2): 211–213.

Cannon, T. & Muller-Mahn, D (2010). Vulnerability, resilience and development discourses in context of climate change. *Natural Hazards*, 55, 621-635.

Giddens, A. (2009). The politics of climate change: Cambridge (Chapters 1, 7)

IPCC, 2007: Summary for Policymakers. In: Climate Change (2007) Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 7-22.

Paavola, J., Adger, W.N. & Huq, S., 2006. Multifaceted justice in adaptation to climate change. Fairness in adaptation to climate change, 263-277.

Rickards, L, and S M Howden (2012) Transformational Adaptation: Agriculture and Climate Change. *Crop and Pasture Science* 63 (3): 240.

Week 2 VULNERABILITY

Adger, W.N., 2006. Vulnerability. Global Environmental Change, 16, 268-281.

Brouwer, R., Akter, S., Brander, L. & Haque, E., 2007. Socioeconomic vulnerability and adaptation to environmental risk: a case study of climate change and flooding in Bangladesh. *Risk Analysis*, 27, 313-326.

Fawcett, D., Pearce, T., Ford, J. D., & Archer, L. (2017). Operationalizing longitudinal approaches to climate change vulnerability assessment. *Global Environmental Change*, *45*, 79-88.

Cutter, S.L., 1996. Vulnerability to environmental hazards. *Progress in Human Geography*, 20, 529539.

Ribot, Jesse C. (2010), Vulnerability does not just Fall from the Sky: Toward Multi-scale Pro-poor Climate Policy, || in Robin Mearns and Andrew Norton (eds.), Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World. Washington, DC: The World Bank.

Wisner, B., Blaikie, P., Cannon, T. & Davis, I., 2004. *At risk: natural hazards, people's vulnerability and disasters*: Psychology Press. (Chapter 1 & 2)

Abid, M., Schilling, J., Scheffran, J., & Zulfiqar, F. (2016). Climate change vulnerability, adaptation and risk perceptions at farm level in Punjab, Pakistan. *Science of the Total Environment*, *547*, 447-460.

Week 3 ADAPTATION AND RESILIENCE

Nelson, D. R. (2011). "Adaptation and resilience: responding to a changing climate." Wiley Interdisciplinary Reviews: Climate Change 2(1): 113-120.

Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change,* 16, 253-267.

Kates, R.W., Travis, W.R. & Wilbanks, T.J (2012) Transformational adaptation when incremental adaptations to climate change are insufficient. *Proceedings of the National Academy of Sciences*, 109, 7156-7161.

Woodruff, S. C., Meerow, S., Stults, M., & Wilkins, C. (2018). Adaptation to resilience planning: Alternative pathways to prepare for climate change. *Journal of Planning Education and Research*, 0739456X18801057.

Nelson, D. R., W. N. Adger and K. Brown (2007). "Adaptation to environmental change: contributions of a resilience framework." Annual review of Environment and Resources 32(1): 395.

Birkmann, Jörn, and Korinna Teichman (2010). Integrating Disaster Risk Reduction and Climate Change Adaptation: Key Challenges—Scales, Knowledge, and Norms." *Sustainability Science* 5 (2) 171–184.

Huq, S., Chow, J., Fenton, A., Stott, C., Taub, J., & Wright, H. (Eds.). (2019). *Confronting Climate Change in Bangladesh: Policy Strategies for Adaptation and Resilience* (Vol. 28). Springer.

Week 4 CLIMATE JUSTICE

Paavola, J. and W. N. Adger (2006). "Fair adaptation to climate change." Ecological Economics 56(4): 594-609.

Adger W Neil, Jouni Paavola, and Saleemul Huq. 2006. Toward Justice in Adaptation to Climate Change. In: Adger, W.N., Paavola, J., Huq, S. & Mace, M.J., 2006. Fairness in adaptation to climate change: The MIT Press (Chapter 1).

Thomas, D.S. & Twyman, C., (2005). Equity and justice in climate change adaptation amongst natural-resource-dependent societies. *Global Environmental Change*, 15, 115-124.

Okereke, C., & Coventry, P. (2016). Climate justice and the international regime: before, during, and after Paris. *Wiley Interdisciplinary Reviews: Climate Change*, 7(6), 834-851.

Klepp, S., & Herbeck, J. (2016). The politics of environmental migration and climate justice in the Pacific region. *Journal of Human Rights and the Environment*, 7(1), 54-73.

Sze, Julie, and Jonathan K London. 2008. "Environmental Justice at the Crossroads." Sociology Compass 2 (4): 1331–1354.

Eriksen, S. H. and K. O'BRIEN (2007), Vulnerability, poverty and the need for sustainable adaptation measures." Climate Policy 7(4): 337-352.

Ebi, K. L. (2009). "Facilitating climate justice through community-based adaptation in the health sector." Environmental Justice 2(4): 191-195.

Week 5 Community participation in adaptation to climate change

Arnstein, S. (1969), A ladder of citizen participation, Journal of American Institute of Planning, Vol.35, No.4, pp.216-224.

Samaddar, S., Ayaribilla, A. J., Oteng-Ababio, M., Dayour, F., & Yokomatsu, M. (2019). Stakeholders' Perceptions on Effective Community Participation in Climate Change Adaptation. In *Sustainable Solutions for Food Security* (pp. 355-379). Springer, Cham.

Mahjabeen, Z. and Shrestha, K. K. (2011), Civic science, community participation and planning for knowledge-based development: analysis of Sydney Metropolitan Strategy, International Journal of Knowledge-Based Development, Vol.2, No.4, pp.412-432.

Agrawal, A. and Gibson, C. (1999), Enchantment and Disenchantment: The Role of Community in Natural Resource Conservation, World Development, vol.27, no.4, pp. 629-649.

Shrestha, K. K. and McManus, P. (2008), The politics of community participation in natural resource management, lessons from community forestry in Nepal, Australian Forestry, Vol.71, No.2, pp.135-146.

Jamero, M. L., Onuki, M., Esteban, M., & Tan, N. (2018). Community-based adaptation in low-lying islands in the Philippines: challenges and lessons learned. *Regional Environmental Change*, *18*(8), 2249-2260.

Brett, E. (2003) 'Participation and accountability in development management,' Journal of Development Studies, Vol. 40, No. 2, 2003, pp. 1-29.

Cornwall, A. (2008) 'Unpacking 'Participation': models, meanings and practices', Community Development Journal, Vol., 43, pp. 269-283

Innes, J. and Booher, D. (2004), Reframing Public Participation: Strategies for the 21st Century, Planning Theory & Practice, vol. 5, no. 4, pp. 419–436.

Week 6 ADAPTATION AND RESILIENCE

Nelson, D. R. (2011). "Adaptation and resilience: responding to a changing climate." Wiley Interdisciplinary Reviews: Climate Change 2(1): 113-120.

Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change,* 16, 253-267.

Tambo, J. A. (2016). Adaptation and resilience to climate change and variability in north-east Ghana. *International Journal of Disaster Risk Reduction*, *17*, 85-94.

Comberti, C., Thornton, T. F., Korodimou, M., Shea, M., & Riamit, K. O. (2019). Adaptation and Resilience at the Margins: Addressing Indigenous Peoples' Marginalization at International Climate Negotiations. *Environment: Science and Policy for Sustainable Development*, *61*(2), 14-30.

Kates, R.W., Travis, W.R. & Wilbanks, T.J (2012) Transformational adaptation when incremental adaptations to climate change are insufficient. *Proceedings of the National Academy of Sciences*, 109, 7156-7161.

Nelson, D. R., W. N. Adger and K. Brown (2007). "Adaptation to environmental change: contributions of a resilience framework." Annual review of Environment and Resources 32(1): 395.

Birkmann, Jörn, and Korinna Teichman (2010). Integrating Disaster Risk Reduction and Climate Change Adaptation: Key Challenges—Scales, Knowledge, and Norms." *Sustainability Science* 5 (2) 171–184.

Week 7 Adaptation Planning and Policy

Fussel, H.-M. (2007). "Adaptation planning for climate change: concepts, assessment approaches, and key lessons." Sustainability Science **2**(2): 265-275.

Few, R., K. Brown and E. L. Tompkins (2007). "Public participation and climate change adaptation: avoiding the illusion of inclusion." Climate Policy **7**(1): 46-59.

Burton, I., Huq, S., Lim, B., Pilifosova, O. & Schipper, E.L. (2002). From impacts assessment to adaptation priorities: The shaping of adaptation policy. *Climate Policy*, 2, 145-159.

Schlosberg, D., Collins, L. B., & Niemeyer, S. (2017). Adaptation policy and community discourse: risk, vulnerability, and just transformation. *Environmental Politics*, *26*(3), 413-437.

Jacobs, B., Boronyak, L., & Mitchell, P. (2019). Application of Risk-Based, Adaptive Pathways to Climate Adaptation Planning for Public Conservation Areas in NSW, Australia. *Climate*, 7(4), 58.

Review of national climate change strategy documents, National Adaptation Plan of Action (NAPA), and other grey / published literature available in the internet.

Lim, Bo, Erika Spanger-Siegfried, Ian Burton, Elizabeth L Malone, and Saleemul Huq. 2009. "Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures. UNDP and Cambridge University Press

Urwin, K. and A. Jordan (2008). "Does public policy support or undermine climate change adaptation? Exploring policy interplay across different scales of governance." Global Environmental Change 18(1): 180-191.

Ingold, K. and F. Varone (2012). "Treating policy brokers seriously: Evidence from the climate policy." Journal of Public Administration Research and Theory 22(2): 319-346.

Metz, B. & Kok, M. (2008). Integrating development and climate policies. *Climate Policy*, 8, 99-102.

Oreskes, N. (2004). "Science and public policy: what's proof got to do with it?" Environmental Science & Policy 7(5): 369-383.

Week 8 Climate change and urban poverty

IPCC. (2007). Climate Change: Impact, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Chapters 3-6, & 8

Hardee, Karen, and Clive Mutunga. 2009. "Strengthening the Link Between Climate Change Adaptation and National Development Plans: Lessons From the Case of Population in National Adaptation Programmes of Action (NAPAs)." *Mitigation and Adaptation Strategies for Global Change* 15 (2): 113–126.

Saleemul Huq and Mizan R. Khan. 2006. Equity in National Adaptation Programs of Action (NAPAs): The Case of Bangladesh.

Yenneti, K., Tripathi, S., Wei, Y. D., Chen, W., & Joshi, G. (2016). The truly disadvantaged? Assessing social vulnerability to climate change in urban India. *Habitat International*, *56*, 124-135.

Ojha, H (2013). Counteracting hegemonic powers in policy process: critical action research in Nepal's forest governance. Critical Policy Studies.

Vogel, C., S. C. Moser, R. E. Kasperson and G. D. Dabelko (2007). "Linking vulnerability, adaptation, and resilience science to practice: Pathways, players, and partnerships." Global Environmental Change 17(3): 349-364.

[Students are advised to collect information from the internet – both grey and published - to explore urban poverty and climate change policy and planning solutions to the challenges of adaptation and equity in regions of their choice.]

Week 9 – Community-scale adaptation

Agrawal, A. & Perrin, N. (2009). Climate adaptation, local institutions and rural livelihoods. *Adapting to climate change: thresholds, values, governance*, 350-367.

Dodman, D. & Mitlin, D. (2013). Challenges for community-based adaptation: discovering the potential for transformation. *Journal of International Development*, 25 (5): 640-659

Khezri, A., Bennett, R., & Zevenbergen, J. (2018). Defining the Requirements of an Information System for Climate Change Adaptation in the Mountain Communities of Dolakha, Nepal. *Climate*, *6*(2), 47.

Gentle, P., Thwaites, R., Race, D., Alexander, K., & Maraseni, T. (2018). Household and community responses to impacts of climate change in the rural hills of Nepal. *Climatic change*, *147*(1-2), 267-282.

Paudel, Naya S, Dil B Khatri, Hemant Ojha, Rahul Karki, and Niru Gurung (2013) Integrating Climate Change Adaptation with Local Development: Exploring Institutional Options." Journal of Forest and Livelihood: 11 (1), p1-13

Satterthwaite, D. (2011). How can urban centers adapt to climate change with ineffective or unrepresentative local governments? *Wiley Interdisciplinary Reviews: Climate Change, 2*, 767-776.

Van Aalst, Maarten K, Terry Cannon, and Ian Burton. (2008). "Community Level Adaptation to Climate Change: the Potential Role of Participatory Community Risk Assessment." *Global Environmental Change* 18 (1): 165–179.

Week 10 Climate change & disasters

Ojha, H.R., Paudel, N.S., Banjade, M.R., Mcdougall, C. & Cameron, J. (2010), The deliberative scientist: integrating science and politics in forest resource governance in Nepal. In L. German, J.J. Ramisch & R. Verma (eds.) Beyond the Biophysical: Knowledge, Culture, and Politics in Agriculture and Natural Resource Management. Dordrecht, Hiedelberg, London and New York: Springer, 167-191.

Ojha, H and Andy Hall (2012) Confronting Challenges in Applying Adaptive Collaborative Approaches: Lessons from Practice, In: Ojha et al, Adaptive Collaborative Approaches to Natural Resource Governance

Shrestha, K. K., Ojha, H., Bhattarai, B. and Bajracharya, A. (2019), Disaster (in)justices in Nepal's earthquake recovery, International Journal of Disaster Risk Reduction.

Dwirahmadi, F., Rutherford, S., Phung, D., & Chu, C. (2019). Understanding the operational concept of a flood-resilient urban community in Jakarta, Indonesia, from the perspectives of disaster risk reduction, climate change adaptation and development agencies. *International journal of environmental research and public health*, *16*(20), 3993.

Nugraha, E., & Lassa, J. A. (2018). Towards endogenous disasters and climate adaptation policy making in Indonesia. *Disaster Prevention and Management: An International Journal*.

Aryal, K. R. (2014), International Journal of Disaster Risk Reduction, *International Journal of Disaster Risk Reduction*, vol. 9(C), pp. 137–146.

Heltberg, R. (2007), Helping South Asia cope better with natural disasters: The role of social protection. *Development Policy Review*, vol. 25, no. 6, pp. 681-698.

Recommended Resources

Additional readings:

Abramovitz, J., Banuri, T., Girot, P. O., Orlando, B., Schneider, N., Spanger-Siegfried, E., Switzer, J., Hammill, A. (2002), *Adapting to Climate Change: Natural Resource Management and Vulnerability Reduction*, Background Paper to the Task Force on Climate Change, Adaptation and Vulnerable Communities, World Conservation Union (IUCN), Worldwatch Institute International Institute for Sustainable Development (IISD), Stockholm Environment Institute/Boston.

Allen, P. A. and Hoffman, P. F., (2005), Extreme winds and waves in the aftermath of a Neoproterozoic glaciation, *Nature*, 433, pp.123 - 127.

Beatley, T. (1998), The vision of sustainable communities, in Burby, R. (ed.) *Cooperating with Nature: Confronting Natural Hazards with Landuse Planning for Sustainable Communities,* R.J. Joseph Henry Press Washington DC, pp.233–262.

Beatley, T. and Berke, P.R. (1997), *After the Hurricane: Linking Recovery to Sustainable Development in the Caribbean*, Johns Hopkins University Press, Baltimore.

Beatley, T. and Manning, K. (1997), *The Ecology of Place: Planning for Environment, Economy and Community,* Island Press, Washington DC.

Berke, P. R. (2002), Does Sustainable Development Offer a New Direction for Planning? Challenges for the Twenty-First Century, *Journal of Planning Literature*, 17(1), pp.21-36.

Blakely, E. J. (2004), Suburbs as sustainable communities: a paradigm for the future, *Australian Planner*, 40(4).

Bobertz, B. (1991), *Public Participation in Environmental Regulation*, The Environmental Law Institute, Washington, DC.

Burby, R. J. (ed.) (1998), Co-operating with Nature: confronting natural hazards with land-use planning for sustainable communities, Island Press, Washington, DC.

Burby, R. J. (1999), Unleashing the power of planning to create disaster-resistant communities, *Journal of the American Planning Association*, 65, pp.247–258.

Burby, R. J. (2001), Urban containment policy and exposure to natural hazards: is there a connection?' *Journal of Environment Planning and Management*, 44, pp.475–490.

Calthorpe, P. (1993) *The Next American Metropolis: Ecology, Community, and the American Dream*, Princeton Architectural Press, New York.

Cox, P. M., Betts, R. A., Jones, C. D., Spall, S.A. and Totterdell, I. J. (2000), Acceleration of global warming due to carbon-cycle feedbacks in a coupled climate model, *Nature*, 408, pp.184–187.

Crowley, T J. 2000. Causes of Climate Change Over the Past 1000 Years. *Science* 289 (5477): 270–277.

Dolan, A. H. and Walker, I. J. (2004), Understanding vulnerability of coastal communities to climate change related risks, *Journal of Coastal Research*, 39.

Dessler, A. & Parson, E.A., 2009. The science and politics of global climate change: A guide to the debate: Cambridge University Press.

Dobson, A. (1998). Justice and the Environment: Conceptions of Environmental Sustainability and Theories of Distributive Justice. Oxford: Oxford University Press.

Ensor, J. & Berger, R., 2009. Understanding climate change adaptation: lessons from community-based approaches: Practical Action Pub.

Ericksen, N. J., Berke, P. R., Crawford, J. L., and Dixon, J. E. (2004), *Plan-making for Sustainability: The New Zealand Experience*, Aldershot, Hants.

Garnaut, R. (2008), *The Garnaut Climate Change Review: Final Report*, Cambridge University Press, Cambridge, New York and Melbourne.

Geis, D. E. (1994a), *Envisioning a Disaster- Resistant Community*, Working paper presented at the Central United States Earthquake Consortium (CUSEC) Natural Hazards Research Symposium, Translating Research into Practice, 31 May, Louisville, Kentucky.

Geis, D. E. (1994*b*), Planning Disaster Resistant Communities: Lessons for Local Authorities, *Proceedings of the International Conference on Local Authorities Confronting Disasters,* International Union of Local Authorities, Tel Aviv.

Geis, D. E. (2000), By design: the disaster resistant and quality of life community, *Natural Hazards Review*, 1, pp.151–161.

Geis, D. E. (ed.) (1988), Architectural and Urban Design Lessons from the 1985 Mexico City

Earthquake, Report funded by the National Science Foundation, Washington, D.C.

Geis, D. E. and Arnold, C. (1987), Mexico City as seismic laboratory: a multinational team draws lessons from the 1985 tragedy, *Architecture*, 76(7), pp.75–77.

Global Environment Facility (GEF) (2003), Responding to Climate Change, Generating Community Benefits: A Review of Community Initiatives supported by the Global Environment Facility's, Small Grants Programme (SGP) 1992-2003, A summary of a review carried out by Ebrahimian E., Gitonga S. and Tayera C.

Godschalk, D.R. (2003), Urban hazard mitigation: creating resilient cities, *Natural Hazards Review*, 4(3), pp.136–143.

Grasso, M. (2007). A normative ethical framework in climate change. Climatic Change, 81, 223–246.

Gregory, J. M., Huybrecht, P. and Raper, S. C. (2004), Climatology: Threatened loss of the Greenland ice-sheet, *Nature*, 428, p.616-

Hennessy, K., Fitzharris, B., Bates, B.C., Harvey, N., Howden, M., Hughes, L., Salinger, J., Warrick, R., Becken, S., Chambers, L., Coleman, T., Dunn., M., Green, D., Henderson, R., Hobday. A., Hoegh-Guldberg, O., Kenny, G., King, D., Penny, G. and Woodruff, R. (2007): Chapter 11, Australia and New Zealand. In: Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Parry, M.L., Canziani, O.F., Palutikof, J.P., van der Linden, P.J. and Hanson, C.E. (Eds), Cambridge University Press, Cambridge, UK.

Hyde, R. A. (2000), Climate Responsive Design: A study of buildings in warm climates, E&FN Spon, UK.

IPCC Fourth Assessment Report (2007), *Climate Change 2007 Synthesis Report*, Intergovernmental Panel on Climate Change.

Kainan, A., Ehsan, A. and Chowdhury, H. (2006), *Final Report - Study on livelihood systems* assessment, vulnerable groups profiling and livelihood adaptation to climate hazard and long term climate change in drought prone areas of NW Bangladesh, Food and Agriculture Organization (FAO) of the United Nations and Department of Agricultural Extension, Bangladesh.

Kenny, M. and Meadowcroft, J. (eds.) (1999), *Planning Sustainability*, Routledge, London.

Layard, A., Davoudi, S. and Batty, S. (eds.) (2001), *Planning for a Sustainable Future*, Spon Press, London.

McHarg, I. (1969), *Design with Nature*. Doubleday, New York.

Meadows, D. H., Meadows, D.L. and Randers, J. (1992), Beyond the Limits, Chelsea Green, New York.

Newman, P. (2004), Sustainability and global cities, Australian Planner, 41(4), pp. 27-.

Peters, A. and MacDonald, H. (2004), Unlocking the Census with GIS, ESRI Press, Richmond, CA.

Pizarro, R. E., **Blakely**, E., **Dee** J.A (2006), Urban Planning and Policy Faces Climate Change, *Learning from Urban Disasters: Planning for Resilient Cities*, 32(4), pp.400-412.

Pound, Barry, Sieglinde Snapp, Cynthia McDougall, and Ann Braun (2004). Managing Natural Resoruces for Sustainable Livelhoods: Uniting Science and Participation "

Register, R. (1987), Ecocity Berkeley, North Atlantic, Berkeley.

Rignot, E. and Thomas, R.H. (2002), Mass balance of polar ice sheets, Science, 289, pp.1502–1506.

Sanderson, D. (2000), Cities, disasters and livelihoods, *Environment and Urbanization*, 12(2), pp.93–102.

Smit, B. & Wandel, J. (2006). Adaptation, adaptive capacity and vulnerability. *Global Environmental Change*, 16, 282-292.

Spirn, A. W. (1984), *The Granite Garden*, Basic Books, New York.

Stern (Hirsch) Review (2006), *Stern Review: The Economics of Climate Change*, http://www.hm-treasury.gov.uk/stern_review_report.htm (Accessed on 2nd April 2009).

Vale, L and Campanella, T. (eds.) (2005), *The Resilient City: How Modern Cities Recover from Disaster*, Oxford University Press, New York.

Vanderheiden, S. (2008), Atmospheric justice: A political theory of climate change: Oxford University Press.

Posner, E. A., & Weisbach, D. (2010). Climate change justice. Princeton University Press.

Some relevant journals include:

Global Environmental Change, Nature, Science, Nature climate Change, PNAS

Climatic Change, Nature Climate Change,

Climate policy, Environmental Science and Policy, Climate and Development

IDS Bulletin

Journal of Development Studies

Journal of International Development

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Mitigation and Adaptation Strategies for Global Change

Regional Environmental Change

Urban Climate, American Journal of Climate Change

World Development, Climate and Development

Development and Change, British Journal of Environment and Climate Change

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Course Evaluation and Development

Student feedback is gathered periodically using, among other means, UNSW's myExperience process. Informal feedback and class-generated feedback are important. A brief survey will be conducted around the middle of the semester to identity areas of student issues. Analysis of feedback will inform the reasonable adjustment of course content and delivery where possible. Student feedback is taken seriously, and continual improvements are made to the course based in part on such feedback. Changes to the course will be introduced to subsequent cohorts of students taking the course.

Submission of Assessment Tasks

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Generally, assessment tasks must be submitted electronically via either Turnitin or a Moodle assignment. In instances where this is not possible, it will be stated on your course's Moodle site with alternative submission details.

For information on how to submit assignments online via Moodle: https://student.unsw.edu.au/how-submit-assignment-moodle

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Plagiarism is using the words or ideas of others and presenting them as your own. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement.

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Collusion: working with others but passing off the work as a person's individual work. Collusion also includes providing your work to another student before the due date, or for the purpose of them plagiarising at any time, paying another person to perform an academic task, stealing or acquiring another person's academic work and copying it, offering to complete another person's work or seeking payment for completing academic work.

Inappropriate citation: Citing sources which have not been read, without acknowledging the "secondary" source from which knowledge of them has been obtained.

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- Paraphrasing, summarising, essay writing and time management
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- analyse topics, plan responses and organise research for academic writing and other assessment tasks
- effectively and efficiently find appropriate information sources and evaluate relevance to your needs
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- be aware of plagiarism, copyright, UNSW Student Code of Conduct and Acceptable Use of UNSW ICT Resources Policy
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Some of these areas will be familiar to you, others will be new. Gaining a solid understanding of all the related aspects of ELISE will help you make the most of your studies at UNSW. http://subjectguides.library.unsw.edu.au/elise/aboutelise

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For essential student information relating to:

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