

Sustainability and the Environment in Thailand

Semester in Chiang Mai: Society and Culture of Thailand and Southeast Asia

Short Name: Sustainability & Environment

Credits: 4

Contact hours: 55 total

Lecture Hours: 27

Directed Field Studies: 28 (56 hours at 2:1 ratio)

Course Description

This course explores environmental sustainability in Thailand, from forest conservation and water resources around Chiang Mai to coastal and marine ecosystems on the Gulf of Thailand, situating Thailand's environmental challenges within the broader tension between economic development and ecological resilience. The course is organized around four connected weeks: forests and water resources, sustainable agriculture and community-based conservation at Mae Taa, coastal and marine sustainability during a field study week in Hua Hin, and biodiversity, wildlife, climate change, and Thailand's renewable energy transition.

The course is built around sustained field engagement rather than classroom study alone, including a day at Doi Suthep-Pui National Park, three days in residence at the Mae Taa Organic Farming Community, a full week on the coast in Hua Hin, and a day with Patara Elephant Conservation. These field studies are the primary site of learning, with seminars providing the conceptual framework to interpret what students observe, through direct engagement with the farmers, conservationists, fishers, and policymakers managing these resources. The course builds on the comparative Southeast Asian foundation established earlier in the semester and precedes the Society, Culture, and the Arts block that follows.

The goal of this course is to give students a hands-on foundation for understanding environmental sustainability across contrasting Thai ecosystems, and to develop their capacity for field-based observation and research. Assessment includes field study notes, essays, an Independent Field Research Project carried out individually, and a final exam.

Course Objectives

The objectives for this course are to:

- Analyze the drivers of deforestation and Thailand's forest conservation policy, including community forestry and indigenous land rights.
- Examine Thailand's water resources and governance, including hydropower, irrigation, and transboundary Mekong River issues.
- Evaluate sustainable agriculture and community-based conservation models through direct engagement with the Mae Taa Organic Farming Community.
- Investigate coastal and marine sustainability, including mangrove ecosystem management, small-scale fisheries, coastal tourism, and coastal climate vulnerability, through a full field study week in Hua Hin.
- Assess Thailand's biodiversity conservation efforts and critically examine the ethics of wildlife tourism.
- Understand Thailand's vulnerability to climate change and its renewable energy transition, including national and ASEAN-level climate commitments.
- Engage directly with farmers, conservationists, policymakers, and coastal communities to understand real-world sustainability efforts.
- Critically reflect, through field-based research, on Thailand's successes and ongoing challenges in balancing economic development with environmental sustainability and resilience.

Methodology

The course will integrate course lectures and readings with group discussions and seminars. Experiential field studies — including a residential field study and a full field study week — will be a central component of the course, both formal and informal. Guest lecturers will be part of the course to share their experiences and perspectives with students. Keeping up with readings, materials presented in class, and assignments is critical for success during this course.

Grading and Assessment

Component	Details	Total
Engagement	Participation in and out of the classroom, being an active member of the course, and being fully present and engaged in the field, including during the Mae Taa and Hua Hin field studies.	15
Writing	Seminar Notes (10): Notes on in-class discussion, guest speakers, and key questions to follow up on in readings and essays. Field Study Notes (15): Observations from field studies, including a daily journal during the Hua Hin field study week. Note the date and topic of each entry. Essays (20): Two (2) essays during the course, due during the Hua Hin field study week (Week 11) and on the last day of the course. 4–5 pages handwritten in your field notebook, covering: • How this issue or topic links to the overall topic of the course. (1) • Why you are interested in this specific issue or topic. (1) • A description and analysis of the specific issue and why it is important. (5) • Reference at least 2 interviews and at least 2 observations during the course. (2) • Other questions that this issue raises for you to explore further. (1)	45
Independent Field Research Project (IFRP)	Each student will choose an issue related to the course to study. This should be a combination of research, observations, and analysis of a topic that the students are interested in. The emphasis is primarily on field observations drawing on field studies as well as independent observations. This is not a book report or literature review, but field research. Students must receive instructor approval for their chosen topic/issue. Proposal (5): The IFRP proposal is a written outline and a short presentation to the class explaining the question, how it is related to the course topic, how data will be gathered, and any potential challenges you may anticipate running into. 2 page typed as well as an in-class presentation. Progress update (5): An update during the course on what the students have discovered about their topic so far, what further questions this raises, any challenges and how they have been overcome, as well as further information they will be looking for during the second half of the field study. 2 page typed as well as an in-class presentation. Final Presentation (10): On the last day of the course each student will give a 5 minute presentation on their research. Focus on clarity, field observations, interviews/discussions with community members, and analytical depth. 5–10 slides in PDF format, as well as a 1 paragraph summary of your research findings. <i>Organization for final presentation:</i> • What did you study/research focus? How is this related to the course topic? (1) • How did you study this, including observations and interviews? (4) • What did you learn? Findings and analysis. (8) • Further questions this raises for you. (1) • Final slide of references / interviews. (1)	20
Final Exam	Comprehensive review of course topics with an emphasis on what was learned during the field portion of the course. 5 questions. Students may use their notes but not their readers or the internet during the exam.	20
Total		100

Course Topics and Schedule

WEEK 9 — INTRODUCTION TO SUSTAINABILITY, FOREST CONSERVATION, AND WATER RESOURCES

Monday

Introduction to Environmental Sustainability in Thailand (1:00–3:30 PM)

- What is sustainability? Definitions, frameworks, and global perspectives
- Overview of Thailand's ecosystems and biodiversity
- Major environmental challenges: climate change, deforestation, pollution, and resource depletion
- Thailand's sustainability policies and commitments: national and ASEAN-level initiatives

Readings:

- Marks, D. (2011). Climate Change and Thailand: Impact and Response. *Contemporary Southeast Asia*, 33(2), 229–258.
- Lebel, L., & Garden, P. (2008). Deliberation, negotiation and scale in the governance of water resources in the Mekong region. In *Adaptive and Integrated Water Management* (pp. 173–194). Springer.
- Forsyth, T. (2004). *Industrial pollution and social movements in Thailand*. Routledge.
- Takahashi, W., & Kato, K. (2001). Improving Environmental Governance in Asia. In *Regional/Subregional Environmental Cooperation in Asia* (pp. 65–79). IGES.

Tuesday

Deforestation and Forest Conservation in Thailand (1:00–3:30 PM)

- Drivers of deforestation: agriculture, logging, infrastructure, and tourism
- Impact of deforestation on biodiversity, climate, and local communities
- Government policies and forest conservation programs: national parks and protected areas
- Community forestry and indigenous land rights

Readings:

- Poffenberger, M. (1999). *Communities and forest management in Southeast Asia*. IUCN.
- Johnson, C., & Forsyth, T. (2002). In the eyes of the state: Negotiating a “rights-based approach” to forest conservation in Thailand. *World Development*, 30(9), 1591–1605.
- Phelps, J., Webb, E. L., & Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance? *Science*, 328(5976), 312–313.
- Rout, S. (2021). Sustainable community forestry: Insights from rural Thailand. *Current World Environment*, 16(3).

Wednesday

Water Resources and Management in Thailand (1:00–3:30 PM)

- Thailand's major water sources and hydrological challenges: the Mekong, Chao Phraya, reservoirs, groundwater
- Floods, droughts, and climate change
- Irrigation, hydropower, and water governance
- Water conflicts and transboundary management: Mekong River disputes and ASEAN cooperation

Readings:

- Lebel, L., Garden, P., & Imamura, M. (2005). The politics of scale, position, and place in the governance of water resources in the Mekong region. *Ecology and Society*, 10(2), 18.
- Sneddon, C., & Fox, C. (2006). Rethinking transboundary waters: A critical hydropolitics of the Mekong basin. *Political Geography*, 25(2), 181–202.
- Lebel, L., Manuta, J. B., & Garden, P. (2011). Institutional traps and vulnerability to changes in climate and flood regimes in Thailand. *Regional Environmental Change*, 11(1), 45–58.
- Pittock, J. (2021). Hydropower. In *Transitioning to a Prosperous, Resilient and Carbon-Free Economy* (pp. 125–138). Cambridge University Press.

Thursday

Field Study: Doi Suthep-Pui National Park

Friday

Free day

IFRP Proposal Due

WEEK 10 — SUSTAINABLE AGRICULTURE AND COMMUNITY-BASED CONSERVATION

Monday

Sustainable Agriculture Practices in Thailand (1:00–3:30 PM)

- Industrial agriculture vs. sustainable farming: environmental and economic trade-offs
- Organic farming, agroforestry, and permaculture
- Government policies and farmer-led initiatives
- The role of agribusiness, exports, and food security

Readings:

- Rigg, J. (2005). *Living with transition in Laos: Market integration in Southeast Asia* (Ch. 4). Routledge.
- Ganjanapan, A. (1998). The Politics of Conservation and the Complexity of Local Control of Forests in the Northern Thai Highlands. *Mountain Research and Development*, 18(1), 71–82.
- Rosset, P. M., & Altieri, M. A. (1997). Agroecology versus input substitution. *Society & Natural Resources*, 10(3), 283–295.
- Ma, W., & Rahut, D. B. (2024). Climate-smart agriculture: Adoption, impacts, and implications for sustainable development. *Mitigation and Adaptation Strategies for Global Change*, 29, 44.

Tuesday

Community-Based Conservation and Local Sustainability Initiatives (1:00–3:30 PM)

- Community-led conservation models: forests, fisheries, and water resources
- Indigenous knowledge and sustainability
- Challenges and opportunities: land rights, government partnerships, funding
- Case studies: successful community-led conservation projects in Thailand

Readings:

- Rout, S. (2018). Sustaining Southeast Asia's forests: Community, institution and forest governance in Thailand. *Millennial Asia*, 9(2), 140–161.
- Pretty, J., & Smith, D. (2004). Social capital in biodiversity conservation and management. *Conservation Biology*, 18(3), 631–638.
- On-prom, S. (2014). Community-based mangrove forest management in Thailand. In *Sustainable Living with Environmental Risks* (pp. 89–103). Springer.

IFRP Meeting: Proposal Presentation

Wednesday–Friday

Extended Field Study: Mae Taa Organic Farming Community (3-day residential)

WEEK 11 — COASTAL AND MARINE SUSTAINABILITY

Full week on the coast in Hua Hin. Seminars continue on-site alongside field visits.

Monday

Travel to Hua Hin

Seminar: Eco-Tourism and Sustainable Coastal Tourism in Thailand (1:00–3:30 PM)

- Mass tourism vs. eco-tourism: environmental costs of Thailand's coastal tourism industry
- Community-based tourism and the question of “greenwashing”

Readings:

- Kontogeorgopoulos, N. (2004). Ecotourism and mass tourism in Southern Thailand. *GeoJournal*, 61, 1–11.
- Muangasame, K., & McKercher, B. (2014). The challenge of implementing sustainable tourism policy: A 360-degree assessment of Thailand's “7 Greens” sustainable tourism policy. *Journal of Sustainable Tourism*, 23(4), 497–516.

Tuesday

Field Study: Sirindhorn International Environmental Park (Cha Am)

Wednesday

Field Study: Sirinart Rajini Mangrove Ecosystem Learning Center (Pak Nam Pran)

Seminar: Climate Change and Coastal Vulnerability (1:00–3:30 PM)

- Sea level rise and adaptation in coastal and low-lying communities
- Climate resilience in Thailand's coastal cities

Readings:

- Fuchs, R., Conran, M., & Louis, E. (2011). Climate change and Asia's coastal urban cities: Can they meet the challenge? *Environment and Urbanization Asia*, 2(1), 13–28.
- Alverson, K. (2012). Vulnerability, Impacts, and Adaptation to Sea Level Rise: Taking an Ecosystem-Based Approach. *Oceanography*, 25(3), 231–235.

Thursday

Field Study: Local Fishing Community Visit

Friday

Seminar: Marine Resource Management and Small-Scale Fisheries in Thailand (1:00–3:30 PM)

- [Topic outline and readings to be developed — no equivalent unit existed in the original 16-week syllabus]

Return to Chiang Mai

Essay #1 Due

IFRP Progress Update Due

Students maintain a daily field observation journal throughout the week.

WEEK 12 — BIODIVERSITY, WILDLIFE, CLIMATE CHANGE, AND LOOKING AHEAD

Monday

Biodiversity Conservation and Wildlife Protection in Thailand (1:00–3:30 PM)

- Thailand's biodiversity hotspots: national parks, wildlife corridors, marine reserves
- Threats to wildlife: deforestation, habitat loss, illegal wildlife trade
- Conservation policies and enforcement
- Ethical wildlife tourism: elephant sanctuaries, tiger tourism, ecotourism's role in conservation

Readings:

- Thitaram, C. (2019). Elephant Tourism in Thailand: A Review of Animal Welfare Practices and Needs. *Journal of Applied Animal Welfare Science*.
- Steinmetz, R., Chutipong, W., & Seuaturien, N. (2006). Collaborating to conserve large mammals in Southeast Asia. *Conservation Biology*, 20(5), 1391–1401.
- Nijman, V. (2010). An overview of international wildlife trade from Southeast Asia. *Biodiversity and Conservation*, 19(4), 1101–1114.

Tuesday

Field Study: Patara Elephant Conservation

Wednesday

Synthesis Seminar: Climate Change, Renewable Energy, and the Future of Sustainability in Thailand (1:00–3:30 PM)

- Thailand's vulnerability to climate change and its adaptation/mitigation strategies
- Thailand's renewable energy transition: solar, wind, hydropower, and biofuels
- Thailand's long-term sustainability goals: net-zero targets and carbon reduction strategies
- The role of youth activism, civil society, and ASEAN partnerships in shaping Thailand's environmental future

Readings:

- Chinvanno, S. (2010). Future climate projection for Thailand and surrounding countries. Southeast Asia START Regional Center Report.
- Sitdhiwej, C. (2016). Renewable Energy Law and Policy in Thailand. *Renewable Energy Law and Policy Review*, 7(2), 184–189.
- Aleluia, J., Tharakan, P., Chikkatur, A. P., Shrimali, G., & Chen, X. (2022). Accelerating a clean energy transition in Southeast Asia. *Renewable and Sustainable Energy Reviews*, 159, 112226.
- Kumar, R., & Shrestha, S. (2020). Thailand's commitment to carbon neutrality: Policies, progress, and barriers. *Journal of Climate Policy*, 20(3), 312–328.

Thursday

Final Exam and IFRP Final Presentations

Essay #2 Due (last day of course)

Friday

Free day

Course Policies

Attendance Policy

Students are expected to be on time and attend all classes. If you are ill or otherwise need to miss a class, please inform your instructor or teaching assistant.

Academic Integrity

Academic integrity is essential to a positive teaching and learning environment. All students enrolled in ISDSI courses are expected to complete coursework responsibilities with fairness and honesty. Failure to do so by seeking unfair advantage over others or misrepresenting someone else's work as your own can result in disciplinary action.

Extensions Policy

Students may request an extension for an assignment. The request must be communicated by email to the lead instructor and MSID coordinator, more than 1 day before the assignment is due. Extension requests on the due date, without a legitimate reason, will not be considered for review.

Late Submission Policy

A submission is labeled late when it has been submitted past the due date established in the course syllabus. This policy affects all assignments in the course. For each day late, 5% of the assignment's grade will be deducted. For 1–3 days late, the student will receive less feedback and comments than submissions on time. For 4+ days late, the student will not receive comments or feedback.

Scholastic Dishonesty

Scholastic dishonesty means plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; altering, forging, or misusing an academic record; or fabricating or falsifying data, research procedures, or data analysis. Within this course, a student responsible for scholastic dishonesty can be assigned a penalty up to and including an "F" or "N" for the course. If you have any questions regarding the expectations for a specific assignment or exam, ask. Do not use AI to write your assignments.

Grading Standards

Letter Grade	Score or Percentage	Description
A	93–100	Achievement that is outstanding relative to the level necessary to meet course requirements.
A-	90–92	Achievement that is significantly above the level necessary to meet course requirements.
B+	87–89	Achievement that is significantly above the level necessary to meet course requirements.
B	83–86	Achievement that is significantly above the level necessary to meet course requirements.
B-	80–82	Achievement that meets the course requirements in every respect.
C+	77–79	Achievement that meets the course requirements in every respect.
C	73–76	Achievement that meets the course requirements in every respect.
C-	70–72	Achievement that is worthy of credit even though it fails to meet fully the course requirements.
D+	67–69	Achievement that is worthy of credit even though it fails to meet fully the course requirements.
D	60–66	Achievement that is worthy of credit even though it fails to meet fully the course requirements.
F	0–59	Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an Incomplete.