Ecosystems Sustainability Education

Digitized

Delivered by OurLand Thailand

13 CLIMATE ACTION

15 LIFE ON LAND

11 SUSTAINABLE CITIES AND COMMUNITIES

Table of Contents

Education Strategy

1. Problems and Initiatives

Students will identify sustainability challenges and understand the current initiatives being undertaken by local and global actors.

2. Themes and Drivers

Students will be exposed to the key themes and drivers of human activity that impacts the planet in a positive and negative way.

3. Scenario Building

From the trends and drivers, students will forecast complex interactions in ecosystems and reflect on downstream impacts of their activities.

4. Strategic Problem Solving

Students will be asked to collaboratively design, evaluate, and refine solutions to sustainability challenges using a systems approach and win-win strategic thinking.

Our educational offerings seek to *bridge the gap between theoretical recognition and strategic action.* We are looking to work with educators to help facilitate collaborative discussion, reflection, planning, and action regarding some of the world's most pressing issues.

We bring hands-on, grounded experience in conservation and sustainability with the ability to integrate with various age ranges, skill levels, programs, and standards.

We have experience delivering premier experiential learning experiences to international schools and global educational programs from our conservation site in Thailand. Now we are offering digital excursions and collaborative programming online for these challenging times.

Vijo Varghese
Co-founder, OurLand

Dear Educator,

Thank you for considering OurLand for your digital learning experience. The purpose of our online education program is to engage students with environmental and sustainability challenges and build innovative solutions, all in collaboration with educators and institutions. We see OurLand as a microcosm of our natural spaces worldwide and seek to recreate a scaled sandbox of discovery, creativity, and community in the virtual space.

The core objective of OurLand is to increase land cover of wild spaces while promoting human wildlife coexistence. With drastic decreases in biodiversity due to human action, time is running out to solve these pressing issues. Young leaders need exposure to multifaceted and systems-wide drivers of environmental degradation. We seek to equip our students with the skills and mindset to forge a global ecosystem that is both functionally healthy as well as just.

Prior to 2019, our programming was delivered on-site at the OurLand Eco-village. OurLand facilitators and educators worked hand-in-hand to provide the most comprehensive understanding of a topic. We seek to integrate with the standards and objectives of the school with which we are working. We hope to continue this practice of co-teaching and curriculum integration in the online format.

I have faith that together we can create a greener, more compassionate world.

OurLand is a privately-owned and managed education center and wildlife reserve in Kanchanaburi Province in Thailand, adjacent to the Salakphra Wildlife Sanctuary. We work to blend a technologically advanced lifestyle with respect for the wild spaces that cradle biodiversity.

We foster this vision by:

- *Identifying at risk and strategically located lands, connecting with funding sources, and engaging with global stewards of wild spaces.*
- *Consulting and co-creating with local stakeholders in order to develop just and sustainable change in our shared environment*

Vision

Green, Wild, & Just

We envision a world where wild spaces are thriving, expanding, and cherished for the sustained benefit of people and wildlife.

Values

Sustainability

Conservation

Education

Mission

Protect & Connect

- To protect and reestablish wildlife corridors
- To develop and popularize sustainable techniques and systems for living in harmony with nature.

Packages and Programs

Our Virtual Course Offerings

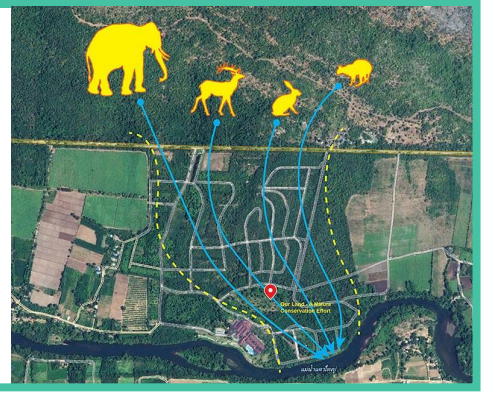
Overview

These 16 modules can be assembled to your liking:
a complete 16 week semester or divided into thematic mini-courses to meet your unique objectives.

#1 Biodiversity and Environment (4 hour)

The state of our planet & plants and animals

- ❑ Land-Use and Conversion
- ❑ Keystone Species
- ❑ Human-Elephant-Conflict
- ❑ Climate Change



#2 Conservation in Action (4 hour)

Exploring innovative initiatives & grappling with ethical challenges

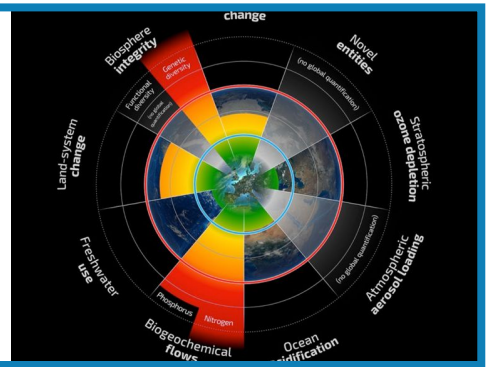
- ❑ Tree Nursery
- ❑ Elephant Sanctuary
- ❑ Critically Endangered Banteng Reintroduction
- ❑ Snake Rescue & Rehabilitation

- ❑ Building & Infrastructure
- ❑ Plastic & Recycling
- ❑ True Cost of Fashion
- ❑ Eco-minimalism

#3 Production and Consumption (4 hour)

Investigating our inputs & our needs

- ❑ Integrity of Earth's Life Support Systems
- ❑ Agricultural Systems
- ❑ Waste Management
- ❑ Energy, Carbon, & Renewables



#4 Sustainability Systems (4 hour)

A systems approach to building solutions

#1 Biodiversity and Environment (4 hour)

The state of our planet & plants and animals

Land-Use and Conversion	Goal: *Students will understand the shifting patterns of land use globally, while exploring the concept of environmental rights* Key Questions: What are key aspects of a healthy environment? How has the land surface changed in the modern era? What is land habitat fragmentation? What are key aspects of the anthropocene? Objectives: ● Students can identify micro and macro challenges that elephants face (dams, roads, firecrackers, economics) ● Students discuss and reflect on the concepts of property rights, environmental rights, and animal rights
Keystone Species	Goal: *Students will identify the critical role that keystone species play in maintaining ecosystem health* Key Questions: What key changes do elephants make on the environment? What do elephants provide to other flora and fauna in the environment? What roles do carnivores play in regulating ecosystems? Objectives: ● Students can identify other keystone species that regulate environmental health ● Students can describe the role that keystone species plays in the overall health of an ecosystem
Human-Elephant-Conflict	Goal: *Students will understand the challenges that elephants and humans face by living in close proximity* Key Questions: What challenges are elephants facing in Thailand? What challenges are the humans facing? What are strategies have been used to mitigate the issue? And what are the ramifications? Objectives: ● Students understand the challenges associated with human-wildlife-conflict ● Students can describe some of the solutions that may be useful and innovate in the space
Climate change	Goal: *Students will discover physical examples and international resources related to climate change* Key Questions: What would it take to stop climate change? What is your national and local plan for climate adaptation and mitigation? What regions and flora & fauna are most at risk? What international policy instruments are available? Objectives: ● Students understand the pressing need to help nature adapt to climate change ● Students are familiar with IPCC and can explore reports

#2 Conservation in Action (4 hour)

Exploring innovative initiatives & grappling with ethical challenges

Tree Nursery	Goal: *Students will understand the crucial role of tree nurseries in mitigating climate change* Key Questions: How can we integrate and manage a tree nursery for the purpose of reforestation? What are the native tree species from your region? Where will these native trees need to be in 50 years due to the impact of climate change? Objectives: ● Students will understand the importance of tree nurseries used for reforestation ● Students will learn to care for tree saplings until they are ready for replanting
Elephant Sanctuary	Goal: *Students will gain a well-rounded view of elephant sanctuaries and consider the future of captive elephants* Key Questions: How does an elephant sanctuary operate ethically? Should captive elephants have a future in tourism? Objectives: ● Students can identify and discuss issues (ethical, financial, etc) that elephant sanctuary operators face ● Students can determine techniques which can be integrated to improve the roles of Elephant sanctuaries in conservation
Critically Endangered Banteng Reintroduction	Goal: *Students will understand the importance of protecting species for overall ecosystem health* Key Questions: What are the pros and cons of endangered species reintroduction and ecosystem protection? What species have been reintroduced in your region and how successful has it been? Objectives: ● Students will gain an understanding of the process of rewilding and reintroduction ● Students will understand the importance of timely intervention in species loss within conservation
Snake Rescue and Rehabilitation	Goal: *Students will gain a level of respect and appreciation for all living things* Key Questions: What animals come into conflict with humans as a result of our collective and individual actions? How can humans and wildlife coexist safely? Objectives: ● Students will understand the important role snake rescue centers play in conservation ● Students will identify mitigation strategies to coexist with potentially dangerous wildlife ● Students will understand human-wildlife conflict through the context of snake rescue education

#3 Production and Consumption (4 hour)

Investigating our needs, our actions, and our impacts

Building & Infrastructure	*Goal: Students will understand the impact of human communities and the urgent need to build with sustainability in mind* Key Questions: How can existing buildings and infrastructure systems be improved? What are some innovations or technologies in eco-construction, urban transportation, etc? What is the connection between green space and mental health? Objectives: ● Students will become acquainted with resource minimizing, high efficiency options for building and infrastructure ● Students can evaluate urban transport in their own cities and determine improvement strategies
Plastic & Recycling	*Goal: Students will learn to consider the full spectrum of pros and cons related the use of plastics* Key Questions: How do we integrate plastics into a circular economy? What are some challenges related to recycling? Where do we still need plastics and where are they used frivolously? What are the pros and cons of plastic replacements? Objectives: ● Students will learn to evaluate the environmental impacts of plastic use ● Students will consider the social, environmental, and economic impacts of recycling
True Cost of Fashion	*Goal: Students will evaluate the environmental and social impact of the clothing industry* Key Questions: What are the impacts of organic vs. synthetic clothes? What are the practical and cultural barriers to people wearing used clothing? What do your clothes say about you? Objectives: ● Students consider the social, environmental, and even personal toll of fast fashion ● Students will make informed decisions about their personal use of fast fashion
Eco-Minimalism	*Goal: Students will question the necessity of consumption* Key Questions: What goes into our daily use items? What do you consider eco-friendly product and why? What is greenwashing? Is there a connection between materialism and mental health? What do you actually need to be happy? Objectives: ● Students will reflect on their consumption habits and identify why these habits are perpetuated ● Students create plan for reducing their personal impact while looking at ways to concurrently reduce supply

#4 Sustainability Systems (4 hour)

A systems approach for building solutions

Integrity of Earth's Life Support Systems	*Goal: Students will investigate the interconnected aspects of planetary boundaries and the idea of donut economics* Key Questions: What are the aspects of planetary boundaries? Where can we find scientific information global change? What is nitrogen and phosphorus cycling? Objectives: ● Students are familiar with IGES and APN ● Students understand the pathways towards sustainability for the various planetary boundaries
Agricultural Systems	*Goal: Students will critically examine the agricultural industry, its shortcomings, and ways forward* Key Questions: What are the largest agricultural products globally? What agricultural products are cash crops, used for livestock, or to feed humans? What are the supply chains for the food that you eat? Objectives: ● Students will gain a clear perspective about the agricultural industry and issues within it ● Students can analyze and discuss the many steps in the supply chain from farm to table
Waste Management	*Goal: Students will understand the upstream and downstream waste management systems* Key Questions: What is waste? Is it possible to live waste free? What can you do to decrease your waste? How can our waste management systems be improved? Objectives: ● Students will consider the full product life cycle of the things that they have or will throw away ● Students will develop innovative solutions for integrating circularity into waste management systems
Energy, Carbon, and Renewables	*Goal: Students understand from where energy is derived now and identify sources for the future* Key Questions: What energy sources produce the most carbon? Is it possible to run completely on renewables? How would smart grids change energy use passively? What are renewable energy sources and the challenges they face? Objectives: ● Students will analyze the full spectrum of impact related to renewable energy sources ● Students will be empowered to advocate for a secure, renewable, and ethical energy future

We Invite Customization

Catering to your classroom

We understand that every educator and institution is unique. We aim to meet your specific needs. If you would like to customize a program, we would be work with you to build a program that **fits with your curriculum.**

Here are a few of the standards we cover **>>>>**

MYP & IB

- **Biology**
  - Ecology
  - Evolution and Biodiversity
- **Environmental Systems and Societies**
  - Foundations of environmental systems and societies
  - Ecosystems and ecology
  - Biodiversity and conservation
  - Soil systems and terrestrial food production systems and societies
  - Climate change and energy production
  - Human systems and resource use
- **CAS - Community Action and Service**

Common Core & Next Gen Science

- **Biology**
  - Interdependent relationships in ecosystems
  - Human sustainability
  - Ecosystems: Interactions, Energy, and Dynamics
- **Life sciences**
- **Earth and Space Science**
- **Civics**
  - Citizenship and Civic Participation

MYP & IB Standards

Biology (Core)

- Ecology
  - Species, communities and ecosystems
  - Energy flow
  - Carbon cycling
  - Climate change
- Evolution and Biodiversity

Biology (Options)

- Ecology and conservation
  - Species and communities
  - Communities and ecosystems
  - Impacts of humans on ecosystems
  - Conservation of biodiversity

Biology (Additional) *higher level topics*

- Population ecology
- Nitrogen and phosphorus cycles

Environmental Systems and Societies

- Foundations of environmental systems and societies
  - Systems and Models
  - Sustainability
  - Humans and Pollution
- Ecosystems and ecology
  - Species and populations
  - Communities and ecosystems
  - Biomes, zonation and succession
  - Investigating ecosystems
- Biodiversity and conservation
  - An introduction to biodiversity
  - Origins of biodiversity
  - Threats to biodiversity
  - Conservation of biodiversity
- Soil systems and terrestrial food production systems and societies
  - Introduction to soil systems
  - Terrestrial food production systems and food choices
  - Soil degradation and conservation
- Climate change and energy production
  - Energy choices and security
  - Climate change—causes and impacts
  - Climate change—mitigation and adaptation
- Human systems and resource use
  - Human population dynamics
  - Resource use in society
  - Solid domestic waste

CAS (Community, Action and Service)

- Real, purposeful activities, with significant outcomes; personal challenge
- Thoughtful consideration, such as planning, reviewing progress, reporting
- Reflection on outcomes and personal learning.

Common Core Standards (& Next Gen Science)

Biology (cluster: interdependent relationships in ecosystems)

- HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity
- HS-LS4-6 Create and revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity
- HS-LS2-8 Evaluate the evidence for the role of group behavior on individual and species chances to survive and reproduce
- HS-LS2-6 Evaluate claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

Biology (cluster: human sustainability)

- HS-ESS3-1 Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity

Biology (cluster: Ecosystems: Interactions, Energy, and Dynamics)

- HS-LS2-3 Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.

Life Science (Cluster: Ecosystems: Interactions, Energy, and Dynamics)

- HS-LS2-7 Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

Earth and Space Sciences (Cluster: Earth and Human Activity)

- HS-ESS3-4 Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

Civics (cluster: Citizenship and Civic Participation in the United States)

- C – 6.3.2 Explain how informed members of society influence civic life.
- C – 6.4.3 Identify and describe a local, state, national, or international public policy issue; research and evaluate multiple solutions; analyze the consequences of each solution and propose, defend, and take relevant action to address or resolve the issue.

Testimonials

"Virtually learning with the OurLand team has been an incredible opportunity to learn sustainability topics and explore Thailand and support conservation efforts from afar. OurLand's team is both knowledgeable and hopeful, and their their enthusiasm inspires others. Thank you for creating a platform with constant support & guidance for students."

Yente Oosthuysen, Global Impact Internship Director
Global Leadership Adventures | Certified B Corp

"Doing my internship through OurLand has given me a new perspective on my priorities in life. Seeing normal people making a dramatic impact on the world taught me to never underestimate what any of us are capable of."

Timothy Sabau, Virtual Intern at OurLand
NexStep Connections | Advanced Experiential Learning

"Having taken multiple student groups (aged 10-16) on education trips with Vijo and his team at the Ourland Reserve during my time in Thailand, I was delighted to invite him to share his thoughts and experience as panellist at our recent online international education summit on Protecting Biodiversity. Vijo is an engaging and inspiring educator, able to capture and hold the attention of an online audience as well as he does in person. His knowledge and passion come across clearly, and he is easily able to engage and interact with students of all ages in a virtual format. I have always been impressed with the quality of educational experience offered by OurLand and am a strong believer in the education work that Vijo and his team deliver, so I am very excited to see what OurLand has instore for their online education sessions!"

Kirsty Shakespeare, Education for Sustainable Development (ESD) Director
Trust for Sustainable Living | Sustainability Education Charity

And hey! Don't forget...

When the world opens back up again, come by for a visit.

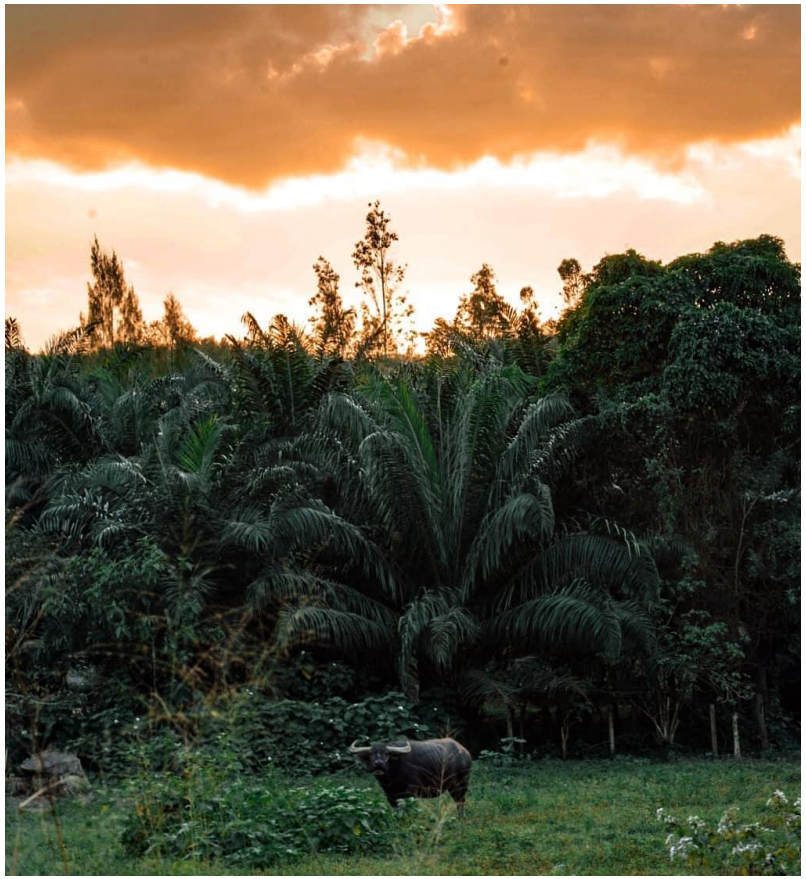
In the meantime, learn more about OurLand and our initiatives on our **website and social media!**

Website:
ourlandthailand.com

Facebook:
@ourlandthailand

Instagram:
@ourlandthailand

Youtube:
youtube.com/ourland

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