

YOUTH CLIMATHON

*INNOVATIVE SOLUTIONS FOR THE ACCELERATION OF CLIMATE ACTION
IN ASIA & THE PACIFIC*

Team Eco-Vision

EcoWork

One-stop Jobs, Certification & Upskilling Platform for EcoWorkers

Persona



Credits: Xinhua News Agency

“I aspire to enter the green energy industry but face challenges due to limited opportunities and the need for essential training. The closure of coal mines has left me uncertain about my future, and I'm eager to explore paths aligning with the increasing focus on renewable energy.” – Arifin, Coal Miner in Indonesia, 32 years old

Endangered Livelihood: A Case Study

Background:

- Name: Arifin
- Age: 32
- Occupation: Coal Miner
- Industry: Mining
- Education: Bachelor's in Engineering
- Experience: 8 years in current role

Challenges:

- Government regulations mandate the transition to renewable energy which results in the imminent closure of the coal mine.
- Arifin faces the challenge of finding a new job, yet his experience in coal mining makes it difficult to secure employment elsewhere in the industry, given that all coal mines will eventually be closed down.

Problem Statement



Job obsolescence due to the transition to renewable energy - estimated **83 million jobs lost by 2027** (2% of current employment) *WEF Future of Jobs Report 2023

Insufficient infrastructure & facilities in the training and creation of green jobs hinder the smooth transition to cleaner energy in South-East Asia & other developing nations

- Integration of new technologies require workers to acquire additional skills & knowledge
- Absence of standardised training and certification for green skills - essential to securing job opportunities within the green industry

Our Solution - EcoWork

South-East Asia's pioneering online platform catered to upskilling workers in industries vulnerable to job losses & helping them source for sustainable jobs

Becoming the UdeMy for EcoWorkers in Southeast Asia

- Provides personalised skills assessments & tangible Green Skills Certifications accredited by reputable organisations
- Career Navigation Resources with Jobs Matching algorithms - connecting companies with certified EcoWorkers
- Customised learning paths & interactive modules
- Community and networking resources - creating a supportive community of EcoWorkers, helping each other navigate their career transition
- Targets the general population of employable age (est ~20-55 years old)



EcoWorkers are individuals who, through upskilling, acquire green skills, enabling them to contribute effectively to the environmentally sustainable practices within the green industry.

Environmental Impact

Empowering Renewable Energy

EcoWorkers form the backbone HR support system for renewable energy organisations & green economy.

Resource efficiency

Educated and prepared EcoWorkers lead the way towards a less wasteful, resource-efficient and environmentally friendly way of living. **Immeasurable CO₂ Emissions saved.**

No polluting unrest & upheaval from the green transition

Fully trained and prepared EcoWorkers are ready to make a living in the new green economy.



Social Impact

18 million green jobs needing training/certification in USA alone (University of Pennsylvania, 2020)

6.3 million coal mining jobs potentially lost globally. These workers need upskilling and better sustainable jobs. (World Energy Employment Report, IEA, 2022)

2 percent of total working hours per year, equivalent to 80 million jobs may be lost each year owing to global warming and heat stress by 2030 (ILO, 2019)

2,400 billion USD may be lost globally if no actions are taken (SDG Action, 2022)

50% of the current global employees need to be reskilled (World Economic Forum, 2023)

44% of McKinsey's Global Survey respondents say their organizations will face skill gaps within the next five years (McKinsey, 2020)

EcoWork Training Curriculum: Green Skills for a Sustainable Future (Energy Sector)

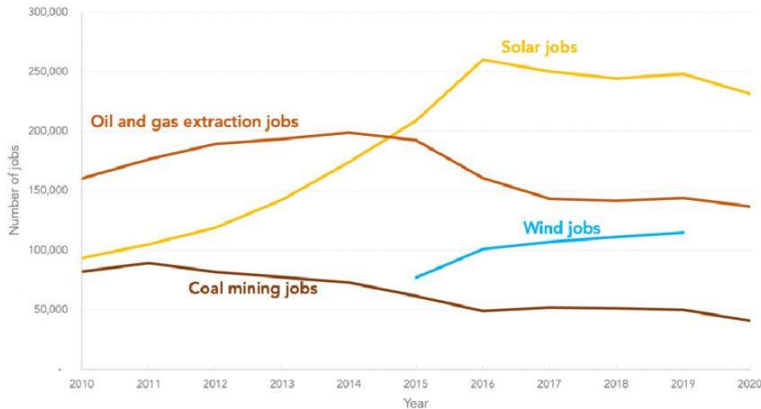
Module	Description
Module 1: Introduction to Clean Energy	<ul style="list-style-type: none"> Overview of the clean energy sector and its various components. Understanding the economic and environmental benefits of transitioning from coal.
Module 2: Renewable Energy Basics	<ul style="list-style-type: none"> In-depth exploration of solar, wind, hydropower, and other type of renewable technologies. Practical training in the operation and maintenance of renewable energy systems.
Module 3: Green Technologies in Mining	<ul style="list-style-type: none"> Adapting mining skills to the clean energy sector. Training on technologies used in sustainable mining practices.
Module 4: Safety in the Clean Energy Sector	<ul style="list-style-type: none"> Adapting safety protocols from coal mining to clean energy projects. Understanding the unique safety considerations in the renewable energy field.

Module 5: Environmental Impact Assessment	<ul style="list-style-type: none"> • Skills in assessing and mitigating environmental impact. • Understanding the principles of sustainable resource extraction in the context of clean energy.
Module 6: Transitioning to Energy Efficiency	<ul style="list-style-type: none"> • Acquiring skills in energy-efficient technologies. • Retrofitting and upgrading skills for a focus on energy efficiency.
Module 7: Soft Skills for the Clean Energy Workforce	<ul style="list-style-type: none"> • Developing effective communication and collaboration skills. • Building leadership and teamwork capabilities in the context of clean energy projects.
Module 9: Clean Energy Policy and Regulation	<ul style="list-style-type: none"> • Understanding clean energy policies and regulations. • Adapting to compliance requirements and ethical considerations in the clean energy sector.
Module 10: Job Search and Career Transition Strategies	<ul style="list-style-type: none"> • Crafting a resume highlighting transferable skills. • Interview preparation for transitioning to the clean energy workforce.

<h3>Capstone Project: Implementing Clean Energy Practices</h3>	<ul style="list-style-type: none"> ● Applying acquired skills to design and implement a clean energy project. ● Showcasing proficiency in a final capstone project.
<h3>Certification and Industry Integration</h3>	<ul style="list-style-type: none"> ● Receive a certification upon successful completion of the program. ● Integration into the clean energy industry through networking opportunities and connections with EcoWork's partnering organizations.

Wind and solar jobs help make up for losses in fossil fuel employment

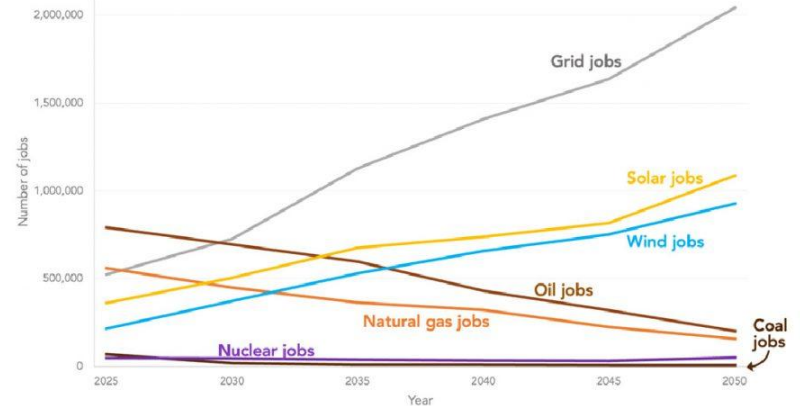
Sources: FRED Economic Data, National Solar Jobs Census 2020, E2 Clean Jobs America Reports, US Energy Employment Reports



Graphic by Karin Kirk for Yale Climate Connections

Transition to net zero will grow energy jobs dramatically

Source: Net Zero America study, E+ scenario



Graphic by Karin Kirk for Yale Climate Connections

Cost Considerations

Initial Investment (CAPEX):

Prototype Web Portal (programming): ~\$10,000 for Professionals + Pro-bono help from volunteer recruits & university students

Development of Each Training/Course: ~\$6,000 per course

Development of Each Certification Standard Program: ~\$12,000 per certification standard

Ongoing Costs (OPEX):

Staff Costs & Training & Hiring Costs: ~\$1,000 after taxes, per month per person.

Internet Service Provider: \$500 per month

Server Rental for Prototype Web Portal (hardware): ~\$500 per month that is adequate for ~100,000 simultaneous real-time users

Work Upkeep: ~\$1000-\$2000 per year for stationery and other work supplies

Tangible ROI

- Orderly & Just Transition towards building sustainable green economy and future.
- Online learning and globally accepted educational trainings/standards lead to wider pool of ready EcoWorkers in the emerging green economy.
- Long-term benefits of having fully trained and prepared EcoWorkers that are ready to make a living in the new green economy.
- Fully educated and prepared EcoWorkers lead the way towards a less wasteful, resource-efficient and environmentally friendly way of living.

Implementation Plan

Forming support EcoSystem:

- Finding Partners to Jointly Develop/Test online "EcoWork" platform (Phase 1).
- Networking and participating in regional green economy competitions.
- Courtesy calls with relevant organisations like the UN, UNESCAP
- Sending proposals to Green Economy Companies.

1st Milestone: EcoWork platform goes Live After 1 Year of Focus Group Beta Trials (Phase 2)

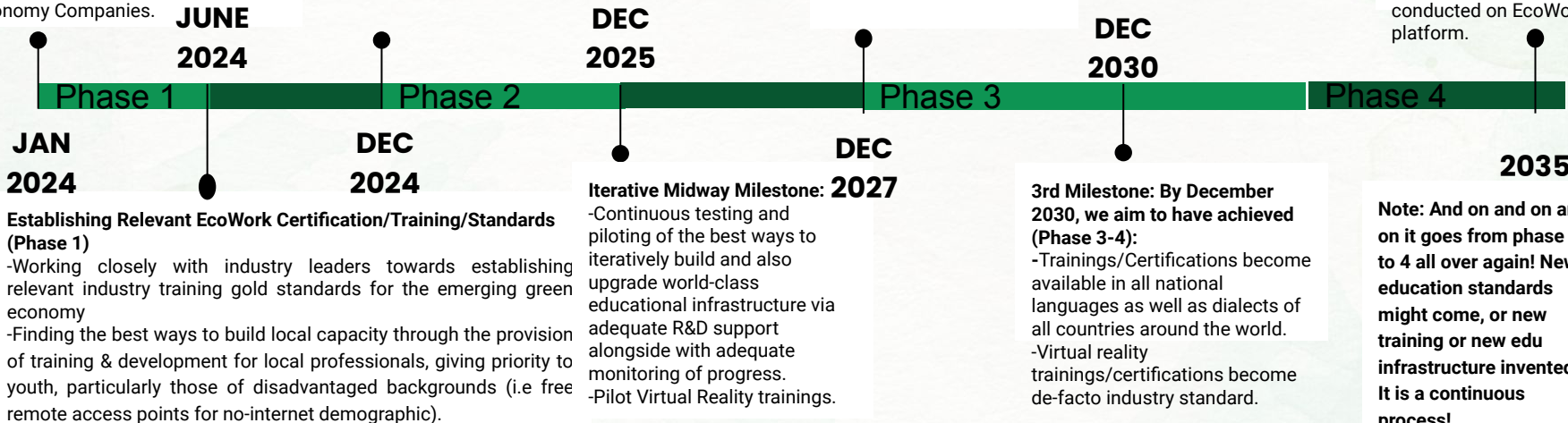
- Priority target market is in Southeast Asia.
- Trainings/Certifications become available in English and ASEAN languages.
- Trainings/Certifications will also become available in all major dialects within the ASEAN countries.

2nd Milestone: In 3 years, EcoWork platform expands globally (Phase 3):

- Trainings/Certification become available in all national languages of all countries around the world.
- Virtual reality trainings go live globally.

4th Milestone: In 10 years, EcoWork becomes the Global de-facto gold standard training/certification platform

- Worldwide value, acceptance and recognition of trainings/certification conducted on EcoWork platform.



Partnerships

“We are all in this together!”

Civil Society Stakeholders

- UN organizations, i.e. UNESCAP, UNESCO
- Communities in rural areas with potential for renewable energy development projects
- Civil Society Organisations, Academia & Educational Institutions
- Youth all over the world
- International Trade Organisations
- Environmental NGOs & Advocacy Groups

Private Sector & Financial Institutions

- Businesses & Private Enterprises
- Electric Grid Operators & Energy Companies
- Renewable Energy Companies (Domestic & Foreign)
- Investors & Financial Institutions (Domestic & Foreign)
- Multilateral Development Banks (World Bank & Asia Development Bank)

Government & Regulatory Institutions

- Government of Country (Legislative & Executive Branches; Regulatory Agencies)
- Ad-Hoc Committee on Accelerating Energy Transition
- Government Ministries (Finance, Climate Change, State-owned Enterprises & Investment)
- State, Regional & Local Governments

- Through provision of grant funding, intellectual resources & support in marketing

Business Model Canvas

<p>Key Partners</p> <ul style="list-style-type: none"> ● Governments ● NGOs ● Green Economy Companies 	<p>Key Activities</p> <ul style="list-style-type: none"> ● Creation & management of jobs platform (launching new features & functionalities) 	<p>Key Resources</p> <ul style="list-style-type: none"> ● Seed Funding ● Human Capital
<p>Value Proposition</p> <ul style="list-style-type: none"> ● Tangible & relevant skills ● Widely-recognised certifications 	<p>Customer Segments</p> <ul style="list-style-type: none"> ● Vulnerable communities ● Workers in jobs projected to face obsolescence 	<p>Revenue Streams</p> <ul style="list-style-type: none"> ● Grant funding opportunities & sponsorships will be prioritised in the 1st Phase to kickstart ● Advertisements & potential partnerships (revenue share) for the platform
<p>Marketing & Outreach Channels</p> <ul style="list-style-type: none"> ● EcoWork Platform ● Public engagement: social media, referrals 	<p>Key Considerations</p> <ul style="list-style-type: none"> ● Keeping track of the business model's financial sustainability while maximizing environmental and social impact will be emphasised throughout all the developmental cycles. 	

Team Members



Alland Dharmawan

Role: Team Leader

Education: Marketing Management, International Relations & Cooperation

Experiences:

- Special Staff in Economics & Energy, Presidential Advisory Council of Indonesia
- PA to the Ambassador, Indonesian Embassy in the Republic of Korea



Dylan Pon

Role: Finance & Operations

Education:

Business Administration & Mgmt

Experiences:

- Tech & HR Tech Startups
- Finance, Marketing & Ops
- ASEAN-Korea Youth Ambassador



Yuneng Khong

Role: Head of R&D

Education:

Chemistry

Experiences:

- Scientific Officer, Department of Scientific Services, Ministry of Health
- Sultan's Scholar

Questions?

Feel free to ask us about EcoWork!

Question!

How would underprivileged workers in rural areas access EcoWork?

- Reaching them through Local Training Centres & Mobile-Learning Units
- Provision of offline learning materials covering essential content in the curriculum
- Over time, learning materials will be more inclusive with local languages
- Community outreach through in-person Workshops & Certifications
- Using a “train-the-trainer” model, where we guide members of the community to become instructors for other locals

Question!

What if seed funding is not granted? How would EcoWork be able to operate in such a situation?

- Bootstrapping our initial operations; reaching out to youth organizations and universities for support in manpower and planning operations.
- Collaborating with international organizations and NGOs, including UN organizations.
- Approaching companies for support through their CSR initiatives.
- Exploring opportunities for government grants and subsidies.
- Collaborating with educational institutions by partnering with local schools, universities, training centers, and research institutes to utilize their training facilities.
- Reaching out to clean energy professionals who would be willing to volunteer as trainers.

Question!

How can we ensure that the workers stick to the training program and complete it?

GAMIFICATION	
Online Training	Offline Training
Progress Tracking	Progress Maps
Interactive Learning Module	Interactive Workshops
Leaderboards	Leaderboards
Rewards and Incentives	Point & Rewards System
Real-World Simulations	Team Competitions

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