

From Seawater Samples to Climate Policy

Growing Up with Green Growth and AI

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Part 1: Following the Question

Where It All Started

My career started with my hands — breaking rocks, collecting soil, gathering sediment from research vessels at sea. Then back to the lab to run experiments and analyze the results.

- **Research Vessel : East Sea & South Sea — marine sediment & seawater sampling**
- **Field Surveys : Mountains & riverbeds — rock crushing, soil & sediment collection**
- **The Ultimate Question:**

"Is the Data I'm Collecting, the research I'm doing actually being used to solve environmental problems? Does it ever leave the lab?"



Fig. 1. Field Operations: Marine sediment sampling and geological core analysis at various survey sites.

The Value Chain of Impact

Following that one thought — one step at a time.



Raw Data

Marine Lab: Collecting samples & analyzing data.



GHG Tools

NIGT: Developing GHG reduction tools for domestic researchers and policymakers



Global Policy

UNESCO IOC : Supporting global meetings & COP30 policy



Capital

World Bank KGGTF : Watching grants turn into real projects



Local Action

DCNC : Researching local policies & supporting citizens



The Gap I Kept Noticing

The research was there. The frameworks were there. What I couldn't see was how money actually moves — how any of this becomes a real project that changes something on the ground.

Part 2: Being the AI Generation

The Individual Force Multiplier

Work that previously required an entire team is now concentrated into a single user. Staying curious about every tool is the new core skill.

GIS Mapping	Data Visualization
Keyword Analysis	Academic Posters
Promo Videos	Webpage Design

Tools:

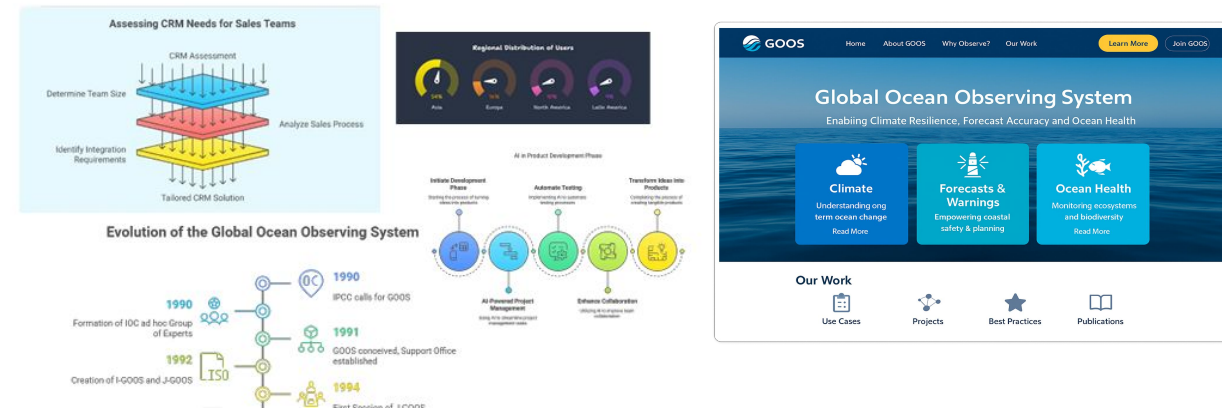
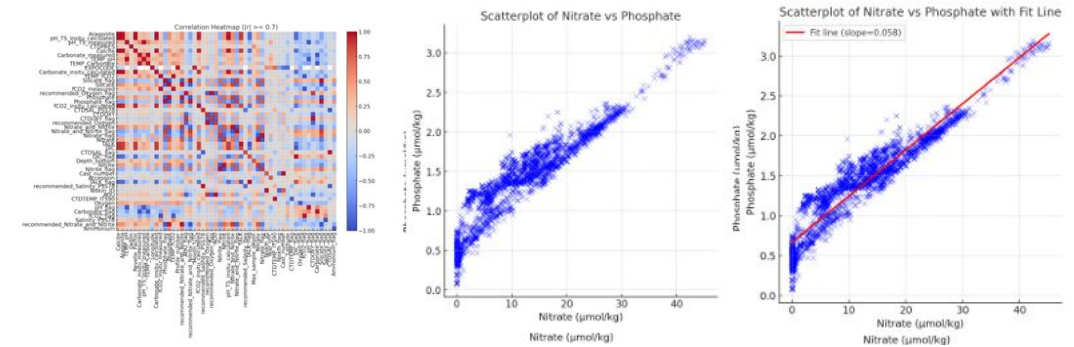


Fig. 2. Data Visualization: Automated data processing and correlation analysis utilizing AI tools.

A Disjointed Generational Baseline

The Refuser

Refuses to even log into the system.

The Trivial User

Limits use to surface queries ("Is it rainy?").

The Anxious Adapter

Takes classes purely out of fear of being left behind.

The Over-Reliant

100% AI reports — citing ChatGPT for rocks that don't exist.



We're the generation that benefits from AI, and the generation that has to keep up or get left behind.



Working Smarter with AI

Mini-workshop for Workplace Productivity

Jihye Kang

Perplexity: A Tool for Academic Sourcing and Identifying the Latest Research Trends

Background Research
Data Analysis & Visualization
Report Writing
Reference Management
Presentation Creation

Effective Prompting Strategies for Perplexity

Basic Structure: 5W1H + Source Specification

= [Who,Where] + [When] + [What] + [Why/Purpose] + [How/Format] + [Source Limitation]

If you want to find some official statement, you can write the prompt:
 "Search for official statements from [institutions] regarding [topic], published after [event/date], specifically comparing [analysis criteria] and [comparison elements]"

If you want to identify gaps and partnership opportunities where we can enter or collaborate for strategic positioning, you can use the prompt:
 "Search for ocean observation initiatives mentioned in COP29 documents, excluding IOC contributions, published between 2023-2024, specifically identifying gaps and partnership opportunities for UNESCO IOC positioning"

<https://www.perplexity.ai/>

Fig. 3. AI Workshop at UNESCO IOC : A mini-workshop titled "Working Smarter with AI," introducing academic sourcing tools and structured prompting techniques.

Part 3: Korea's Lessons, Our Future

The question I started with — I still don't have a full answer.

Green Growth

- **The Theory:** International agreements and robust research frameworks exist.
- **The Reality:** Regulations often feel too complicated and distant for regular citizens.
- **The Gap:** Green growth remains an abstract concept rather than a daily practice.

Artificial Intelligence

- **The Theory:** High productivity and indispensable efficiency in modern workflows.
- **The Reality:** Flooding the internet with low-quality content and "hallucinations."
- **The Gap:** Energy-intensive data centers put immense pressure on the very climate we seek to protect.

THE GENERATIONAL MANDATE

**"Is what I'm doing actually useful
for the environment, and for people?"**

Keeping that question alive — that's the most important thing
all of us, our whole generation, need to keep asking.