

Nippon Koei's Activities Related to Water Environment Improvement and Climate Change Mitigation

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DEGUCHI Yosuke (Nippon Koei/Philkoei International)

日本工営株式会社

NIPPON KOEI

Nippon Koei is Japan's No.1 International Engineering Consultants

- Over 75 years in business
- Operations in 160 countries
- Energy Generation, Transportation, [Water Resources](#), [Water Supply and Sewerage](#), [Environment](#), Disaster, Agriculture, Urban Planning, Architecture, Social & Economic etc.
- The first project in the Philippines was Cagayan Valley Development-Magat Multipurpose Dam Project in 1966
- Around 30 on-going projects in the Philippines



[Philkoei International, Inc. \(PKII\)](#) is Nippon Koei's Subsidiary Company in the Philippines

- Established in 1989
- Approx. 250 staffs
- Engineering Consulting Business
- [Two Japanese engineers including water supply and sewerage expert are stationing in Manila](#)

We provide the following consultant services:

- **Technical Consulting:** Providing expertise in fields such as, civil engineering, environment, energy, and water supply and sewerage
- **Project Planning and Design:** conduct technical survey (MP and FS), estimate necessary budget and resource
- **Project Management:** managing schedules, budgets, and quality during the implementation phase of projects

Water Resources, Water Supply and Sewerage

- Integrated Water Resources Management
- Flood Control and Management
- Urban Drainage
- Water Supply
- Desalination for Water Supply
- Sewerage

■ WTP and WWTP owned by private company

Reduction of O&M cost, Assessment of Water Resource, Improvement of the existing system.

Environmental Management & Disaster Management

- Environmental Management
- Environmental & Social Impact Assessment
- Climate Change Consulting ([Mitigation](#) & Adaptation)
- Forest Management
- Nature Conservation
- Solid Waste Management
- Disaster Management
- Earthquake & Tsunami Disaster Response & Preparedness
- Landslide Disaster Management

Such as
"Blue Carbon"

Today's Topic!

Recent Water Related Projects in the Philippines

(National Level)
Survey for national water resources
development and management plan (JICA)

New Clark City Development
(JICA, B/D)

FS on Parañaque Spillway
Construction Project (JICA, F/S)

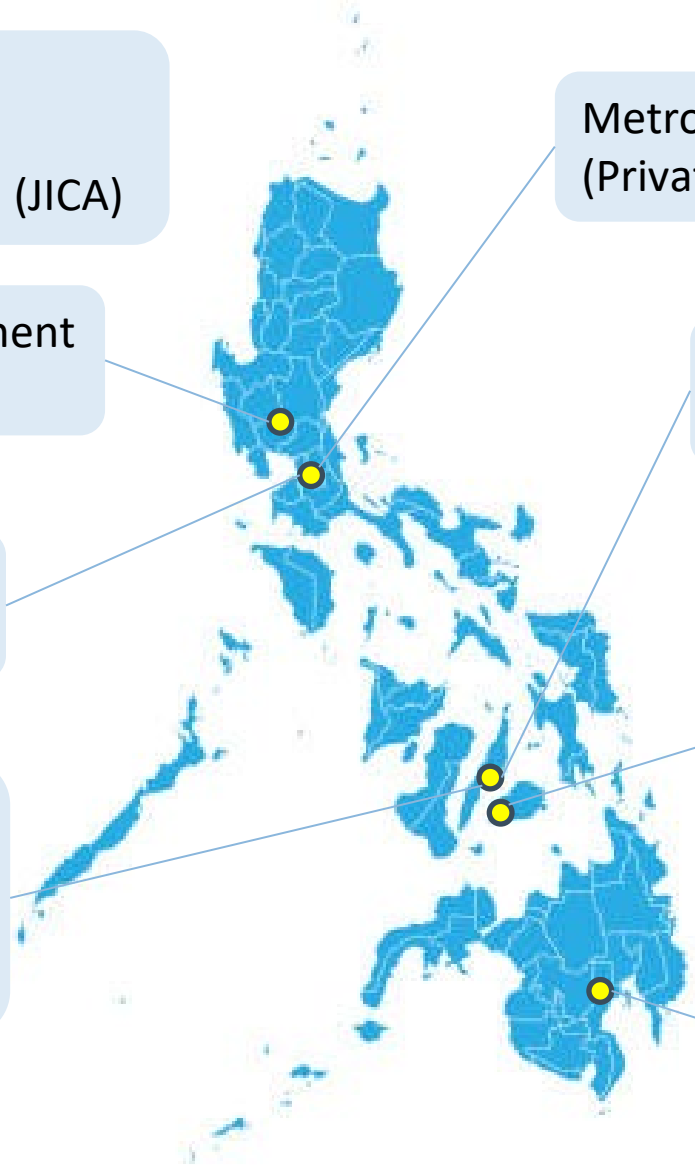
Master Plan Study for
Comprehensive Sewerage
Management in Metro Cebu
(JICA, M/P)

Metro Manila Subway Project
(Private, D/D)

Advisory service for water
resource management (Private)

Data collection survey on the
development of sewerage
system for Panglao island and
Tagbilaran city in Bohol
province (JICA)

Master Plan Study for Comprehensive
Wastewater Management in Davao City
(JICA, M/P)



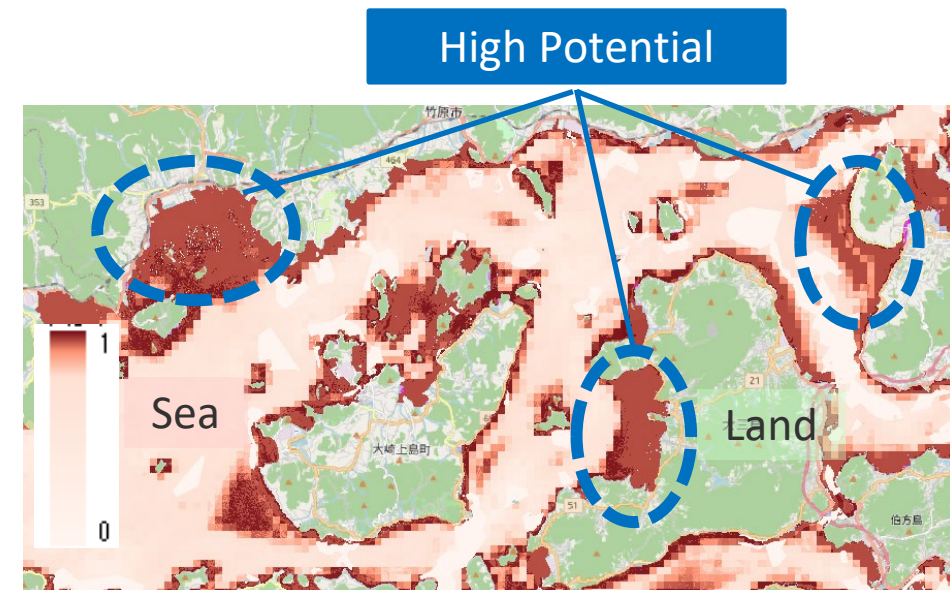
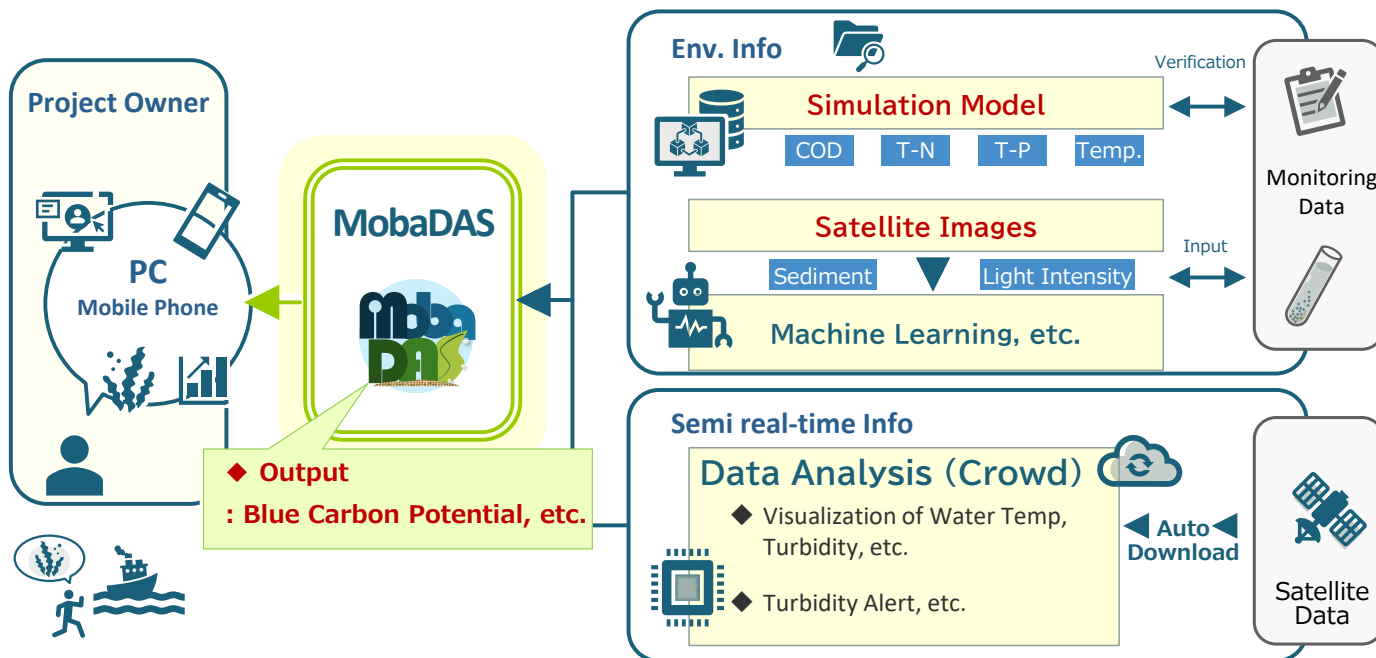
M/P: Master Plan, F/S Feasibility Study
B/D: Basic Design, D/D: Detailed Design

<Blue Carbon> Potential Assessment Tool: “MobaDAS”

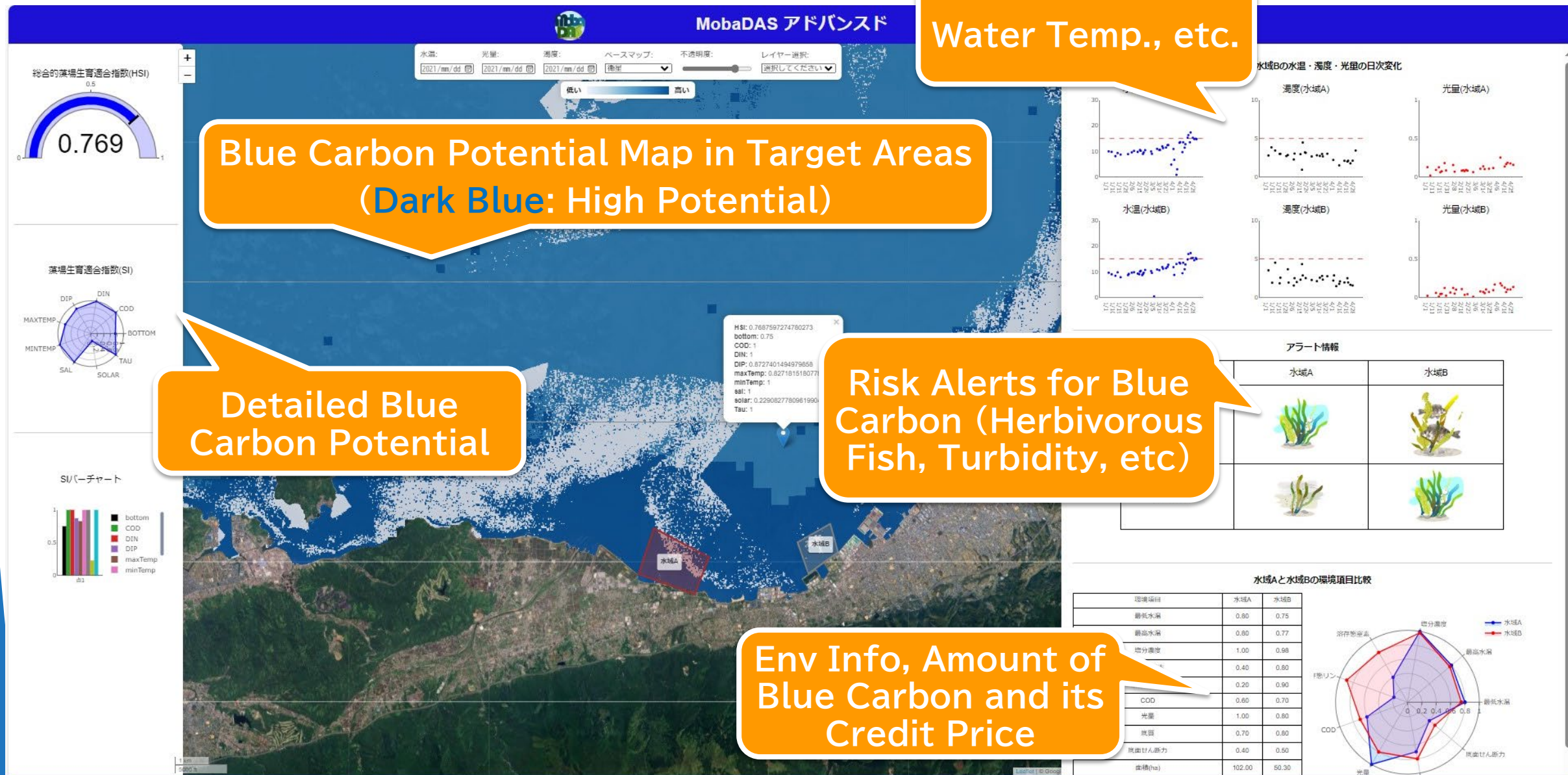
“MobaDAS”, a tool to grasp the Blue Carbon potential, is being developed!

Blue carbon ecosystems have multiple values such as climate change mitigation, conservation of the ocean environment, and development of local economy including fishery and tourism.

On the other hand, the accuracy to check their potential is the bottleneck of these initiatives. We are developing a tool, “MobaDAS” to accurately assess their potential based on hydraulic water quality model (incl. water quality, water temperature etc.) and satellite images!



<Blue Carbon> Potential Assessment Tool: "MobaDAS"



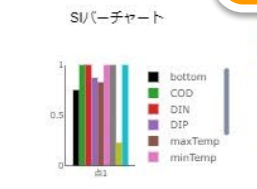
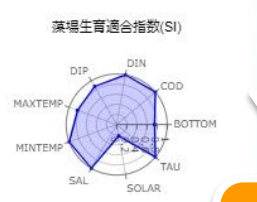
Water Temp., etc.

Blue Carbon Potential Map in Target Areas
(Dark Blue: High Potential)

Detailed Blue Carbon Potential

Risk Alerts for Blue Carbon (Herbivorous Fish, Turbidity, etc)

Env Info, Amount of Blue Carbon and its Credit Price



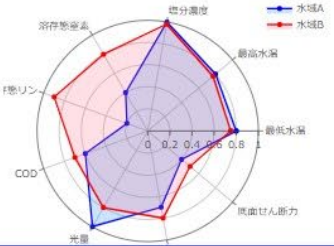
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Tau: 1

アラート情報

水域A	水域B

水域Aと水域Bの環境項目比較

環境項目	水域A	水域B
最低水質	0.80	0.75
最高水質	0.80	0.77
総分濁度	1.00	0.98
懸濁物質	0.40	0.80
COD	0.20	0.90
光量	0.60	0.70
底層	1.00	0.80
底層せん断力	0.70	0.80
底層せん断力	0.40	0.50
面積(m ²)	102.00	80.30



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The logo for NIPPON KOEI, featuring the company name in a bold, italicized, blue sans-serif font. Below the text is a thick, blue, curved underline that tapers at both ends.