



The Sites selection Project for Wind Power Plants initiated by regional communities

Budget in FY 2016
¥ 341 million

Background and Purpose

- Designing and Planning of wind power plants conducted by project proponents has tended to lag behind originally scheduled due to;
 - coordination with stakeholders, and
 - procedures required for regulations concerned
- Thus, it is necessary to ease the burden of the proponent related to Environmental Impact Assessment procedure (post “Scoping”), by selecting suitable sites considered on stakeholders, regulations, and environmental impact initiated by regional communities in a blanket manner.
- Aiming at compressing the time span (planning to groundbreaking) in average, 5 - 7 years, to 3 years at maximum, by establishing the sites selection method.

Project scheme

- Expected players: local municipality or private entity
- Term for the project: FY2015 – FY2017

Abstract

1) Establishing the method for the sites selection

Compiling a Guideline for the sites selection Project for Wind Power initiated by regional communities focusing on;

- limitation by attributes of the project / the region
- Prior consultation about regulations concerned
- reconciliation method for stakeholders/ inhabitants
- good practices of carrying EIA procedure

2) Demonstration project in selected model regions

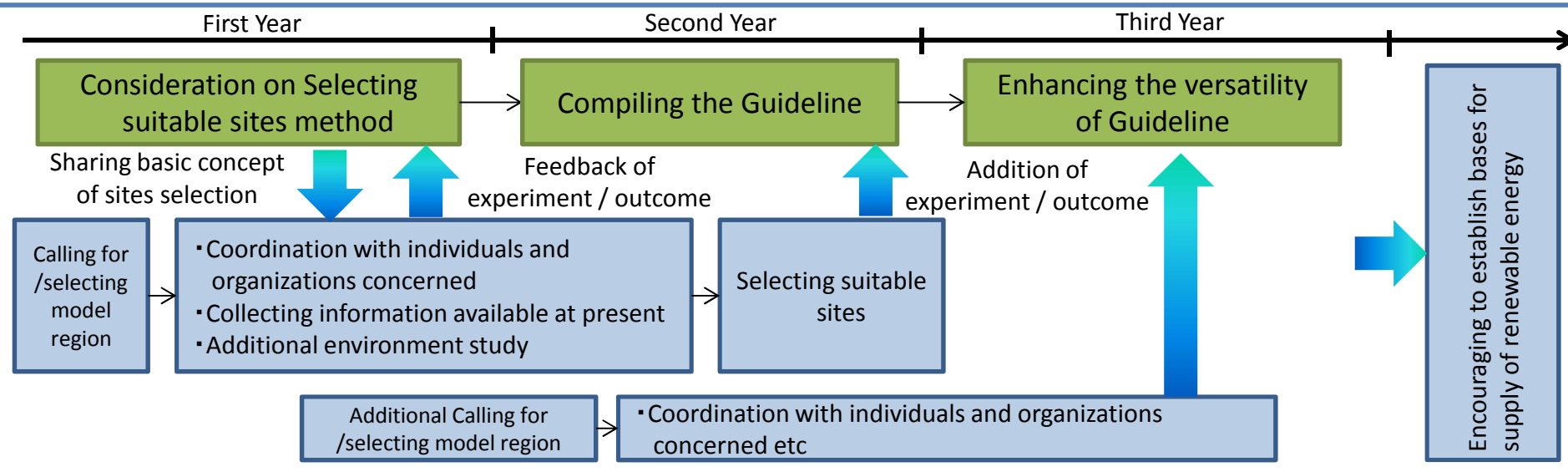
Calling for local municipalities that are proactive in inviting to set up Wind Power stations. The project consists of;

- coordinating with individuals / organizations concerned
- collecting information available at present, and
- reviewing feasible studies

in the model regions. (7 regions incl. onshore, offshore)

Expected outcome

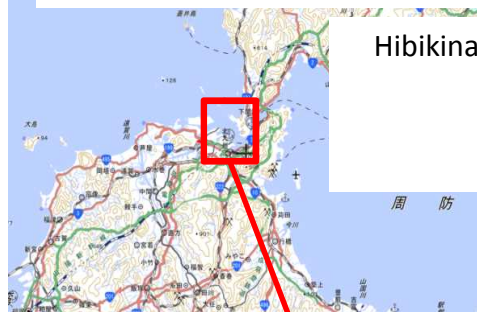
- Mitigating business risks and environmental consideration in early stage
- Encouraging to establish bases for supply of renewable energy
- Realization of actual case of Strategic Environment Assessment



Model regions of the Zoning Project for Wind Power Plant initiated by regional communities

※WOs: Wind power in the ocean
WSs: Wind power on shore
Gs: Geothermal power

◇Kitakyushu City, Fukuoka Pref. (FY2015～)



Hibikinada offing, Wakamatsu ward, Kitakyushu city
WOs (bottom mounted type)
200,000 kW(5,000 kW × 40)
500,000 kW(5,000 kW × 100)

◇Tottori Pref. (FY2015～)



Hokuei town,
Tohoku county
WSs 30,000 kW
(3,000 kW × 10)

◇Goto city, Nagasaki Pref. (FY2015～)



Sakiyama/Kijima offing,
Goto city
WOs (float type)
22,000 kW(2,000 kW × 11)
500,000 kW(5,000 kW × 100)

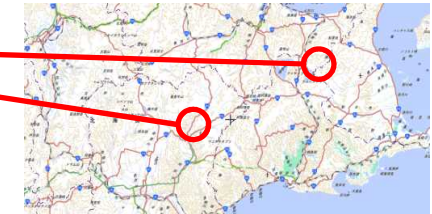
◆Sumoto city (FY2016～)

Goshiki offing, Sumoto city
WOs 50,000～100,000 kW
(5,000 kW × 10～20)



◆Shibetsu town, Hokkaido Pref. (FY2016～)

Musadake area, Shibetsu town
Gs (approx. 15,000 kW)

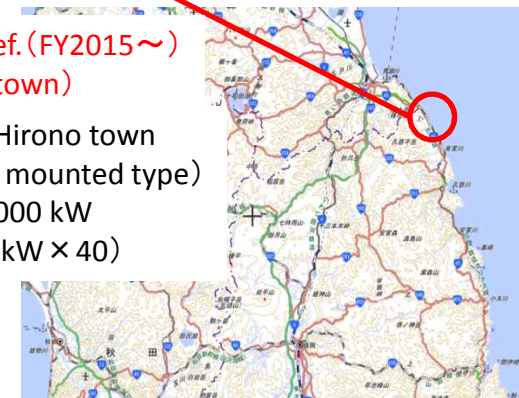


◆Ashoro town, Hokkaido Pref. (FY2016～)

Kumaneshiri south area, Ashoro town
Gs (output TBD*)
*determined by a future abundance survey

◇Iwate Pref. (FY2015～) (Hirono town)

Offing of Hirono town
WOs (bottom mounted type)
200,000 kW
(5,000 kW × 40)



Source of the enlarged maps:
Website of Geospatial Information Authority of Japan

Asia EIA Conference 2016

Group D : Upstream EIA and SEA

May 10th 2016

The Sites Selection Project for Off-shore Wind Farm Initiated by the City of Kitakyushu



Manabu WATANABE
Manager / Environment Bureau
City of Kitakyushu, Japan



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Profile of Kitakyushu City



Basic Data of Kitakyushu City

- Born by consolidation of 5 cities in 1963
- Area: 488km²
- Population: 0.97 million
- Major industries: Steel works, Chemical, Cement, Ceramic, Automobile etc...
- Rich Natural Resources
 - Surrounded by the sea (north and east side)
 - Forest: 40% of city area



TOTO

History of Environmental Policy in Kitakyushu

Overcoming Severe Environmental Pollution



Kitakyushu Eco Town Project (Recycle Industrial Zone)



Plastic Bottle/Office Equipment/Home Appliance /Waste paper/Waste Wood/ etc... TOTAL 26 Recycling factories

International Cooperation for Sustainable Development in Asia



In Kitakyushu (up to 2012 in total)
Trainees from Abroad : 6,638 people
from 140 countries
Experts dispatch to Abroad : 160 people
to 25 countries

Kitakyushu Regional Energy Base Project

●Energy policy in the city of Kitakyushu

- Shortage of electric power supply after the great East earthquake in 2012
- Necessity of stable energy supply of low price and low carbon as local government

●Potential to Developing Base as Renewable Energy and High-efficiency thermal power

- Good wind condition
- Large scale LNG and coal base
- Vast land for industry



	Kind of Energy / Potential		Progress
Renewable Energy	Solar power/	Max.100MW	In operation
	Off-shore wind power/	Max.700MW	7450kw : In EIA proceedings
High-efficiency thermal	LNG /	1,600MW	In EIA proceedings
	Biomass (incl. coal mix) /	Max.500MW	112MW × 2units: EIA end
Total	Max.3,000MW		

Potential capacity for off-shore wind farm in the Hibikinada region

Potential Capacity : 700MW (5MW × 140units)

[Floating type]

installed in water depth of under 50m

[Bottom-mounted type]

Installed in water depth of up to 30m

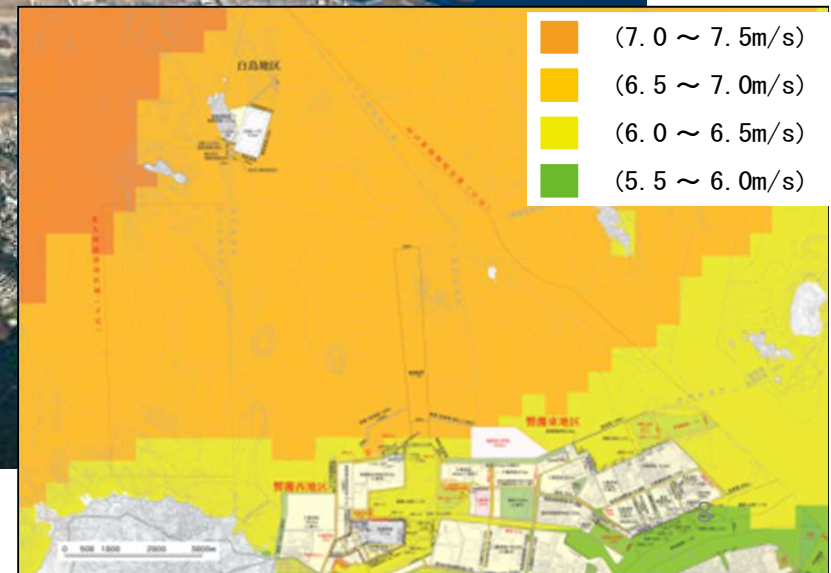
Line of Port Area

1.5MW × 10

2MW

2MW

2MW



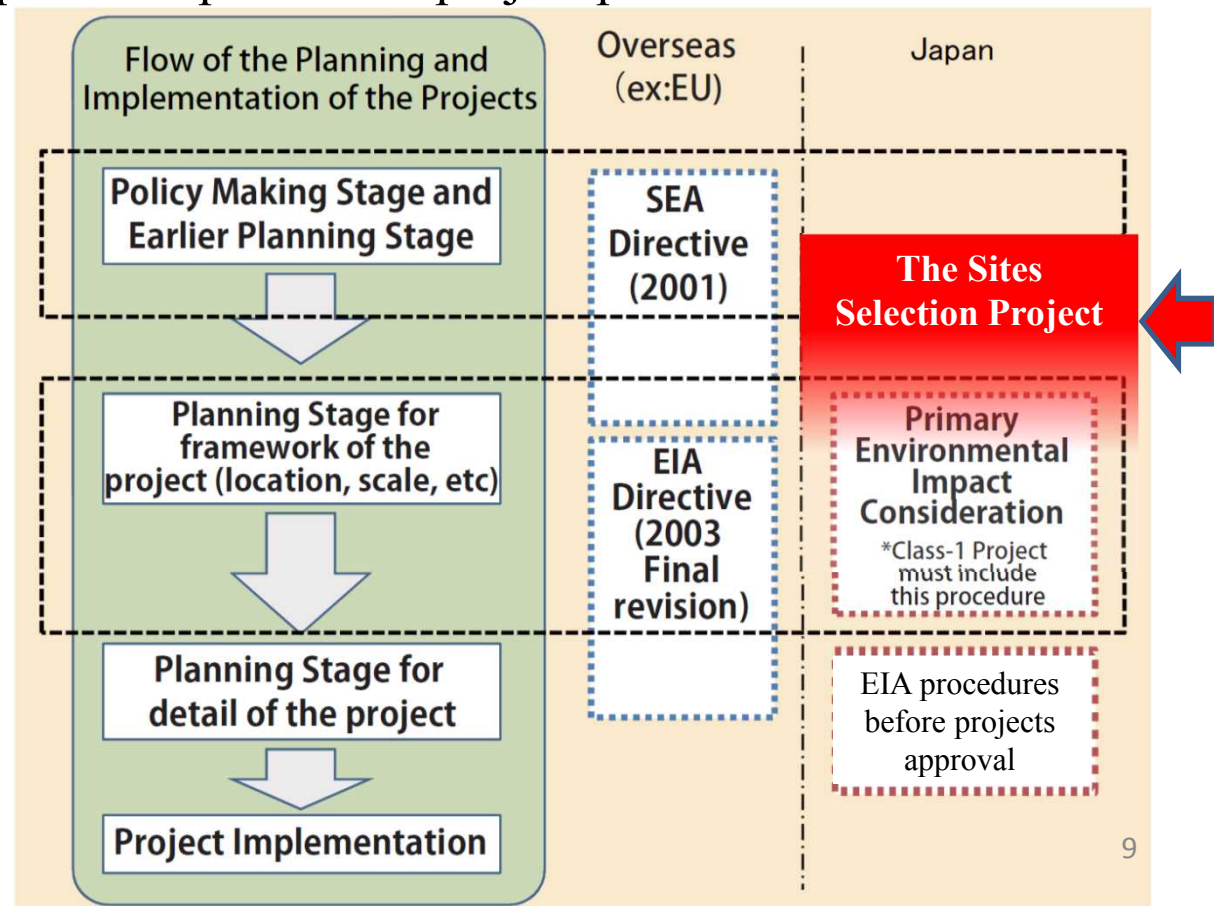
The Sites Selection Project for Off-shore Wind Farm

Initiated by local government (Subsidized by Ministry of Environment)

- Coordination different opinions among stakeholders and various regulation law procedure by local government initiative
 - Survey of local environment and utilizing them to EIA procedures
- ⇒ Strategic zoning of suitable area for off-shore wind farm
- ⇒ Encouraging private companies to proceed to project plans in the view of environment conservation

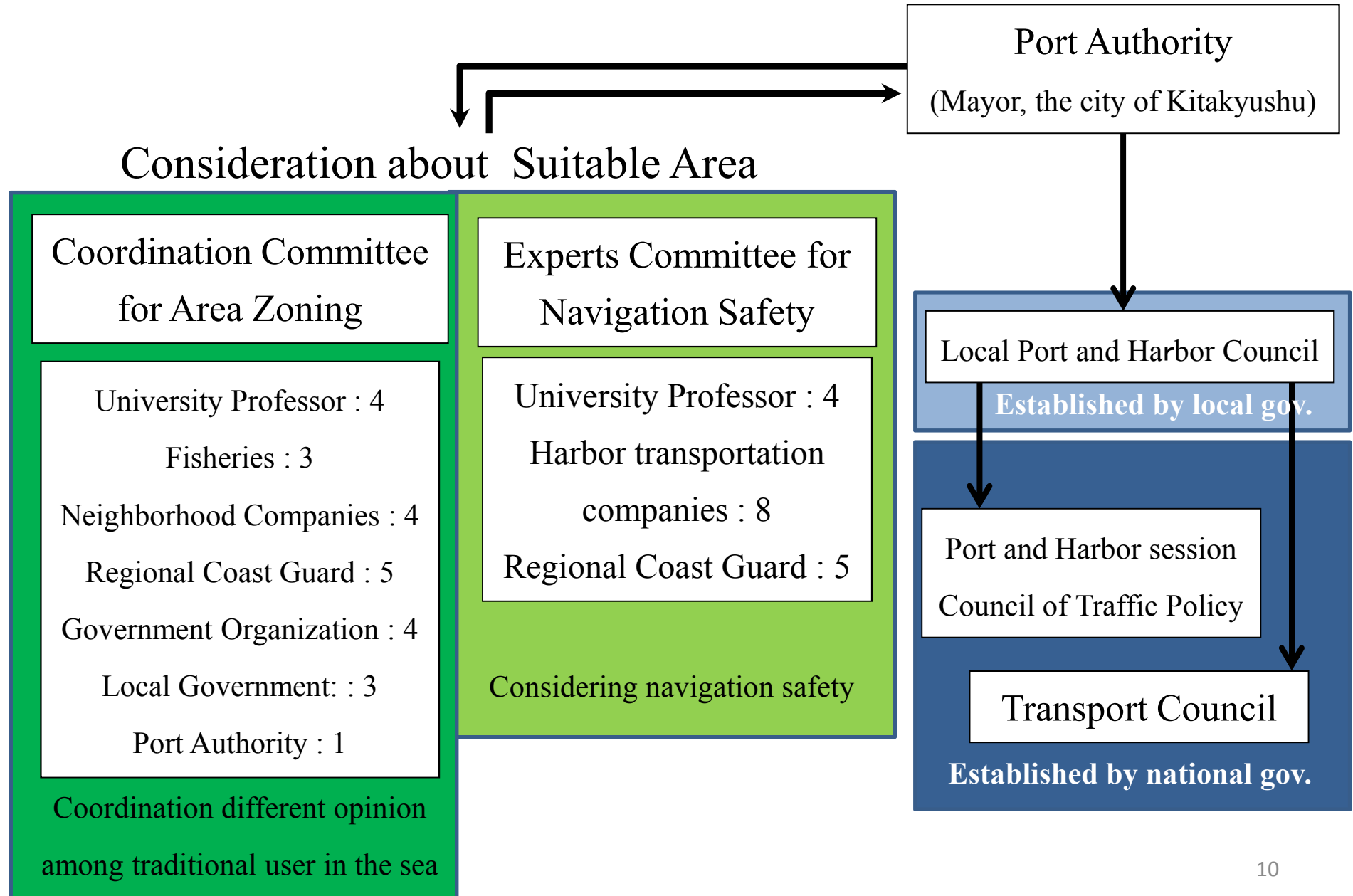
Table. Project Scale EIA is required

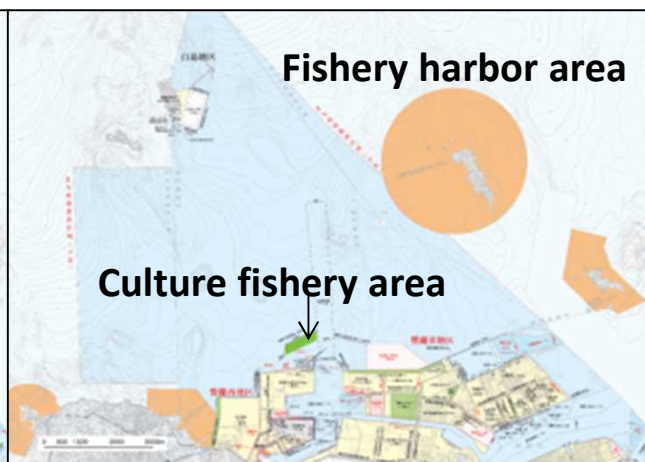
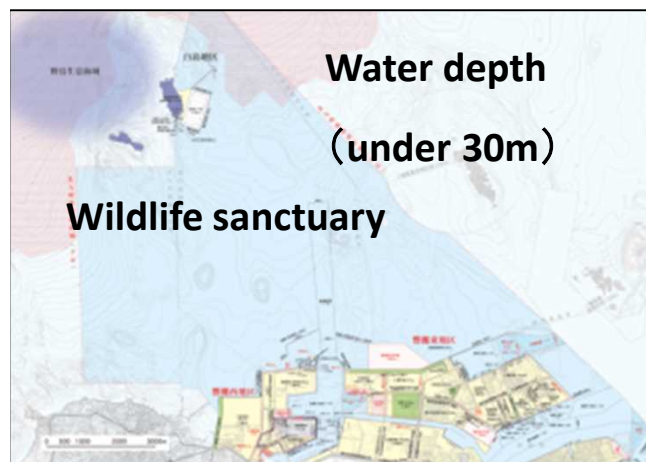
Wind Power	Scale
EIA Law Class1 (Class 2)	10MW (7.5MW)
EIA Ordinance in Kitakyushu	5MW



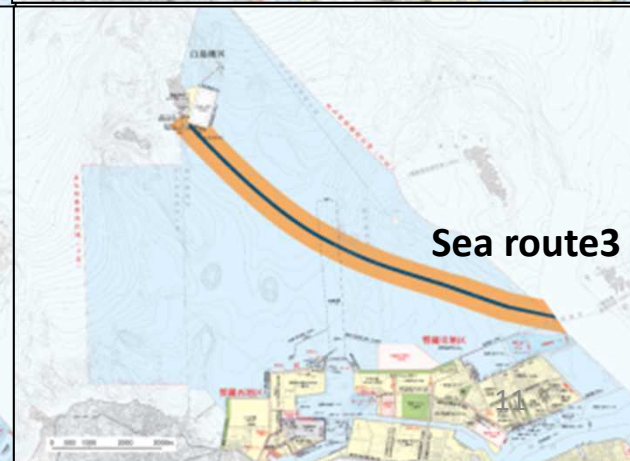
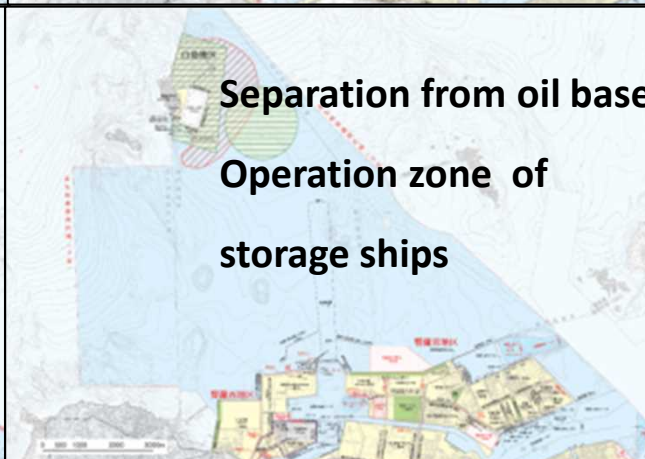
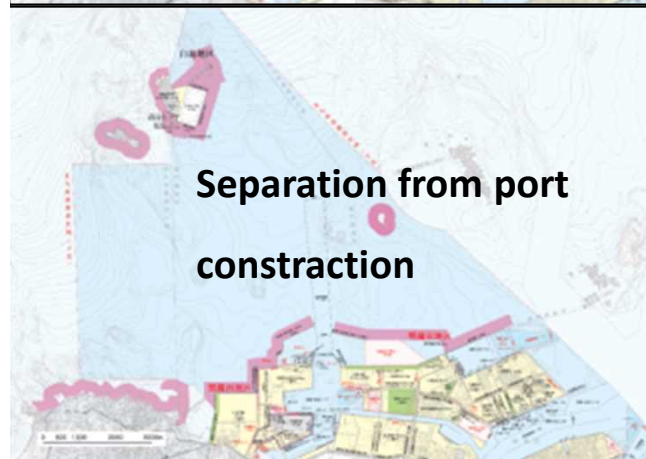
Flow of Area Zoning by Initiative of the City of Kitakyushu

Modification of Port Area and Planning

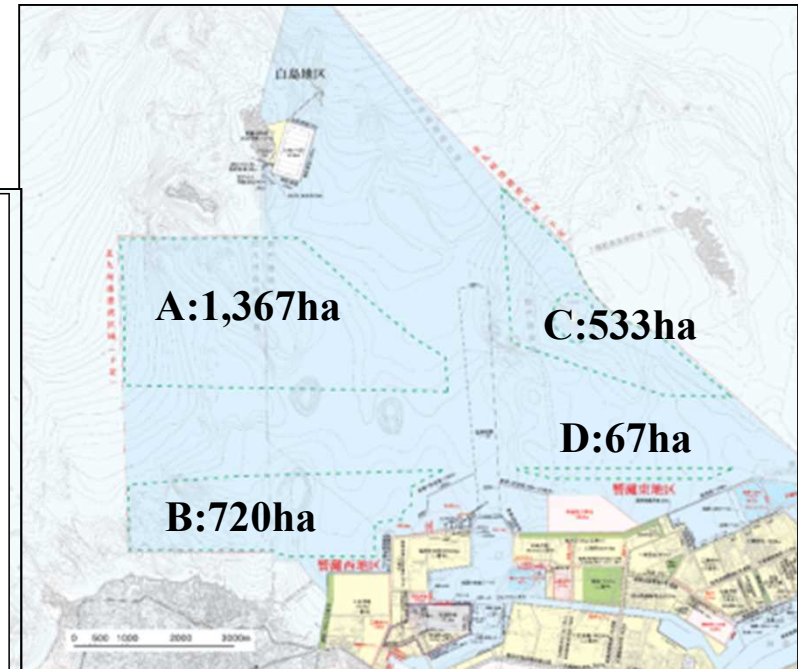
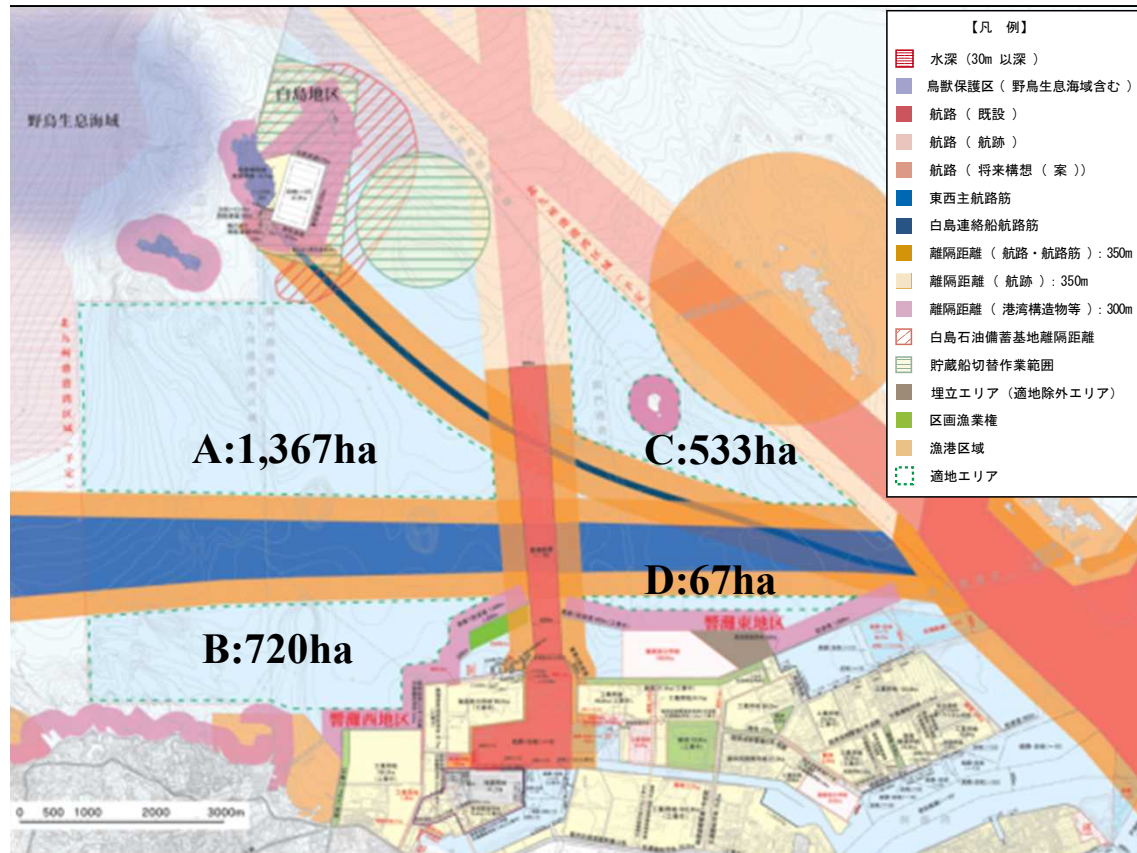




**Excepted Unsuitable
Area in Port Area
(incl. Proposed Area)
by considering existing
data and documents**

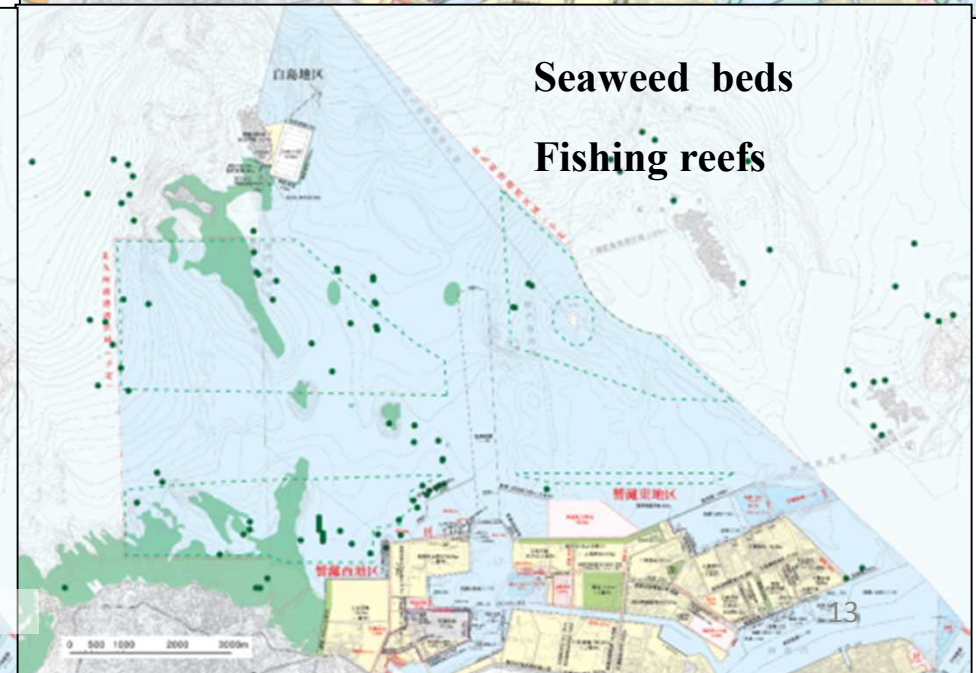
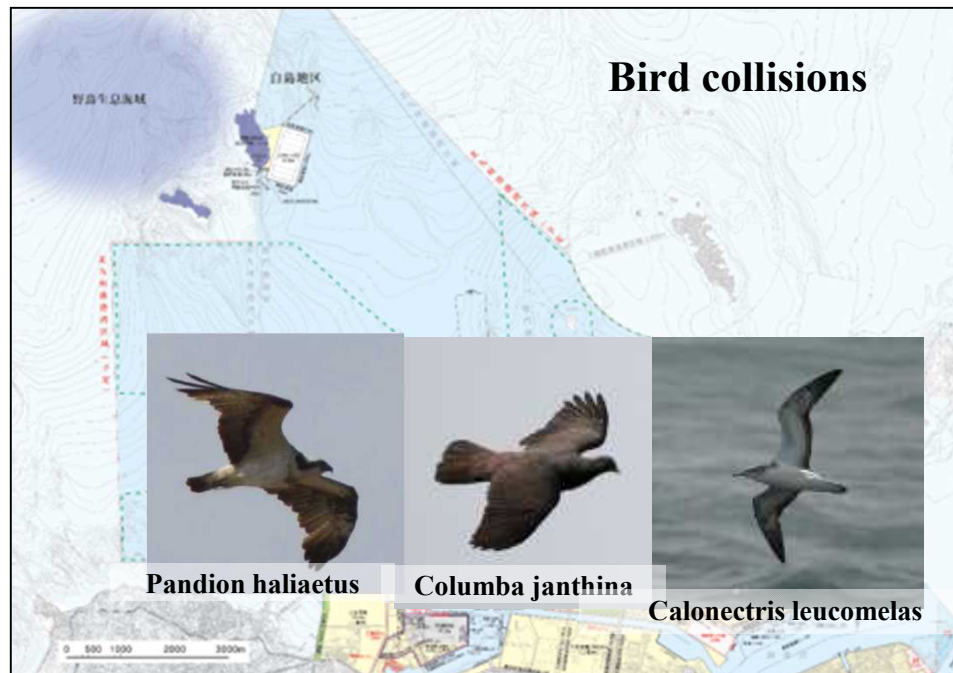
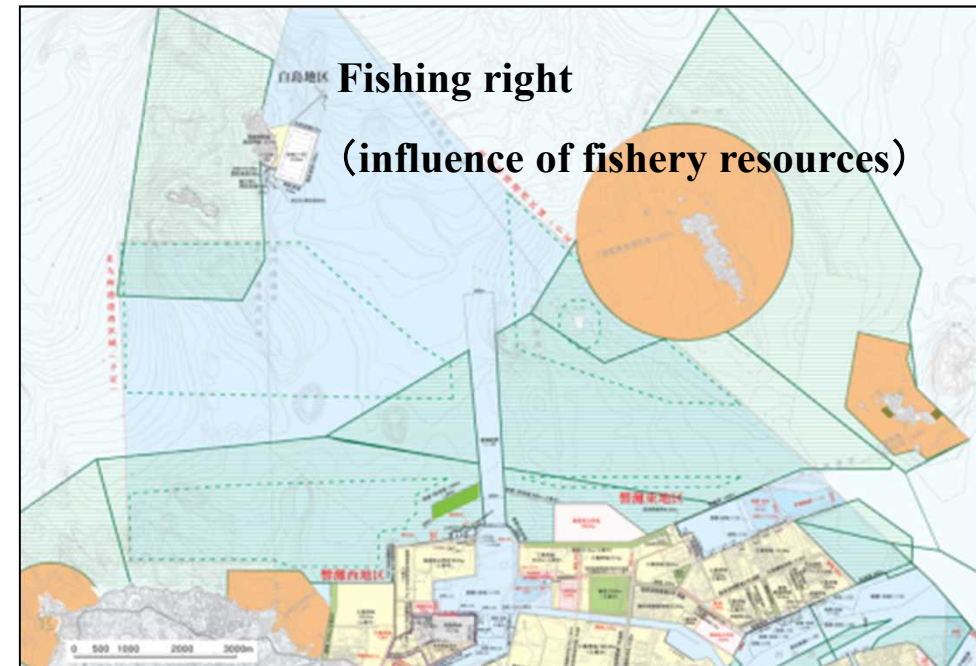


Zoning Plan of Suitable Area in Port area (incl. Proposed Area)



Items of Further Survey and Countermeasures Required

⇒ Field survey in detail by the city of Kitakyushu
⇒ Provide these data to private companies for avoidance of environmental impact and conducting EIA procedures effectively.

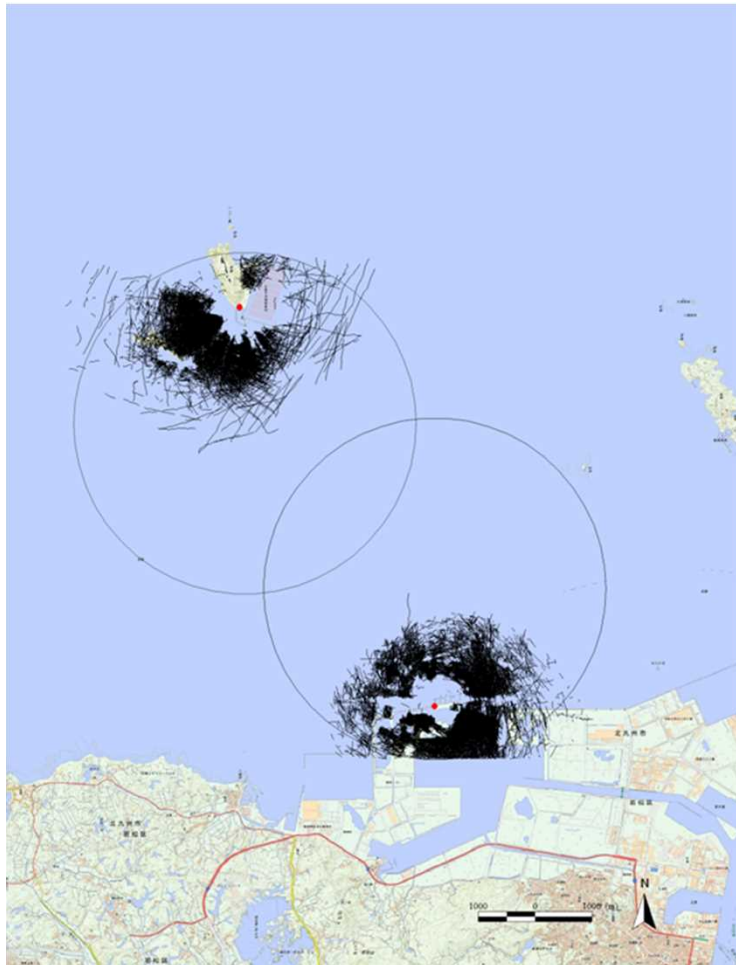


The results of field survey and forecast by the City of Kitakyushu

● Survey area : 24,000ha

● Items (in 2015) : Birds (land - sea), Landscape, Noise

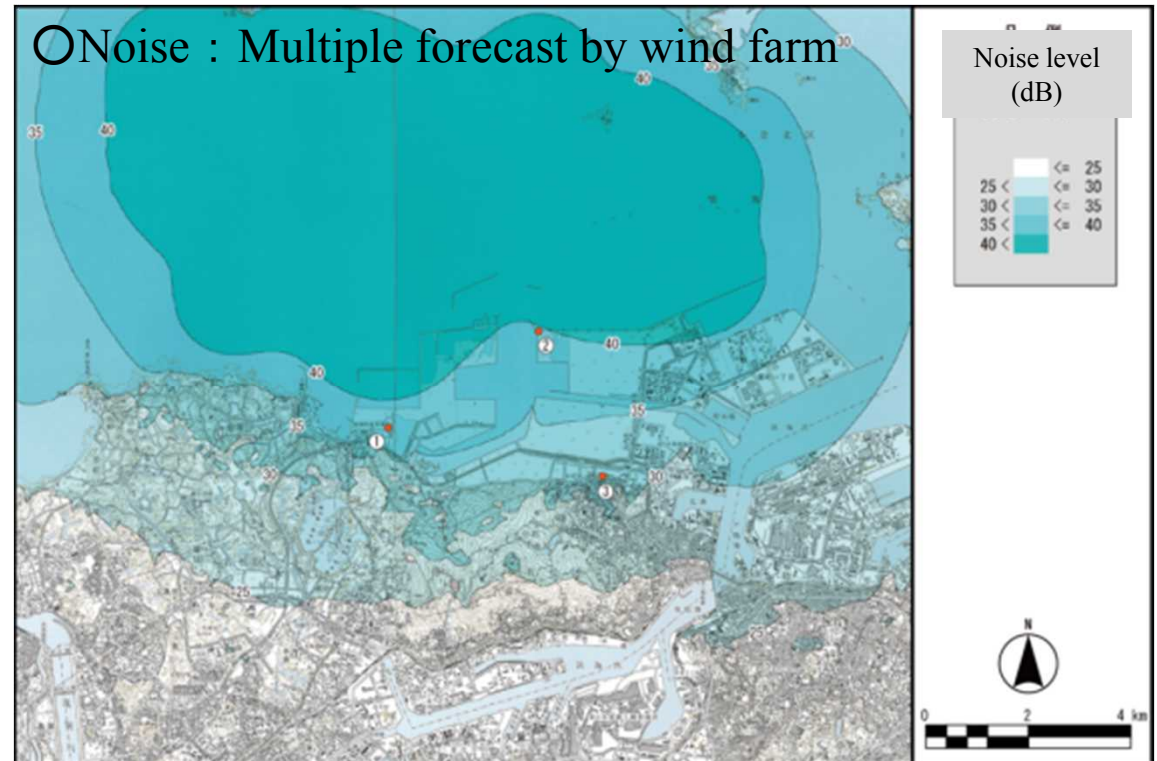
○ Birds : Radar survey



○ Landscape : Forecast by photo-montage and viewing angle



○ Noise : Multiple forecast by wind farm



Activities for Citizens' Understanding by the City of Kitakyushu

Seminars



Tours



Plan and action in 2016 by Initiatives of the city of Kitakyushu

- Survey for birds: Add the new radar survey point
 - Survey for bats
 - Survey for wheals (*Neophocaena Asiaeorientalis*) by sound
 - Pilot model projects for avoidance of bird collisions
 - by UV paint / by impulse wave
 - Seminars and tour for citizen's understanding
- etc..



Schedules of Offshore Wind Farm Project

- Public offering for private companies : 2016 in Summer
- EIA procedure : 2016~2018



Thank you for your attention!



Manabu WATANABE
Manager / Environment Bureau
City of Kitakyushu, Japan

E-mail: manabu_watanabe01@city.kitakyushu.lg.jp