

# Safety and Security

## Technical Emergency Control FORCE

<Main dispatch achievement>	The number of people	The total number of workdays (person, days)
2019 Heavy rain in late June	11	55
2019 Heavy rain brought by a rain front in August	26	153
2019 Typhoon 19	239	1,486
2020 Heavy rain in July	127	909
2020 Typhoon 19	9	42
2020 Bird Flu	3	4
2021 Heavy snowfall on January 7th	45	79
2021 CSF (Classical Swine Fever)	1	1

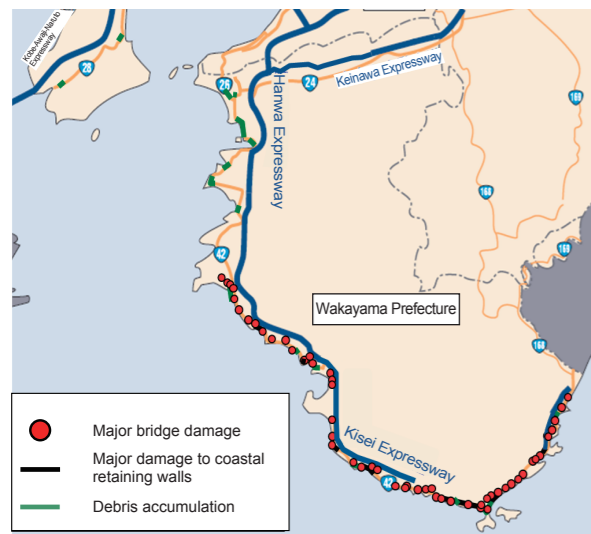


## Plan for opening up roads on the coast of the Kii Peninsula after a Nankai megathrust earthquake and/or tsunami

### [National highway damage forecasts]

	Extent of inundation	Major bridge damage	Major damage to coastal retaining walls	Accumulated debris
Wakayama Pref.	Approx. 100 km	53 bridges	Approx. 20 km	Approx. 30 km

Source: Wakayama Kinan Office of River and National Highway (Data valid as of May 2014)

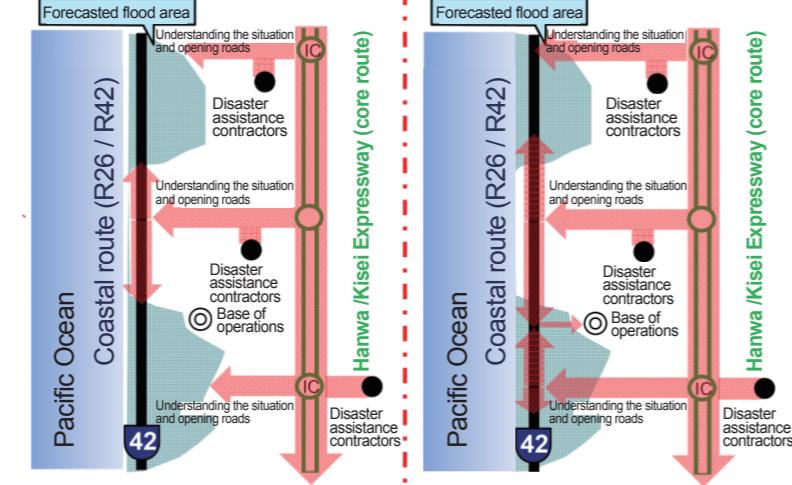


### [Plan for opening up roads]

- Based on tsunami damage forecasts, the Wakayama Prefecture Road Accessibility Plan designates certain roads as "open routes" that are to be given priority in the post-disaster clearing process due to considerations pertaining to emergency transport roadway networks.
- Establishes step-by-step targets for "road-opening" aimed at securing emergency medical transport routes.

[Step 1⇒ Targets to be completed within 24 hours after the disaster]  
 Securing core routes, routes to coastal areas, etc. (outside of forecasted flood areas)

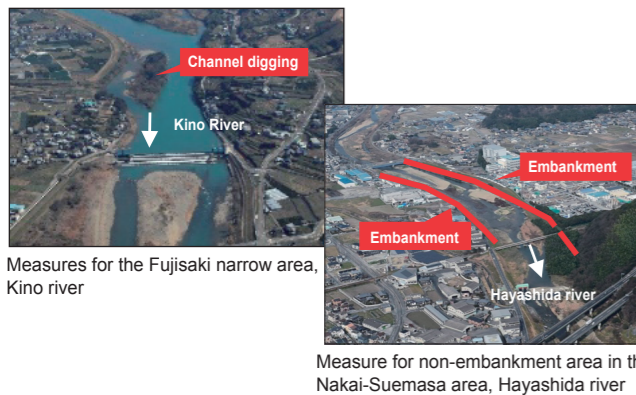
[Step 2⇒ Targets to be completed within 48 hours after the disaster]  
 Once the tsunami warning has been lifted, securing routes to the base of operations (city hall, etc.)



## 5-year acceleration measures for disaster control, disaster preparedness, and national resilience

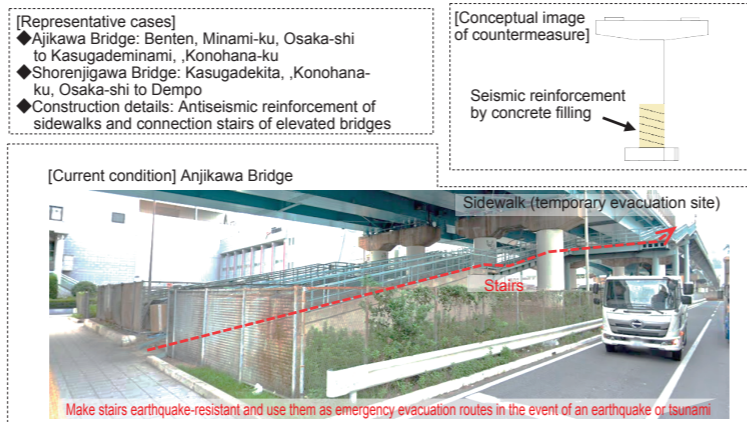
### Promotion of "drainage basin flood control" through cooperation between government and public sectors with consideration of climate change

- As flood control measures for drainage basin to be implemented by river managers, we will focus and intensively implement improvement of retarding basins and embankments, channel digging, construction of dams, etc. to accelerate advance disaster prevention measures.



### Utilization as an emergency evacuation site for elevated sections, etc.

- In order to utilize elevated sections of directly controlled roads that are maintained at locations higher than the predicted inundation depth as emergency evacuation sites, we will conduct seismic proofing of the connecting stairs to the elevated bridge's sidewalks and utilize them as emergency evacuation sites in the event of tsunamis and floods caused by earthquakes.



# New Approaches

## Promoting the DX in infrastructure –Transforming The Way We Work–

### [Promoting the DX in the infrastructure field]

By digitizing various infrastructure data and creating an environment where it can be freely utilized, it will be possible to provide various services to citizens, advance the process from design work to maintenance, and reform work styles in the industry and related staff, which will increase productivity.

In order to further deepen the i-Construction that we have been working on in order to improve productivity, the Kinki Regional Development Bureau we will continue to promote the DX in infrastructure.

### Concepts of the DX

Transforming and making people's lives better by spreading advanced digital technologies

**DX of "Action"**

Site can be checked from anywhere

Site | Office

**DX of "Knowledge and Experience"**

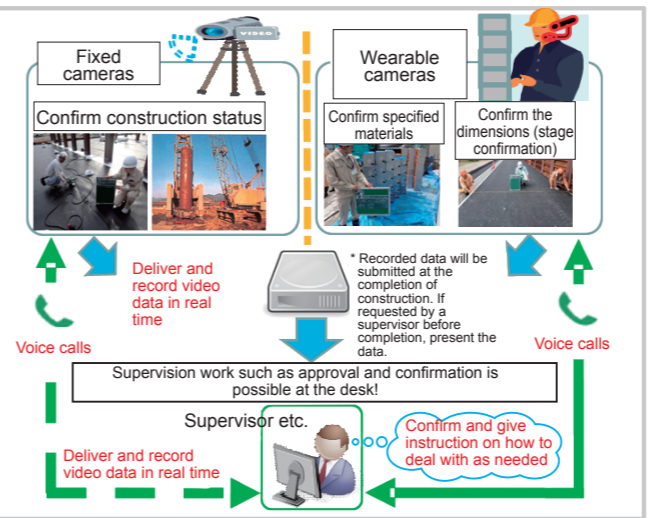
Anyone can immediately work effectively in the field

**DX of "Things"**

Anyone can easily understand drawings

### DX of "Behaviors"

– Supervision and Inspection Utilizing Telepresence –



### DX of Knowledge and Experience

– Productivity improvement by accelerating the use of DX-ICT –

□ Increase in construction types  
Structure work (piers and bridges) and roadbed work

□ Improving construction efficiency through unmanned construction and ICT construction collaboration

### DX of things

– Improving efficiency and advancing construction production systems by utilizing BIM/CIM –

