

6th EWA / JSWA / WEF Joint Conference
„The Resilience of the Water Sector“
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Support on Formulating Sewage BCP and Training for Small and Medium Local Public Organizations

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1. Introduction

November 2009 Sewage BCP Formulation Manual
~ 1st edition ~ (Earthquake)

March 2012 Sewage BCP Formulation Manual
~ 2nd edition ~ (Earthquake · Tsunami)

March 2016 MLIT announced the local public organizations in
Japan to formulate sewage BCP within one year



※MLIT:Ministry of Land, Infrastructure, Transport and Tourism

**The local public organizations are working on
formulating sewage BCP**

JIWET provides support on formulating sewage BCPs and training for small and medium local public organizations.

【 26 local public organizations 】

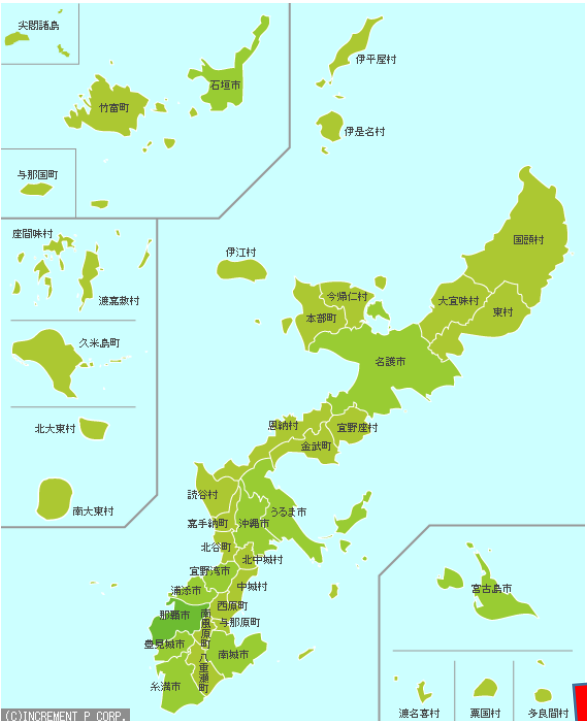
Naha city Ishigaki city

※ Population of each municipality
: about 700-330,000 people

The characteristics of Okinawa Prefecture

- Damage from tsunami
- Island region
- External support is likely to be slow

Okinawa Prefecture



2. Implementation structure

Okinawa prefectural government

- Coordination
- Brushing up sewage BCP
- Making the draft of Support

Local public organizations

- Participation of the Workshop & Training
- Creation of the sewage BCP

JIWET

- Policy of the sewage BCP
- Consideration of the example about sewage BCP
- Operation of the Workshop & Training of the sewage BCP
- Advice about the sewage BCP

Support



Benefits of joint research

- (1) . We can consider support system considering wide-area cooperation
 - (2) . Information about earthquake countermeasures can be shared among local public organizations
 - (3) . Local public organizations can share issues and solutions of sewage BCP
 - (4) . It is possible to formulate sewage BCP that considers regional characteristics
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3. Implementation flow

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Collection and arrangement of information for sewage BCP.

Sewage BCP creation of thinking and model

Study group

Consideration/implementation of training plan

Local public organizations

Workshop



Study group

Workshop

Training

Swage BCP formulation

Provide information

Instruct

Instruct

4. Formulating sewage BCP

【Structure of swage BCP】

- | | |
|-------------------------------|-------------------------------|
| (1) Emergency response plan | (2) Proactive measures plan |
| (3) Education / training plan | (4) Review / improvement plan |

(1). Emergency response plan

Emergency response plan is created in the following order:

①. Selection of priority work during emergencies

- Ensuring safety
 - Ensuring public health/preserving the living environment
 - Preserving water quality in public water.
-

②. Deciding of response target time

- Consider the social impact and set the allowable downtime while considering resources constraints.

③. Compilation of emergency response plan

- The personnel who engages in emergency response.
 - Response to sewage overflow areas.
 - Priority in pipe investigation.
 - Policy on treatment plant/pump station restoration.
 - Policy on responding to mass media
 - Policy on responding to requests and complaints from residents.
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(2). Proactive measures plan

- Stockpiling of equipment
- Securing and authorizing means of communication during a disaster
- Disaster support agreements

(3). Education / training plan

- Ensuring implementation of the post-disaster response

(4). Review / improvement plan

- Keeping the sewage BCP up to date and raise the overall level
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Workshop

- Presentation and explanation of the thinking on sewage BCP creation in Okinawa Prefecture (draft) created by JIWET
- Wide-area mutual cooperation.
- Mutual support agreements among local public organizations were deliberated.



All participants formulated sewage BCP

5. Training(role-playing)

Players :

- Okinawa prefectural government
- Local public organizations

Controllers :

- Okinawa prefectural government
- Local public organizations
- JIWET



Phase 1

【Scene in case of disaster】

Immediately after disaster occur

Phase 2

【Scene in case of disaster】

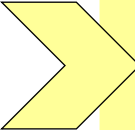
From 1st day to 3rd day
after disaster occur

Review of training

Clarification of issues and
improvement points of BCP

Phase 1

 **Warning !**

Evacuate under the desk 



Players:

- Write the priority works which should be done in emergency.
- Write the emergency contact details and the matters which should be tell.



Phase 2

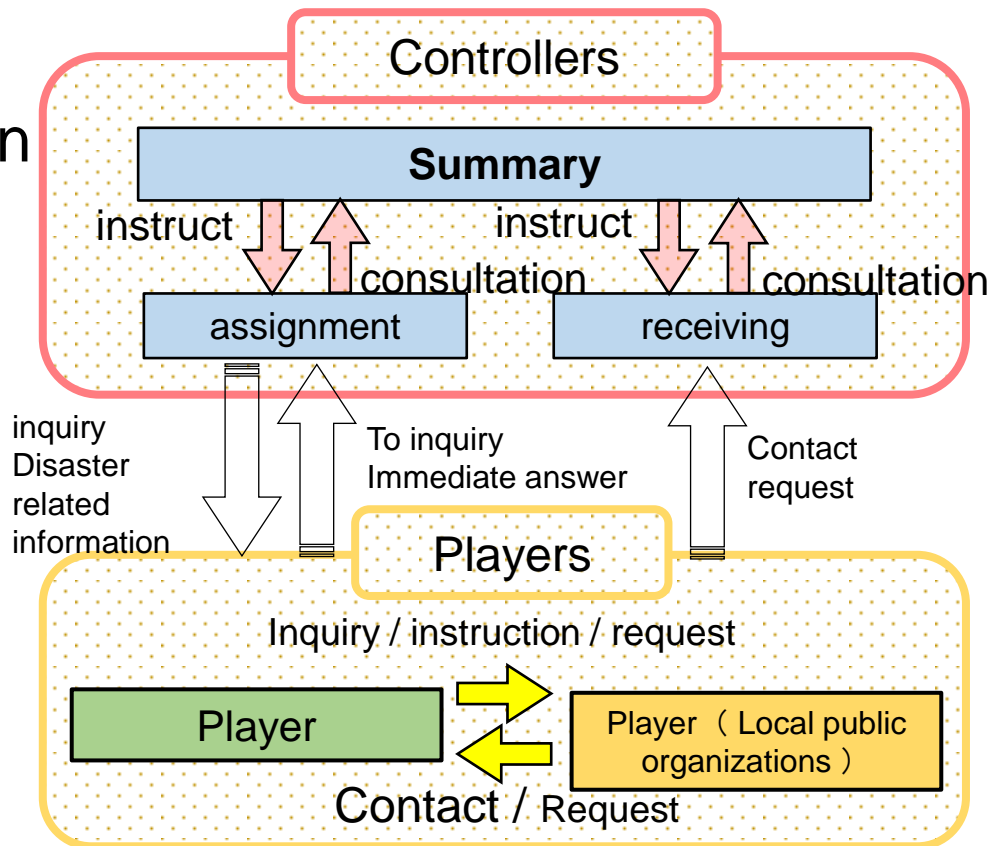
Controllers:

- Give the players information on disaster.



Players:

- Respond to disaster information, organize, contact.
- Implementation of support requests



[Knowledge obtained from the training]

Resources :

- "Methods to confirm the safety of staff members needs to be more specific"
- "Links with other departments must be strengthened"
- "A fuel arrangement list was needed"

Emergency response:

- "The content of the contact we are supposed to make in an emergency is unclear"

Proactive measures:

- "Reexamination of the information and equipment to be given to support teams is necessary"
- "The extent to which local public organizations can respond must be clarified"



6. Conclusion

- We were able to efficiently formulate sewage BCP by cooperating Okinawa prefectural government and local public organizations.
 - During the formulation, a study group was implemented, grasping disaster countermeasures and exchanging opinions, which raised disaster awareness.
 - In order to formulate effective sewage BCP, mutual support agreements among local public organizations, support agreements with the JSCSMA, and support agreements with the JSWA were concluded.
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Thank you for your attention.

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★ **Manato Yamaguchi,**
