

Policies and Measures for Reconstruction of Hamadori coastal region of Fukushima Prefecture ～Realizing the “Future Vision for Fukushima’s 12 Municipalities”～

April 12, 2016



1. Revitalization and Reconstruction of Fukushima

Long-term decommissioning; Lifting evacuation orders area by area;
Measures responsive to evacuees' needs and desires

(1) Status of accident recovery efforts (Nuclear Emergency Response Headquarters)

① Decommissioning

- All units under cold shutdown; spent fuel assemblies removed from Unit 4
- Measures in place against contaminated water



② Decontamination

- Decontamination work by national government of ordered-evacuation areas (as of end-January 2016)

General decontamination completed in 1 city, 3 towns and 2 villages, and in the residential area of 1 village, out of 11 municipalities

- Decontamination work by municipal governments within Fukushima (as of end-November 2015)
Completed for approx. 80% of public facilities, approx. 80% of residential areas, approx. 50% of roads
- Interim Storage Facility
Construction and soil transportation have begun

③ Compensation/indemnification

Payments being made for:

- mental suffering;
- lost commercial sales;
- incapacity;
- damage to real estate, homes, contents; recovery



2. Revitalization and Reconstruction of Fukushima

(2) Recovery status

① Areas under Evacuation Orders

- Areas classified as “returning home is difficult,” “living is not permitted” or “evacuation order will soon be lifted”
- Evacuation orders partially lifted for Tamura City (April 2014), Kawauchi Village (October 2014), Naraha Town (September 2015)

② Evacuees

- Evacuees across the country: approx. 97,000 (as of March 2016)
- Providing comparable levels of public services at municipalities receiving evacuees
- Providing consulting staff and reconstruction support staff, as well as a consultation system responsive to specific concerns, including radiation

(3) Policies responding to evacuees' needs and desires

① Those who want to return home

Decontamination, restoration of infrastructure, resumption of services necessary for daily life

② Those who want to wait and see

Public housing for long-term evacuees (approx. 1,100 units to be completed within FY2015 out of 4,900 planned); in-town reconstruction bases to be developed

③ Those starting new lives in other areas

Payments of compensation; assistance in finding jobs and housing

(4) Ensuring safety, confidence, and promoting settlement

- Radiation Risk Communication
- Measures against reputational damage

3. Numbers of Evacuees from Areas under Evacuation Orders

Current total evacuees from Fukushima Approx. 97,000

(As of March 2016)

※ Approx. 164,000 at the peak (June 2012)

From areas under evacuation
Orders Approx. 70,000

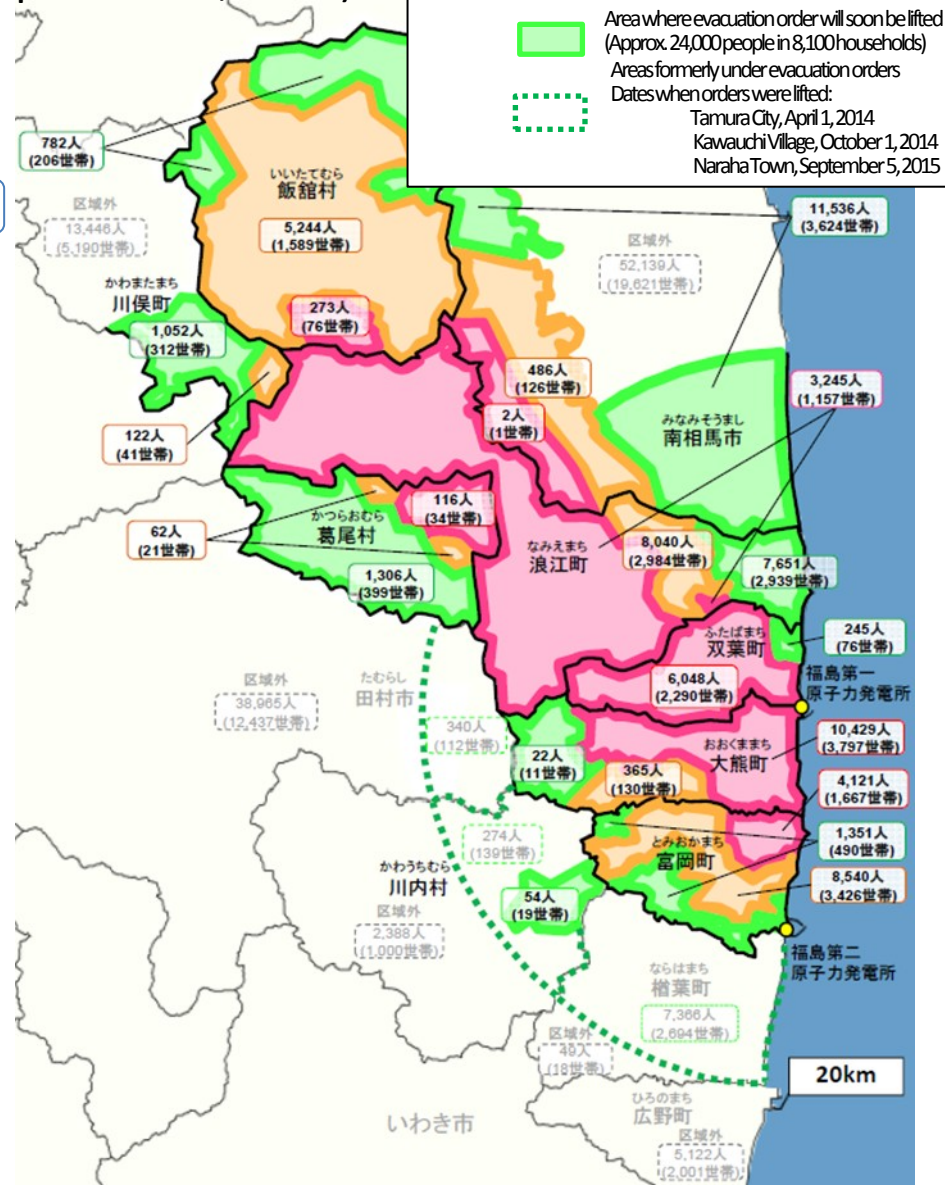
(As of September 2015)

Areas where residents will not be able to return home for a long time
Approx. 24,000 (34%)

Areas in which residents are not permitted to live
Approx. 23,000 (32%)

Areas where evacuation orders will soon be lifted
Approx. 24,000 (34%)

Areas Under Evacuation Orders (As of September 5, 2015)



4. Expert Panel on Future of Fukushima's 12 Municipalities

【Future Vision for Fukushima's 12 Municipalities】

- At the instruction of the Minister of Reconstruction, an expert panel was formed in 2014, discussed a “future in which people have hope,” compiled a proposal and submitted it to the Minister in July 2015.
- Proposal on **“challenges and courses of action toward 2020” with focus on regional image in 30 to 40 years.**
- **Responsibility of the national government for recovery and reconstruction of Fukushima** is clearly stated. and the role of the prefecture as a “wide-area municipality” is also made clear. The role of the national government in reconstruction of Fukushima ten years after the accident is a subject for future discussion.



Discussions up to now (Dec. 2014 – now)

- 【1st】 Focus of discussion, reconstruction plan for Fukushima Prefecture and six towns and villages, and Fukushima Innovation Coast Scheme
- 【2nd】 Reconstruction plans of six municipalities, status of decommissioning process, status of decommissioning/interim storage facility
- 【3rd】 Agriculture, forestry, fisheries
- 【4th】 Health/medicine, education/development of human resources
- 【5th】 Agriculture, nursing-care/prevention, health enhancement
- 【6th】 Culture/sports, infrastructure and wide-area linkages, tourism
- 【7th】 Reporting on deliberations of Innovation Coast Scheme Conference, measures against reputational damage /properly preserving disaster memories, summarizing major opinions
- 【8th】 Draft proposal
- 【9th】 Conclusion (Jul. 30, 2015)

Members

(Chairperson)	
Takashi Onishi	President of the Toyohashi University of Technology (Urban Engineering, President of the Science Council of Japan, Member of the Reconstruction Design Council in Response to the Great East Japan Earthquake)
(Acting Chairperson)	
Hitoshi Ieda	Professor at the National Graduate Institute for Policy Studies, University of Tokyo (Transportation Research and Infrastructure Planning)
Masao Uchibori	Governor of Fukushima Prefecture
Kentaro Ooyama	President of Iris Ohyama Inc. (Chairman of the Sendai Association of Corporate Executives, Member of the Reconstruction Promotion Committee)
Kohei Takashima	President of Oisix Inc. (Member of the “New Tohoku” Public and Private Partnership Promotion Council)
Ryohei Nakamura	Professor and Deputy Dean of the Department of Economics in the Graduate School of Humanities and Social Sciences, Okayama University (Regional Public Policy, Director of the Japan Economic Research Institute, Faculty Fellow at the Research Institute of Economy, Trade and Industry)
Keiko Matsunaga	Associate Professor at the Graduate School for Creative Cities, Osaka City University (Regional Industries, Local and Community Economies)
Hajimu Yamana	Honorary Professor at the Kyoto University (President of the Nuclear Damage Compensation and Decommissioning Facilitation Corporation) (as of July, 2015)

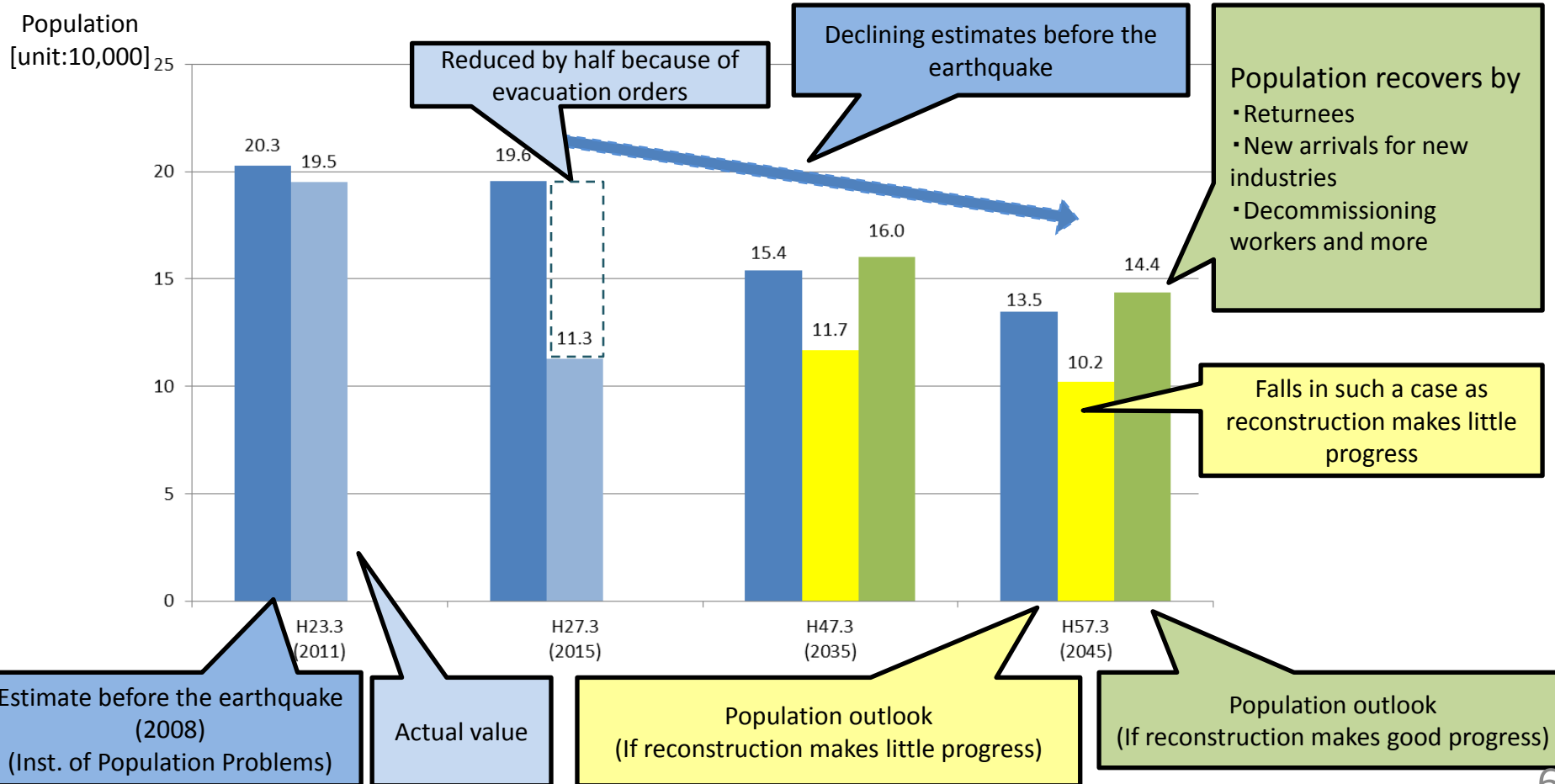
5. Outline of Discussions in Expert Panel

- ① Discussions by the expert panel (chaired by Prof. Takashi Onishi, president of Toyohashi University of Technology):
Addressed **challenges and courses of action toward 2020** with focus on the **image of the area in 30 to 40 years**. **Compiled proposal and submitted it to Minister of Reconstruction.**
- ② Points in image in 30 to 40 years
 - (1) **Population outlook: Potential to exceed population estimates before the earthquake, spurred by the progress of reconstruction**
 - (2) **Radiation dose outlook: Considerably reduced through physical attenuation**
 - (3) International promotion of Fukushima-style regional revitalization
- ③ Specific major efforts
 - (1) **Industrial development**: Creation of new industries and reconstruction of businesses and occupations
 - (2) **Wide-area linkages** of public services among multiple municipalities
 - (3) Development of **revitalization and reconstruction bases**: Creation of new urban areas
- ④ Other
Responsibility of the national government for revitalization and reconstruction in Fukushima is clearly stated.
Added is that the role of the national government in reconstruction ten years after the disaster is a subject for future discussion.

6. Image in 30 – 40 Years (Bright Point 1)

(1) Population outlook

- If reconstruction makes good progress, causing more people to want to return home, and drawing engineers, etc., to new factories in the region, there is **potential for population to exceed estimates before the earthquake.**



6. Image in 30 – 40 Years (Bright Point 2)

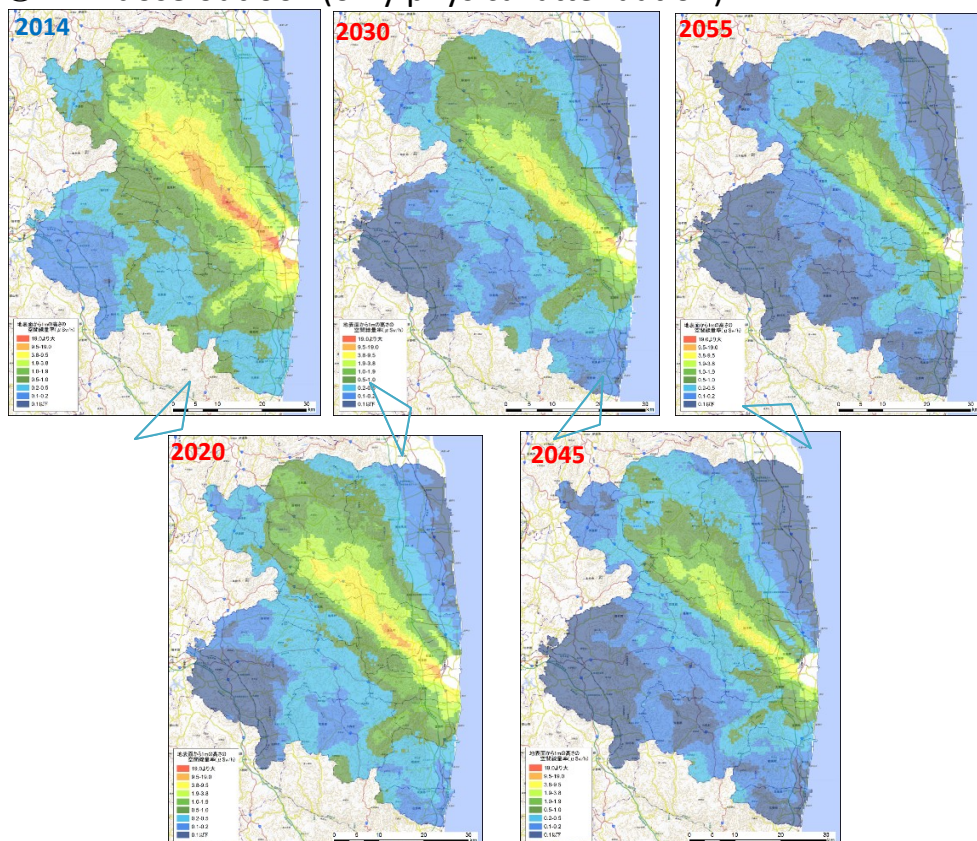
(2) Radiation dose outlook

- Air dose will be considerably below current levels

(Where dose is now over 20 mSv/y (※), it will be reduced by half by 2020. Even where residents will not be able to return home for a long time, dose will be some significant percentage lower in 30 or 40 years.)

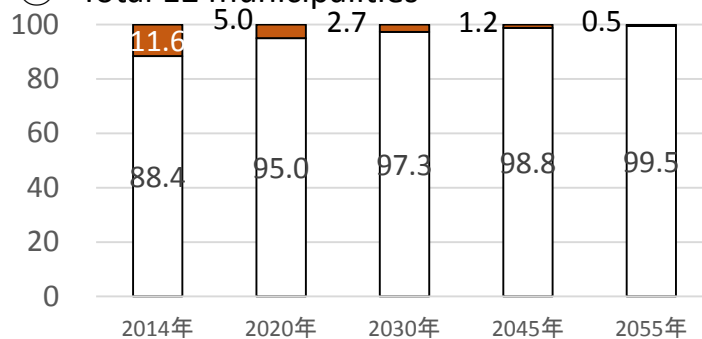
(※) Annual exposure dose is calculated based on air dose per hour on the assumptions of 16 hours outdoors and 8 hours indoors every day, and a shielding factor for a wooden house of 0.4. (Used in designating areas for which evacuation orders were issued.)

○ Air dose outlook (only physical attenuation)

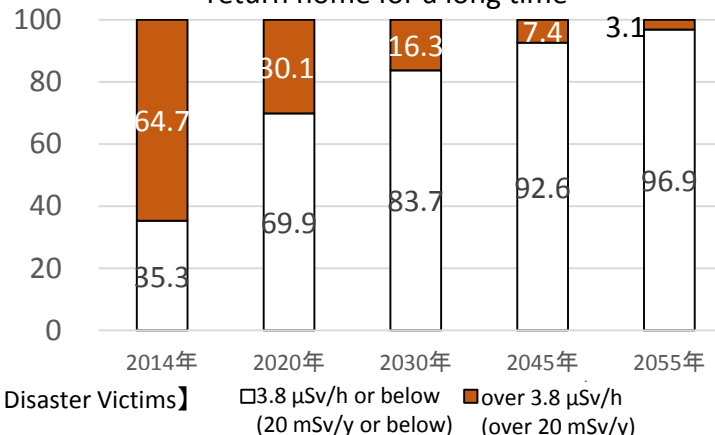


○ Areas by air dose rates (percentages)

① Total 12 municipalities



② Only in areas where residents will not be able to return home for a long time



□ 3.8 μSv/h or below
(20 mSv/y or below)
■ over 3.8 μSv/h
(over 20 mSv/y)

This is the same estimation method as the following:

- Reference estimation on radiation dose outlook 【June 2014: Team in Charge of Assisting the Lives of Disaster Victims】
- Efforts of the Government and Four Cities to Accelerate Decontamination/Reconstruction (Interim Report) 【August 2014: Reconstruction Agency, Ministry of the Environment and Four Cities】

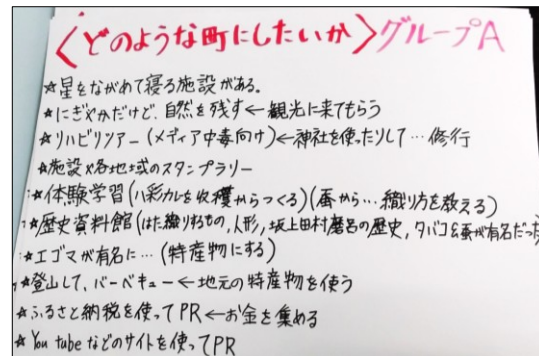
6. Image in 30 – 40 Years (Bright Point 3)

(3) Children's thoughts

- In group discussions, elementary and junior-high school students express their enthusiasm for being part of reconstruction.
- A questionnaire survey of residents above fourth grade showed approx. 50% of those in their teens and 20s intended to be in their hometowns 30 – 40 years from now.

○ Children's meetings (carried out in Minamisoma, Kawamata, Tamura and Iidate)

○ Questionnaire survey
(Commitment to hometown 30 – 40 years later)



1. Be an important part of hometown development
2. Be engaged in hometown development, not necessarily in a central role
3. Not be directly engaged in development, but contribute to spreading the word on good points, etc.
4. Support financially (contributions, hometown taxes, etc.)



5. keep a close watch on development

6. Doing nothing

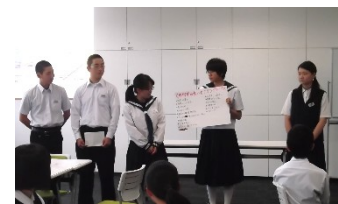
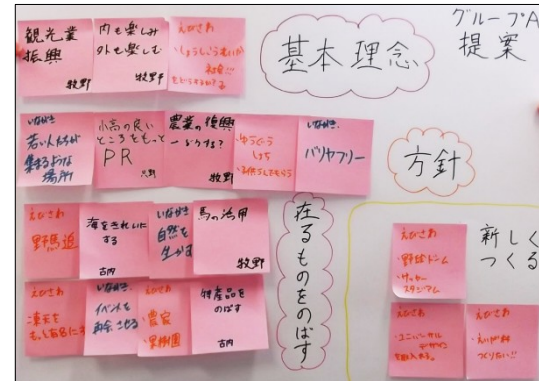
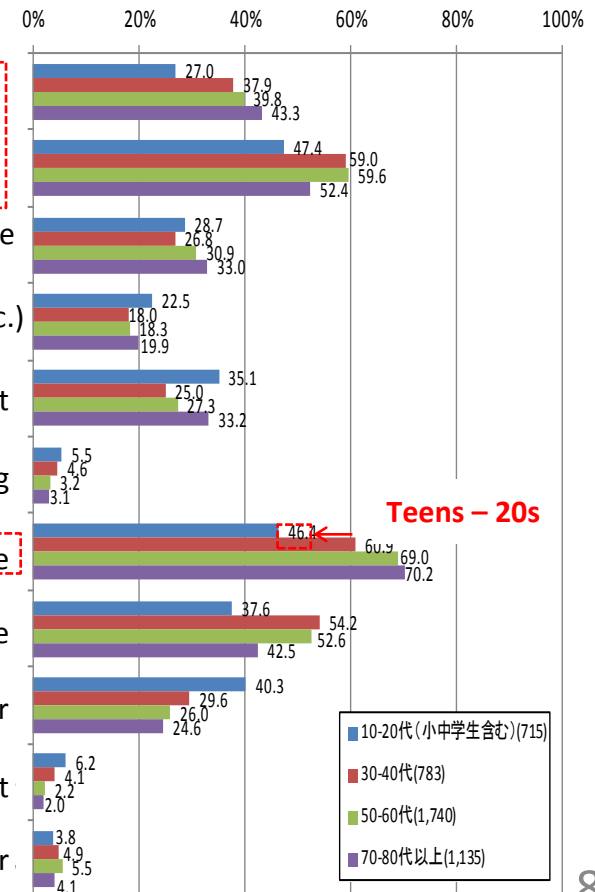
7. Live there

8. Work there

9. Not live, but visit several times a year

10. Never visit

11. Other



7. Specific Challenges and Courses of Action toward 2020 (1)

(1) Industrial development : Creation of new industries and reconstruction of businesses and occupations

(Ex. 1) Production and utilization of CLT (cross laminated timber), forestry revitalization based on use of woody biomass, etc.



CLT



Apartment house using CLT (Wein)

(Ex. 2) Creation of new industries centered on the Innovation Coast Scheme



- Considering development of CLT factories
- Considering active use of CLT in reconstruction bases, public facilities, the 2020 Olympic Village, etc.



- Establishing a place for discussions among concerned parties

- Commercializing robotics testing fields
(After FY2016)

- Commercializing international bases for industrial-academic collaboration (joint research facilities for the development of robotics technologies, training bases for technical experts, such as development of human resources for decommissioning of reactors, etc.)
(After FY2016 to FY2018)

7. Specific Challenges and Courses of Action toward 2020 (2)

(2) Wide-area linkages of public services among multiple municipalities

- In light of declining populations even before the earthquake, individual municipalities cannot necessarily perform all municipal functions.
- Efforts toward wide-area linkages (providing public services jointly by multiple municipalities) will be implemented under an initiative of the prefecture, which itself serves as a “wide-area municipality.”

(Ex. 1) Construction of regional public transportation systems

- Growing dependency on public transport due to the aging of the population in the region when the evacuation order is lifted



- Establishing a place to discuss construction of regional public transportation systems



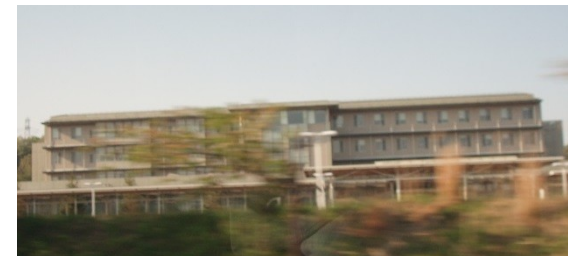
Bus service resumed in Kawauchi Village supporting reconstruction
(Fukushima Transportation Inc.: service 2-3 times per day;
Shin Joban Kotsu Co., Ltd.: twice a day on weekdays)

(Ex. 2) Securing secondary emergency medical systems

- Medical institutions were suspended due to evacuation order, which increased burden of neighboring medical institutions, and longer time is required for transport patients



- Establishing a place to discuss securing medical institutions responsible for secondary emergency medical care



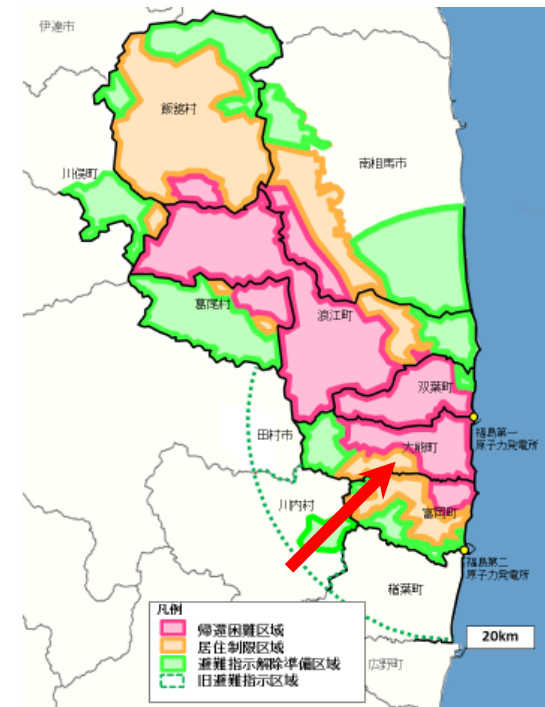
Secondary emergency medical base shut down
(Okuma Town: Prefectural Ono Hospital)

7. Specific Challenges and Courses of Action toward 2020 (3)

(3) Development of recovery and reconstruction bases: Creation of new urban areas

- Under the Act on Special Measures for the Reconstruction and Revitalization of Fukushima (May 2015), a project system (in the manner of outright purchasing) was created toward the smooth, prompt development of a new urban area (recovery and reconstruction base with housing complex), enabling returned residents to restart their lives and rebuild the regional economy.
- Using this system, Okuma Town, where early lifting of the evacuation order is not expected due to high dose, plans to develop a new urban area in the Okawahara District, where dose is relatively low, for residents who want to come back. (Scale: population of 3,000; area of 39 hectares.)

○Okuma Town Reconstruction Base (Ogawara District)



8. Following up on the proposal on Future Vision for Fukushima's 12 Municipalities

Expert Panel on the Future of 12 Municipalities in Fukushima

- Under the Minister of Reconstruction; issued the proposal in July 2015
- Based on reports from the government, Fukushima Prefecture and others on the status of **major individual items** in the proposal, the panel will advise toward their realization.

【Members】

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Proposal by Expert Panel on Future of Fukushima's 12 Municipalities (Outline)

1. Regional image in 30 – 40 years
 - Air dose to be considerably reduced through physical attenuation alone
 - Potential for population to exceed estimates before the earthquake, depending on progress of reconstruction
 - International promotion of Fukushima-style regional revitalization
2. Specific challenges and courses of action toward 2020
 - (1) Creation of new industries and reconstruction of businesses and occupations
 - (1) Health, medical care and nursing-care essential for residents
 - (2) Development of human resources for the future, for the region
 - (3) Wide-area development of infrastructure, regional development and wide-area linkages
 - (4) Promotion of tourism, measures against reputational damage, and preventing memories of the disaster from fading, cultural and sports promotion
3. Other
 - Clearly stated that the government is responsible for recovery and reconstruction of Fukushima
 - Added that the role of the national government in reconstruction ten years after the disaster is a subject for future discussion.
 - “The national government, the prefecture and other concerned parties will coordinate well with each other and work promptly to realize individual items in the image based on the opinions of the municipalities, and a system for doing so will be considered,” suggesting the need to establish a follow-up mechanism.

Major individual items

Advising

Reporting

Council to follow up on the proposal for 12 municipalities in Fukushima

- Following up on progress toward realization of major individual items in the proposal by the Expert Panel on the Future of 12 Municipalities in Fukushima
- Formulating a “roadmap” and report to the expert panel.

【Structure】

Joint chairpersons	Director General of Reconstruction Agency, Fukushima vice governor
Advisors	Experts (participation as necessary) Reconstruction Agency, Related Ministers and Agencies Fukushima Prefectural government 12 municipalities (Tamura and Minamisoma Cities, Kawamata, Hirono, Naraha, Tomioka, Okuma, Futaba and Namie Towns and Kawauchi, Katsurao and Iidate Villages)
Presenters	The core body to consider and implement individual items (including related ministers and agencies and relevant divisions in Fukushima Government)
Joint secretariat	Reconstruction Agency, Fukushima Prefecture

Major Individual Items in “Proposal by the Expert Panel on Future Vision for Fukushima’s 12 Municipalities”

(1) Creation of new industries and reconstruction of businesses and occupations

- Realization of Innovation Coast Scheme
- Creation and activities of a public-private joint team to support self-reliance
- Support for damaged companies, etc.
- Consideration of establishment of a Fukushima Food Fan Club (FFF)

(2) Health, medical care and nursing-care essential for residents

- Consideration to include securing secondary medical care
- Establishing a regional medical network using ICT
- Consideration toward realizing integrated community care system

(3) Development of human resources important for the future, for the region

- Consideration of cutting-edge education at the Futaba Mirai Gakuen High School
- Consideration of cutting-edge education at the Odaka New Integrated High School
- Consideration of development of industrial human resources

(4) Wide-area infrastructure development, regional development and wide-area linkages

- Development of arterial roads
- Early full reopening of the JR Joban Line
- Development of reconstruction bases
- Consideration of building regional public transportation
- Consideration of other wide-area linkages

(5) Tourism promotion, measures against reputational damage and to prevent disaster memories from fading, culture and sports promotion

- Tourism promotion (after DC, etc.)
- State of strategy issuance to strengthen measures against reputational damage and to prevent disaster memories from fading
- Activities related to culture
- Consideration of projects related to the Tokyo Olympics and Paralympics

The Expert Panel on the Future of 12 Municipalities in Fukushima: The proposal was discussed by the panel, finalized on July 30, 2015, and submitted to the Minister of Reconstruction

1. Viewpoints of consideration and basic direction

- (1) Challenges and courses of action toward 2020 with a focus on a regional image in 30 to 40 years.
- (2) Basic direction
 - Realization of an independent region and life in the face of an aging society, depopulation, and declining birthrate
 - International promotion of Fukushima-style regional revitalization
 - Creating a sustainable region by completing reconstruction and expanding and strengthening wide-area linkages
- (3) Putting forward a hopeful future image in circumstances where a positive future picture can scarcely be seen

2. Regional image in 30 – 40 years

- Air dose across the entire 12 municipalities is expected to be considerably reduced through physical attenuation
- There is potential for exceeding population estimates before the earthquake through creation of highly convenient living environments – this through establishment of reconstruction bases, infrastructure and living-related services, creation of new industries, development of the region with “hope” for restoration, continuation of nature, culture and the like
- A region can be created that the residents are proud of, and happy in, through the fostering of generational connections among those who will return home, those who will move in from outside, those who have started new lives in other areas, and others providing support from outside
- A globally cutting-edge industrial/research base and human resources can be created by integrating research and development in the robotic industry, decommissioning-related industries, etc.
- Being a “renewable energy pioneer ” to meet energy demands in the region and to contribute to recovery and reconstruction
- Tourists can be attracted to the existing resources of history and culture, scenic spots, etc., and to new resources, including cutting-edge technological facilities
- The region can be a model for overcoming depopulation and the challenges of aging and declining birth rates

(Hearing from children who will play important roles in the future (children's conferences, questionnaire))

3. Specific challenges and courses of action for 2020

In line with the revised “Speeding up the Reconstruction of Fukushima from the Nuclear Disaster” (approved at a Cabinet meeting in June 2015), ①evacuation orders will be lifted in the areas where that is already designated to be done “soon” and in areas where “living is still not permitted” no later than six years after the accident, serving as visible signs of reconstruction; and ② in the area where residents will not be able to return home for a long time, classification will be considered in reconstruction bases based on low air dose and actions will be taken toward reconstruction.

(1) Reconstruction and creation of industries and businesses

(Creation of new industries and reconstruction of businesses and occupations)

- Helping business operators (8,000 companies), including primary industries, in 12 municipalities to be independent and to reconstruct their businesses through visits and consultations by new public-private joint teams

- Creation of new industries through the Innovation Coast Scheme

(Reconstruction of key industries – agriculture, forestry and fisheries)

- Efforts toward resumption of agriculture through the carrying out of test plantings and administration of farm land by establishing an agricultural reconstruction society
- Administration of farm land toward resumption of agriculture in areas where it is otherwise difficult to restart agriculture quickly, integrating and securing personnel to be ready to engage when necessary
- Production and use of CLT (cross laminated timber), forestry revitalization based on woody biomass, etc.
- Development of new sales routes through, for example, the Fukushima Food Fan Club (FFF) to support consumption of Fukushima-produced food products

3. Specific challenges and courses of action for 2020

(2) Health, medical care and nursing-care essential for residents

- Securing secondary medical systems for the region
- Realizing integrated community care systems for the elderly in the region using the new Long-Term Care Insurance System
- Introducing/utilizing ICT and the like to overcome shortages of human resources responsible for medical care

(3) Development of human resources important for the future, and the region

- Cutting-edge education at individual schools (ex. Futaba Mirai Gakuen High School), or in linkages for the development of human resources for reconstruction
- Development of human resources for core industries to be required under a new industrial structure

(4) Wide-area infrastructure development, regional development and wide-area linkages

- Realizing wide-area networks through development of the Joban Expressway, Fukushima Reconstruction Roads, promoting residents' returning home, revitalizing residents' lives, and industrial integration
- Materializing/realizing a "compact" region and reconstruction bases, and realizing a unified region of complementing reconstruction bases
- In light of limited capabilities to provide public services by a individual municipalities, establishing a system to consider wide-area linkages for public services, for example, regional transportation, medical care and agriculture

(5) Tourism promotion, measures against reputational damage and to prevent disaster memories from fading, and cultural and sports promotion

- Considering promotion of tourism, one target being 2020, highlighting the state of reconstruction
- Carrying on traditions and culture, and implementing cultural and arts events by residents in and outside the prefecture
- Activities making use of the 2020 Tokyo Olympics and Paralympics

4. Toward realization

- The national government is responsible for recovery and reconstruction of Fukushima's 12 municipalities.
- Challenges common to the Fukushima's 12 municipalities cover a wide area. The role of the prefecture as, itself, a "wide-area municipality" is great.
- The national government, the prefecture and other concerned parties will coordinate well with each other and work promptly to realize individual items in the image based on the opinions of municipalities. A system for doing so will be considered.
- The role of the national government in the reconstruction of Fukushima ten years after the disaster is a subject for future discussion.