

# Japan's experience after the Great East Japan Earthquake

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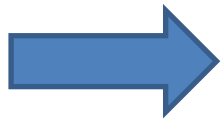


National Livestock Breeding Center



# Characteristic of Japanese Livestock Industry

- High temperature/ humidity with typhoons, torrential rains and heavy snow.
- Seismic and volcanic activities occur constantly.
- Small island with limited cultivated acreage.



- Most livestock animals are **kept in shelter**.
- **Self sufficiency of feed is only 26%**. Most of feed grain is imported from US.
- Appropriate **manure/disease control** is required.
- The **average size of livestock farm is expanding** to against the trade liberalization.



# General Background

# Legal framework of disaster management in Japan

- Disaster Countermeasures Basic Act requires national/ local government to establish its **basic management plan**.
- According to the law of humane treatment and management of animals, local gov. has to establish **a plan for welfare and management of animals**. The plan has to include management of animals in disaster, to secure proper handling, feeding and keeping.

# Basic approach for disaster management is preparedness

- This is an example of call to livestock farmers to pay attention for Typhoon arrival from the livestock hygiene service center.
- As a preparedness, **reinforcement of shelters, secure of evacuation route and generator** are recommended.

**家畜衛生情報**  
☆ 台風に備えましょう ☆  
秋台風が接近する時期です

気象庁によると、秋台風は日本に近づくことが多く、大雨が降ることから、台風情報に十分注意して伝染病の侵入防止に努めましょう。

**【事前対策】**

1. 畜舎の整備、倒壊の恐れのあるところは、補修して備えましょう。
2. 大雨による畜舎への侵入の恐れがある場合は、扉扉などを閉めるなど、いざという時のために備えましょう。堆肥流出にも注意が必要です。
3. 畜舎への浸水により畜舎への被害が予想される場合は、事前に畜舎の避難場所を確保しておきましょう。
4. 停電等が予想される地域では、自家発電機による搾乳、生乳冷却、畜舎内の送風ファン等に対応できるようにしておきましょう。

**【疾病予防対策】**  
水管等により疾病が発生する恐れがあります。下記を参考にしてください。

1. 天候が回復したら、畜舎内・畜舎周辺の排水を行い、消毒しましょう。
2. 土砂が流入した時には、二次的事故に注意しながら土砂を除去しましょう。
3. 畜舎、牧場、防鳥網等に破損、汚染がないか確認し、必要があれば補修、洗浄、消毒を行いましょう。
4. 飲水に用いた水の給水の確認や、畜舎の健康観察など飼養衛生管理基準に沿った衛生管理を徹底し、疾病予防措置を講じましょう。

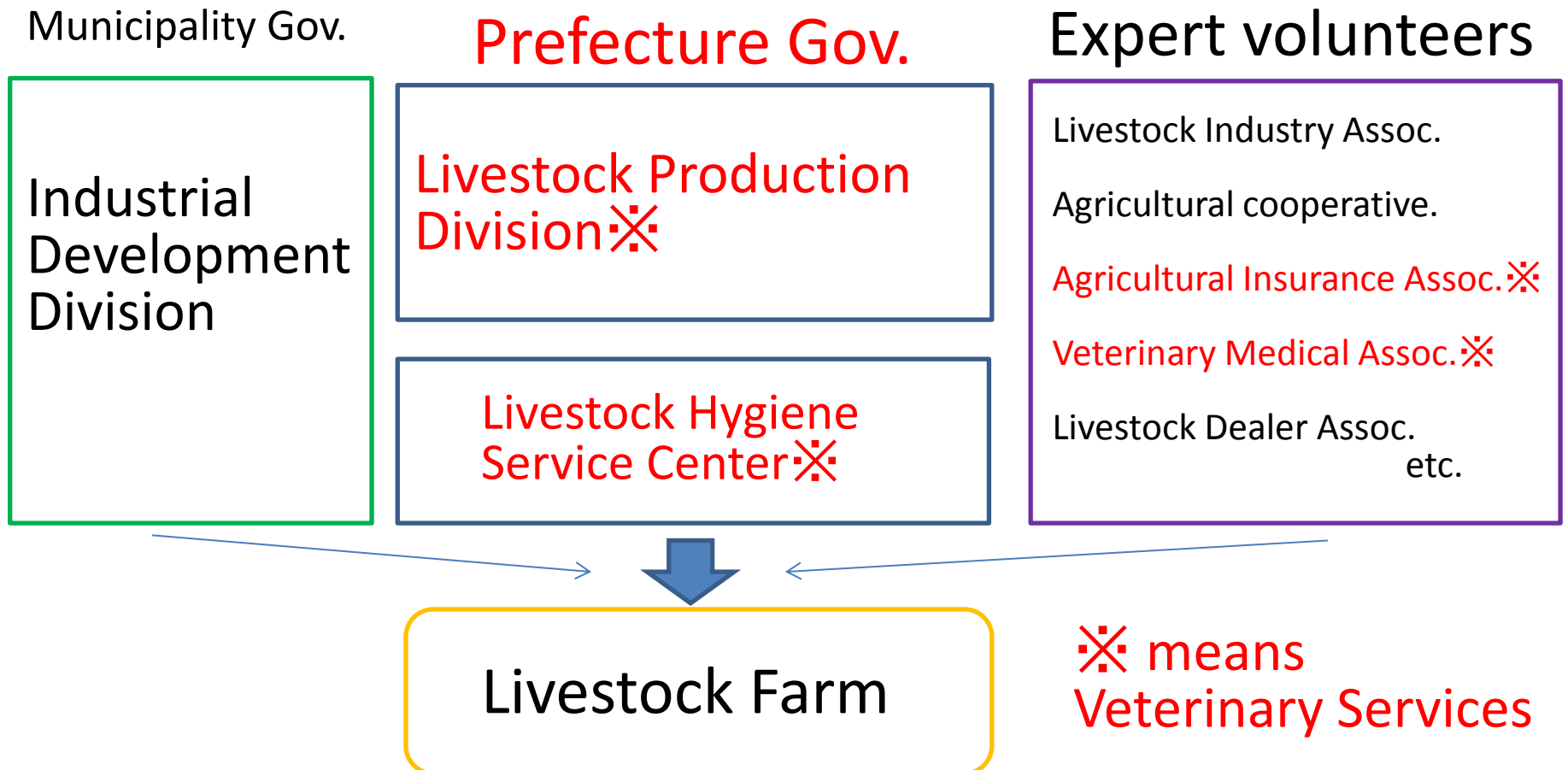
**【飼料作物】**

1. 圃場が冠水や浸水等の被害を受けた時は、速やかに排水をしましょう。
2. 倒伏すると収穫量の減少・品質が低下するため、倒伏がひどく回復が見込めない場合は、高刈り等により土砂の侵入を避け早めに収穫しましょう。

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# Typical disaster management system at regional level

Disaster management is done by the prefecture gov.  
under the cooperation with stakeholders.



# Importance of volunteers' activities

- Volunteers' activity to disaster recovery has been **spotlighted after the Great Hanshin-Awaji Earthquake** in 1995.
- Volunteer's will be classified with "General volunteer" and "**Expert volunteer**".
- The Cabinet Office published a brochure to enhance both participation/ receiving of volunteers.

# Voluntary organization for Disaster Prevention

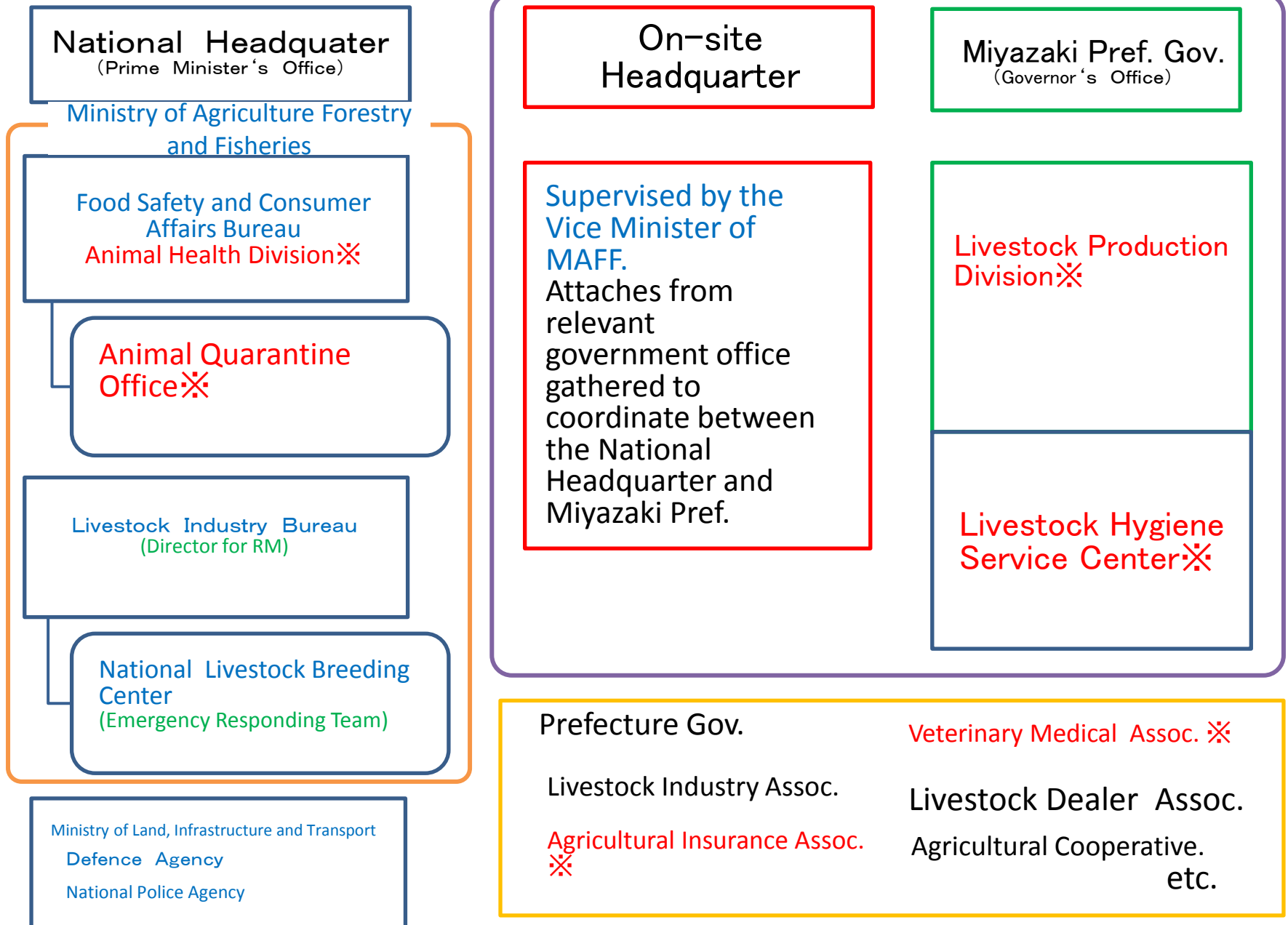
- Municipality Gov. has to support to establish neighborhood community association/ resident's association.
- Historically, these voluntary organizations play important role during the disaster. However, entering an era of an aging population, maintain their high activity level become difficult.
- In the field of livestock industry, stakeholder' associations work as the "Expert Volunteers"



# After National Gov. receives request from Prefecture Gov.

- If the impact of disaster is too serious to recover with local level, the prefecture Gov. will require support to the National Gov.
- In such case, “**National Headquarter**” will be established in the Prime Minister’s Office and “**On-site Headquarter**” will be established in the local area affected by the disaster.

# Organization for FMD eradication in Miyazaki



# Current Improvement of the organization

- Established a new position titled as “**Director for risk management**” in Livestock Industry Department of MAFF.  
✂
- Amended the medium-term objective of NLBC and add “**Disaster Assistance**” as a formal mission. ✂
- Established the “**Emergency responding team**” in NLBC
- **Stored necessary materials in NLBC** with subscribe from JRA. ✂

✂ After the Great East Japan Earthquake

✂ After the outbreak of FMD in Miyazaki

# Response to the Great East Japan Earthquake

# Impact by the Great East Japan Earthquake to livestock Industry

- Earthquake and Tsunami destroyed communication, power supply and transportation.
- **Tsunami destroyed feed mill** and harbor facilities.
- Nuclear power **plant accident forced residents evacuate from 20 km radius** from the plant.
- Released **radioactive substance caused food/ feed contamination.**



# Recovery of feed supply

## 【As for earthquake and TUNAMI】

MAFF released national stock of feed grain.

MAFF paid incentives to increased production of formula feed in non-affected areas and to transport of the feed to the affected area.

## 【As for nuclear power plant accident】

National Livestock Breeding Center provided hays free of charge to farmers who were in 20-30 km radius from the nuclear power plant.



# To secure the food and feed safety, the Government of Japan introduced new regulation with radio active substances

豚・馬・家きんの飼養農家のみなさまへ

## 飼料中の放射性セシウムに関する 暫定許容値が変わりました

豚用飼料	1kgあたり → 80ベクレル
馬用飼料	1kgあたり → 100ベクレル
家きん用飼料	1kgあたり → 160ベクレル

4月1日に食品の基準値が変わります。  
新基準値を超えない肉や卵(1kgあたり100ベクレル)が生産されるよう、暫定許容値以下の飼料を給与しましょう。

粗飼料や放牧による飼養管理について

- 上記の暫定許容値を上回る粗飼料や放牧地の牧草等を採食していた家畜については、暫定許容値以下の牧草等を利用するなど、適切な飼養管理を行うとともに、と畜場等への出荷の際には放射性セシウムに関する検査を行ってください。
- これまで利用してきた牧草等が今後も利用できるかどうかは、\_\_\_\_\_へお問い合わせください。

相談窓口	担当係	電話
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みなさまへ、安全な食べものを。  
生産現場は  
取り組み続けています。

生産現場の様子

検査の様子

出荷の様子

農林水産省 国土交通省 環境省 経済産業省 消費者庁 農研機構 農水省 農水省 農水省 農水省





# Procedure of evacuation of animals from planned evacuation area.

MAFF assisted evacuation of 10,000 heads of cattle from the planned evacuation area before it came into effect (within a month).

Confirm the animal was cared under the appropriate condition with a questionnaire.

Check the level of radioactive pollution is lower than 100,000 c.p.m. with survey meter. If result exceed the threshold, clean up of the surface of animals are necessary.

Loading animal onto the vehicle.

Clean up wheels and tires of the vehicle.

The veterinary official has to check every step.



# Secure the safety of workers.

The GOJ prohibited the entry within a 20 km radius from the plant because it could not foresee the development of the accident.

We established the guideline to control dose of the exposure to radiation among the workers who will be engaged in evacuation of animals.

## 【Guideline】

Every worker must wear radiation-protective equipment.

Dose of the exposure to radiation among the workers should be controlled by personal dosimeters. The maximum total exposure is 20 mSV per year.

Workers and vehicles should have screening and cleaning.

Burial of the dead animals is prohibited, because there will be the risk of recontamination with polluted dust, so dead animals should be covered with plastic sheet and slaked lime.

Planned the working project for released animals with FUKUSHIMA prefecture after the investigation by the reconnaissance team.



# Respond to livestock animals released from the farm after the great east Japan earthquake.

## 【Background】

Some farmers and animal activists released livestock animals from the farm.

These animals caused following problems:

- Disturbed search for missing persons
- Broke into houses and farm facilities and dirty with feces
- Caused traffic accidents with vehicles

These animals gradually became more wild, and started breeding.

## 【Respond】

The GOJ, Fukushima prefecture and NLBC started to capture the animals with trap and tranquilizer guns.



# Local Veterinary Medical Assoc. examined suffering pets and protected pets.

Many companion animals were suffered

20 of Local Veterinary Medical Associations did following activities

- ① Examination of suffering pets at the shelter
- ② Took care of animals from suffered persons  
At least the associations kept 242 heads of dogs/cats in Fukushima prefecture.

- ① Examination of suffering pets at the shelter



- ② Care of suffering pets and invitation of new owners



What Japan is doing to reflect the lessons learned from the Great East Japan Earthquake

# Amendment of Disaster Countermeasures Basic Act

The Act was amended to reflect the experiences during the Great East Japan Earthquake in 2012.

- Strengthen the quick corresponding ability for the disaster which affect for wide area and its impact is serious.
- Securing the safety/ immediate evacuation of the residents .
- Improvement of measures to protect the sufferers.
- Strengthen the efforts to disaster prevention in peace time.

# Review activity of local disaster management plan by the local gov.

- Review activity at local level is a step forward to reflect the experiences during the Great East Japan Earthquake.



- Preparedness for **accident of nuclear power plant.**
- **Review the result of Risk Assessment**, especially for Tsunami.
- Enhance the establishment of **“Business Continuation Plan”** by private enterprise.
- Securing the **cooperation with private sector and volunteers** etc.

Thank you for your attention!

Thank you for your supports which Japan received after the Great East Japan Earthquake.