The Outline of Japan's Agricultural Insurance Scheme

May, 2016

National Agricultural Insurance Association (NAIA)

http://www.nosai.or.jp

Various measures to handle the agricultural disaster in Japan

1. **Agricultural products insurance**
   - ***Compensation Against Agricultural Loss Law***
2. Finance for farmers affected by severe natural disaster
   - *Act on Interim Measures for Financing Farmers, Woodsmen and Fishermen Suffering from Natural Disasters*
3. Recovery projects based on the law for facilities damaged by disaster
4. Financial support for people affected by severe natural disaster
   - *Act on Special Financial Support to Deal with Extremely Severe Disasters*
5. Reduction of tax for people affected by natural disaster

1. Features of the Agricultural Insurance Scheme

1. Government support farmers' agricultural mutual relief.

2. Government reinsures.

3. Government subsidies for about half of premium and portion of administrative and operating costs.

4. Three-tier organization consisting of municipal, prefectural, and national-level service providers.

5. Compulsory participation above the set area of farmland growing rice, wheat and barley.

2.Purpose of the Agricultural Insurance Scheme

Agricultural Insurance Scheme aims to compensate farmers' losses caused by disasters, stabilize farmers' management and contribute to development of agricultural productivity.

(Compensation Against Agricultural Loss Law)

3.Establishment of the Agricultural Insurance Scheme

- The Agricultural Insurance Scheme was established in 1947.
- The scheme was amended several times.

4.Types of the Agricultural Insurance Scheme

①Rice,Wheat and Barley Insurance

②Livestock Insurance

③Fruit and Fruit-tree Insurance

④Field Crop Insurance

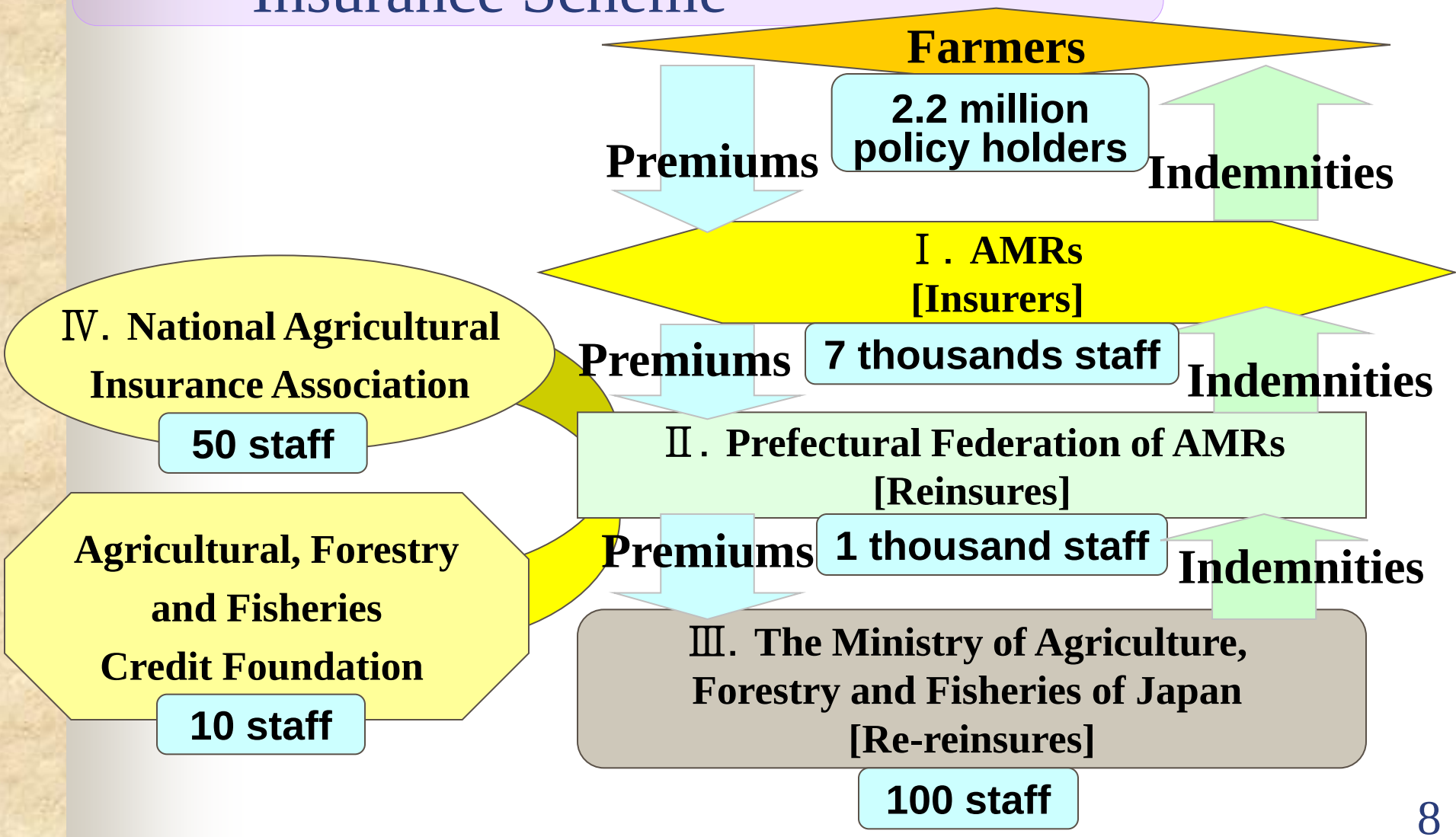
⑤Green house Insurance

(note)
We also have Farmers' House and Agricultural Machine Insurance program. These programs are held voluntarily by AMR and Prefectural Federation of AMR. The government neither reinsures nor subsidizes. AMRs have an obligation to run Rice, Wheat and Barley insurance and Livestock insurance.

5.Types of the Agricultural Insurance Scheme and Items to be insured

Programs	Chief items to be insured
Rice, Wheat and Barley Insurance	Paddy Rice, Upland Rice, Wheat and Barley
Livestock Insurance	Cattle(and Cattle's Fetus), Horse and Swine
Fruit and Fruit-tree Insurance	Fruit Insurance: Unshu orange, Apple, Grape, Pear, etc. Fruit-tree Insurance: Trees of the above-listed fruit
Field Crop Insurance	Potato, Soybean, Tea plant, Silk-cocoon, etc.
Green house Insurance	Greenhouses, Equipment (Heaters etc.), Removing cost of ruined greenhouse

6.The Organization of the Agricultural Insurance Scheme



Ⅰ. Agricultural Mutual Relief Associations (AMR) [Insurers]

- AMR collects premiums, and pays indemnities.
- Business operations of AMR is limited to operations having to do with Agricultural Insurance.
- We have 211 AMRs. (April 1, 2014)

Ⅱ. Prefectural Federation of AMRs [Reinsures]

- Prefectural Federation of AMRs shares part of insurance liability with AMRs.
- The business operations of Prefectural Federation of AMR is limited to operations having to do with Agricultural Insurance.
- We have 30 Prefectural Federation of AMR s. (April 1, 2014)

Ⅲ. The Ministry of Agriculture, Forestry and Fisheries of Japan [Re-reinsures]

- The Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF) shares part of liability with Prefectural Federation of AMRs.
- Government holds Food Stable Control Special Account.
- MAFF guides and supervises AMR and Prefectural Federation of AMR, and shares part of the administration costs. (about 46 billion yen, 2009) (about 42 billion yen, 2010) (about 40 billion yen, 2011) (about 39 billion yen, 2012-2014)
- MAFF shares about a half of premium with farmers.

(about 53 billion yen, 2009) (about 50 billion yen, 2010-2014)

Ⅳ. National Agricultural Insurance Association (NAIA)

National Agricultural Insurance Association (NAIA) is a central organization of Agricultural Insurance Associations.

NAIA runs following businesses.

- Putting opinions from Agricultural Insurance Association together.
- Negotiating with the Government, the Diet and so on.
- Making a studies on Agricultural Insurance.
- Training Agricultural Insurance Associations staff
- Running welfare programs for Agricultural Insurance Associations staffs.
- Building and running IT for Agricultural Insurance business.
- Publishing Newspaper for farmers and Magazine for veterinarians.

7. Outline of Rice, Wheat and Barley Insurance

1. Crops to be insured

Paddy Rice, Upland Rice, Wheat and Barley

2. Participation

- A farmer who has fields over specific area is qualified to be insured. *1
- A policy automatically comes into effect, when a farmer cultivates fields over specific area. *2
- A farmer has to insure all the plot he has.

1: AMR decide it. Minimum area is 30 are in Hokkaido, 10 are except in Hokkaido.

2: For paddy rice it is decided by Prefectural Governor with in the range of 30 ～100 are in Hokkaido, 20 ～40 are except in Hokkaido.

3. Risk covered

A decrease in yield caused by typhoon, flood, drought, low temperature, heavy snow, the other meteorological events (including earthquake and volcanic eruption), fire, insect, bird and animal.

(note) A decrease in product price caused by quality loss is also insured.

4. Insurance Period

From transplanting season (for Paddy Rice) or sprouting season (for Upland Rice, Wheat and Barley) to harvest.

5. Underwriting formula

- Plot unit formula

Coverage yield is determined for each plot.
Indemnities is paid when the decrease ratio in yield exceeds the exemption ratio of the standard yield in the plot.
A Farmer can decide the exemption ratio from among **30%,** 40% and 50%.

- Incomplete offset farmer unit formula

  Coverage yield is determined for each farmer.
  Indemnities is paid when ratio of total decrease in yield in only damaged plot (except not damaged plot) exceeds the exemption ratio of the standard yield of the farmer.
  A farmers can decide the exemption ratio from among **20%,** 30% and 40%.

- Complete offset farmer unit formula

  Coverage yield is determined for each farmer.
  Indemnities is paid when ratio of total decrease in yield of the farmer exceeds the exemption ratio of the standard yield of the farmer.
  A farmers can decide the exemption ratio from among **10%,** 20% and 30%.

Quality of crops formula

Coverage yield is determined for each farmer.

Indemnities is paid when ratio of farmer's yield and income loss exceeds the exemption ratio of the standard yield and income of the farmer.

A farmer can decide the exemption ratio from among **10%,** 20% and 30%.

(notes)

1. ***A farmer chooses which formula will be applied.***
2. ***"a Plot" is defined as a cultivated lot, which is clearly divided by roads, balks, footpaths, channels, and so on.***
3. ***Minister designate the area, in which farmers can prevent insects causing damage to crops. Premium is discounted in that area .***
4. ***"Quality of crops formula" is only available, when the farmer ships most of his yield to JA (Japan Agricultural Co-operatives) or so on. His yield and product price is checked by the records of JA etc.***

6. Amount insured

- Plot unit formula, Incomplete offset farmer unit formula, Complete offset farmer unit formula

[amount insured] =
[amount insured per kilogram*1] × [coverage yield*2]

1 : 194.7 yen per kilogram
(paddy rice,the national average 2010)
2 : [average of normal year's yield *3] × [ratio of coverage]*4
3 : average of normal year's yield is 516 kilogram per 10 are
(paddy rice, the national average 2010)
4 : Farmer can decide the ratio of coverage from among
70%, 60% and 50% (for plot unit formula),
80%, 70% and 60% (for incomplete offset farmer formula),
90%, 80% and 70% (for complete offset farmer formula).

Quality of crops formula

A Farmer can decide the amount insured with in the following range.

[standard amount] × 40～60% *1

≦ [amount insured] ≦

[standard amount] × 70～90% *2

1 : AMR decides this percentage within this range.

2 : A farmer decides this percentage from among 90%, 80% and 70%.

7.Premium

[Premium] = [Amount insured] × [Premium rate*]

(Government subsidies 50% (about 54% for Wheat and Barley) of premium.)

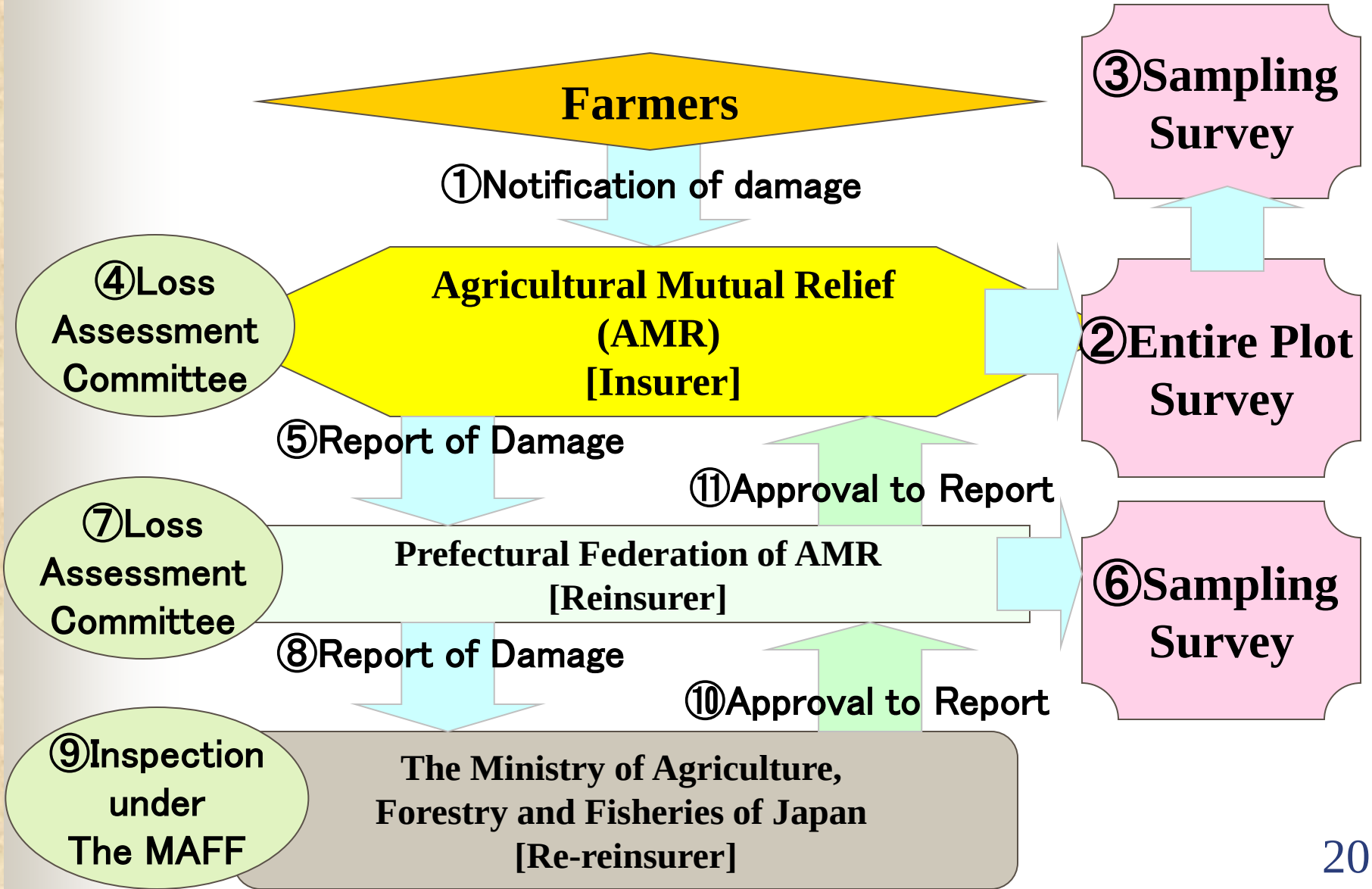
* ***: Standard premium rate is notified by the minister. It is estimated from damage ratio of past 20 years, and amended every 3 years. AMR decide premium rate for each crop and underwriting formula. It should be over standard premium.***

- Considering a past damage ratio, AMR can apply different premium rate to each area and farmer.

Average of insured yield of paddy rice for each farmer (2012)

- ***insured area : 93 are***
- ***amount insured : 677 thousands yen***
- ***premium : 11,768yen (farmer pays 5,884 yen)***

8.Loss assessment



②Entire Plot Survey by AMR

- AMR surveys all the plot claimed by farmers.
- In the entire plot survey, loss assessors assess the yield by seeing the plot, or sampling the crops.
- A loss assessor is a representative of farmers. We have about 147thousands (2012) loss assessors.
- A loss assessor is commissioned by a president of AMR.

③ Sampling Survey by AMR

- Samples are picked out from the plots claimed by farmers.

(notes)

1. ***In case of "Complete offset formula" the yield is checked at facilities after harvested.***
2. ***In case of "Quality of crops formula" the yield and price is checked in records of JA (Japan Agricultural Co-operatives) etc.***

④Loss Assessment Committee (AMR)

- The loss assessment committee gives opinion on the result of loss assessment to AMR.

⑤Report of Damage (AMR)

- AMR reports on the result of loss assessment to Prefectural AMR.

⑦Loss Assessment Committee (Prefectural AMR)

- After sampling survey of Prefectural AMR, The loss assessment committee gives opinion on the result of loss assessment to Prefectural AMR.

⑧Report of Damage (Prefectural AMR)

- Prefectural AMR reports on the result of loss assessment to MAFF.

⑨Inspection under The MAFF

- The Ministry inspects the report of Prefectural AMR under the statistics, modifies and approves it.

9.Indemnities

■Plot unit formula, Incomplete offset farmer unit formula, Complete offset farmer unit formula

[Indemnities]

= [Amount Insured per kilogram] × [Decrease in yield]*1

1: Decrease in yield

(for Plot unit formula)

([Standard yield of the plot] - [Actual yield])

- [Standard yield of the plot] × (0.3,0.4 or 0.5)

(for Incomplete and Complete offset farmer unit formula)

([Standard yield of the farmer] - [Actual yield])

-[Standard yield of the farmer] × X*2

***2: X=0. 8, 0.7 or 0.6 (for Incomplete offset farmer unit formula)**

X=0. 9, 0.8 or 0.7 (for Complete offset farmer unit formula)

(for Quality of crops formula)

[Indemnities]

=[[Standard Amount] × X* - [Actual Amount]}

× {[Amount Insured] / ([Standard Amount] × X*)}

(note)

Indemnities are paid when his actual yield is less than his [standard yield × quality index], and his actual income is less than certain percentage of his standard income.

*** : X=0. 9, 0.8 or 0.7**

- In case farmer could not transplant or sprout, indemnities are paid. In that case the decrease in yield is regarded as 65% (for plot unit formula)*, 60% (for incomplete offset farmer unit formula)*, 55% (for complete offset farmer unit formula)* of standard yield.

(note) *: this percentage is an example

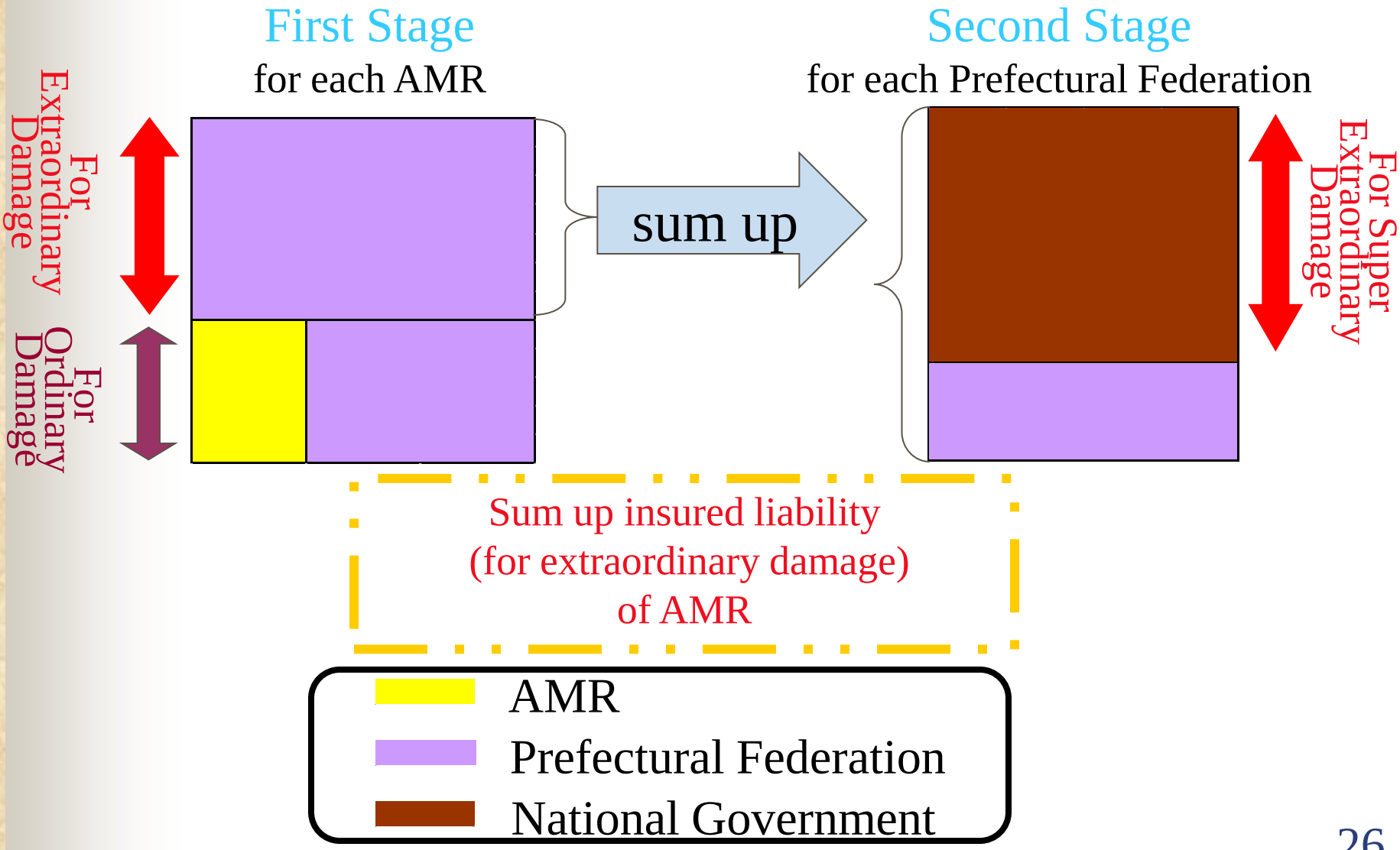
10. No Claim Return

AMR can pay no claim return as below.

[No Claim Return]
= [Premium paid by the farmer in the past three years] × X*
- [Indemnities paid in the past three years]
- [No Claim Return paid in the past two years]

(note) *: X is determined by AMR, limited in 50%.

11. Reinsurance and Re-reinsurance



Record of the Rice, Wheat and Barley Insurance on production in 2014 (underwriting)

		Paddy Rice	Wheat and Barley
Number of Insured Farmer (thousand)		1,490	47
Insured Area (thousand ha)		1,489	265
Insured Yield (thousand ton)		5,433	105
Amount Insured (billion yen)		1,080	114
Premium (million yen)		18,735	11,863
	Premium Shared by Farmer (million yen)	9,368	5,508
Ratio of Insured Area (%)		94.7	97.8
For each farmer	Insured Area (are)	100	562
	Amount Insured (thousand yen)	725	2,418
	Premium Shared by Farmer (thousand yen)	6	117

Record of the Rice, Wheat and Barley Insurance on production in 2014 (damage)

	Paddy Rice	Wheat and Barley
Number of Damaged Farmer (thousand)	59	11
Damaged Area (thousand ha)	24	57
Indemnity (million yen)	4,035	5,234
Re-reinsurance Money (million yen)	16	881
Ratio of Damage by Money*(%)	0.4	4.6
Insurance Money for each Damaged Farmer (thousand yen)	68	378

* indemnities/amount insured

8.Outline of Livestock Insurance

Livestock Insurance is a combination of “life insurance” and “health insurance” of livestock.

1.Items to be Insured

cattle, horse and swine

cattle : dairy cattle, beef cattle, breeding cattle, cattle’s fetus

horse : horse, stallion

swine : breeding pig, fatting pig

2.Insurance accident

death, disuse* (except cattle fetus and swine), disease and injury

**** : "Disuse" includes missing, loss of propagative power (for dairy cattle, breeding cattle, stallion), loss of ability to produce milk (dairy cattle) and a deformity.***

(note) In case of accidents caused by extra ordinary disasters Government accepts all liability of AMR and Prefectural AMR.

3.Insurance Period

one year since a farmer participated

4.Underwriting formula

①Blanket Insurance formula

Farmer's all cattle lumped together are entered in. Farmer, who meets some conditions that number of cattle are confirmed in an on-the-spot inspection by AMR and shipping records are safekeeping etc, can enter.
Breeding cow and stallion is not entered in this formula.

②Individual Insurance formula

The farmer who is refused to enter in blanket insurance formula by AMR can choose to enter a cattle individually.
Cattles with trouble are not able to be entered in this formula. Breeding pigs and stallions is entered in this formula.
A farmer has to insure all the cattle he has (except problem cattle).

5.Amount insured

[Insurable value] × X* = [Amount Insured]

**** : Farmer decide what percentage will be applied with in the range from 20% to 80%. (average 50～70％)***

6.Premium

[Premium] = [Amount Insured] × [Premium Rate*]

(Government shares about 50% of premium.)

**** : Standard premium rate is notified by the minister. It is estimated from damage ratio of past 3 years, and amended every 3 years. AMR decide premium rate for each classification of cattle. It has to be not less than standard premium.***

- Considering a past damage rate, AMR can apply different rate to each area and a farmer.
- An experienced farmer, having over 5 years experience etc, can leave out specific insurance accident from the contract, and premium is discounted.

7.Indemnities

①Death and disuse (life insurance)

[Indemnities]

$$= ([\text{Insurable Value}] - [\text{Value of Residue}]) \times \frac{[\text{Amount Insured}]}{[\text{Insurable Value}]}$$

- Value of residue is limited in 50% of insurable value.
- "Amount insured / Insurable value" is limited in 80%.
- If the indemnities estimated in previous equation is larger than net amount of loss, net amount of loss is paid as a indemnity.
- A ceiling is set on total indemnities of a farmer in one insurance year.

②Disease and Injury (health insurance)

The charge for veterinary surgeon is covered by the insurance.

- A ceiling is set on total indemnities of a farmer in one insurance year.
- A ceiling are set on life insurance and health insurance individually.

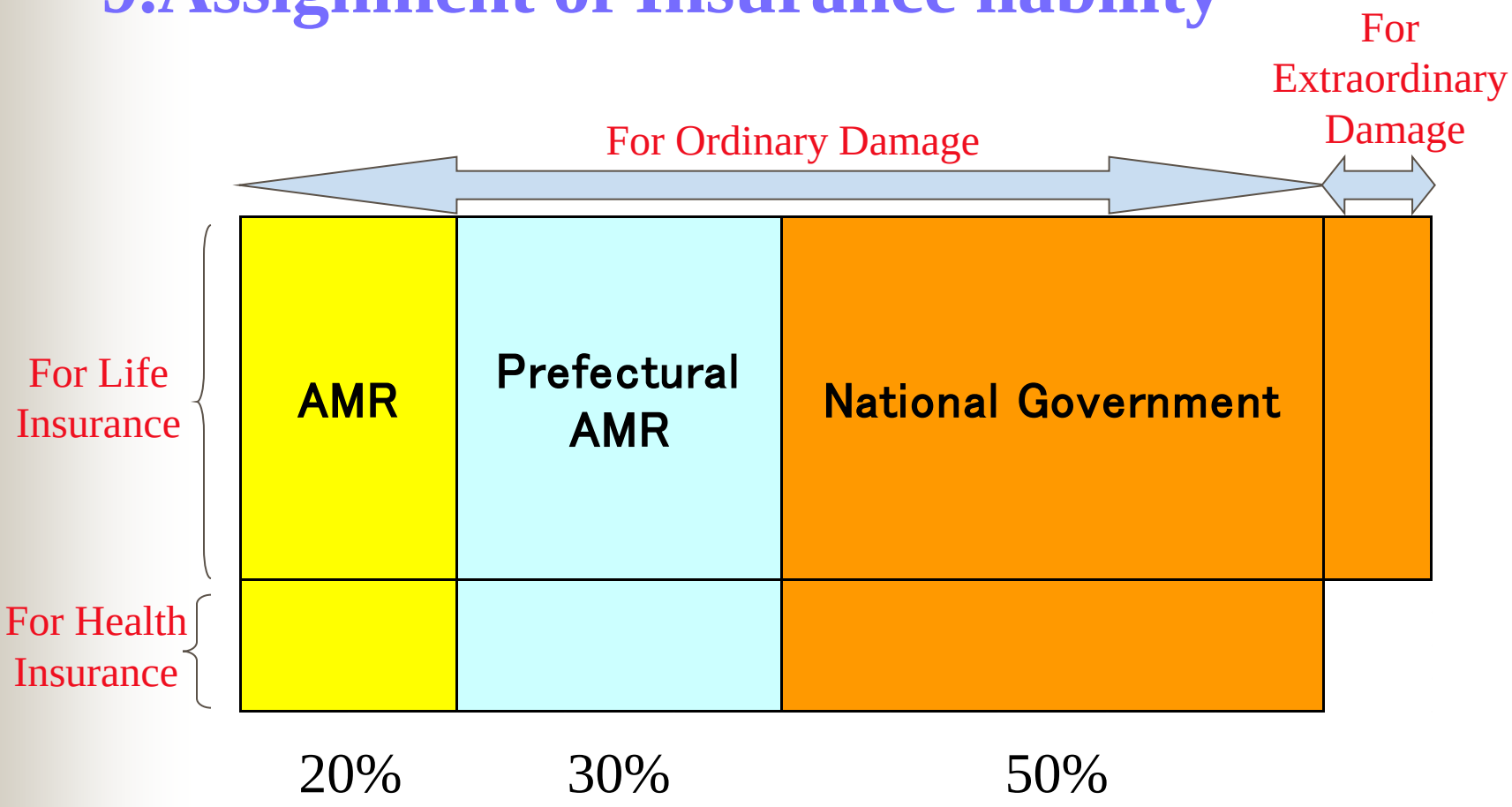
8.Veterinary clinic center

1) AMR suggests and support farmers to prevent losses.
Government shares 60% of the cost to prevent specific risk.

2) AMR and Prefectural Federation of AMR can found veterinary clinic center for the insured farmers.

We have 277veterinary clinic center and 1,725 veterinary surgeons. (2012)

9.Assignment of Insurance liability



(note)
In a contagious disease or a extraordinary accident, losses are fully covered by Government.

Record of the Livestock Insurance in 2014 (underwriting)

	The number of insured (thousand)	The rate of insured (%)	Per head (thousand yen)	
			The insured value	The amount insured
Dairy cattle	2,174	92.7	384.5	205.6
Beef cattle	2,196	66.9	483.5	190.8
Horse	21	60.7	1,618.9	864.8
Breeding pig	193	23.8	70.3	46.8
Fatting pig	1,693	22.3	12.0	8.7
Total	6,277	–	–	–

Record of the Livestock Insurance in 2014 (damage)

	The number of dead or disuse livestock (thousand populations)	The number of diseases or injuries cases (thousand cases)	Indemnities (million yen)	
			For death or disuse	For diseases or injuries
Dairy cattle	149	1,285	17,848	16,444
Beef cattle	59	1,032	6,949	9,368
Horse	1	13	373	196
Breeding pig	5	8	193	58
Fatting pig	185	----	1,422	----
total	399	2,338	26,785	26,066

Record of Agricultural Insurance (underwriting) in 2014

Record of Agricultural Insurance in 2014

		The number of underwriting	Total amounts of insurance (100 million yen)	Premiums		
				Total amounts (100million yen)	Farmer's Share (100million yen)	Government Share (100million yen)
Rice and the other grain insurance		thousand ha				
	Paddy rice	1,489	10,804	187	94	94
	Upland rice	0.1	0.2	0.0	0.0	0.0
	wheat and barley	265	1,141	119	55	64
	Total	1,755	11,945	306	149	157
Livestock insurance		thousand heads				
	Dairy cattle	2,174	2,975	365	185	180
	Beef cattle	2,196	3,473	177	94	83
	Horse	21	193	6	4	3
	Breeding Pig	193	90	3	2	1
	Fatting Pig	1,693	146	14	8	6
	Total	6,278	6,877	566	293	273
Fruit and fruit-tree insurance		thousand ha				
	Fruits	39	932	42	21	21
	Fruit-tree	0.9	52	0.5	0.3	0.3
	Total	40	983	43	21	21
Field crops insurance		thousand ha				
	crops	282	1,958	132	60	73
		thousand box				
	silk-cocoon	2.7	1	0.03	0.01	0.01
	total	-----	1,959	132	60	73
Greenhouse insurance		thousand ha				
		24	4,558	56	28	28
Total			26,323	1,103	551	552

Record of Agricultural Insurance (damage) in 2014

Record of Agricultural Insurance (damage) in 2014

			The number of damaged farmers	Indemnities (million yen)	Reinsurance claims (million yen)
Rice and the other grain insurance			thousand farmers		
		Paddy rice	59	4,035	16
		Upland rice	0.03	3	1
		wheet and barley	14	5,234	881
		Total	73	9,272	899
Livestock insurance	life insurance		thousand head		
		Dairy cattle	149	17,848	8,924
		Beef cattle	59	6,949	3,474
		Horse	1	373	187
		Breeding Pig	5	193	97
		Fatting Pig	185	1,422	711
		Total	399	26,785	13,393
	health insurance	Dairy cattle	1,285	16,444	3,369
		Beef cattle	1,032	9,368	1,759
		Horse	13	196	30
		Breeding Pig	8	58	12
		Fatting Pig	--	--	--
		Total	2,339	26,066	5,170
Fruit and fruit-tree insurance			thousand farmers		
		Fruits	11	2,965	849
		Fruit-tree	0.2	40	2
		Total	11	3,005	851
Field crops insurance			thousand farmers		
		Fields crops	25	6,839	3,617
		Seri cultural	0.02	1.5	0.4
		total	25	6,840	3,617
Greenhouse insurance			thousand houses		
			23	2,054	164
Total			--	74,023	24,095