

# QR CODE FOR RISK COMMUNICATION REGARDING FUKUSHIMA DISASTER

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# Fukushima Daiichi Nuclear Disaster

- March 11<sup>th</sup>, 2011
- Level 7 on International Nuclear Event Scale: Major Accident
- Spread of radio active materials

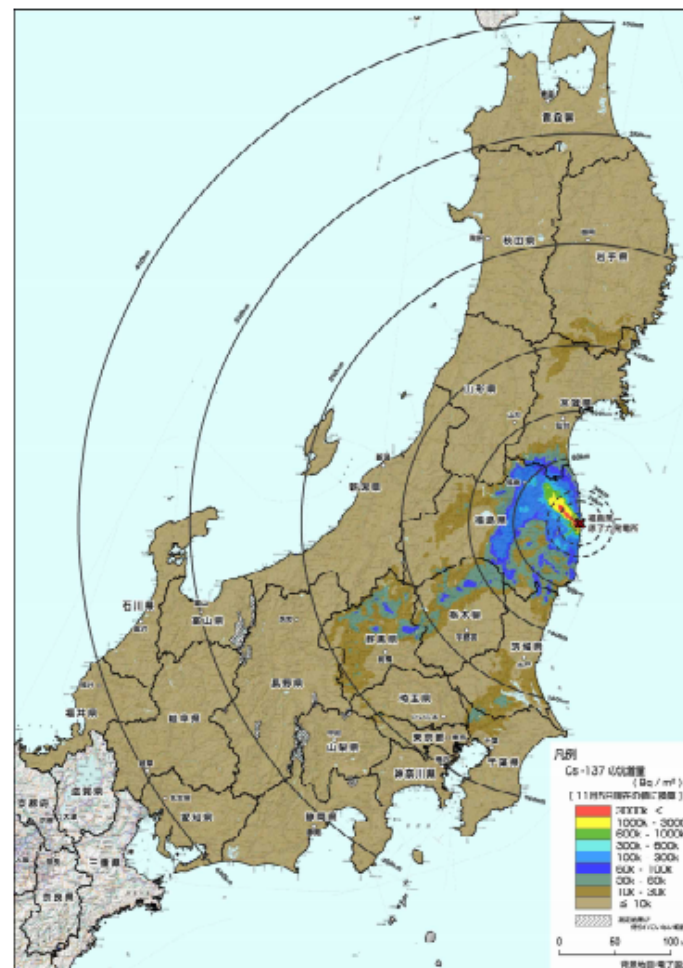


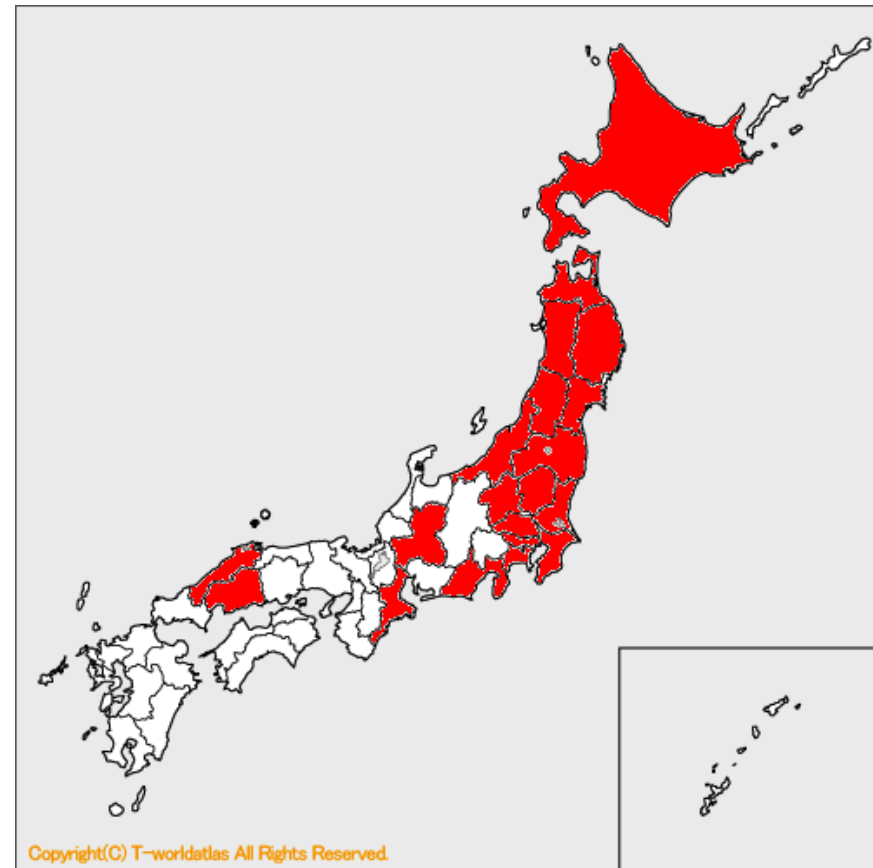
図 16. 東日本全域における航空機モニタリングの測定結果  
(地表面に沈着したセシウム 137 の放射能濃度) について (11 月 5 日換算)  
(事故発生から約 8 ヶ月後)

# Impact on Agriculture

- Geographic spread: 20 out of 47 prefectures
- Monetary impact: \$3.6 billion
- Cases:
  - Refusal-to-deal
  - Lower price



Examination Board for Nuclear Damage Compensation  
<[http://www.mext.go.jp/b\\_menu/shingi/chousa/kaihatu/016/attach/\\_icsFiles/afieldfile/2013/03/11/1329042\\_001\\_1.pdf](http://www.mext.go.jp/b_menu/shingi/chousa/kaihatu/016/attach/_icsFiles/afieldfile/2013/03/11/1329042_001_1.pdf)>



# Marketing Difficulty

- Food is “safe”
  - Standard limits: 100 Bq/kg
  - Tests
  - Shipping ban
- But it doesn't sell
  - Lack of trust
  - Lack of understanding => Opportunity



DigInfo TV <<http://jp.diginfo.tv/v/12-0171-r-jp.php>>

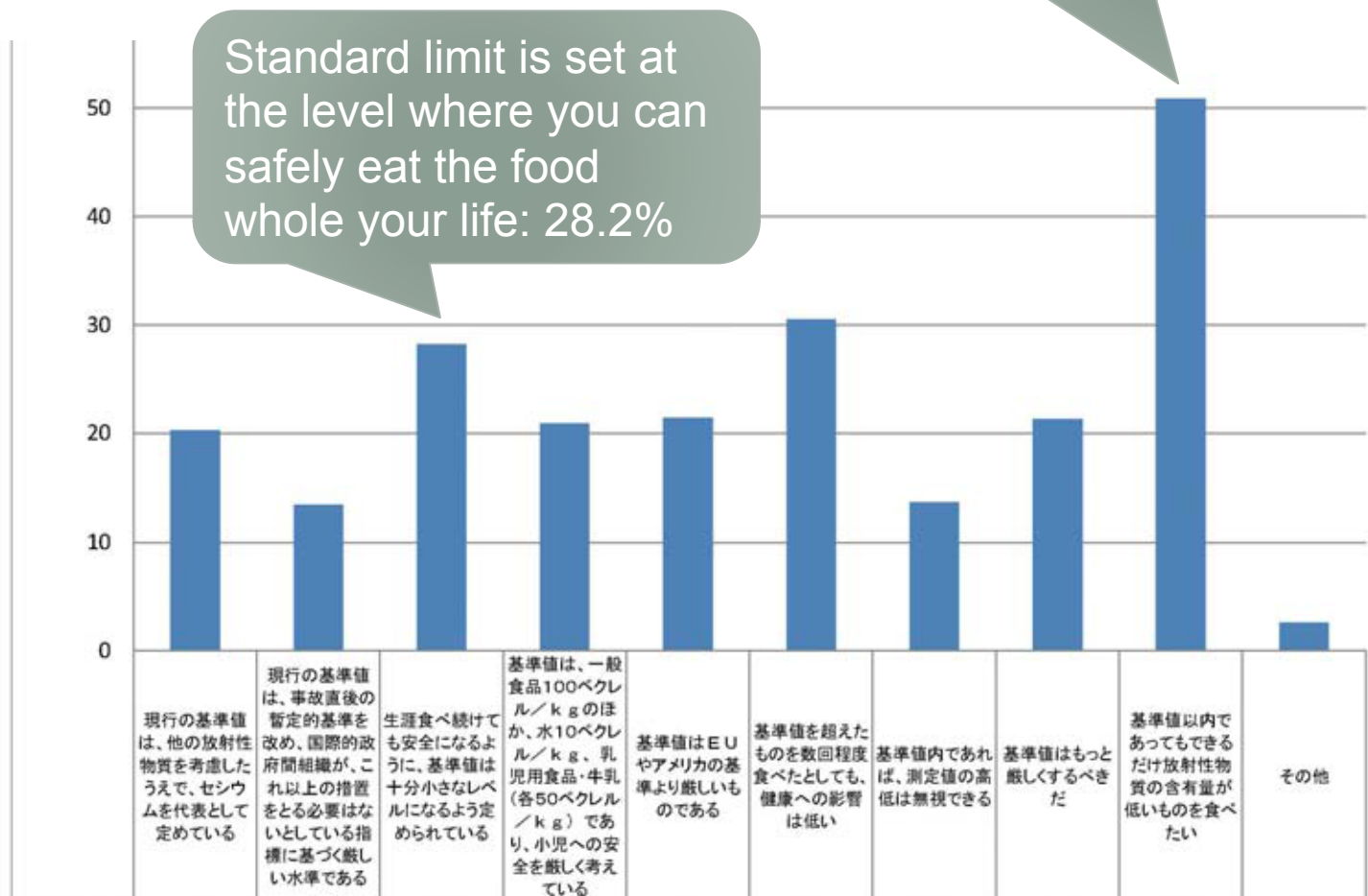


Sankei Newspaper <<http://photo.sankei.jp.msn.com/highlight/data/2013/10/19/15abe/>>

# Consumers' Attitudes

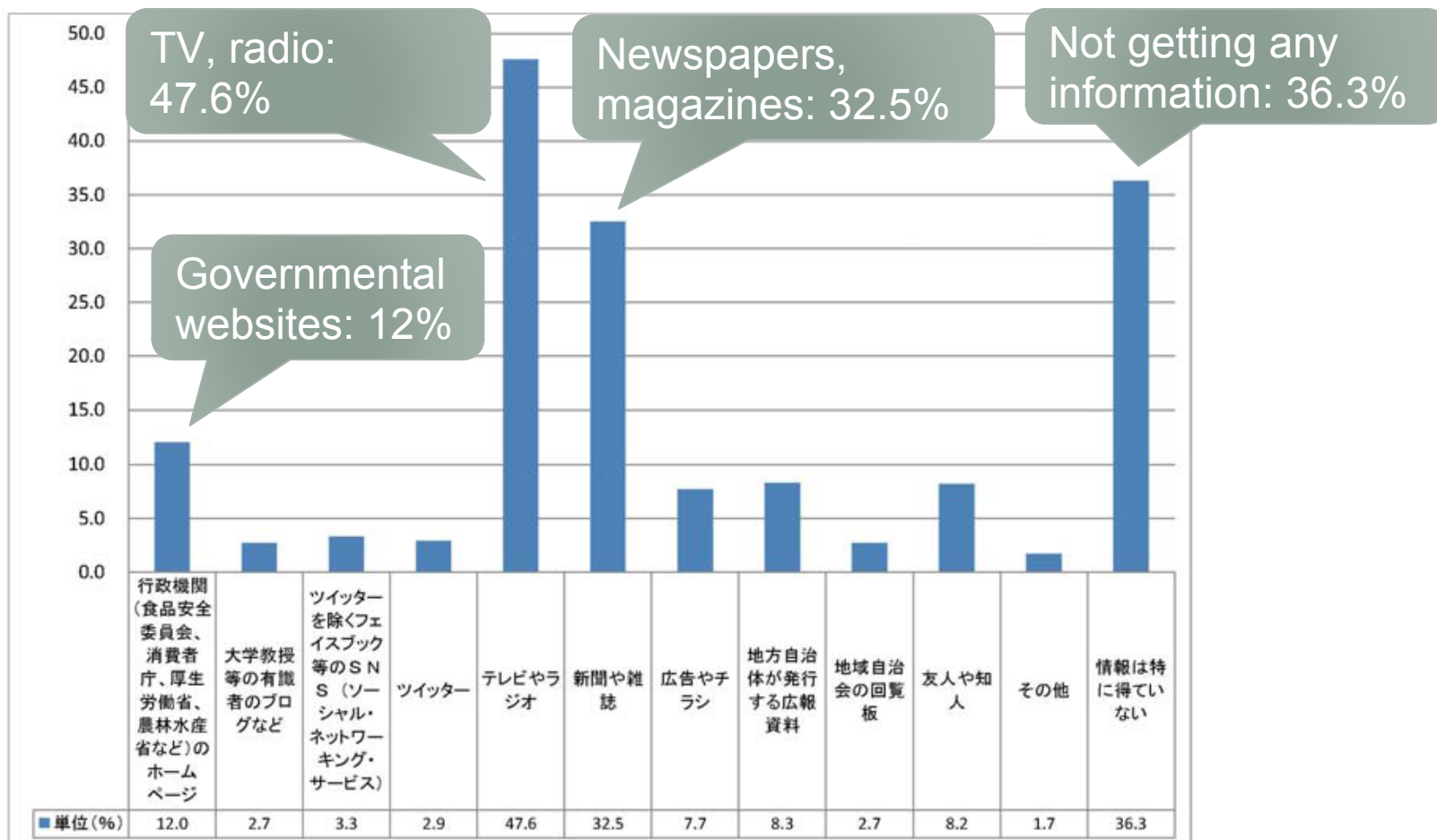
- % of people who think/know that:

Even if it is under the standard limit, I still want the radioactive level as low as possible: 50.9%



# Consumers' Source of Information

- % of people who get information of shipping ban from:





# Risk Communication

- Current approach:
  - Websites
  - Town meetings



www.maff.go.jp/j/kanbo/joho/saigai/s\_chosa/H25gaiyo.html

検査結果の概要（平成25年10月31日現在（米は11月11日現在））

農産物

米

(単位: 点)

	検査点数	放射性セシウム基準値(100 Bq/kg)以下		放射性セシウム基準値(100 Bq/kg)超
		50 Bq/kg以下 (「検出せず」を含む)	50 Bq/kg超 100 Bq/kg以下	
全検検査分 (福島県及び宮城県の一部)	841万	841万	573	13
抽出検査分 (福島県を除く16都県)	2,699	2,698	1	0

農産物

品目	検査点数	放射性セシウム
		50 Bq/kg以下 (「検出せず」を含む)
	586	

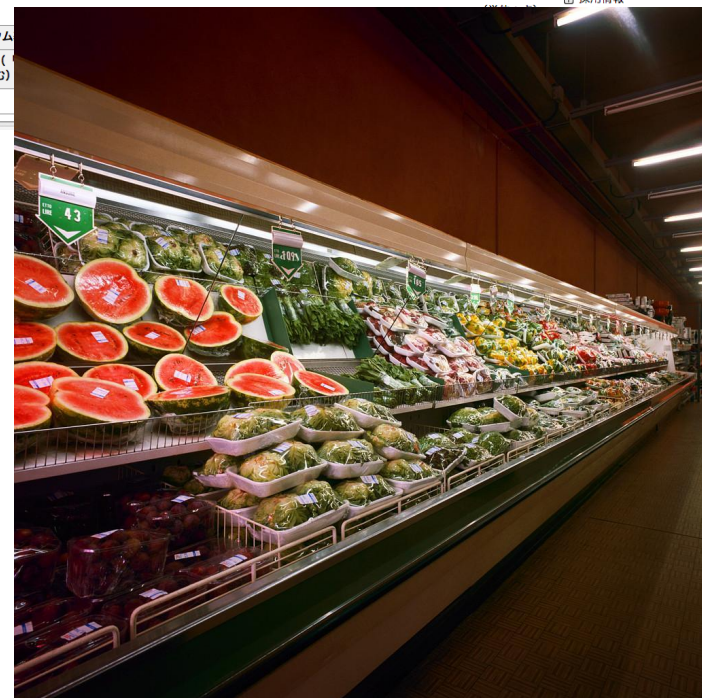
農林水産省案内

- 組織の概要
- 採用情報

申請・お問い合わせ

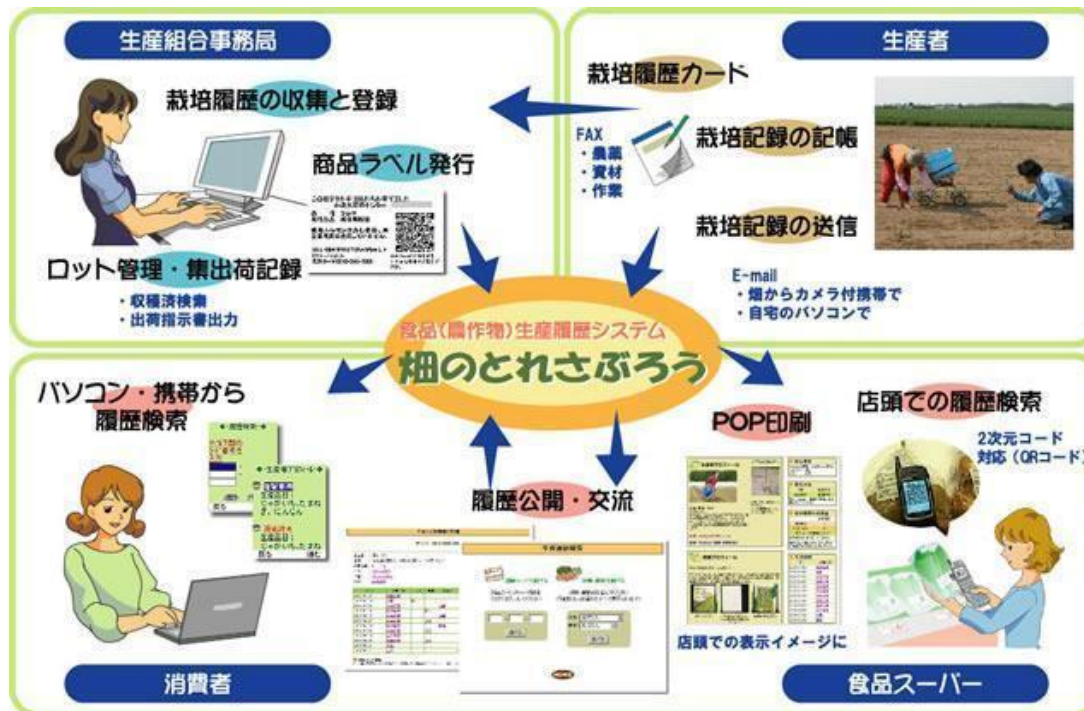
- 電子申請窓口
- 法令適用事前確認システム
- ご意見・お問い合わせ
- パブリックコメント
- 公益通報の受付窓口
- 情報公開
- 調達・入札
- 補助事業参加者の公募

- How about at supermarkets?
  - The place where most of consumers go.
  - Able to reach out to those who do not proactively seek information.



# Technology

- QR code
- Example: Toresaburo





# Ministry of Agriculture, Forestry and Fisheries

- Create webpages to show test results by cities and crops
- Generate QR code for every URL



## Farmers/Co-ops

## Ship crops with QR code sticker



## Supermarkets

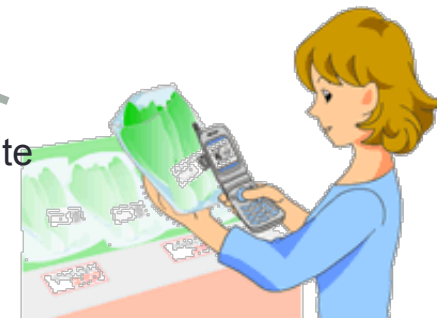
Stick QR code  
on shelves



## Consumers



Access the website



Noah <<http://toresaburo.net/products/index.html>>

[illegible]

Cabbage from  
XX City, YY Prefecture

Have not exceeded the standard limit since March 2012.

9/1/2013 - Not detected  
3/8/2013 - 10 Bq/kg  
12/15/2012 - 25 Bq/kg  
6/28/2012 - 18 Bq/kg  
3/5/2012 - 150 Bq/kg

[Info] Japanese standard limit is more strict than that of EU and USA.

You can see the results of radionuclide tests on **cabbages** from **XX city, YY prefecture** by reading this QR code.

It links to the website of Ministry of Agriculture, Forestry and Fisheries



Ministry of Agriculture, Forestry and Fisheries

品目別、都県別の検査結果

平成25年度の検査結果(平成25年9月30日現在)

- [検査結果の概要](#)
- [品目別の検査結果](#)
- [都県別の検査結果](#)

### Test Results by Cities and Crops

Prefecture  City  Crop

# Interface

The QR code label posted on shelves

You can see the results of radionuclide tests on **cabbages** from **XX city, YY prefecture** by reading this QR code.

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Ministry of Agriculture, Forestry and Fisheries

The screen on cellphones

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# Development and Promotion

- Pilot project
- Sending official notices to agricultural co-ops and retail industry groups
- TV and newspapers



# Theory of Change

## Input:

- Data
- Labor

## Activities:

- Create webpages
- Promotion
- Print QR codes
- Ship crops with QR codes
- Put QR codes on shelves
- Read QR codes
- Read data

## Output:

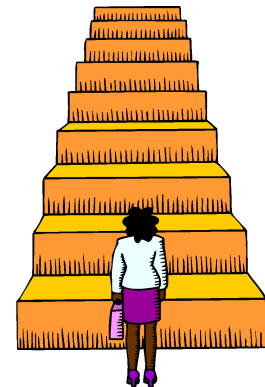
- Access to governmental data
- Informed consumers
- Choices based on data

## Outcome:

- Reduced marketing difficulties caused by lack of understanding

# Limits

- Up to consumer's choice.
- Does not address lack of trust.
- Does not address contamination itself.





# Evolution of the Project and Acknowledgement

- Initial interest: Building an efficient system to collect the evidence for the loss caused by food marketing difficulty.



- A talk with Mr. Azby Brown of Safecast inspired the project toward effective provision of data on food radiation to anxious consumers.



- An idea of using QR code comes to mind regarding the fact that not many people see governmental websites.



- A talk with Ms. Naoko Mori of GS1 Japan informed that such system is technologically feasible.

