Agri-food supply chains and labelling systems in Japan

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October 28-30, 1999

Le Mans, France

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CURRENT FEATURE OF AGRI-FOOD SUPPLY CHAINS

Key figures of Japanese agriculture

- Land : 374,744 sqkm,
  arable land :11%,
  permanent crops : 1%,
  permanent pastures : 2%,
  forest : 67%.
- Farm households : 3,291,000 (7.9% of total)
- Agricultural laborers : 2.56million (7.4%of total),
  over 65 years : 40%.
- Rice area per farm : 85a.
- Average number of livestock per farm :
  dairy cattle : 41.6 heads,
  beef cattle : 15 heads,
  pigs : 434 heads,
  layers : 2,644 birds,
  broilers : 90,733 birds.
- Production share of agricultural establishments
  (9,995) except farm households
  cultivated land : 4%,
  beef cattle : 15%,
  dairy cattle : 4%,
  pigs : 41%,
  layers : 66%,
  broilers : 50%.
- Living expense per family farm member : \1.3 million.

Issues of agricultural structure in Japan

(1) Decreasing food supply capability ;
(2) Dwindling farm workforce ;
(3) Aging of core farmers ;
(4) Increasing abandonment of farm land ;
(5) Difficulty of fulfillment of multi-functional roles of agriculture in rural area.

Table 1 : Changes in self-sufficiency rate for agricultural food and seafood (units : %)

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<thead>
<tr>
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<tbody>
<tr>
<td>Rice</td>
<td>95</td>
<td>110</td>
<td>101</td>
<td>101</td>
<td>75</td>
<td>120</td>
<td>103</td>
<td>102</td>
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<tr>
<td>Wheat</td>
<td>28</td>
<td>4</td>
<td>114</td>
<td>12</td>
<td>10</td>
<td>9</td>
<td>7</td>
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<tr>
<td>Beans</td>
<td>25</td>
<td>9</td>
<td>8</td>
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<td>4</td>
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<td>Vegetables</td>
<td>100</td>
<td>99</td>
<td>95</td>
<td>90</td>
<td>88</td>
<td>96</td>
<td>96</td>
<td>96</td>
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<tr>
<td>Fruit</td>
<td>90</td>
<td>84</td>
<td>77</td>
<td>59</td>
<td>53</td>
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<td>49</td>
<td>47</td>
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<tr>
<td>Eggs</td>
<td>100</td>
<td>97</td>
<td>98</td>
<td>97</td>
<td>96</td>
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<td>Dairy products</td>
<td>86</td>
<td>81</td>
<td>85</td>
<td>81</td>
<td>80</td>
<td>72</td>
<td>72</td>
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<tr>
<td>Meats</td>
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<td>811</td>
<td>65</td>
<td>64</td>
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<tr>
<td>Sugar</td>
<td>31</td>
<td>15</td>
<td>33</td>
<td>35</td>
<td>33</td>
<td>29</td>
<td>35</td>
<td>32</td>
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<tr>
<td>Seafood</td>
<td>109</td>
<td>102</td>
<td>96</td>
<td>83</td>
<td>76</td>
<td>70</td>
<td>75</td>
<td>69</td>
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<tr>
<td>Self-sufficiency rate(calorie)</td>
<td>73</td>
<td>54</td>
<td>52</td>
<td>46</td>
<td>37</td>
<td>46</td>
<td>42</td>
<td>42</td>
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<tr>
<td>S.S. rate for grain (food)</td>
<td>80</td>
<td>69</td>
<td>69</td>
<td>66</td>
<td>50</td>
<td>74</td>
<td>64</td>
<td>63</td>
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<tr>
<td>S.S. rate for feedstock</td>
<td>55</td>
<td>34</td>
<td>27</td>
<td>26</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>25</td>
</tr>
</tbody>
</table>
New basic law for food agriculture and rural areas established in 1999

- Guarantee food security and a stable food supply based on domestic agricultural production;
- Enable agricultural and rural areas to fulfil their multifunctional roles;
- Promote sustainable agricultural development to maximise the potential of Japanese agriculture;
- Ensure comprehensive development of rural areas as a basis for agricultural development.

Food policy

- Setting a target for the food self-sufficiency ratio as a guide line for production and consumption;
- Formulating a food policy that the consumer's viewpoint, such as introduction of an improved food labelling system.

1.5. Outline of the food industry

- The gross domestic product (GDP) of the food-related industry, including such food production sector as agriculture and fisheries and processing and distribution sectors, is a about 51 trillion yen in 1997 and account for a little over 10% of the gross domestic product in general;
- The proportion of agriculture and fisheries is decreasing, and that the processing and distribution sectors occupy increasingly significant position in the industry.

Table 2: Changes in the gross domestic product of the food-related industry in Japan (unit: trillion yen, %)

<table>
<thead>
<tr>
<th></th>
<th>1975</th>
<th>1985</th>
<th>1993</th>
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<tbody>
<tr>
<td>Total of food industry</td>
<td>21.6(14.2)</td>
<td>39.2(12.1)</td>
<td>48.5(10.4)</td>
</tr>
<tr>
<td>Food production industry</td>
<td>5.4(3.5)</td>
<td>10.5(3.2)</td>
<td>12.9(2.8)</td>
</tr>
<tr>
<td>Related distribution industry</td>
<td>6.2(4.1)</td>
<td>11.8(3.6)</td>
<td>15.9(3.4)</td>
</tr>
<tr>
<td>Restaurants. etc.</td>
<td>3.3(2.2)</td>
<td>7.4(2.3)</td>
<td>10.2(2.2)</td>
</tr>
<tr>
<td>Agriculture &amp; fisheries</td>
<td>6.7(4.4)</td>
<td>9.4(2.9)</td>
<td>9.4(2.0)</td>
</tr>
<tr>
<td>Gross domestic product</td>
<td>152.4(100.0)</td>
<td>324.2(100.0)</td>
<td>466.8(100.0)</td>
</tr>
</tbody>
</table>

Figure 1: Supply chains and sales of processed food in Japan (1998)

Percentage of Sales by Industry (Trillion Yen)
Food production Industry

- A high portion (99%) of small and medium firms with less than 300 employees;
- The shipment amount of products in the food production industry account for 11% of that in the production industry in general, third position following the electric machinery industry, and the transport machinery and equipment industry;
- The primary materials and processed food account 10% and 90% of shipment amount, recently the percentage of processed food has been increasing remarkably.

Food wholesale and retail industries

- 88 central wholesale markets in 56 cities and 1,600 local wholesale markets in Japan;
- Perishables handled in wholesale markets represent about 80% of the total distributed volume of vegetables, fruits and marine products (beef: 41%, pork: 17%).

Wholesale food businesses

- 20% of the wholesale business trade in terms of the number of wholesalers and the sales volume.

Retail food business

- About 40% and 30% of all retail business trade in terms of the number or retail shops and the sales volume, respectively.

Current trends of wholesale and retail food business

- Supermarkets and convenience stores have increased their shares of food sales;
- Small family-operated grocery stores have been losing their shares and decreasing in the number as they are replaced with chain-stores or enlarged in scale;
- Supermarkets have improved their sales abilities and have started dealing directly with manufacturers.

Food service industry

- The food service industry has been growing rapidly since 1965. Factors:
  1. Changes in socio-economic conditions including improved standards of living, rising numbers of nuclear families and of working women, and increasing leisure time.
  2. The development and introduction of new type of business including fast-food and family restaurants.
  3. The improvement of technical and management standards in the food service industry.

Trend of Food Consumption

- Food consumption in Japan has almost reached a point of saturation in volume, with about 2,600 kcal per day on a calorie basis;
- The so-called "Typical Japanese Dietary Pattern" was formed in the early 1970’s;
- In recent years, however, the gradual disappearance of this pattern due to unhealthy diets and the excessive intake of fats;
- Accelerated use of cooked food and food services;
- Diversified consumer demands.
Figure 2: Evaluation toward the labelling system of the place of origin of fruits and vegetables and interest in item for labelling

**Usefulness of origin labeling**

- Don't Know: 8.1%
- N/A: 0.2%
- Not useful: 2.8%
- Useful: 80.9%

**Interest in item increase for labeling**

- Don't Know: 7.8%
- N/A: 7.4%
- No increases required: 2.5%
- Increases required: 83.1%

Figure 3: Consumer interest in organic agricultural products and foods

**Feeling about the general public interest**

- Think there is no change: 5.6%
- Don't Know: 6.6%
- 28.3%
- Think there is a growing interest in general: 59.0%

**Interest in purchasing**

- Never purchased: 6.8%
- 6.9%
- Don't Know: 28.4%
- Have purchased: 66.4%

SANCHOKU IN JAPAN

**History of Sanchoku**

- In 1960s
  - Agricultural chemicals
  - Artificial food additives
  - Wrong labelling
  - Standardisation of produce.
- Members' needs for safer and fresher foods.
- Other private sectors following Sanchoku policy.

**What is Sanchoku**

- Direct transaction of food between producers and co-operatives
- Vegetable, fruit, rice, meat, milk, egg, fish and processed foods using them are targeted as products for Sanchoku
- How to grow, prices, labelling method must be clarified in advance

**Three main features**

- Production sites and producers are identified
- Growing methods are clear-cut
- Members have a chance to exchange views with producers

**Status Quo 1**

- Sales through Sanchoku
  - 2.5 billion US dollars
- Number of members who experience exchanging with producers
  - 50,000 per year
Advantages for Co-ops and Members

- Can get safer and fresher foods;
- Can understand producers' situation;
- Can enjoy nature and culture of rural areas;
- Can cut costs by bypassing wholesalers;
- Can be competitive.

Advantages for Producers

- Can get members' needs and desires;
- Can save labor;
- Can be motivated;
- Can be healthier and more informative;
- Can be more technical.

Current Problems and Future Challenges

- Obtaining adequate quantities;
- Setting prices;
- Improving production techniques;
- Enhancing competitiveness.

Co-op Tokyo's Experiences

| Membership | 650,000 |
| Sales      | 1.1 billion US dollars |

Exchange with Producers in Co-op Tokyo

- Fresh product examination committee members regularly visit producers
- Members visit producers by bus
- "Sanchoku producers and members meeting" is held annually

LABELLING SYSTEMS FOR FOOD AND ORIGIN LABELLING IN JAPAN

Main laws relating to labelling systems

Law concerning standardisation and proper labelling of agricultural and forestry products (JAS):

1. Food sanitation law;
2. Law for the prevention of unjust premiums and misleading representation;
3. The measurement law;
4. Law of nutritional improvement.

JAS LAW

Law concerning standardisation and proper labelling of agricultural and forestry products (JAS) established in 1950.
Purpose:
- Improve the quality of agricultural and forestry products, rationalise production, correct transactions, rationalise use or consumption, by establishing and disseminating a proper and responsible standard of agricultural and forestry products.
- Help consumers in general in their choice of products, by imposing proper labelling obligation with respect to the quality of agricultural and forestry products.

Structure of JAS System

JAS System

(1) JAS Standard System
- Voluntary standard and certification system;
- Products passed an examination of "grading" according to relevant JAS standards (354 standards) consisting of quality and labelling standards established by MAFF are authorised to bear JAS Mark;
- JAS standards comprise standards of quality such as grade, ingredients, performance, production methods and standards of labelling.

(2) Quality labelling System
- Mandatory system;
- Agricultural and Forestry products the quality of which consumers may find difficulty in distinguishing, such as processed food, are designated by a government ordinance.

(a) Agricultural and forestry products for which JAS standards have been established or are expected to be established in the near future,

(b) Agricultural and forestry products for which, due to properties of products, it is difficult to establish JAS standards and especially hard for general consumers to understand quality at the time of purchase.

- Labelling standards are established for each item of the products and include provisions for:
  1) Matters to be declared collectively on the label;
  2) Methods of labelling and
  3) Matters not to be included in the label.

- Matters to be declared collectively include:
  a) Name of product,
  b) Ingredients (including food additives),
  c) Quantity of contents,
  d) Date,
  e) Name and address of manufacturer or vendor.
(1) Amendments to JAS system

- Introduction of every 5 year periodic review system of JAS;
- Clear stipulation of "consideration of international standards" when JAS standards are amendments;
- Foreign corporations will be able to register as grading organisations and registered certificate organisations in Japan.
- Manufacturers will be able to grade their own products with the permission of registered certification organisations.

(2) Amendments to food quality labelling system

- To mandate that all fresh foods, foodstuffs and beverages carry descriptions that include the prefecture or country of origin;
- Currently nine vegetables must be labelled with the name of the product and the area of origin since September 1996: 9 vegetables broccoli, taro, garlic, ginger root, Japanese mushrooms, onions, snow peas, edible burdock and asparagus.

Results of place of origin labelling survey in Tokyo, Osaka, Kobe, Nagoya by MAFF in 1997

According to the report:
- 68% of the 133 retail shops surveyed indicated place of origin on their product labels;
- Place of origin appeared on labels at all department stores and general supermarkets;
- 73% of specialised food supermarkets and convenience stores;
- 60% of small and medium-sized produce and ordinary food stores;
- In the Tokyo metropolitan area, 73% of all shops surveyed indicated place of origin, a higher percentage than either Osaka, Kobe or Nagoya;
- Organically produced agricultural products are only allowed to be labelled "organic" after inspection and certification by a third party;
- Imported organic food will be placed on the market in Japan labelled as organic, provided that they are inspected and certified under a system similar to the Japanese one.
- Definition of organic agricultural products and processed foods farm products cultivated for three years without chemical fertilisers or other agricultural chemicals and processed foods consisting at least 95% of organic products;
- Government decided to mandate labelling of products made from GM crops beginning in April 2001 and will submit an amendment draft to JAS Law in the middle of November in 1999.