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# **Report Name:** Japan Sets New 2030 Targets for Green Food System Strategy

**Country:** Japan

**Post:** Tokyo

**Report Category:** Climate Change/Global Warming/Food Security, Agricultural Situation, Agriculture in the News

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**Report Highlights:**

The Ministry of Agriculture, Forestry, and Fisheries released 2030 targets for its "Green Food System Strategy," including a 10.6 percent reduction in carbon dioxide emissions, a 20 percent reduction in use of chemical fertilizers, and a 10 percent reduction in use of chemical pesticides. MAFF previously set both 2030 and 2050 targets for other key performance indicators, including electrification of agricultural equipment, expansion of organic production, and consideration of sustainability for imported food and agricultural products.

## General Background

In May 2021, the Ministry of Agriculture, Forestry and Fisheries (MAFF) established "Measures for achievement of Decarbonization and Resilience with Innovation (MeaDRI)," or the Green Food System Strategy (JA2021-0078) and set Key Performance Indicators (KPI) and corresponding targets for 2030 and 2050. MAFF established additional 2030 targets in June 2022 (Table 1).

The 2030 targets for reduction in chemical fertilizer and pesticide use as well as the expansion of organic farming are incorporated in the "Grand Design and Action Plan for a New Form of Capitalism," which the Prime Minister's Cabinet approved in June 2022.

### Table 1. Green Food System Strategy Key Performance Index and Targets

| Key Performance Index (KPI) | | | Individual Index | Standard Value (Standard Year) | 2030 Target (Reduction Rate from the Standard Value) | | 2050 Target (Reduction Rate from the Standard Value) |
|---|---|---|---|---|---|---|---|
| GHG Reduction | 1 | **Zero CO2 Emissions in Agriculture, Forestry and Fisheries by 2050** | CO2 emission by fuel combustion | 16.59 million ton-CO2 (2013) | 14.84 million ton-CO2 (10.6%) | | 0 ton-CO2 (100%) |
| | 2 | **Establishment of Electrification and Hydrogeneration Technologies for Agricultural Machinery and Fishing Vessels by 2040** | Increase use of agricultural machinery which reduces fossil fuel use | - | Establishment of technologies by 2040 | 50% of profesisonal farmers use electric mowers and automated steering systems to reduce fossil fuel use | - |
| | | | Technology Readiness Level (TRL)* for electrification of high performance forestry machinery | - | | TRL 6: Technological verification under the verious use environment<br>TRL 7: Prototype verification | TRL 9 by 2040 |
| | | | Progress in technological development for fishing vessels | - | | Implementation of test operation by small coastal fishing vessels | |
| | 3 | **Complete Transition to Fossil Fuel Free Horticultural Facilities by 2050** | Ratio of areas of horticultural facilities heated by heat pumps and fossil fuels to the total heated area of horticultural facilities | - | 50% of horticultural facilities (by heated area) use hybrid heating system with heat pumps and fossil fuel heaters | | Complete transition of all horticultural facilities to fossil fuel free facilities |
| | 4 | **Renewable Energey Implementation in Agriculture, Forestry and Fisheries Villages Keeps Pace with the Expansion of Renewable Energy in Japan** | - | - | Aimed at implementing renewable energey in agriculture, forestry and fishery villages so these industries keep pace with Japan's expansion of renewable energy, toward the realization of carbon neutrality by 2050 | | |
| Environment Conservation | 5 | **50% Reduction in Chemical Pesticide Use (risk conversion value) by 2050** | Chemical pesticide use (risk conversion value**) | 23,330 (risk conversion value) (2019 pesticide year***) | 10% reduction | | 11,665 (risk conversion value) (50% reduction) |
| | 6 | **30% Reduction in Chemical Fertilizer Use by 2050** | Chemical fertilizer use (Total sales volume of NPK****) | 900,000 tons (2016 fertilizer year)***** | 720,000 tons (20% reduction) | | 630,000 tons (30% reduction) |
| | 7 | **Expand Organic Farming Areas to 25% of National Arable Land by 2050** | Ratio of organic farming areas to the national arable land (equivalent to internationally recognized organic farming) | 23,500 hectares (2017) | 63,000 hectares | | 1 million hectares |

| Key Performance Index (KPI) | | | Individual Index | Standard Value (Standard Year) | 2030 Target (Reduction Rate from the Standard Value) | 2050 Target (Reduction Rate from the Standard Value) |
|---|---|---|---|---|---|---|
| Food Industry | 8 | **Halve Business Derived Food Loss by 2030** | Business Derived Food Loss | 5.47 million tons (JFY2000) | 2.73 million tons (50% reduction) | - |
| | 9 | **30% Increase in Labor Productivity of Food Manufacturers by 2030** | Labor productivity in food manufacturers | 5.149 million Yen per person (2018) | 6.694 million Yen per person (30% increase) | - |
| | 10 | **Reduction of the Ratio of Costs to Sales to 10% for Food and Beverage Wholesalers** | Ratio of costs to sales in food and beverage wholesalers | 11.6% (2016) | 10% | - |
| | 11 | **Food Companies Considering Sustainability of Imported Raw Materials by 2030** | Food Companies Considering Sustainability of Imported Raw Materials | - | 100% of major food companies in Japan | - |
| Forestry | 12 | **Increase of Ratio of Elite Trees to Forestry Seedlings to 30% by 2030 and 90% by 2050** | Utilization ratio of elite trees****** | Utilization ratio of elite trees 4.3% (2019) | Utilization ratio of elite trees: 30% | Utilization ratio of elite trees: 90% |
| | | **Establishment of High-Rise Wooden Structure Technologies and Maximization of Carbon Storage in Timber by 2040** | Establishment of high-rise wooden structure technologies | | | |
| Fisheries | 13 | **Recovery of Fish Catch Equivalent to 2010 (4.44 million tons) by 2030** | Recovery of fishery production | 3.115 million tons (2018) | 4.44 million tons | - |
| | 14 | **100% Artificial Seedling Use in Aquaculture of Japanese Eels and Bluefin Tuna, etc by 2050** | Ratio of artificial seedlings | 1.9% (2019) | 13% | 100% |
| | | **100% Compound Feed Use in Aquaculture by 2050** | Ratio of compound feed | 44% (average of three out of five between 2016 and 2020) | 64% | 100% |

Source: MAFF

2030 Targets in red are newly established targets.

*Technology Readiness Levels (TRLs) are a method to assess the maturity level of a particular technology.

**Risk conversion value is calculated by multiplying active ingredient-based pesticide sales volume with risk factors based on acceptable daily intake.

*** Pesticide year: October – September

****NPK = Nitrogen, Phosphorus and Potassium

*****Fertilizer year: July – June

******Elite trees: fast growing trees

## Attachments:

No Attachments.