**Measuring Food Security in Japan:**

**Introducing Democracy Indexes of Import Countries for Risk Assessment**

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**Key words:** food security, Japan, democracy index, voice & accountability, risk assessment

**Abstract**

In Fiscal Year 2021 (April – March 2022), Japan’s calorie-based food self-sufficiency ratio was 38% and the ratio based on production value was 68%. Japan’s food security depends on i) promoting domestic production, and ii) stable and flexible imports of agricultural products and agricultural materials. In order to ensure a sustainable food supply, risk assessment is important both domestically and internationally.

Risk assessment items include i) natural conditions such as climate change (maybe artificial partly), disasters/abnormal weather, locust damage, livestock/crop disease epidemics, as well as ii) socio-political elements such as demand competition in the international market, export disruptions/regulations, damage to production & supply chains due to policy changes, political instability, terrorism, and/or war.

This work focuses on Japan’s agricultural importers and their degrees of democracy from the viewpoint of overseas risk assessment.

Of the 15.4 trillion JPY (106.4 billion USD[[1]](#footnote-1)) in food consumption in Japan in FY2020, 67.4% (10.4 trillion JPY or 71.7 billion USD1) was covered by domestic production and 32.6% (5.0 trillion JPY or 34.6 billion USD1) was covered by imports.

The top importer was US (1,227 billion JPY or 8,463 million USD), following China (489.8 billion JPY or 8,463 million USD), Australia (443.2 billion JPY or 3,057 million USD), EU (416.9 billion JPY or 2,875 million USD), and Canada (415.3 billion JPY or 2,864 million USD).

As a democracy index, ‘Voice and Accountability’ (-2.5 to +2.5 range, 2021) from the Worldwide Governance Indicators (WGI), World Bank, is employed: US +0.90, China -1.64, Australia +1.38, EU +1.08 (27 member countries average), and Canada +1.46.

The agricultural import values (and/or quantities) by country by commodity/material are also arranged and reviewed with the democracy indexes.

In conclusion, Japan’s strategies and policy implications to mitigate food security risks and simultaneously to enjoy the benefits of trade are discussed.

1. Converted as 1.00 USD = 145 JPY. [↑](#footnote-ref-1)