

March 2015

Japan's Food Security Issues: A Geopolitical Challenge for Africa and East Asia?

Thomas Feldhoff
Goethe University

Follow this and additional works at: <https://digitalcommons.kennesaw.edu/jgi>

Part of the [Asian Studies Commons](#), [International Relations Commons](#), and the [Peace and Conflict Studies Commons](#)



This work is licensed under a [Creative Commons Attribution 4.0 License](#).

Recommended Citation

Feldhoff, Thomas (2015) "Japan's Food Security Issues: A Geopolitical Challenge for Africa and East Asia?," *Journal of Global Initiatives: Policy, Pedagogy, Perspective*: Vol. 9 : No. 1 , Article 7.

Available at: <https://digitalcommons.kennesaw.edu/jgi/vol9/iss1/7>

This Article is brought to you for free and open access by DigitalCommons@Kennesaw State University. It has been accepted for inclusion in Journal of Global Initiatives: Policy, Pedagogy, Perspective by an authorized editor of DigitalCommons@Kennesaw State University. For more information, please contact digitalcommons@kennesaw.edu.

Japan's Food Security Issues: A Geopolitical Challenge for Africa and East Asia?

Thomas Feldhoff

Goethe University Frankfurt, Germany

Japan's food self-sufficiency ratio is remarkably low compared to other industrialized nations. Growing world population, food, water, and energy shortages in combination with climate change and the rising competition for the world's limited resources are the transnational dimensions of food and nutrition security related risks that are already affecting Japan. This paper analyzes the development and institutional context of Japanese policies related to its food security, particularly in relation to its commitments to support developing countries and to promote food security in Africa. One dimension of particular interest is the Japanese engagement in large-scale land investments in Africa. ProSAVANA, Japan's most ambitious initiative in its development cooperation with African countries is introduced as a case study. The international context of examining Japan's large-scale land investments highlights the fluctuation between its commitments to contribute to international development policies and the more narrow-minded pursuit of its national interests and intensified efforts to strengthen its position in international politics in relation to powerfully emerging China.

Keywords: Food security, geopolitics, land investments, land grabbing, ProSAVANA, Mozambique, East Asia, Japan, China

Introduction

The United Nation's Food and Agriculture Organization (FAO) defined "food security" as existing "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food, which meets their dietary needs and food preferences for an active and healthy life" (FAO, 2013, p. 16-17). Today, approximately 842 million people globally are suffering from chronic hunger, though starvation and undernourishment have been largely eliminated in some parts of the world. Interestingly, even for Japan, one of the world's richest countries, food and nutrition security (Jap. *shokuryō anzen hoshō*) is a major national concern, since its high cereal import dependency rate and low food self-sufficiency rate place Japan in a particularly vulnerable position. Drawing on fieldwork conducted in Japan in 2013 and 2014, including expert interviews with representatives from both the government and non-government sector, this study draws our attention to the transnational dimensions of food security issues and the interconnectedness between food security issues of "wealthy" and "poor" countries. In order to set the context of the paper, the first part introduces the reader to strategies that the Japanese government employed to ensure the long-term food security of the island nation, where interest in stability in volumes and prices of food ranks high on the political agenda.

The case study of ProSAVANA, Japan's most ambitious initiative in its development cooperation with African countries, especially with Mozambique, will be introduced. Finally, the article attempts a prudent assessment of Japan's and China's challenges of long-term food security in terms of the current geopolitical situation in East Asia and in particular with regard to the international relations between Japan and China, which are troubled by political, economic, and even military competition.

Japan's Food Security in Context

Japan was well on the road to industrialization before the outbreak of the Second World War, but still in the late 1930s around half its labor force was employed in agriculture. As Japan began the process of recovery in the post-WWII years and emerged as the first Asian industrialized nation, the agricultural landscape changed dramatically. According to McCormack (2001), the postwar stagnation of the domestic agricultural system "was matched by dependence on food imports, which had begun in the context of the postwar food crisis and continued as Japan became locked into place as the world's largest and most profitable market for U.S. agricultural surpluses (wheat, corn, soybeans, etc.)" (p. 124). In the context of carrying capacity of earth and limits to growth debates, earlier concerns about the declining food self-sufficiency ratio as a threat to Japan's national security (expressed e.g. by Balaam, 1984; Ogura, 1976) appear virulent again today.

With regard to China, the most populous country in the entire world today, Lester R. Brown earlier in the mid-1990s raised concerns about "Who will feed China?" He predicted China's inevitable loss of the capacity to feed itself as demand is surging and food production capacity is eroding (Brown, 1995). After more than three and a half decades of accelerated economic growth since China's transformation from a state-planned socialist economy to a state-driven market economy began in 1978, significant constraints to domestic agricultural production have become obvious. These include but are not limited to matters such as: the massive growth of urban agglomerations and the decline in arable land due to urbanization-related land-use changes; the continuous out-migration of people from rural to urban areas; increasing environmental pollution including soil erosion and degradation as well as processes of desertification and salinization (Chen, 2007). At the same time, the demand for imports, especially of cereals, is steadily growing with an increasing impact on international price volatility. Furthermore, intensifying competition for access to valuable natural resources with neighboring countries in the East Asian region contains the seed for potential conflict.

The various challenges affecting global food and nutrition security today include:

- Continuous world population growth over the next four decades and rapid economic growth in developing countries;
- Poverty, inequality, and dysfunctional production and consumption patterns in both global and national systems;
- Diminishing ground water resources in many countries (including Northern China) due to widespread over-pumping and irrigation;
- Climate change impacts on crop yields and agricultural potential;
- Environmental degradation due to overly intensive farming;

- Use of land for food or feed crops to develop biofuels to combat energy resource shortages;
- Dietary changes accentuating pressures on supply (“nutrition transition”); and
- Agricultural land investments in developing countries by foreign corporations to secure their own food supplies (“farming abroad”).

According to the Asia and Pacific Commission on Agricultural Statistics (APCAS), developing regions as a whole have made significant progress towards hunger reduction but marked differences across regions persist (APCAS, 2014). In most East and Southeast Asian countries, significant reductions in both the estimated number and prevalence of undernourishment have been achieved (see Table 1). Nevertheless, even in a comparatively rich country like Japan, food and nutrition security is a national concern firmly rooted in agricultural policy and development programs. Of course, use of the term has a fundamentally different quality in Japan than in developing countries where access to food for many people is a question of everyday survival. Admittedly, Japan is a highly industrialized country, where agriculture is a steadily declining and increasingly less significant area of economic activity. The contribution of agriculture to the GDP is only 1% (compared to 10% in China), and employment in agriculture is only 4% of total employment (compared to 35% worldwide) (see Table 2).

Table 1: Food Security Indicators for East Asian Nations

	Average dietary energy supply adequacy (2011-2013)	Average protein supply (grams per caput per day) (2008-10)	Access to improved water sources (% of population w/ access) (2011)	Cereal import dependency ratio (2007-09)	Number of people under-nourished (millions) (2011-13)
China	124	94	92	2.2	158.0
Japan	112	90	100	76.8	
Korea, Dem. Rep.	94	57	98	15.2	7.6
Korea, Rep.	132	91	98	73.2	N/S
Taiwan	118	89	N/A	85.2	1.5
India	106	58	92	0.5	213.8
Developing Regions	118	73	87	15.5	826.6
Developed Regions	135	104	99	16.0	15.7
World	122	79	89	15.7	842.3

Note. Average dietary energy supply adequacy: The indicator expresses the Dietary Energy Supply (DES) as a percentage of the Average Dietary Energy Requirement (ADER) in each country. Each country’s or region’s average supply of calories for food consumption is normalized by the average dietary energy requirement estimated for its population, to provide an index of adequacy of the food supply in terms of calories. Analyzed together with the prevalence of undernourishment, it allows

discerning whether undernourishment is mainly due to insufficiency of the food supply or to particularly bad distribution (FAO Food Security Indicators).

N/A = No data available

N/S = Statistically non-significant

Source: FAO Food Security Indicators (as of Oct. 1, 2013). Retrieved from <http://www.fao.org/economic/ess/ess-fs/ess-fadata/en/>

Table 2: Agriculture in East Asia: Selected Indicators (2011)

	Agriculture value added (% of GDP)	Employment in agriculture (% of total employment)	Land area (million sq. km)	Agricultural land ¹ (% of land area)	Arable land (ha per person)	Arable land ² (% of land area)
China	10	35	9.3275	55.7	0.08	12.0
Japan	1	4 ³	0.3645	12.5	0.03	11.7
Korea, Dem. Rep.	N/A	N/A	0.1204	21.2	0.09	19.1
Korea, Rep.	3	7 ³	0.0971	18.1	0.03	15.4
World	3.1 ³	35	129.7123	37.6	0.2	11.9

Notes.

¹ Agricultural land refers to the share of land area that is arable, under permanent crops, and under permanent pastures.

² Arable land includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

³ Figures are for 2010.

N/A = No data available

Source: The World Bank Indicators. Retrieved from <http://data.worldbank.org/indicator>

In China, the agricultural development during the post-Mao reform era was overall extremely successful. The production yields, the exports of agricultural products, and the international activities of Chinese agricultural enterprises have increased significantly. However, the efforts of the Chinese government to large spatial expansion of domestic arable land towards central Asia has proven limited despite the progresses in cultivation technologies. Although the dry border is not sharply defined, just west of the 100th meridian east, rain fed agriculture is possible in some years, but mostly extremely difficult because of droughts that result in severe erosion and deflation damage, so that sufficient yields are only possible with continuous irrigation. At the same time, cultivated land is being lost in the *southeast* of China due to the intense competition over land use (e.g., for industry, transport, and residential areas), and in the *northwest* of China due to processes of soil erosion and accelerated desertification. After all, in the traditionally intensively used agricultural regions of Eastern China, the land productivity could be increased

considerably, not least by the huge increases in the use of fertilizers. China emerged as the world's largest consumer of fertilizers and the largest producer country of nitrogenous fertilizers (see Table 3). Agriculture in these areas, however, is threatened by rising sea levels due to global climate change with massive economic and social impacts. This is also a challenge for Japan, which is highly dependent on agricultural imports.

Table 3: Agricultural Profiles of Five Key Nitrogen Fertilizer Markets

	Arable land (million ha)	Top 3 crops area harvested 2007-208 (million ha)	Total nitrogen application 2007-08 (kg divided by harvested area)	Nitrogen fertilizer demand 2010 (million t)
China	166	Rice (29.5) Maize (29.2) Wheat (23.7)	191 173 182	32.6
India	186	Rice (43.8) Wheat (28.0) Millet (10.8)	100 110 NA	16.6
Brazil	63	Soybean (20.6) Maize (13.8) Sugarcane (7.1)	5 62 30	2.8
USA	100	Maize (35.0) Soybean (26.0) Wheat (20.6)	155 4 75	11.7
EU	89	Wheat (24.8) Barley (13.7) Maize (8.3)	130 NA 166	11.0

Source: Yara Fertilizer Industry Handbook, December (2012, pp. 20, 53)

Agriculture in Japan

Today, Japan produces only about 39% of the food it consumes (March 2013, see Statistics Bureau of Japan, 2015). This is a major decrease from the 79% in 1960, and the lowest food self-sufficiency ratio among all major developed countries. Surveys conducted by the Cabinet Office reveal that consumers are becoming ever more concerned about the dependency on food imports. One major cause is the significant changes in the Japanese people's diet in the post-war years with higher consumption of meat and fat in particular, and this factor is directly linked to a decrease in the demand for domestic agricultural produce. The proportion of rice output in total agricultural output and the per capita consumption of rice in Japan have both decreased to roughly half from the early 1960s. Moreover, Japan depends on a very small number of countries for the majority of its food imports. Imports from the United States represented more than 25% of Japan's total agricultural imports of over \$60 billion USD in 2012, and there is a particular dependence on the United States for grains and legumes. ASEAN, China, and the EU-27 were the next-largest suppliers with a combined share of over 39%. Meats are the largest component of Japan's agricultural imports, and based on the value of imports, Japan is the largest meat-

importer in the world.¹ The import dependency makes the food supply base quite vulnerable and is also a consequence of Japan's import liberalization policies, partly forced by pressure from abroad, in the course of the internationalization and liberalization of world trade.

Table 4: Commercial Agriculture and Arable Land in Japan, 1990-2012

	Commercial farmers (million)	Percentage of those 65 years and over	Agricultural land (million ha)
1990	4.819	33.1	5.243
1995	4.140	43.5	5.038
2000	3.891	58.2	4.830
2005	3.353	58.2	4.692
2010	2.606	61.6	4.593
2012	2.514	60.3	4.550

Note. "Commercial farmers" are farmers with cultivated land under management of 0.3 hectares and over, or with annual sales of agricultural products amounting to 500,000 Yen and over.

Source: Statistics Bureau of Japan, retrieved from www.stat.go.jp

It is not surprising in this context that the global financial and agricultural price crisis in 2007-08 has revived older debates about the food security and even national security of Japan, including the long-term viability of its agricultural sector. Maye & Kirwan (2013) stressed that the FAO Rome Summit on World Food Security in June 2008, initiated directly in response to the food price increases, symbolized food security's renewed geopolitical status. Japanese politicians and policy-makers were reminded again of the potential threats arising from these transnational dimensions of food security related risks. Because of these risks, the Japanese government is now seeking to increase the food self-sufficiency ratio to 50% on a supplied calorie basis by 2020. The most important issue is to support and maintain domestic farmers and cultivated land. However, this is not an easy task because of the structure of Japan's agricultural sector and a costly, unrewarding rural development policy. In fact, the sector is facing a long-term downward trend and major structural problems indicated by massive declines in such figures as agricultural production's share of Gross Domestic Product and agricultural working population (Yamashita, 2008). Most notably, the number of farmers mostly engaged in farming and the area of cultivated land has decreased significantly. This is mainly due to advances in mechanization, a decrease in the prices of agricultural products and a decrease in agricultural income, thereby reducing the domestic food supply capacity (see Table 4). The number of abandoned farms has risen dramatically, not least because of the many older farmers retiring and the lack of successors to existing farms. The loss of arable land due to abandonment and conversion of farmland into residential and commercial land is mainly due to postwar processes of industrialization and urbanization. Comparative data on

¹ Data derived from the United States Department of Agriculture (USDA) Economic Research Service, retrieved from <http://www.ers.usda.gov/topics/international-markets-trade/countries-regions/japan/trade.aspx#.U3oAFV5TbL8>

agricultural land area per farm household for different countries hint at another structural problem: small- and mini-sized farms dominate Japan's agricultural sector. That means that the scope for major technological advances in agriculture is limited because these are most beneficial to large farms. Tax legislation and lease rights applying to agricultural land inhibit the rounding up of ownership shares of farmland.

Moreover, demographic change is a major challenge for rural Japan. That means that populations are aging and decreasing, and these demographic processes reinforce disparities between shrinking and growing cities and regions (Matanle et al., 2011). Statistics reveal that Japan's farming population is already dominated by the elderly 65 years of age and over (see Table 4). The government nowadays recognizes many rural communities as "marginal settlements" (Jap. *genkai shūraku*) – communities living on the edge of extinction through depopulation because people aged 65 years or older make up more than half the total population. Hundreds of Japanese towns and villages have reached the limits of their manageability as their low population density and reduced vitality have led to underdeveloped local infrastructure and limited availability of services. Most severely affected by population losses and ageing are rural areas in hilly and mountainous regions, which cover 70% of Japan's total land area. They are still important with regard to agricultural production. Both the number of farm households and the cultivated land under management in these areas account for 40% of the national total, respectively. Thus, it is not only rural communities but the agricultural sector as a whole that is at risk of further diminishing.

A final reason for Japan's agricultural sector dilemma is protectionism and interventionism, including tariff protection and price supports, mainly disadvantaging the small group of full-time farmers. According to the OECD (2009) report on agricultural policy reforms in Japan, improving competitiveness is essential to the future prosperity of Japan's agricultural sector and, thus, a key to the country's food security. The most important steps to secure the future prosperity of agriculture would be to establish a more competitive, more efficient farm sector and open trade in agricultural products, and to improve market-orientation instead of income support payments. The report explicitly highlights the ability to produce high-quality and specialized products for local, domestic, and even foreign markets, including the growing demand for organic food for example, as a key strength. However, both recommendations run contrary to Japan's traditional agricultural protectionism and interventionism, especially in favor of rice farming. George Mulgan (2000, 2005) and McCormack (2001) have identified the Ministry of Agriculture, Forestry and Fisheries (MAFF) and agricultural cooperatives known as *Nōkyō* (abbreviated for *Nōgyō kyōdō kumiai*) as fierce defenders of this policy approach which have a vested interest in maintaining the status quo.

Undoubtedly, the low self-sufficiency ratio makes Japan economically vulnerable. A food crisis, caused by export bans, crop failures, unrest, or even wars in supplier countries is the nightmare scenario – a scenario which, however, must be put into perspective by taking into account the extraordinary economic strength of the country and its alleged ability to manage market risks, even at significantly higher costs. The OECD (2009) states, "most modern food security risk is price risk rather than quantity risk ..." (p. 48). However, protecting the wealthy at the expense of the vulnerable poor and developing countries poses a serious ethical issue, and it is a potential source of instability that could threaten the international community. After the end of the Cold War, non-traditional security challenges

have increasingly come to the forefront. These include challenges resulting from international migration, climate change, terrorism, or organized crime but also food, energy, and other natural resource security issues. So far, the individual nation-states have failed to develop instruments and strategies to effectively cope with such challenges and are therefore in desperate need of innovative collaborative approaches. With regard to food and nutrition security issues in Japan, structural changes in national agricultural systems, the integration into global trade with agricultural products, and access to foreign land through transnational land investments are in the focus of interest.

MAFF tackles food as a national security issue and actively promotes various strategies and measures to ensure the country is able to feed the people and become more independent from the uncertainties of the global market: firstly, to increase the quantity of food produced domestically and to enhance productivity of the agricultural sector through further intensification and specialization and encouraging production by core farmers and concentration of farm holdings (this is classical productivism in agriculture); secondly, to secure a stable import base through greater diversification and the maintenance of good international relations with exporting countries; thirdly, to ensure adequate stock piling for staple foods such as rice, wheat, and soybeans, as well as compound feedstuffs; and fourthly, to enforce national “food education” (Jap. *shokuiku*) programs, which promote the benefits of locally produced and purchased food and traditional Japanese diet rich in rice, vegetables, and fish (OECD, 2009, pp. 43-49). A rather recent strategy supported by the Japanese government is to develop programs to support agricultural developments in current and potential future supplier countries.

The phenomenon of foreign agricultural projects in developing countries is a very topical and politically sensitive issue. It has been frequently referred to as “land grabbing” in the media. Indeed, large-scale investments in foreign land made by agro-energy corporations or states have increased remarkably since the 2007-2008 global food and energy crises (Anseeuw et al., 2012; Clements & Fernandes, 2012). “Farming abroad” has emerged as a new food supply strategy by import-dependent governments including Japan. In search of new investment opportunities in the aftermath of the financial crisis, investors from the financial sector, including pension funds, sovereign wealth funds, private equity funds, and hedge funds, became increasingly interested in farmland. Governments promoting and supporting large-scale investments in foreign land have been criticized by non-governmental organizations for advancing the commercial interests of the world’s richest agribusiness corporations under the guise of promoting “food security,” especially in Sub-Saharan Africa (War on Want, 2012).

Land Grabbing Issues

From a productivist perspective as represented by the dominant agro-industry regime, the central solution to food security is to develop and apply new agricultural technologies in order to increase food production. It is largely linked to the relative abundance of land, agricultural raw materials, and low-cost labor in many developing countries. Evidence comes from the 2009 World Bank study on the future prospects for commercial agriculture in the Guinea Savannah Zone of Africa and beyond including a case study of Mozambique. Based on an analysis of the factors that contributed to the successes in the development of a competitive commercial agriculture achieved in Brazil and Thailand, the authors of

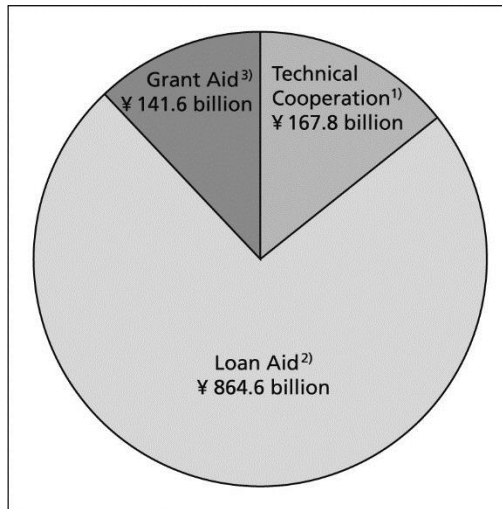
“Awakening Africa’s Sleeping Giant” (World Bank, 2009) argue that opportunities abound for farmers in Africa to regain international competitiveness, especially in light of projected stronger world markets for agricultural commodities over the long term. However, Sage (2013) criticizes that this “food agenda” is dominated by powerful economic interests of the existing agro-industrial system, largely ignoring more sustainable forms of agriculture that build on the agro-ecological knowledge of smallholder farmers. Large-scale land acquisitions are frequently neglecting the interests of existing land users, excluding smallholder agriculture, and the rural poor are frequently being dispossessed of their land and resource rights (Anseeuw et al., 2012). What we also know from the increasing body of studies on “land grabbing” is that many of the target regions belong to the group of the poorest countries with serious food deficits and weak state structures, with huge deficits of transparency and accountability. Interest in Africa’s vast arable lands in particular, stimulated by the World Bank (2009) study, has been growing rapidly in step with concerns about future global food security. We also know that much of the investment originates from OECD member states, but increasingly emerging countries, particularly China and India, have gained importance as investors in developing countries as well. The “Land Matrix Global Observatory,” a global and independent land monitoring initiative that promotes transparency and accountability in decisions over land and investment, provides respective data. It promotes transparency in land transactions and supports open data focused on land deals published in the global database “Land Matrix”.² As land deals are usually not negotiated in the public realm and official data sources are rare, we know too little about the diversity of involved governmental and non-governmental actors, and the precise nature of negotiation and decision-making processes with regard to marketization and mobilization of land on a transnational scale. It was only recently that Japan attracted public interest although the country has been present as an investor in Southeast Asia and in South America for several years and has always been an important actor in international politics. In fact, the “Land Matrix” currently lists 17 Japanese land investment projects abroad, with a total area of approximately 350,000 acres (about 8% of Japan’s agricultural land). Only two of the 17 projects are located in Africa. However, according to Japanese Prime Minister Shinzo Abe’s recent plans to catch up with China in pursuing its own interests on the African continent this could change soon.

For two decades, the Japanese government has made efforts in the frameworks of the Africa Asia Business Forum and the Tokyo International Conference on African Development (TICAD) to strengthen its relations with African nations. Ampiah (2010) and Yamada (2011) stressed that the advent of the TICAD since 1993 has raised unprecedented public interest about Africa in Japan and brought some dynamism to how Japan attends to issues relating to Africa’s economic development. Land investments, however, have never been at the center stage. At TICAD IV that took place in 2008 the Japanese government promised to double its Official Development Aid (ODA) to Africa by 2012 and to extend up to \$4 billion USD of ODA loans primarily for infrastructure and agriculture projects (JICA, 2013). In a speech at TICAD V in June 2013 Prime Minister Abe announced policies to encourage multi-billion dollar investment by Japanese companies in Africa and support advances in health, education, and agriculture (Reynolds & Hirokawa, 2013). Japan also signed an investment agreement with Mozambique, its first with a resource-rich

² See “Land Matrix“ at www.landmatrix.org

country in Sub-Saharan Africa. Such engagement is intended to prove the credibility of Japan's diplomacy towards Africa and the TICAD process. One reason for the rediscovery of Japanese interest in Africa, of course, is the rise of China and its growing presence on the African continent. The competition for access to land is harsh, not only economically but also in the diplomatic and geopolitical arenas. Global multi-industry companies, government, and semi-government organizations are among the major actors including well-known large Japanese enterprise groups like Itochu, Mitsui, Mitsubishi, or Sumitomo. The most important state actor involved is the Japan International Cooperation Agency (JICA, *Kokusai kyōryoku kikō*), which facilitates the consultations between the governments involved and overviews the implementation of development projects.

Figure 1: JICA's Operation Scale in Fiscal Year 2012



Note. ¹ “Technical Cooperation” expenses excluding management expenses. ² Amount of “Loan Aid” distributed. ³ Amount of concluded “Grant Aid” agreements. Source: JICA (2013, p. 15)

Established as an Incorporated Administrative Agency (Jap. *dokuritsu gyōsei hōjin*), JICA is an independent governmental body which “aims to contribute to the promotion of international cooperation as well as the sound development of Japanese and global economy by supporting the socioeconomic development, recovery or economic stability of developing regions.”³ In terms of Official Development Assistance disbursements, Japan ranked fifth worldwide among the member states of the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) after the United States, the United Kingdom, Germany, and France in 2012, but only 20th in terms of the proportion of ODA to Gross National Income (JICA, 2013). JICA, providing bilateral aid in the form of Japanese ODA loans, grant aid, and technical

³ See JICA's homepage at www.jica.go.jp/english/about/organization/index.html

cooperation, is one of the largest development organizations in the world (see Figure 1). In 2008, JICA emerged in its current organizational structure when the overseas economic cooperation operations of the Japan Bank for International Cooperation (JBIC) and grant aid operations of the Ministry of Foreign Affairs (excluding those which MOFA continues to directly implement for the necessity of diplomatic policy) was organizationally integrated into JICA. Currently, it employs more than 1,800 full-time staff and oversees a network of about a hundred overseas offices including 26 on the African continent.

Japan in Africa and ProSAVANA

Japanese food security issues are directly linked to Japanese government policies aimed at promoting food security in Africa (MOFA, 2013), policies that intentionally result in the marketization of African land. For example, while Mozambique's agricultural sector primarily consists of small farmers and large tracts of land which have generally not been parceled out since the end of the civil war in 1992, many farmers remain unaware of their land use rights as individuals and as communities and are in danger of being left out from decision-making over government-acknowledged land allocations to foreign investors. The demarcation and registration of land use rights, however, is essential when it comes to the mobilization of land, especially in relation to the transnationalization of markets based on inviting foreign investors from Brazil and Japan.

According to Japan's Official Development Assistance Charter approved by Cabinet decision in August 2003, the main objectives of ODA are "to contribute to the peace and development of the international community, and thereby to help ensure Japan's own security and prosperity." The link to Japanese self-interests and "strategy diplomacy efforts, such as resource development strategies, reinforcing maritime safety and security capacity and strengthening cybersecurity" (JICA, 2013, p. 18), is being made explicit. Rather loose historical ties with African nations and the absence of any colonial legacy, however, is seen as a Japanese advantage in providing development assistance according to each recipient country's specific needs. During the five-year period from 2008 to 2012, Japan spent an average of \$1.815 billion USD total annual ODA contributions to Africa (JICA, 2013).⁴ Among others, JICA is involved in projects supporting the establishment and improvement of economic development corridors and value chains for agricultural products as well as the promotion of agricultural development and rice production to increase food production. In its recent annual report JICA (2013) argues,

Due to the potential and the enormous internal demand for food, Africa is one of the world's most attractive continents for agricultural development. To this end, Africa needs to raise the incomes of individual farmers. Plans for agricultural development are to be created at the national level, productivity is to be raised by modernizing agricultural operations and market-oriented agriculture such as growing value-added crops must be [sic] introduced. (p. 54)

⁴ Brautigam (2011, p. 211) assessed that in 2008, China disbursed about \$1.2 billion USD in Official Development Assistance (ODA) to Africa, compared with the World Bank (\$4.1 billion USD), the United States (\$7.2 billion USD), and France (\$3.4 billion USD). She estimates that Chinese aid probably rose to \$1.4 billion USD in 2009.

With regard to agricultural development projects, the promotion of stable food production in aid receiving countries of course also contributes to global price stability and to ensure food security in Japan itself. JICA, of course, stresses the tangible benefits for the target countries: previously unused land would be made productive; technology transfer is taking place in the agricultural sector of the target country and thus the local food situation will be improved; jobs would arise and thus poverty be tackled effectively; and additional investments in the development of economic and social infrastructures of underdeveloped rural areas contribute to the strengthening of local community resilience.

Hidden from public interest for several years, Japan under JICA leadership has been involved in the so-called ProSAVANA project in Mozambique. It was only recently that Japan got caught up in the maelstrom of critical reporting on land grabbing (Funada Classen, 2013; Nogueira & Ollinaho, 2013). In fact, the governments of Japan, Brazil, and Mozambique have been pursuing their “Triangular Cooperation for Agricultural Development of the Tropical Savannah in Mozambique (ProSAVANA-JBM),” implemented in the framework of the Japan Brazil Partnership Program since 2009 (see Figure 2). This project is intended as a model for trilateral cooperation and sustainable agricultural development in the tropical savannah region of northern Mozambique with its extensive areas of land. It aims to fundamentally restructure the agricultural sector in the region by introducing modern farming techniques and increasing capital investment to expand production and increase productivity (ProSAVANA, 2009, 2013). Brazilian proponents stress that the project is related to knowledge and technologies that have proven successful in their own country thanks to the previous development support of Japan, and that their agricultural expertise can be transferred to African countries in an adapted form. The Brazilian reference project is PRODECER, a program of Brazilian and Japanese corporations for the agricultural development of the Cerrado savannah in central Brazil from the 1970s to the 1990s. The Brazilian Agricultural Research Corporation (Empresa Brasileira de Pesquisa Agropecuária, EMBRAPA) and its partner institutions have successfully improved soil quality, developed new plant varieties for the tropical and subtropical regions, and pioneered new operational farm techniques including no-till agriculture (Lopes et al., 2012). JICA supported EMBRAPA’s Cerrado-related activities since it started its research in 1974. Partnerships with national and transnational agribusiness corporations have also been signed to make these innovations available for production. Today, the Cerrado is one of the world’s largest export-oriented producers of soybeans and accounts for 70% of Brazil’s farm output. Overall, Brazilian agricultural exports over the past decades have generated significant economic surpluses and contributed to the country’s economic growth (Clements & Fernandes, 2012). Whereas Japan International Cooperation Agency (JICA), Brazilian Cooperation Agency (ABC), and the Ministry of Agriculture of Mozambique (MINAG) signed the basic framework for the ProSAVANA program in September 2009, EMBRAPA and the Agricultural Research Institute of Mozambique (IIAM) are also involved.

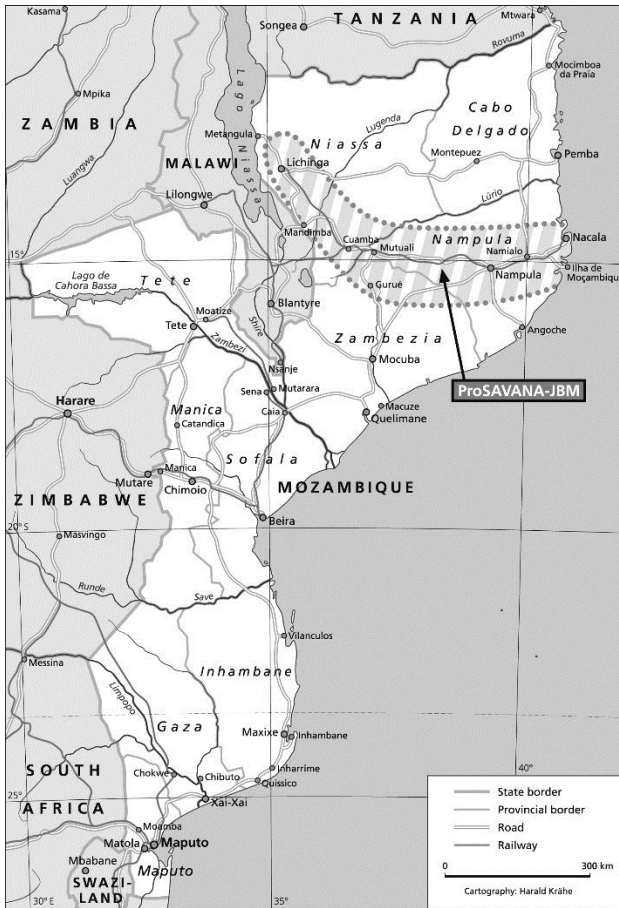
ProSAVANA will comprise an area of more than 100,000 km² of land in Mozambique’s “Nacala Corridor” covering 19 districts in the three provinces of Nampula, Niassa, and Zambezia (see Figure 2). Currently uncultivated land will be exploited and existing smallholder agriculture on community land shall in part be replaced by agro-industrial businesses to stimulate economic growth through increased production of food and agricultural commodities, mainly for export. The project will include, in the first stage

of production, soybean, corn, cotton, and rice, and create more than 4,000 new jobs in agricultural production, inputs production, and logistics operation. Essential components of ProSAVANA are to increase productivity through technology transfer, to foster the creation of associations led by foreign investors that integrate local small farmers via contract farming, investments into export-oriented agriculture value chains, and transfer of agricultural land to foreign investors (mainly from Brazil). Because all land in Mozambique is government-owned and cannot be purchased or sold, the acquisition of land use rights (DUAT, *direito de uso e aproveitamento da terra*) with the Government of Mozambique is required.

In September 2012, a \$750,000 USD Project Development Initiative Fund was launched under the tri-party agreement between the Mozambican Ministry of Agriculture, Mozambican financial institution GAPI (Small Scale Industry Support Office), and JICA to finance selected agri-businesses in the Nacala Corridor on a piloting basis to showcase the potential for agriculture development in the Nacala Corridor. In the future, financial resources for the agricultural development are intended to be provided through means of a Luxembourg regulated private equity fund (Nacala Corridor Fund) developed by Brazilian consulting company Getulio Vargas Foundation (FGV), which is also involved in the elaboration of the ProSAVANA Master Plan and its implementation. The objective of this investment fund is “to invest private equity growth capital to develop and operate own plantation, processing, trading and logistic companies to grow, process and supply agricultural products to local, regional and global export markets” (FGV Projetos, p. 37) and to improve the regional rural transport and logistics infrastructure. According to Chichava et al. (2013) the fund is expected to attract around \$2 billion USD. Both the Project Development Initiative Fund and the Nacala Corridor Fund are not formally part of ProSAVANA but essential instruments for its realization.

Massive investments in the improvement of existing transport infrastructures are part of the broader project for “Nacala Corridor Economic Development Strategies,” covering an area that extends across national borders from the Nacala Port to inland districts of Mozambique and further to neighboring countries Malawi and Zambia. The five provinces in Mozambique related to the Nacala Corridor cover an area of about 500,000 km² with a population of 14 million people. The development corridor concept, also promoted by the New Partnership for Africa’s Development Secretariat and the African Development Bank (Mulenga, 2013), is expected to induce growth by promoting trade and private sector investments in infrastructure, mineral resources (coal, natural gas), and agriculture development based on an integrated strategy. In this context, Japan’s ODA finances key infrastructure projects to expand and upgrade the country’s export routes, including the modernization and expansion of the deep-water port of Nacala (depth >14m) and the upgrading of more than 650 km of trunk roads along the Nacala Corridor (see Table 5). The principal strategic importance of the region is as an export corridor for the output of Brazilian coal mining operations in Mozambique’s landlocked Tete Province (Chichava et al., 2013, p. 3).

Figure 2: ProSAVANA-JBM Project Development Area in Mozambique



Source: Prepared by the author based on JICA project presentations.

Nogueira and Ollinaho (2013, p. 5) stress that from Japan’s strategic interest perspective, the investments in Mozambique aim at increasing world food production and thus stabilizing global food prices. Japan, at the same time, profiles itself in the role of an active supporter of South-South development cooperation in the international community. OECD member states like Japan have become very much aware of the rise of new non-traditional development assistance donors and have started to push for South-South cooperations to integrate them into their own strategies with the objective of policy coordination and harmonization. South-South cooperation was also identified by JICA as a pillar to achieve the so-called Coalition for African Rice Development (CARD) goals to double the rice production in Africa between 2009 and 2018 (JICA, 2009). With regard to ProSAVANA in particular, Japan justified the program as a “win-win-win” initiative and

stressed “sustainability,” “country ownership,” and “involvement of a diverse set of actors” as principles of its cooperation with Brazil and Mozambique (JICA, personal communication, March 25, 2014). Japan also initiated international negotiations for a set of principles for responsible agricultural investment (PRAI) that respects rights, livelihoods, and resources. The FAO, the United Nations Conference on Trade and Development (UNCTAD), the World Bank, and the International Fund for Agricultural Development (IFAD) eventually adopted the seven principles (see Table 6).

Table 5: Japan’s ODA Agreements with Mozambique 2007-2014 (Loans)

Project name	Location	ODA loan (billion Yen)	Date of approval
National road upgrading	Montepuez-Lichinga	3.282	March 2007
National road upgrading	Nampula – Cuamba	5.978	March 2010
Port development (Phase I)	Nacala Port	7.889	March 2013
National road upgrading	Mandimba – Lichinga	6.773	November 2013
Gas-fired combined cycle power plant development	Maputo	17.2	January 2014

Source: JICA ODA Loan project DATA and JICA press releases.

Nevertheless, international development NGOs, environmental groups, and smallholder farmers’ organizations, heavily criticize the supposed Brazilian development model. In the case of Cerrado, large-scale intensive grain monocultures had a dramatic impact on the ecosystem, causing a rapid loss of biodiversity. Clements and Fernandes (2012) report that land prices have increased significantly across the country as a result of the purchase of land by foreign investors in Brazil. The focus on capital-intensive agro-industrial production for export replaced traditional family agriculture and did not create sufficient employment opportunities for all the people who have been displaced by the externally imposed structures. The National Union of Mozambican Peasants (UNAC, União Nacional de Camponeses, Moçambique) is therefore concerned about similar effects on the Mozambican countryside and among others supported by La Via Campesina, the international peasants’ movement defending small-scale sustainable agriculture as a way to promote social justice and dignity, and GRAIN, an international non-profit organization that supports small farmers and social movements in their efforts to realize community-controlled food systems. UNAC released a statement of protest against ProSAVANA in October 2012, followed by another statement of protest by Justiça Ambiental and FOE (Friends of the Earth) Mozambique in January 2013 (JA and FOE Mozambique, 2013). UNAC representatives also attended several events organized by Japanese non-governmental organizations and citizens in Tokyo, Japan, in February 2013 to facilitate a dialogue with the Japanese government and JICA.⁵

⁵ A more detailed analysis of the voices from civil society of Mozambique can be found in Funada Classen (2013) and the ProSAVANA Civil Society Report 2013.

Table 6: The Principles for Responsible Agricultural Investment (PRAI)

Principle 1: Existing rights to land and associated natural resources are recognized and respected.
Principle 2: Investments do not jeopardize food security but rather strengthen it.
Principle 3: Processes relating to investment in agriculture are transparent, monitored, and ensure accountability by all stakeholders within a proper business, legal, and regulatory environment.
Principle 4: All those materially affected are consulted, and agreements from consultations are recorded and enforced.
Principle 5: Investors ensure that projects respect the rule of law, reflect industry best practice, are viable economically, and result in durable shared value.
Principle 6: Investments generate desirable social and distributional impacts and do not increase vulnerability.
Principle 7: Environmental impacts of a project are quantified and measures taken to encourage sustainable resource use, while minimizing the risk/magnitude of negative impacts and mitigating them.

Source: UNCTAD, retrieved from www.unctad.org/en/Pages/DIAE/G-20/PRAI.aspx

UNAC is concerned that resident farm families will lose their farmland in the course of the project and would at best end up being hired in the future in the agricultural industry as low-paid farm laborers. ProSAVANA disregards the traditional rights of local small farmers, undermines traditional land use rights, and replaces traditional land management practices by monocultures of the global agribusiness. It provides impetus for the registration of land use rights to facilitate foreign investment, whereas local farmers and communities do not receive adequate government support to express their rights to land. As a result of land expropriation and resettlement, “landless” impoverished communities will appear which could easily boil over into social upheaval. The organization calls for greater transparency, access to planning documents and information, and participation of the affected small farmers on the ground (UNAC, personal communication, February 27 and 28, 2013). Environmental impact or social impact assessments are not known to date, although JICA has strict guidelines for environmental and social considerations in place (JICA, 2010). Nogueira and Ollinaho (2013) argue that the ProSAVANA project is a manifestation of the recent mainstream development assistance storyline that herald foreign land investments in Africa as a potential opportunity for rural development. Foreign land investments are perceived as the answer to low agricultural productivity and underdevelopment in Mozambique, “taking for granted that ‘development will naturally follow’ economic growth” (Nogueira & Ollinaho, 2013, p. 14). JA and FOE Mozambique (2013) question the benefits for Mozambique and highlight that “Japan intends to ensure, outside its territory, a new source of agricultural goods at low costs, with the purpose of exporting them to the Asian market, especially Japan and China” (no pagination). It comes as no surprise that the Principles for Responsible agricultural investment were forcefully rejected by civil society organizations in Japan and exposed as a legitimization strategy for land grabbing (GRAIN, 2012). As a more promising development model alternative to the

export-oriented industrialization of agriculture, already back in 1996, La Via Campesina proclaimed the right of peoples to “food sovereignty,” which includes not only the right to food but also the access to and control over natural resources such as land, water, and seeds; self-sufficiency should take precedence over exports and world trade and traditional food cultures be maintained (Claeys, 2013).

Despite the criticism, in early April 2013, representatives of the three countries signed an agreement to implement the project. A document entitled “Support Agriculture Development Master Plan in the Nacala Corridor in Mozambique (ProSAVANA-PD), Report No. 2” (ProSAVANA, 2013) was leaked in March 2013 and considered as the draft master plan for the project by civil society organizations (JA et al., 2013). All three governments, however, denied the existence of a master plan, and JICA representatives in March 2014 expressed the view that the master plan will not be accomplished before mid-2015 (JICA, personal communication, March 25, 2014). This leaves the governments some room for maneuver towards addressing certain aspects of criticism on the implementation of ProSAVANA.

Conclusion: Food Security Issues as a Global Challenge and Japan’s Strive for a Stronger Position in International Politics

Food and nutrition security is not a past issue; it is a pressing global challenge, because it means a stability risk, which may involve national, regional, and international conflicts. Japan, heavily dependent on food imports, has to cope with food security challenges, given its rapidly shrinking agricultural sector. Japan’s recent engagement in agricultural development of the African tropical savannah, such as ProSAVANA, is motivated by its aspiration to enhance food security. ProSAVANA, however, has been criticized as a form of neo-colonialist economic exploitation “skilfully wrapped up in the language of ‘greenwash’ ... and sold to Mozambicans and the international community under the guise of ‘sustainable agricultural development’” (Clements & Fernandes, 2012, p. 18). In many African academic writings and commentaries, such land investments are regarded as a symptom of the new Asian colonization of Africa, no matter where in Asia the investment actually comes from (Kisika, 2014; Nelson, 2009). From the perspective of the individual states, matters of food or energy security are a fundamental basis for economic and political stability.

Vis-à-vis food security and against this background, the efforts of Japan to strengthen its position are nonetheless understandable. The Tokyo International Conference on African Development (TICAD) has been created as an important mechanism to strengthen Japan-Africa ties. It became even more important in 2004-05 when the proposals for UN Security Council (UNSC) reform to address its “democratic deficit” and loss of legitimacy became hotly debated (Jiang, 2011). At that time, Japan and Germany, the second and third largest contributors to the United Nations, had been striving for a permanent seat in the UN Security Council for nearly two decades. Along with Germany, Brazil, and India, Japan is member of the so-called “Group of Four” (G-4), which advocates for a reorganization of that body, also demanding to increase the presence of African countries on the council. Both Brazil and India are also part of the group of the economically emerging BRICS countries. Such UN reorganization would, however, require the broad support of the General Assembly, which should explain Japan’s interest in good relations with African

countries. ODA became increasingly recognized as an important means to strengthen Japan's standing in the international arena and eventually secure a permanent UNSC seat. It comes as no surprise that Japan is an active member of international organizations promoting major development projects in Africa. It is involved in the "African Agricultural Growth Corridors" initiative, which was first proposed at the UN General Assembly in 2008 and then at the World Economic Forum (WEF) in 2009 and 2010, and the "New Alliance for Food Security and Nutrition," a commitment by G8 nations, African countries and private sector partners to invest in African agriculture. This alliance was originally launched during the G8 Summit at Camp David in 2012, and each of the African countries involved is working in collaboration with one or more G8 member countries. Japan and the United States are Mozambique's partner countries. As many of the investment plans are from international agro-business, Paul and Steinbrecher (2013) argue that both initiatives will reinforce each other in a major effort "to reorder land and water use and create industrial infrastructure over millions of hectares in order to ensure sustained supplies of commodities and profits for markets" (p. 1). This externally imposed re-ordering would enhance the likelihood of conflicts over land and threaten to eliminate the livelihoods of local communities (see also Rajaonarison, 2014).

Japan actively pursues a number of policies and initiatives to reaffirm its ambitions in international politics. Seemingly legitimized by international policy initiatives to contribute to agricultural and other development projects in Africa, Japan is also seeking to make rural areas in Africa available for tangible self-interests of its own food and nutrition security. Competition with China over natural resources and food supplies presents major challenges and creates additional stress for political elites in East Asia. Several sea territories are subject of competing claims and disputes over small islands and coral reefs in the East China Sea and South China Sea involve geo-strategic and military interests, economic interests in the expansion of fishing rights and access to suspected oil and gas reserves. Competition for access to and control over strategically important international sea-lanes, serving as lifelines for a significant share of world trade, will remain part of international relations for the foreseeable future (Zhao, 2008). The repeated outbreaks of conflict are an expression of increasing "resource nationalism" and the associated strategic rivalries with China investing massively in expanding its armed forces, particularly its naval capacity. It is not by coincidence that China opposed a Japanese permanent seat on the United Nations Security Council.

This outline of potential for serious conflict does not imply an inevitable military outbreak of hostilities, though the competition "may become the spark for regional and international instability" (Zhao, 2008, p. 226). With U.S. hegemony in decline, "a new pattern of multi-directional and mutual global pressures for continuous change and reorientation" (Machetzki, 1996, p. 224) has emerged. The strength of East Asia as a comparatively new global center of global power politics needs to be measured not only in terms of its economic weight, but also in terms of its ability to use this weight effectively in international negotiation and conflict resolution. This also includes increased awareness of the moral responsibility to contribute to the reduction of hunger and malnutrition around the world beyond pursuing self-interest. Willingness to build transregional partnership and reinforce mutual cooperation in various policy fields, including food and nutrition security, could be an essential ingredient in overcoming mistrust among countries facing similar challenges.

References

- Amphiah, K. (2010). Japan and Commonwealth Africa. *The Round Table*, 99(409), 413-428.
- Anseeuw, W., et al. (2012). Land Rights and the Rush for Land: Findings of the Global Commercial Pressures on Land Research Project. ILC GSR Report. Retrieved from www.cirad.fr/en/media/documents/publications-et-ressources-doc/les-droits-fonciers-et-la-rupee-sur-les-terres/land-rights-and-the-rush-for-land
- Asia and Pacific Commission on Agricultural Statistics (APCAS). (2014). The State of Food Insecurity in the World 2013: An Overview. Retrieved from <http://www.fao.org/fileadmin/templates/ess/documents/apcas25/APCAS-14-9.1-SOFI-2013.pdf>
- Balaam, D. N. (1984). Self-sufficiency in Japanese agriculture: telescoping and reconciling the food-security dilemma. *Policy Studies Review*, 4(2), 281-290.
- Brautigam, D. (2011). Chinese Development Aid to Africa: What, Where, Why and How Much?" In J. Golley & L. Song (Eds.), *Rising China: Global Challenges and Opportunities* (pp. 203-211). Canberra, Australia: Australia National University Press.
- Brown, L. R. (1995). *Who will feed China? Wake-up call for a small planet*. New York: W. W. Norton & Co.
- Chen, J. (2007). Rapid urbanization in China: A real challenge to soil protection and food security. *CATENA*, 69(1), 1-15.
- Chichava, S., et al. (2013). Brazil and China in Mozambican Agriculture: Emerging Insights from the Field. *IDS Bulletin*, 44(4).
- Claeys, P. (2013, September 14-15). From Food Sovereignty to Peasants' Rights: an Overview of La Via Campesina's Rights-Based Claims over the Last 20 Years. Conference paper for discussion at "Food Sovereignty: A Critical Dialogue", university, city, state/country. Retrieved from www.yale.edu/agrarianstudies/foodsovereignty/pprs/24_Claeys_2013-1.pdf
- Clements, E. A. & Fernandes, B. M. (2012, October 17-19). Land Grabbing, Agribusiness and the Peasantry in Brazil and Mozambique. Paper presented at the International Conference on Global Land Grabbing II, Ithaca, NY.
- FGV Projetos. (n.d.) Nacala Corridor Fund. Retrieved from www.oecd.org/forum/issues/NACALA%20CORRIDOR%20FUND-FGV%20Projetos.pdf
- Food and Agriculture Organization of the United Nations (FAO). (2013). The State of Food Insecurity in the World 2013. Retrieved from <http://www.fao.org/docrep/018/i3434e/i3434e.pdf>
- Funada Classen, S. (2013, January 20). Analysis of the Discourse and Background of the ProSAVANA Programme in Mozambique – focusing on Japan's role. Tokyo. Retrieved from [www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/ProSavana%20Analysis%20based%20on%20Japanese%20source%20\(FUNADA2013\).pdf](http://www.open.ac.uk/technology/mozambique/sites/www.open.ac.uk.technology.mozambique/files/ProSavana%20Analysis%20based%20on%20Japanese%20source%20(FUNADA2013).pdf)
- George Mulgan, A. (2000). *The Politics of Agriculture in Japan*. London; New York: Routledge.
- George Mulgan, A. (2005). *Japan's Interventionist State. The Role of the MAFF*. London: RoutledgeCurzon.
- GRAIN. (2012). Responsible farmland investing? Current efforts to regulate land grabs will make things worse. "Against the grain" Series. Retrieved from www.grain.org/article/entries/4564-responsible-farmland-investing-current-efforts-to-regulate-land-grabs-will-make-things-worse.pdf
- Japan International Cooperation Agency (JICA). (2009). Coalition for African Rice Development: CARD. 21 January. Retrieved from www.jica.go.jp/english/our_work/thematic_issues/agricultural/pdf/card_01.pdf
- Japan International Cooperation Agency (JICA). (2010). Guidelines for Environmental and Social Considerations (Translation of Japanese Version). Retrieved from www.jica.go.jp/english/our_work/social_environmental/guideline/pdf/guideline100326.pdf

- Japan International Cooperation Agency (JICA). (2013). Japan International Cooperation Agency Annual Report 2013. Retrieved from www.jica.go.jp/english/publications/reports/annual/2013/c8h0vm00008m8edo-att/all.pdf
- Jiang, S. (2011). UN Security Council Reform. ODUMUNC 2011 Issue Brief for the GA Sixth Committee: Legal. Retrieved from <https://www.odu.edu/content/dam/odu/offices/mun/2011/legal/issue-brief-2011-un-security-council-reform.pdf>
- Justiça Ambiental (JA) et al. (2013). Leaked ProSAVANA Master Plan confirms worst fears. Retrieved from <http://www.grain.org/article/entries/4703-leaked-prosavana-master-plan-confirms-worst-fears.pdf>
- Justiça Ambiental (JA) & FOE Mozambique. (2013, January). Position on the ProSavana Program. Press Release, Maputo, Mozambique.
- Kisika, S. (2014, February 5). Lumumba warns Africa against Chinese neo-colonialism. *news24kenya*. Retrieved from <http://m.news24.com/kenya/MyNews24/Lumumba-warns-Africa-against-Chinese-neo-colonialism-20140205>
- Lopes, M. A., et al. (2012). Embrapa's contribution to the development of new plant varieties and their impact on Brazilian agriculture. *Crop Breeding and Applied Biotechnology*, 12(S2) Special Edition 2, 31-46.
- Machetzki, R. (1996). The Impact of Regional Heterogeneity - Understanding the Forces of Tension in East Asia. In W. Pape (Ed.), *Shaping Factors in East Asia by the Year 2000 and Beyond. A study for the European Commission* (pp. 208-219). Hamburg, Germany: Institut für Asienkunde.
- Matanle, P., et al. (2011). *Japan's Shrinking Regions in the 21st Century: Contemporary Responses to Depopulation and Socioeconomic Decline*. Amherst, NY: Cambria.
- Maye, D. & Kirwan, J. (2013). Editorial: Food Security: A fractured consensus. *Journal of Rural Studies*, Vol. 29, 1-6.
- McCormack, G. (2001). *The Emptiness of Japanese Affluence*. Armonk, USA; London, UK: M.E. Sharpe.
- Ministry of Foreign Affairs (MOFA). (2013). *Japan's Official Development Assistance White Paper 2012: Japan's International Cooperation*. Tokyo, Japan: Bunkakobo.
- Mulenga, G. (2013, April). Developing Economic Corridors in Africa. AfDB Regional Integration Brief. Retrieved from www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Regional_Integration_Brief_-_Developing_Economic_Corridors_in_Africa_-_Rationale_for_the_Participation_of_the_AfDB.pdf
- Nelson, D. (2009, June 28). India joins 'neocolonial' rush for Africa's land and labour. *The Telegraph*. Retrieved from <http://www.telegraph.co.uk/news/worldnews/asia/india/5673437/India-joins-neocolonial-rush-for-Africas-land-and-labour.html>
- Nogueira, I. & Ollinaho, O. (2013). From Rhetoric to Practice on South-South Development Cooperation: A case study of Brazilian interventions in the Nacla corridor development program (Unpublished paper). Institute of Socioeconomics, University of Geneva, Geneva, Switzerland.
- Ogura, T. (1976). Implications of Japan's declining food self-sufficiency ratio. *The Developing Economies*, 14(4), 419-448.
- Organisation for Economic Co-operation and Development (OECD). (2009). Evaluation of Agricultural Policy Reforms in Japan. Paris, France.
- Paul, H. & Steinbrecher, R. (2013). African Agricultural Growth Corridors and the New Alliance for Food Security and Nutrition. Who benefits, who loses? ExoNecus Report. Retrieved from http://www.econexus.info/sites/econexus/files/African_Agricultural_Growth_Corridors_&_New_Alliance_-_EcoNexus_June_2013.pdf
- ProSAVANA. (2009, September 17). Minutes of Meeting on Triangular Cooperation for Agricultural Development of the Tropical Savannah in Mozambique. Maputo, Mozambique.
- ProSAVANA. (2013, March). Triangular Cooperation for Agricultural Development of the Tropical Savannah in Mozambique: Support Agriculture Development Master Plan in the Nacala

- Corridor in Mozambique (ProSAVANA-PD), Report No. 2, Quick Impact Projects.
- ProSAVANA Civil Society Report 2013: Findings and Recommendations (*Pro SAVANA shimin shakai hōkoku 1013 – Genchi chōsa ni motozuku teishin*) (In Japanese).
- Rajaonarison, H. M. (2014). Food and human security in Sub-Saharan Africa. *Procedia Environmental Sciences*, Vol. 20, 377-385.
- Reynolds, I. & Hirokawa, T. (2013, June 1). Abe Offers \$32 Billion to Africa as Japan Seeks Resources Access. *Bloomberg Businessweek*. Retrieved from www.bloomberg.com/news/2013-05-31/japan-seeks-african-trade-inroads-at-summit-as-china-dominates.html
- Sage, C. (2013). The interconnected challenges for food security form a food regimes perspective: Energy, climate and malconsumption. *Journal of Rural Studies*, Vol. 29, 71-80.
- Statistics Bureau of Japan. (2015). *Japan Statistical Yearbook 2015*. Retrieved from <http://www.stat.go.jp/data/nenkan/zuhyou/y0761000.xls>
- War on Want. (2012). The Hunger Games: How DFID support for agribusiness is fueling poverty in Africa. Retrieved from www.waronwant.org/attachments/The%20Hunger%20Games%202012.pdf
- World Bank. (2009). *Awakening Africa's Sleeping Giant: Prospects for Commercial Agriculture in the Guinea Savannah Zone and Beyond*. Retrieved from http://siteresources.worldbank.org/INTARD/Resources/sleeping_giant.pdf
- Yamada, S. (2011). The discourse on Japanese commitment to Africa: The planning process of the fourth Tokyo International Conference on African Development (TICAD IV). *Journal of Contemporary African Studies*, 29(3), 315-330.
- Yamashita, K. (2008, September 30). The Perilous Decline of Japanese Agriculture. The Tokyo Foundation, retrieved from <http://www.tokyofoundation.org/en/articles/2008/the-perilous-decline-of-japanese-agriculture-1>
- Zhao, S. (2008). China's Global Search for Energy Security: cooperation and competition in Asia-Pacific. *Journal of Contemporary China*, 17(55), 207-227.

