

## JAPAN'S INDUSTRIAL DEVELOPMENT OF A U.S. TERRITORY: GUAM, 1941–1944

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Guam's long-unsettled wartime reparations act—now sitting in the U.S. House of Representatives—concerns, among other things, forced-labor mobilization by the Japanese military. This issue has not been systematically studied from written sources of the war years. Based on official documents, this article examines the Japanese Navy's industrial development policies and activities on Guam during the Pacific War, which inevitably involved forced labor. This article substantiates the Japanese Navy's attempt at economic exploitation and its failure, considering Guam's two characteristic features: its status as a former U.S. territory and its location in Japan's Mariana Islands. Under the so-called "organic integration" policy, the navy attempted to administer the *Chamorros* in a manner that would encourage their participation in Japan's war effort. Ironically, "organic integration" came to symbolize Japanese hegemony rather than exemplify a Japanese desire for symbiosis.

### Introduction

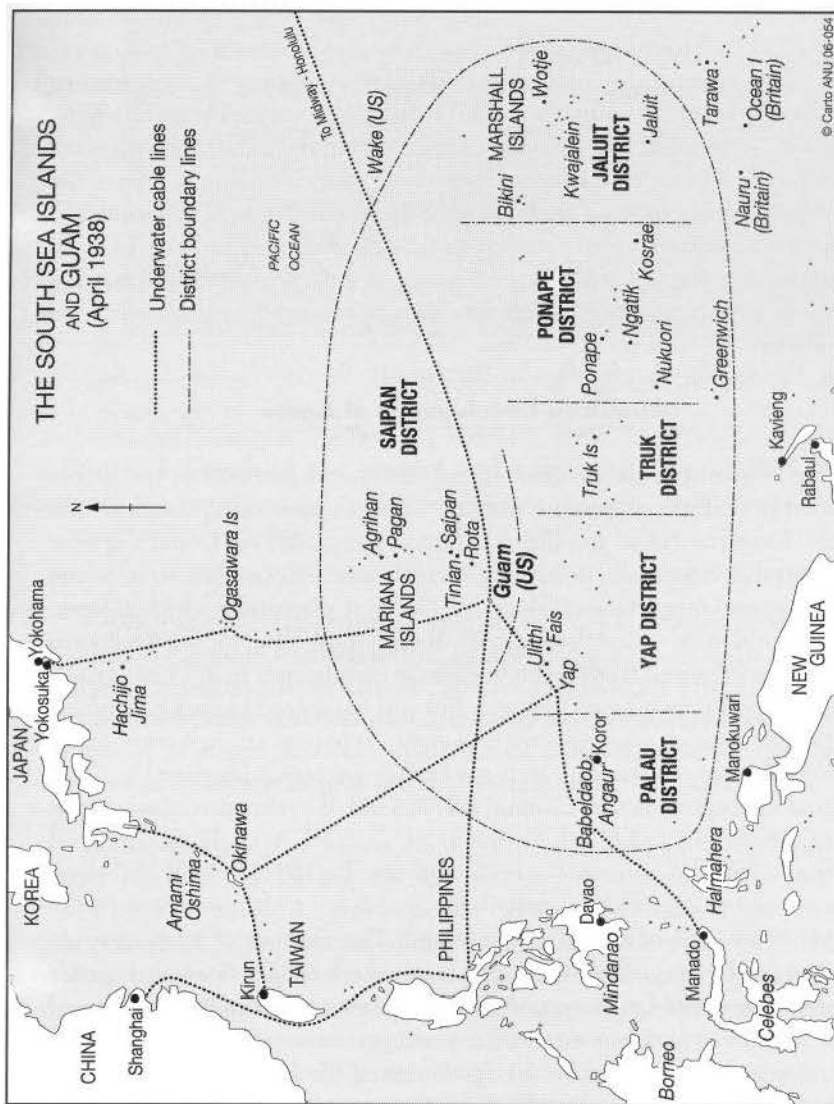
ON DECEMBER 8, 1941 (local time), Guam—then a U.S. territory—was attacked by Japan simultaneously with the attack on Pearl Harbor. On December 10, a force of 2,900 Japanese soldiers landed on Guam, and 6 hours later, Captain G. J. McMillin, Governor of Guam, signed a letter of surrender. The 54th Naval Guard under the Fifth Base Force on Saipan became responsible for guard duty on the island. The Japanese Navy's aim was permanent possession of the island, naming it *Ōmiyatō* (the island of the Imperial Court) and integrating it into the South Sea Islands (*Nan'yō Guntō*), Japan's territory and legally a League of Nations Mandate.<sup>1</sup>

After 483 U.S. prisoners of war (POWs) and nationals were sent to Japan, the Guam *Minseibu* (the navy's civil administration department) began its administration of 22,000 Chamorro people.<sup>2</sup> Guam was the only former U.S. territory where the Japanese Navy established an organization for civil administration.<sup>3</sup> Governance of the local people was not the main reason for establishing the *Minseibu*. Rather, Japan's goal was to make the greatest possible use of them for achieving Japan's war purpose.

The morass of the Sino-Japanese War (1937–1945) required Japan to acquire and centralize raw materials for use by its heavy industries in Manchuria, Korea, and Taiwan (all Japanese colonies at the time). The pace of industrialization lagged in the South Sea Islands after 1937. To gain access to additional resources, Japan expanded its war against South East Asia, but the irony of the situation was that the armed expansion then needed further resources. Therefore, military administration policies for the occupied areas were established by the Liaison Conference Between Imperial Headquarters and the Government (*Daihonei Seifu Renraku Kaigi*, November 1941), and the Army (November 1941). Two of the three basic navy administration policies (March 1942) stressed expedited acquisition of vital resources for munitions industries and food self-sufficiency of local military personnel as ways to reduce the economic pressure on the homeland.<sup>4</sup> It is notable that Japan decided the procurement of a labor force to meet these economic goals should be individually arranged in the occupied areas. Guam was the smallest island under the navy jurisdiction, but there could be no exception to these rules.

Two distinctive features of Guam addressed by the *Minseibu* were that the island was a former U.S. territory, which was now a part of the South Sea Islands, which had been under Japanese rule for twenty-seven years. It became clear to the navy that its planned administration of Guam had to be modified and designed to function in concert with the South Sea Islands, because the goals were also closely related to military operations. Of particular concern was Guam's location in the Marianas, which bordered Japan's national defense line (see Map 1).<sup>5</sup> These factors characterized the navy's industrialization of Guam, and consequently its labor management.

Another noticeable point was that Japan's ideological slogans formed the corner stone of the *Minseibu*'s industrial policy. The government realized the nature of Japan's aggressive acts toward foreign peoples and the limitations of this approach. Therefore, prior to the war, it provided a war slogan, *onoono sono tokoro o eseshimuru* (to enable each people to find their proper place) under Japan's leadership, as well as the *hakkō ichiu* ideology.<sup>6</sup> Given the notion of each people's "proper place," Japan attempted to have the races in the Pacific and Asia cooperate with Japan's war effort. In response, the navy's principle was that "administrative and other policies shall be so devised



MAP 1. The South Sea Islands and Guam, April 1938. © Cartography, The Australian National University. Source: Cartographic Services, Research School of Pacific and Asian Studies, College of Asia and the Pacific, The Australian National University.

as to facilitate the organic integration (*yūkiteki ketsugō*) of the entire region into the Japanese Empire.<sup>7</sup> “Organic” implied “one,” “closed unification,” and “logical relationship” with Japan.<sup>8</sup> The Guam Minseibu focused on possible means for integrating foreign peoples into such situations so as to gain their subjective cooperation according to wartime needs.

The first and second portions of this article examine the contrasting prewar economic policies on Guam and in the other Mariana Islands to meet the navy’s expectation of Guam and its role. Within the industrial contexts of the South Sea Islands and Japan’s homeland, the third part examines the development plan, method, and results of the Guam Minseibu projects.

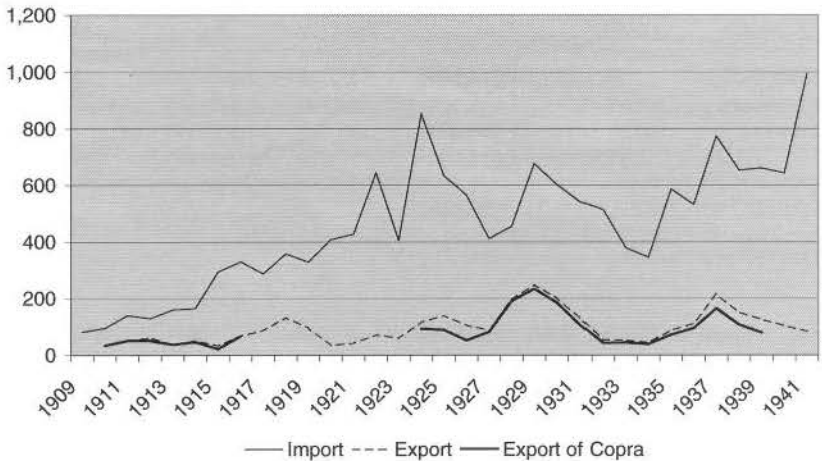
As an occupied area with a small population and uncomplicated social and economic structures, Guam shows how Japan’s illogical industrial mechanism met with absurdities, which formed and escalated a vicious circle of exploitation.

### **American Development of Guam**

Although Japan speculated about Guam’s industrial potential in the preoccupation period, there were no facts on which to base its expectation. The United Kingdom Naval Intelligence Division reported on Guam’s prewar agricultural development, describing Guam as a raised coral limestone island possessing no known mineral deposits. Coconut plantations yielded copra, but the world price varied dramatically. Rice, a staple food for the Chamorro people, was imported from Japan because it was cheaper than locally grown rice. Corn was grown twice per year, but was hampered by lack of storage, equipment, and an adequate water supply. Typhoon ravages were major obstacles for agriculture; and deep-sea fishing was hardly practiced.<sup>9</sup>

From the beginning of U.S. naval rule in 1899, the administration was not enthusiastic about industrial development. Instead, it gradually absorbed Chamorro land by enforcing a high land tax. By 1941, federal and naval government-owned land amounted to 19,431 ha, a 30 percent increase in forty years, and one-third of the island. The absence of an islandwide cadastral land survey, short-term land leases, high freight rates, high prices for labor, scarcity of land transport, and the proximity of the Philippines and China as sources of cheap agricultural products discouraged development.<sup>10</sup> For many years, the Agriculture Department of the U.S. naval government ran an agricultural school and school farms, sponsored boys’ and girls’ agricultural clubs, and sponsored public markets to stress self-sufficiency.<sup>11</sup> But according to a Japanese agronomist, the department’s experimentation and improvement had not reached the level of “expert research.”<sup>12</sup>

**Values of Import and Export of Copra from Guam  
(US\$1,000)**



**FIGURE 1. Graph of the Import and Export of Guam (US\$1,000).**

Source: *The Annual Report of the Governor of Guam, 1909–1940*. Available at the MARC library, University of Guam.

Federal and naval government employment of Chamorros slowly shifted the island economy from agricultural self-sufficiency to cash. In early 1941 the naval government employed 1,200 Chamorro men in infrastructure projects, so most farm work was mainly done by women and children. The U.S. Office of Strategic Services admitted that Guam's prewar economy was "thrown seriously out of gear by the presence of the U.S. naval station work projects."<sup>13</sup>

Copra, Guam's only export commodity, scarcely increased during the thirty-year U.S. era (see Fig. 1). The trade gap was conspicuous in 1940 and 1941; imports were 6.3 times higher in 1940 and 11.8 times higher in 1941 than exports. The importation of rice, wheat, dairy products, sugar, matches, tobacco, and other daily necessities occupied more than 37 percent of total imports. Agriculture on a small scale and large dependence on America's economic strength were characteristic of Guam's economy.

When Japan occupied Guam in 1941, the acreage under cultivation was 1,540 *chō* (one *chō* = 2.45 acres) out of 54,900 *chō*, only 2.8 percent.<sup>14</sup> Another Japanese evaluation defined the self-sufficiency rates for 22,000 Chamorros in terms of output as: rice (10%); corn (30%); sweet potatoes (4 %); others (8 %); and vegetables (4 %) (see Table 1).<sup>15</sup> The navy had to take over the

TABLE 1. **Self-Sufficiency Rates on Pre-War Guam.**

	Amount Required Per Day (g)	Amount Required Per Year (kg)	Yield (kg)	Shortage (kg)	Rate of Self-Sufficiency (percent)
Corn	180	1,511,100	457,365	1,053,735	30
Sugarcane	180	1,511,100	69,135	1,441,965	4
Potatoes	220	1,846,900	159,555	1,687,345	8
Vegetables	180	1,511,100	59,610	1,451,490	4

Source: Sanbō Honbu 1944: 47 (note 15).

Calculations were made based on a total population of 23,000.

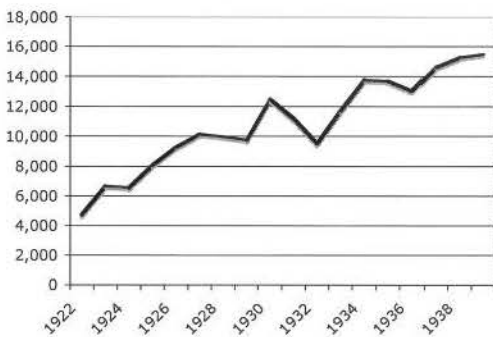
Original miscalculations were corrected by the author.

U.S. responsibility for the people on Guam where serious development by the former administration had not been carried out. Japan had been sacrificing the nation's civilian industrial development, including agriculture, for war industries. Nevertheless, the navy had to institute, through all possible means, a policy of providing imports for the Japanese military, rather than a policy of self-sufficiency. This was a distinctive feature of industrial "Japanization," an approach designed to meet Japan's needs only. For Japan to achieve victory in the war, the Guam Minseibu had to begin development practically from scratch, namely deforestation, soil preparation, irrigation, and a "back-to-the-land" campaign.

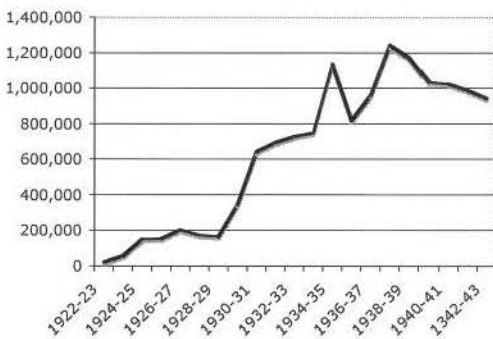
### **Japanese Development of the South Sea Islands**

Whatever Guam's economic condition was, the occupation of Guam had multiple meanings for the Japanese Navy related to the South Sea Islands. The first significant fact was that industrial development was taking place in the South Sea Islands at that time, although completely by Japanese efforts and capital. But these purposes were different from the ones the navy needed after hostilities began. This was not only because of development under limited natural circumstances but also because of the intrinsic qualities of economic demands. Although Japan's business activities in the South Sea Islands were generally praised after the war by scholars in both English and Japanese writing, I don't always agree with them. Thus, I need to address this issue first.

David Purcell evaluated Japanese development of industries and commercial operations and determined that high levels of production were achieved.<sup>16</sup> The basis for his opinion is seen in Figures 2–7. Production of copra (mainly in the Marshalls), phosphate (Peleliu and Angaur), dried

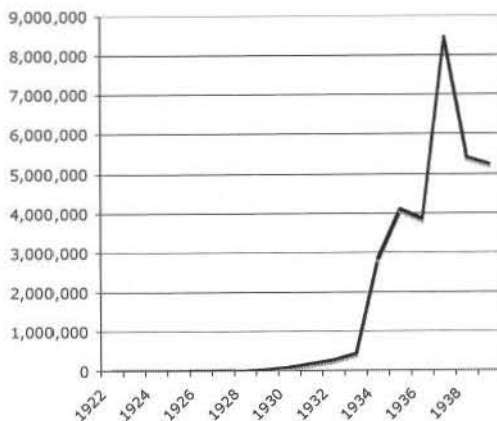
**Copra Shipment to Japan (ton)**

**FIGURE 2. Main Products in the South Sea Islands. Graph of Copra Shipment to Japan (ton).** Source: Nan'yōchō 1934: 422-423 (note 112); 1935: 150-151 (note 113); 1941: 144-145 (note 20).

**Sugar Output (picul)**

**FIGURE 3. Main Products in the South Sea Islands. Graph of Sugar Output (picul).** Source: Nan'yōchō 1934: 331 (note 112); 1935: 120-121 (note 113); 1938: 110-111 (note 114); 1941: 85 (note 20); "Takumu Daijin seigi Nan'yōchō kansei chū kaisei no ken" 1942 (note 20).

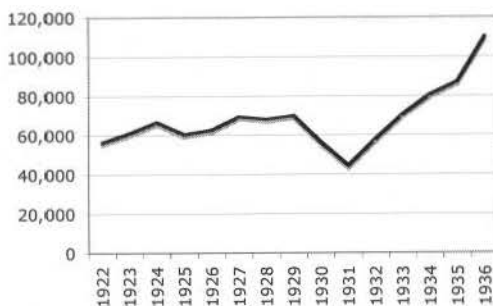
**Dried Bonito Shipment to Japan  
(kan)**



**FIGURE 4. Main Products in the South Sea Islands. Graph of Dried Bonito Shipment to Japan (kan). 1 kan = 3.75kg**

Source: Nan'yōchō 1934: 422–423 (note 112); 1935: 150–151 (note 113); 1938: 120–121 (note 114); 1941: 144–145 (note 20).

**Phosphate Shipment to Japan  
(ton)**

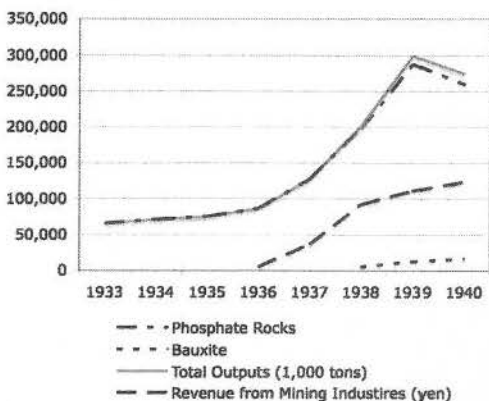


**FIGURE 5. Main Products in the South Sea Islands. Graph of Phosphate Shipment to Japan (ton).**

Source: Nan'yōchō 1934: 422–423 (note 112); 1935: 150–151 (note 113); 1938: 120–121 (note 114); 1941: 144–145 (note 20).

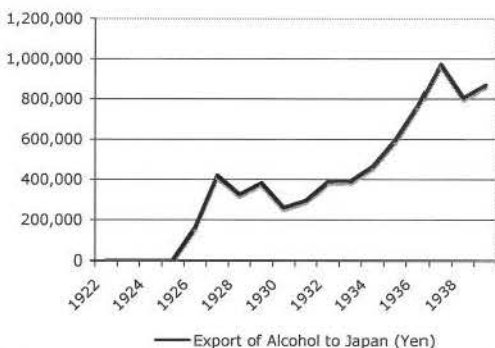


**Output of Mining Industries  
(1,000 tons) and Revenue from  
Mining Industries (yen)**



**FIGURE 6. Main Products in the South Sea Islands. Graph of Output of Mining Industries (1,000 tons) and Revenue from Mining Industries (yen).** (Revenue from Mining Industries includes mining area tax, mining production tax, and mining industry service tax.) Source: "Takumu Daijin seigi Nan'yōchō kansei chū kaisei no ken" 1942 (note 20).

**Export of Alcohol to Japan (Yen)**



**FIGURE 7. Main Products in the South Sea Islands. Graph of Export of Alcohol to Japan (Yen).** Source: "Takumu Daijin seigi Nan'yōchō kansei chū kaisei no ken" 1942 (note 20).

bonito (Palau and Truk), and sugar (Saipan and Tinian in the Marianas) rapidly grew and seemed to be flourishing in the South Sea Islands. However, this growth was simply a comparison with the predevelopment period. Mark Peattie and Matsushima Yasukatsu paid special attention to the Nan'yō Kōhatsu Kibushiki Kaisha (South Seas Development Company) in the Mariana Islands and concluded that Japan established an "independent economy" in the mandate.<sup>17</sup> The basis for this was the port clearance tax revenue from exporting sugar and alcohol, a by-product of sugar, which made up a large portion of the Bureau's ordinary revenue (for example, 64 percent in 1932 and 73 percent in 1937). This is compared to a fiscal dependency in 1932, only ten years after civilian government was instituted in 1922.

These favorable descriptions have an element of truth, but development in the South Sea Islands cannot be accurately assessed without considering historical context. The apparently enormous economic development in Japan's mandate was not realized by private businesses without a great deal of effort and budgetary support from the homeland for the South Seas Bureau. The Nan'yō Kōhatsu, financially supported by Tōyō Takushoku, a semi-national colonization company in Chosen, monopolized the sugar industry through access to government land, immigrant labor, and exclusive control of commerce. On the one hand, the Bureau's large investment, the national treasury subsidy between 1922 and 1931, reached 21 million yen.<sup>18</sup> This was nearly 2.7 times more than the amount of 7.9 million yen, which was transferred from the Bureau's special account to the general account of the Japanese government between 1936 and 1943. To make the accounts balance, new taxes, such as income, business, tobacco, and dividend taxes, were applied one after another since 1937 and "other revenue" was annually received from the Ministry of Finance. On the basis of these numbers, we cannot say that the Bureau created an "independent economy."

The interesting question is why the government invested such large amounts to support costly industrial experiments in the South Sea Islands. One answer is that the Japanese Navy's voice was extremely weighty in the management of the mandate, more than equal to the Bureau by reason of the military value of the South Sea Islands. Hiding from international criticism, the navy continued to influence and instruct the Bureau to carry out military plans, including industrialization. Industrialization proceeded first by developing the major islands through Japanese worker immigration; second, by using surplus funds to construct facilities and infrastructure, which were usable and changeable to military use in case of emergency; and third, by fortifying the island as a military base on the assumption of a war.

At the first stage, any industries were important if they could financially support the government's high expenses for administration of the mandate.

At the second stage, when the ten-year plan began in 1936 the Bureau emphasized development of diverse industries through the *Nan'yō Takushoku* (South Seas Colonization Company), a half-government, half-private company to secure budget support for roads, communications, airfields, sea transport, and weather observatories so that the South Sea Islands could serve as southward advance and naval bases.<sup>19</sup> Fisheries were most important for the navy because they could use fishing boats to establish further expansion bases and obtain useful information on neighboring colonial governments in Dutch Indies and New Guinea. The exponential increases of business activity can be seen in Figures 2-7. However, large government subsidies—such as those for fuel—did not mean commercial success.

During the third stage, the five-year plan of 1940 (a revision of the 1935 plan) called for further strengthening of agriculture (pineapples and cassava), fisheries, and forestry products to support military industries at home. To ease a serious deficit in Japan's balance of payments caused by the expensive war industries, the Outline for Enlargement of Production Capacity (December 1938) controlled all productive activities in every corner of the economy. Under this policy, which emphasized quantity over quality, the South Seas Islands were assigned to produce and ship minerals such as bauxite (for aircraft) and phosphate (for fertilizer). Sugarcane was diverted from sugar production in order to manufacture 99 percent alcohol (for fuel, as well as medicines) in response to fuel shortages. Castor-oil plants (medicine), sisal hemp (fiber), derris (insecticide), and cotton, all of which Japan depended on importing from the southern areas, were also compulsorily planted.

In short, the government's myopic vision for its businesses resulted from the pressures of Japan's war in China and expansion to Indochina. The Japanese government and navy's industrial plan exploited the South Seas Islands in order to support the Japanese homeland's wartime economy.

The weakness of the island economy was exposed when Japan attacked Pearl Harbor. The war required the Japanese military as well as civilians to make Herculean efforts to produce rice, vegetables, and meats to sustain the population under an impartial self-sufficient policy. But the South Sea Islands were not prepared for this because their industries were devoted to national purposes only, and they depended heavily on the homeland for all life necessities. This included food staples. The Mariana Islands, where Guam was situated, had to confront the most serious problems resulting from food self-sufficiency policies. In addition to 45,922 Japanese (54 percent), out of total Japanese population of 84,478 who lived there in 1940

(compared with 4,609 islanders), some thousands of military laborers were on the islands for naval air base constructions.<sup>20</sup> In spite of military needs, the Marianas could not carry out their assignments satisfactorily because of limited land area. Above all, Saipan (185 km<sup>2</sup>) and Tinian (98 km<sup>2</sup>) had no excess arable land because more than 90 percent of it had been developed mainly for sugar.<sup>21</sup> A large amount of sugarcane farmland was given up for two 1,200 m-long airfields in Aslito and Hagoi. Furthermore, repeated planting of sugar cane caused soil exhaustion.<sup>22</sup> The Bureau, Saipan Branch and Nan'yō Kōhatsu tried to lease southern Guam from the U.S. naval governors during a brief honeymoon period in the 1930s, but this request was refused.<sup>23</sup> Development of Pagan Island (48.3 km<sup>2</sup>), Aguijan (7 km<sup>2</sup>), Anatahan (3 km<sup>2</sup>), and Agrihan (47 km<sup>2</sup>), all north of Saipan, was commenced. Nan'yō Kōhatsu did not hesitate to close its three-year-old sugar manufacturing facility on Rota (125 km<sup>2</sup>) in 1939 to plant vegetables and lumber for Saipan and Tinian. Still Rota was too small to support even the needs of the local military.

In these circumstances, Guam, only forty miles south of Rota, was the object of envy by administrators and businessmen in the Marianas. Before the war, an agricultural technician from Nan'yō Kōhatsu provided a positive estimate to an American journalist:

Guam could produce more and better sugar than Saipan and is also well suited to growing coffee, cacao, tobacco, cotton, pineapple, and, in the rich lowlands, maize (corn) and rice. There is fine timber in the hills of the south. The northern plateau, or those parts of it not needed for airfields, could readily be laid out for sugarcane or coconut plantations. There are no better fishing-grounds in the Pacific than the waters around Guam.<sup>24</sup>

As compared with the other Mariana Islands, the navy's expectations of Guam were high, due to its size of 514 km<sup>2</sup>—2.7 times larger than Saipan—and arable soil, flatlands, and irrigation. Military and civilian self-sufficiency including the Japanese staple, rice, could support the navy's plan to use the Marianas as a gateway to the South Sea Islands and as a relay and expansion base. A tiny quantity of some minerals could be helpful in light of unlimited demand. 5,000 Chamorro laborers were already under the navy's control and could be made to work with low wages for the navy's purposes. The navy's relatively optimistic plan was for these workers to be more strongly integrated into Japan's wartime activities. Airfield construction and its expansion all over the South Sea Islands peaked in 1941. The navy needed more airfields for emergency landing. However, it did not begin such construction

on Guam at all for a year after the occupation. Rather, all work on Guam concentrated on food production as a supply base to the Marianas. It is said that Guam was occupied due to its strategic location in the Pacific. However, at least at the early stage of war operations, the highest priority role of Guam was to be a rear supply base along with Rota (the southern Mariana district), while Saipan and Tinian (the northern Mariana district) were air advance bases to the south.

### The Minseibu's Development of Guam

According to the navy's Outline on the Conduct of Military Administration in the Occupied Areas (March 1942), the Guam Minseibu was responsible not only for the acquisition and development of natural resources, but also for the acquisition, distribution, trade, interchange of commodities, finance, currency, price control, self-sufficiency of local military forces, and use of enemy property.<sup>25</sup> Because the eighty staff of the Minseibu could not handle all these tasks, the Fifth Base Force, the Minseibu's superior on Saipan, contracted Nan'yō Kōhatsu to carry out all economic work on Guam as a "true, comprehensive government agency that would play an active patriotic role."<sup>26</sup>

Within a week of Guam's occupation, the Nan'yō Kōhatsu research group (*Sangyō Chōsadan*) of twenty-five specialists in agriculture, construction, and labor explored the island in a two-week feasibility study. In February 1942, a second group rushed to open the Guam business branch office: general affairs (accounts, canteen, transport, and medical) and business affairs (rice cultivation, special [tropical] crops, industrial products, minerals, and civil engineering). The swift study and the office organization showed that the navy had a blueprint ready. In other words, the primary focus of the plans was the realization of the military administration outline. Rather than products suited to Guam's conditions, development was for defense resources and food self-sufficiency.

#### *Commercial Control*

The Liaison Conference's Basic Policy for Currency and Banking Systems in the Southern Areas (February 1942) defined two policies for currency: all American and British currency or gold would be exchanged for yen, and the exchange rate would depend on the economic relations between Japan and other nations in the coprosperity sphere.<sup>27</sup> This policy aimed at creating a yen bloc profitable to Japan and making the yen the single currency for all transactions in the sphere.<sup>28</sup>

Soon after the occupation, the use and distribution of U.S. dollars were banned. The Minseibu ordered Chamorros to exchange their dollars for yen in order to begin economic relations with Saipan.<sup>29</sup> While the official exchange rate was US\$1 to ¥4.37 at the start of the war, a rate of US\$1 for ¥2 was imposed, so that Chamorros immediately lost half the value of their dollars. US\$88,793 was converted. In order to consolidate Japan's financial dominance, the assets of the Bank of Guam, formerly controlled by the U.S. naval government, were seized.<sup>30</sup> Chamorros' savings at the bank were taken by Japan. The bank was replaced by the South Seas Bureau Saipan Post Office, Guam Sub-branch office, which handled savings, remittances, and tax payments, as well as a postal service. Though the sub-branch had only some hundred Japanese navy personnel and civilian customers, it established a banking and postal function in common with the South Sea Islands.

The Minseibu "purchased" goods in U.S. navy warehouses, formally from the navy, on the basis of parity between the yen and the dollar to avoid "a negative impact on prices."<sup>31</sup> The Nan'yō Kōhatsu's camp canteen, on behalf of the Minseibu, distributed these commodities to Japanese civilians, and later to Chamorros through six Japanese merchants and twenty-six commissioners and approved Chamorro-owned stores. The distribution of all necessities for Japanese (rice, miso, soy sauce, sugar, salt, pickled radish, matches, oil, tobacco, canned and other foods, beer, liquor, and cloth) were prioritized for sale to nationals only at cost, at US\$1 for ¥1, with ration tickets.<sup>32</sup> Other items were sold to Chamorros, but at one item per person and they had to endure inflation caused by the unfair exchange rates and prices—at least eight times higher according to my calculation—and shortage as well. The Minseibu responded that the Chamorros should awake from their colonized mentality and dependence on imports, and work to achieve food self-sufficiency (through corn instead of rice) and other local food.<sup>33</sup> Tobacco, matches, oil, baby milk, and common imported goods, including food, became scarce already in early 1942. The rationing stations were open three times a week in early 1942, but gradually this was reduced to once per month till early 1943.<sup>34</sup> This naturally increased Chamorros' frustration and in turn weakened the authority of the Minseibu over the people.

According to U.S. Naval government and Minseibu statistics in Table 2, the number of births on Guam was 908 per year on average between 1935 and 1941. This rate fell to 694 in June 1943. The increase in population for 1935 to 1942 was 505 on average, but was only 385 in 1943.<sup>35</sup> Although this evidence is incomplete, these reductions may reflect the impact of the occupation, especially food shortages.

After the homeland's Wartime Food Self-Sufficiency Plan was decided in May 1943, the frequency of transport ships to Guam from Japan fell

TABLE 2. **The Chamorro Population.**

	Birth	Moving-In	Death	Moving-Out	Population
June 1935	875	12	420	6	19,455
June 1936	913 (+38)	5	320	6	20,047 (+592)
June 1937	962 (+49)	3	343	7	20,662 (+615)
June 1938	955 (-7)	4	589	152	20,880 (+218)
June 1939	892 (-63)	6	392	187	21,199 (+319)
June 1940	799 (-93)	8	316	188	21,502 (+303)
June 1941	965 (+166)	4	315	162	21,994 (+492)
June 1942					22,989 (+995)
June 1943	694 (-271)	12	317	4	23,374 (+385)

Source: Sanbō Honbu 1944 (note 15); *The Annual Report of the Governor of Guam, 1934-1941* (note 11).

The number of births and deaths do not include people whose parents are not Chamorro or Carolinian natives.

dramatically. In August 1943 when the Outlines of Reorganization of Industries were announced in the South Sea Islands, the food self-sufficiency policy on Guam was entrenched. Material shortages became serious on Guam earlier than in the South Sea Islands. On Guam, distribution to the people at large was limited because of Guam's lower ability to achieve food self-sufficiency. Further, the majority of the population on Guam was Chamorro, not Japanese. The ratio of Japanese to the islanders was twelve to one on Saipan, Tinian, and Rota but one to fifty on Guam. Although basic necessities were shipped to the Marianas from Japan, if supply ships were not attacked by U.S. submarines, limited supplies were sent to Guam for Japanese residents: it was claimed this bias was reasonable because Saipan, Tinian, and Rota were Japan's territories, while Guam was only an occupied territory.

The outline for military administration of 1942 stated that the impact of the war on native livelihood should be alleviated where possible. It also ordered that commodities be secured for the general public through the interchange of goods in occupied areas.<sup>36</sup> While the unilateral introduction of a Japanese command system had integrated Guam into the Marianas, no relief measures for this sudden change were taken by the Minseibu. The Chamorros were forced to work to survive prior to attaining self-sufficiency.

### *Agricultural Production*

In September 1941, Japan's cabinet adopted emergency measures to increase rice production and storage, anticipating a wider war. However, expansion

was impossible in the South Sea Islands because of limited and steep land, lack of irrigation, the lack of protection from diseases and insects, and the ease of importing rice. Although the Bureau's Tropical Industries Research Institute, Ponape Branch, finally developed a new rice strain in 1941 after more than fifteen years of experiments, rice output was only 43,266 kg (equivalent to ¥10,487, or 0.2 percent of rice imports from Japan).<sup>37</sup> To be sure, successful rice production on Guam was the Minseibu's most urgent priority.

To obtain land suitable for rice paddies, the Minseibu did not recognize private land ownership. As seen in Table 3, it estimated that land on Guam for food production could be increased from 1,540 chō to 12,000 chō for agriculture (7.8 times larger): Of this amount, 60 chō to 800 chō for rice paddies (13 times larger), and 1,440 chō to 11,200 chō for farms (7.8 times larger).<sup>38</sup> The land condition for rice paddies was only "good" and "fair," while "good" land was only 7 percent of all farms. In 1941 the Bureau planned to assign Japanese farmers on Saipan, Tinian, and Rota to plant rice in dry fields. On Saipan, 83.02 chō of rice fields in 1941 increased to 207.55 chō; on Tinian, 82.10 chō increased to 205.23 chō; on Rota, 0.16 chō were increased to 0.40 chō.<sup>39</sup> Increases in all islands in the Marianas were planned to be 2.5 times. Compared with the northern Marianas, the development pace for expanding Guam's rice was extremely high (more than 5 times) and this effort took precedence. The reason for this planned rapid expansion is because of the expectation that Guam could become a rice-producing center, rather than simply examining its suitable land area.

To prepare paddies, the Minseibu began using local labor for reclamation, cultivation, and irrigation in February 1942. Soon after that, rice farms were opened in Asai (Asan), Shōten (Piti), Suma (Sumay), Inada (Inarajan), Naka (Agat), Umata (Umatac), and Matsuyama (Merizo)—all southern villages that had water resources. In the meantime, farms were established in the central part of the island, and extended to the northern limestone areas. By 1942, the 76.82 chō (or 60 chō in Table 3) of rice paddies in the pre-occupation years was increased to 216 chō (2.8 times larger). According to Table 4, an additional 73.35 chō was developed by January 1944, totaling 289.35 chō (3.8 times larger).<sup>40</sup> The farming area increased from 1,463.18 chō (or 1,440 chō in Table 3) to 3,900 chō (2.7 times larger). Then land for agriculture had increased from 1,540 chō to 4,189.35 chō. Since the total area of Guam was 54,903 chō, the prewar land use rate of 2.8 percent rose to 7.6 percent out of a planned 21.9 percent in just 2 years (see Table 4).<sup>41</sup> Therefore, 35 percent of the potential development area was brought under cultivation, a good effort.



TABLE 3. **Agricultural Land on Guam in Chō (Early 1942).**

Soil Fertility	Developed Land Area in Pre-occupation Period					Area Possible to Develop		
	Agricultural Land (a+b)	Paddy (a)	Farm (b)	Pasture (c)	Coconut Farm (d)	Agricultural Land (e+f)	Paddy (e)	Farm (f)
Good	390	50	300	7,570	9,500	1,500	760	740
Fair	850	10	840			5,500	40	5,460
Poor	300		300			5,000		5,000
Total	1,540	60	1,440	7,571	9,500	12,000	800	11,200

Source: Miyasaka Gōrō 1942: 50 (note 14).

Conversion Formula: 1 chō = 2.45 acres. Gross Area: 54,903 chō (g)

Developed Land Area: 18,611 chō (a+b+c+d).

Developed Rate  $(a+b+c+d)/(g) = 33.9$  percent: Paddy and farm areas,  $(a+b)/g$ : 1,540 chō (2.8 percent); Pasture and coconut farm areas,  $(c+d)/(g)$ : 17,071 chō (31.1 percent).

Area Possible to Develop for Agricultural Purposes  $(e+f)/(g)$ : 21.9 percent.

TABLE 4. **Cultivated Land in Chō (As of January 1944).**

Villages	Farm	Paddy	Total
Asai (Asan)	105	23	128
Shōten (Piti)	100	65.55	165.55
Suma (Sumay)	83	48.1	131.1
Inada (Inarajan)	260	39	299
Tasaki (Talofofo)	326	0	326
Harakawa (Yona)	412	0	412
Shinagawa (Sinajana)	602	0	602
Sawahara (Mangilao)	401	0	401
Naka (Agat)	136	60.6	196.7
Umata (Umatac)	84	10	94
Matsuyama (Merizo)	114	43	157
Haruta (Barrigada)	508	0	508
Takahara (Yigo)	170	0	170
Kita (Yigo Ritidian)	157	0	157
Hiratsuka (Tumon Dededo)	442	0	442
Total	3,900	289.35	4,189.35

Source: Sanbō Honbu 1944: 48-49 (note 15).

Conversion Formula: 1 chō = 2.45 acres.

In February 1942 there were 3,799 Chamorro families: 523 in the north (5.7 persons per household) and 3,278 in the south (5.1 per household). For "immediate achievement of self-sufficiency in food staples and/or the islanders' life security," 1 chō 2 tan (2.95 acres) of cultivated land was assigned to each family in the south.<sup>42</sup> Relative to the average area cultivated by a

TABLE 5. Chamorro Families and Size of Farms.

Village	Farmer Families	Families		Farmers		Farmers Per Family	Land Able to be Cultivated (in chō)		
		Total	Per Family	Male	Female		Area	Area Per Family	Per Person
Shōten (Piti)	194	1,189	6.13	236	235	2.43	238.53	1.23	0.201
Asai (Asan)	98	592	6.04	117	132	2.54	110.29	1.13	0.186
Inada (Inarajan)	185	1,002	5.42	214	277	2.55	255.70	1.38	0.255
Matsuyama (Merizo)	170	880	5.18	201	218	2.46	214.31	1.27	0.244
Umata (Umatac)	72	424	5.89	104	111	2.99	86.93	1.21	0.205
Total	719	4,087	5.68	872	973	2.45	905.76	1.26	0.222

Source: Miyasaka Gōrō 1942: 51 (note 14).

Conversion Formula: 1 chō = 2.45 acres.

"Land able to be cultivated" is based on a trial calculation.

Japanese farmer, 1 chō 2 tan seemed reasonable (see Table 5). Besides Chamorro farms, a 9-chō naval guard unit farm and a 160-chō Nan'yō Kōhatsu vegetable garden were developed. This means that most farmland was allocated for Chamorro families' home consumption. The Minseibu reported that it made a sincere effort to stabilize Chamorro life after the rapid achievement of agricultural self-sufficiency. At first, the land policy was welcomed by landless Chamorros.<sup>43</sup> However, the Minseibu system distributed food first to the military, then to Japanese civilians, and only then to the Chamorros. The distribution of provisions to Chamorros was always dependent on the number of Japanese military personnel on the island.

Because of the rapid reclamation of land in the first half of 1942, rice planting was ready for Guam's rainy season (June–December) (Fig. 8). Paddy areas were worked by villagers, who were organized by Chamorro leaders under some Nan'yō Kōhatsu and Minseibu staff. Guam-grown seed rice and a new improved strain, "No. 158–123," was planted. If it had been planted in the best paddy of 300 chō of land in Ponape, then 9,000 koku (1 koku = 3.78 liters) could be harvested twice per year. This could support a Japanese population of 3,000.<sup>44</sup> If Guam's 800 chō were similar to Ponape's, 24,040 koku, or enough for 8,010 people could be expected, by my calculation.<sup>45</sup> Although distribution to Chamorros was not considered, the amounts were decidedly inadequate to supply the 46,000 Japanese in the Marianas. However, this



**FIGURE 8. Chamorros' Rice-Planting, Guam, Early 1942. Photographed by Shigenari, a Japanese Navy cameraman. Wakako Higuchi Personal Collection, Guam.** A Nan'yō Kōhatsu employee is instructing Chamorros in a Japanese style of rice-planting. The Guam Minseibu officers (right) are inspecting the Chamorros' work.

amount could support the Fifth Base Force needs in the Mariana Islands, including Guam.

In Fiscal Year 1942 (April 1942–March 1943), 216 chō of paddy farms were established and rice seedlings were planted between May and September. About 1.37 koku per tan was harvested. Because the average yield per tan was 3 koku in Ponape, or 2 koku in the homeland, Guam's yield was quite low. Paddy areas of 73.35 chō were added and planting areas increased by 289.35 chō in 1943. However, damage by insects in the second year was worse than the first. Table 6 shows the paddy prior to harvest increased to 138.59 chō and 50 percent reduction of unhulled rice per tan. In reality, rice growing on Guam was a failure. This was documented by the Nan'yō Kōhatsu Business Section Head Koshimuta Takeshi in his diary:

We burned the entire crop except three tan of paddy of the fifth plantation area in Naka (Agat) because of damage by leafhoppers. The 3 tan of paddy was sprayed with insecticide. I ordered the farmers to plant *maizu* (corn) and cowpea (13 December 1942).

TABLE 6. Rice Products on Guam.

	Paddy Completed (chō)	Planted Area (chō)	Nonharvested Area (chō)	Harvested Area (chō)	Unhulled Rice (koku)	Unhulled Rice Per tan (koku)
1942	216.00	216.00	59.50	156.50	2,146.5	1.37
1943	+73.35	289.35	138.50	150.85	966.9	0.64

Source: Sanbō Honbu 1944: 52 (note 15).

Conversion Formula: 1 chō = 2.45 acres, 1 koku = 180.39 dl, 1 tan = 10 a.

Damage from the leafhoppers was immense. Plants in seven tan of paddy died within 2 days. Examination was carried out. Rice planting in Matsuyama (Merizo) was also hopeless (October 9, 1943).<sup>46</sup>

The Minseibu bought all unhulled rice from village headmen and distributed it to Japanese civilians, 1 *gō* (0.18 liters) per person, compared to 2.5 *gō* for average Japanese daily consumption.<sup>47</sup> The local rice production was so poor that it could not satisfy the navy and, therefore, it continued to depend on imported rice.

The crucial reason for the failure was time. Attempts were made to develop a new strain from Ponape, which was never tested on Guam. Supplies of fertilizer, insecticide, and equipment shipped from Saipan and Japan, and skilled labor were all limited. The Outline of Food Policies for the South Sea Islands (August 1943) emphasized that Saipan would reach food self-sufficiency.<sup>48</sup> To support this program, in December 1943, the Greater East Asia Ministry allotted over 1.3 million yen from the Bureau to boost production of rice, but desperate efforts failed on both Saipan and Guam.<sup>49</sup> The Minseibu concluded that it could not achieve the goals set by the central government.<sup>50</sup> Since late 1943, all cultivated lands were transferred in great haste to potatoes, bananas, and other crops; all more easily grown than rice.

In 1941, 24 percent of all imported food to Guam was rice and Chamorros consumed 4,500 kg per day. But the occupation and failure of rice production forced Chamorros to live without rice. Corn, banana, breadfruit, sweet potatoes, cassava, and *dugdug* (*dogdog*, or *dokdok*, the seeded breadfruit, *Artocarpus mariannensis*) became their principal foods. By January 1944, corn was harvested from 2,400 chō, 62 percent of the farm area. The rest of the farmland was under the cultivation of: sweet potato (8%), cassava (7%), taro (6%), vegetables (4%), bananas (5%), and others (8%). Although Chamorros were required to use their time and labor to produce rice for Japanese consumption, the production of every crop except rice increased

TABLE 7. Farming Land Use and Products (January 1944).

Crops	Planting Area (chō)	Crop per chō (kg)	Yield (kg) (a)	Yield (kg) in FY 1941 (b)	Compared with Yield in FY 1941 (kg) (a)-(b)	(a)-(Islanders' consumption per year)
Corn	2,400	700	1,680,000	457,365	+1,222,635	+168,900
Sweet Potato	310	5,630	1,745,300	69,135	+1,287,935	+234,200
Cassava	270	9,370	2,529,900	Potatoes 159,555	Potatoes +3,777,845	Potatoes +2,090,500
Taro	250	5,630	600,000			
			1,182,300			
Vegetable (Nan'yō Kōhatsu)	160	3,750	Consumption: Navy, 360 tons; Civilian, 240 tons	59,610	+540,390	-1,511,100
Banana	210	5,630	1,125,000			
Others	300	3,750	8,590,000			
Total	3,900		10,270,000			

Source: Sanbō Honbu 1944: 47, 53-54 (note 15) based on Fiscal Year (FY) 1941 survey conducted by the U.S. Naval Government of Guam.

Conversion Formula: 1 chō = 2.45 acres.

because the farming areas were enlarged (see Table 7). The Minseibu concluded that the needs of 23,000 Chamorros could be met with local corn, sweet potatoes, and other potatoes. Vegetable production lagged but coconut and fruit would provide their needed vitamins.

The Nan'yō Kōhatsu kitchen garden of 160 chō produced vegetables for Japanese consumption: 60 percent for the military and 40 percent for civilians.<sup>51</sup> The Minseibu reported sufficient vegetable production to support 500 naval personnel and 455 Japanese civilians in October 1943.<sup>52</sup>

Nevertheless, Guam's tenuous food supply was depleted, first when 1,500 men of the 218th Naval Construction Battalion (*Setsueitai*) landed for airfield construction in October 1943. The supply of vegetables was exhausted. When the rice they brought ran out, Chamorros were obliged to provide corn, cassava, and sweet potatoes. In a short time, Japanese consumption made inroads into the Chamorro food supply. When the Fourth Naval Store Department on Saipan ordered Nan'yō Kōhatsu to make basic foods such as miso, soy sauce, and *tōfu* using beans, this work also began on Guam.<sup>53</sup> Koshimuta Takeshi of Nan'yō Kōhatsu wrote, "We made *tōfu*, but failed because we used salt instead of bitter" (September 5, 1943), and "A meeting was held to discuss how to make miso, soy sauce, oil, sake, and *tōfu*"

(December 10, 1943). At this meeting, the Nan'yō Kōhatsu group planned to make 360 koku of soy sauce, 1,500 *kan* (one *kan* = 3.75 kg) of miso, 24,000 *chō* of tōfu per year from soybeans, rice, and salt.<sup>54</sup> However, this effort failed due to shortages of ingredients.

The second event was a large number of soldiers from Manchuria arriving in the South Sea Islands and Guam, from February 1944. In the South Sea Islands, the Plan for Urgent Countermeasures for Supplementing Food (February 1944) was announced. This imposed self-sufficiency on civilians in order to provide food for the military. Although there was no announcement, the situation on Guam was the same or worse. On February 15, 1944, shortly before the arrival of more soldiers, food stocks were sufficient to feed 2,129 persons for 233 days on Guam.<sup>55</sup> However, this was not sufficient. The number of 29th Division soldiers increased on Guam to 20,810 by mid-July.<sup>56</sup> They sometimes landed without rations because their supply ships had been sunk. In addition to 500 naval guards, naval air groups, anti-aircraft defense units, a naval communications unit, a weather unit, a naval air depot, naval construction, and service department, naval construction battalion and naval groups totalled 7,995.<sup>57</sup> With this huge increase, hunger was inevitable. Doubling the population in 8 months without an increase in labor, tools, seed, or fertilizer resulted in the plunder of Chamorro food supplies.

While the Minseibu prepared a list of edible grasses, it planned further expansion of farmland to 11,500 *chō* (2.8 times larger than in January 1944) with the help of the 170 young Naval Crop Cultivation Unit (*Kaikontai*) members. After these experts arrived from Shizuoka on May 8, 1944, five headquarters at Shirahama (Ritidian Point), Rikyū (Tarague Beach), Orita (Ordot), Shinagawa (Sinajana), and sixteen farm sites were established in central and northern Guam where agricultural conditions were poor. Of the fifty tractors shipped from Japan, thirty were lost in submarine attacks and only twenty were distributed to sixteen farms. Food production, mainly with Chamorro labor, was made compulsory in these areas. For example, 4 members of *Kaikontai* unit planned cultivation of a 20-*chō* rice paddy and a 300-*chō* farm in Harakawa (Inarajan) near the Ylig River. But the plan was soon revised to shift to vegetables and corn in order to avoid waiting for the rice harvest and to make up for shortages of equipment and food.<sup>58</sup> Then, within 2 months, regular agriculture work ended because of large-scale U.S. air attacks and ship bombardments beginning on July 4, 1944.

The Minseibu planned agricultural development according to trial calculations but these were unachievable because of a constant increase in the numbers of military personnel. The central government's economic policy was "to force industry, agriculture, and land use according to economic needs for national defence, rather than considering local conditions."<sup>59</sup> Disregarding

local conditions was inconsistent with production, and the Minseibu failed to produce sufficient quantities of the most important agricultural commodity, rice, which had a tremendous influence on military operation as well as administering the Chamorros.

### *Manganese*

The Pacific War required Japan to obtain metals to modernize, expand, and mechanize the military, particularly the air force. The Outline for Economic Policies for the Southern Areas stated, "Existing mining facilities shall be exploited as rapidly as possible, after which the development of new mines. . . shall be promoted."<sup>60</sup> Specialists prospected for minerals, particularly nickel, mica, bauxite, copper, phosphate, and manganese. Of the metals required, manganese was "to be developed to the maximum, without consideration of quantities."<sup>61</sup> The search for mineral resources was booming in the South Sea Islands since the late 1930s. Because deposits of phosphate rock and marble (on Saipan, Tinian, and Rota) and manganese and soapstone (on Saipan) were found in the Marianas, Guam was naturally expected to contain mineral resources.

Soon after occupation, the Nan'yō Kōhatsu group looked for minerals and found "good quality" manganese in Lubugon, Shōten (Piti) in southern Guam, and began a promising project in January 1942. Mining was first opencast, but then it changed to excavation in caves. All the ore was exported to Japan along with manganese from Saipan. However, before Nan'yō Kōhatsu received orders from the Navy Ministry to begin mining on Guam in June 1942, mining had already declined from its peak. After August 1942, crude manganese (more than 20 percent concentrates) suddenly decreased, which affected total output (see Fig. 9). A Chamorro worker testified, "Every time we dug about seven or eight feet and found no manganese, we had to go to another site and start digging again." Also, after mid-1943, shipping became difficult:

The ships were bombed or torpedoed and, if not sunk, limped back to Guam with no manganese aboard. The ships were repaired and again loaded, and every time these ships departed Guam's harbor, they returned in about 2 or 3 days, without any manganese, which made us think that the ships were damaged by torpedoes.<sup>62</sup>

So grave was the metal situation that the government agreed to investigate mineral resources in which civilian companies were not interested, or which were reported as uneconomical.<sup>63</sup> Nan'yō Kōhatsu surveyed for copper in Umata (Umatac) and Shōwamachi (Agat), and manganese in the Matsuyama

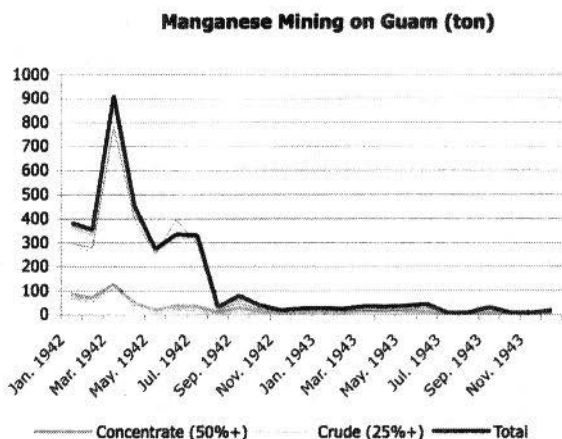


FIGURE 9. Graph of Manganese Mining on Guam (ton). Source: Sanbō Honbu 1944: 64–65 (note 15).

(Merizo) and Umata.<sup>64</sup> For all its attempts, Nan'yō Kōhatsu's efforts ended in December 1943 when all deposits were mined as planned. The Guam Minseibu's satisfaction of this military administration goal clearly demonstrates Japan's exploitation.

### *Tropical Agriculture and Forestry*

On Guam, where the trees had not fully recovered from typhoon damage of 1940, 655,000 coconut trees on 9,500 chō were put under the control of the Guam Minseibu after the occupation.<sup>65</sup> Guam's copra could be exported to Japan along with production in the South Sea Islands that accounted for 60 percent (1939) of Japan's demand.<sup>66</sup> However, Japan began to obtain coconut oil and palm oil from the Philippines and other occupied southern areas. This resulted in these oils being "heavily overproduced" and the government had to take "emergency measures." To "protect" local industry, the Minseibu did not order a reduction in plantation production, but took action to consume copra to "give support to the islanders' economy as well as establish price controls."<sup>67</sup> Small amounts of copra were used for a soap industry on Guam.

The purchase price, distribution of copra for livestock feed, and soap making were negotiated between the Copra Trade Confederation (*Kopura Dōgysha Rengōkai*) from Saipan and village headmen. Nan'yō Kōhatsu made soap from copra, caustic soda, and salt at the requisitioned Johnson factory



and the Chamorro-owned Ada's factory. In 1943, 80,000 cakes of laundry soap and 40,000 cakes of toilet soap were made and exported to Saipan for the military.<sup>68</sup> Thus, Guam's small-scale soap operation was able to successfully export goods to the neighboring Japanese territory, the Marianas. However, soap manufacture declined and ended about June 1944 due to the loss of caustic soda shipments from Japan.

The Minseibu had to supply wood for military construction, firewood, and charcoal despite Guam's dependence on imported wood in the prewar period. For construction materials, the Nan'yō Kōhatsu operated a lumber mill (40 koku of trees per day) to saw *ifil* (*ifit* or *Intsia bijuga*, rectangular timber), *pengua* (*Macaranga carolinensis*, for ship bottoms), *rokrok* (breadfruit tree, *A. communis* Forst, rectangular timber), and *Ahgao* (*P. Gaidocjaidoo* Schauer, log), all from 4,400 ha in the northern area of the island.

Because land clearing for agriculture and roads generated a supply of native trees, wood was "extremely abundant" for fire-making and charcoal.<sup>69</sup> About 450 bales of charcoal were made per month from *panau* (*Clauxylon marianum* or *Guettarda speciosa*), *A'abang* (*Eugenia reinwardtiana*), *pengua* (*Macaranga thompsonii*), *fago* (*Ochrosia opositifolia*), *Ahgao*, *pai-pai* (*Guamia mariannae*), *ifill*, *lalahang* (*Citrus grandis*), *nunu* (*Ficus prolixa*), and *budu* (*Inocarpus edulis*) and 30 cubic *tubo* were exported to Saipan and Tinian. The more the island was developed, the more the Nan'yō Kohatsu mill could satisfy military demand. However, by January 1944, shortages were expected because of army construction and the reckless destruction of the jungle that began deforestation.<sup>70</sup> In response, the Minseibu considered a reforestation effort, but of course it could not afford laborers to do this.

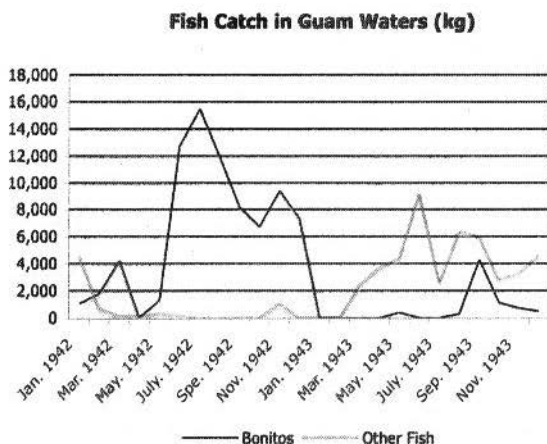
For even a small contribution to the munition industries in the homeland, Nan'yō Kōhatsu's "special crops" groups, Sasaki-gumi (Saipan), and Chūgai Sangyō (Rota) tried to plant cassava (for starch, soy sauce coloring, and alcohol), and castor-oil plants (for lubricants), tuba (derris for pest control), lemon (oil), cacao (for chocolate and suppositories), and cotton trees. But no results were reported from Guam because food production had priority and staff of these companies were required to work at airfield construction sites as well.

### Fishing

The navy gave priority to fishing, especially for the garrison.<sup>71</sup> The prewar fishing industry was underdeveloped and reef fishing was carried out by thirty local men using licensed fish weirs for family consumption.<sup>72</sup> Because the Minseibu could not depend on Chamorro small-scale reef fishing, the navy ordered Nankō Suisan (Nankō Marine Products Company), a Nan'yō Kōhatsu subsidiary, to begin fisheries.

The thirty Okinawans from Saipan began tuna fishing with two twenty-one-ton-ships southwest of Matsuyama (Merizo), and between Guam and Rota. A small dried bonito factory was built to process 60 kan (1 kan = 3.75 kg) per month for military food. The result was poor, with “no hope of increasing production” because bonito was seasonal and migratory and there were fewer schools of tuna near Guam than in waters around Palau, Truk, Ponape, Saipan, and the Marshalls. In addition to seasonal winds and rough waters, large catches were not expected because of the limited numbers of fishing boats and Okinawan fishermen who were the only ones that could catch bait fish.<sup>73</sup> Guam’s fishing areas were also limited and surrounded by South Sea Islands’ fishing grounds. The catches from Guam waters in 1942 were: 82,170 kg of bonito and 7,230 kg of others, totaling 89,400 kg, compared to 1,297,000 kg (1942) of bonito from Saipan.<sup>74</sup> The fresh fish were distributed to the military and Japanese civilians. The Minseibu’s deep-sea fishery did not benefit the Chamorros.

After the *Daini Tōkai Maru* (a cargo-passenger ship and later commercial cruiser) was sunk in Apra Harbor in January 1943, fisheries suddenly declined. An eight-ton ship, newly hired for reef fishing, tried to make up for the poor catches of bonitos. Still, the total catch fell to 52,805 kg in 1943 (see Fig. 10).<sup>75</sup> Although no detailed statistics can be obtained, it was obviously difficult to continue fishing in the open sea surrounded by U.S. war ships in 1944. With a mass landing of the army soldiers, rapid replenishment of



**FIGURE 10. Graph of Fish Catch in Guam Waters (kg).** Source: Sanbō Honbu, “Ōmiyatō heiyō chishi shiryō,” 60–62.

this animal protein source was difficult. Therefore, the military turned to Chamorro livestock.

### *Stock Farming*

Before the war, cows, pigs, water buffalo, horses, goats, and chickens were raised for family consumption on Guam. This was small-scale breeding. There were only fifteen cattle ranches in the central part of the island: seven farms with 10 to 15 head; six with 50-100 head, and two with 300-400 head, covering 7,570 chō.<sup>76</sup> In 1941, a large amount of livestock was consumed by U.S. Navy public works laborers. Typhoon damage in November 1940 and August 1941 caused a shortage of coconuts (livestock feed) and resulted in cattle being slaughtered. After the Japanese occupation, the meat supply fell again when many animals were butchered to feed army and naval personnel.

The Minseibu's first task was to recover. Nan'yō Kōhatsu cooperated with the Bureau, Saipan Branch to support stock farming through bonuses, sale of bloodstock, and health checks for cattle to encourage selective breeding. Between August 1942 and January 1944, cattle increased by 130 percent, pigs by 170 percent and chickens by 170 percent (see Table 8). It was reported that Guam could achieve "almost self-sufficiency" for these products even after 1,500 Naval Construction Battalion members landed in October 1943. But the Chamorros were not considered: priority for meat consumption was the military, with Japanese residents next.

In January 1944, a month before the landing of a thousand soldiers, the Minseibu estimated that this animal stock could feed 30,000 persons at 180 g per day, but for only 1 month. Predicting shortages, the Minseibu restricted the slaughter of domestic animals and ordered islanders to increase herd numbers: three head of cattle; three pigs; and thirty chickens. This meant Chamorro consumption was prohibited and all domestic animals became the

**TABLE 8. Stock Farming on Guam: Number of Head.**

Farm Animal	August 1941	August 1942	January 1944
Cattle	5,969	3,734 (-2,235)	4,980 (+1,246)
Buffalos	1,761	1,011 (-750)	979 (-32)
Pigs	8,491	2,459 (-6,032)	4,154 (+1,695)
Horses	140	81 (-59)	88 (+7)
Chickens		30,201	43,988 (+13,787)
Goats	734	529 (-205)	

Source: Sanbō Honbu, "Ōmiyatō heiyō chishi shiryō" (1944), 57-58.

military's food.<sup>77</sup> But troops pouring into Guam made orderly husbandry impossible, despite Chamorro efforts to enlarge stocks.

In summary, the Minseibu's attitude, from beginning to end, emphasized food production activities. The navy seriously aimed at securing a firm foothold of food production on Guam to establish one self-sufficient sphere in the Marianas. But their preparation, planning, and practice efforts were nothing but stop-gap measures. Further, the navy was anticipating Japan would be confronted with a stalemate or state of war. There emerged two modes, "as soon as possible" and "as much as possible." The only way the navy could break the deadlock was to rapidly increase Chamorro labor efficiency.

### **Labor Management and Exploitation**

Time was too short to evaluate the Minseibu's efforts fairly, but Nan'yō Kōhatsu Guam accountant Okada Shōnosuke stated positively that Guam's development could have achieved some success in peacetime much as his company had realized in the northern Marianas.<sup>78</sup> In other words, with the same financial and administrative support that Nan'yō Kōhatsu received from the South Seas Bureau, development would have been possible given Guam's climate and soil. However, Nan'yō Kōhatsu's most decisive factor for its success, as Matsue Haruji, a founder of the company, stated, was its large number of persevering laborers. In particular, the employment of Okinawans, who had experience with tropical agriculture and worked at low wages, was the primary factor.<sup>79</sup> But Guam lacked, first of all, laborers experienced in industries planned by the Minseibu. Employment of laborers from Japan and Korea was impossible due to military service and wartime labor mobilization programs. Ironically, a characteristic point of Guam's planned development was complete dependence on Chamorro laborers, who lacked skills and resources. Other islands in the Marianas attempted to establish wartime control through civilian Japanese united with the navy policy. This added more Japanese and Korean laborers according to the plan. In contrast, the Chamorro was in all points the only labor source that the navy had on Guam. Accordingly, the critical task for the Minseibu was to mobilize the Chamorros.

However, no official documents concretely address the question of methods for obtaining and managing this labor. Even the Ministers, the Liaison Conference, and Cabinet's Outline of Economic Policies for the Southern Areas (December 1941) ducked this issue. The Cabinet Planning Board's ideological statements clearly represented official thought in response to the government's "proper place" policy:

The reinforcement of the economy in Greater East Asia has an immediate bearing on individual benefits in each area. Therefore, the local people ought to obey Japan's instructions and accept Japanese control [and] Japan should have the local people assume an appropriate [work] load as a general policy.<sup>80</sup>

The military's expectations of the Chamorros were that they simply "obey," "accept," and "pull their weight," which were the preconditions for the navy's principle of "organic integration" and a response to Japan's war slogan—"to enable all nations to find their proper place." Whereas Japan could reasonably expect people to obey, their duty was to carry an "appropriate" workload.

According to Chamorros' workload, labor management on Guam can be divided into three periods:

- 1) January 1942–October 1943 (land reclamation and agriculture);
- 2) November 1943–March 1944 (agriculture mainly for navy needs and airfield construction);
- 3) March 1944–July 1944 (agriculture for the navy and the army needs, airfield construction, and build-up for combat).

Before the first period, the Guam Minseisho (the predecessor of the Minseibu, December 1941–January 1942) registered all Chamorros, issued identity papers, and ordered headmen to report villagers' movements. This survey would not be simply for the convenience of the administering authority, but apparently was the registration for wartime labor mobilization measures.

In Japan, which entered into a war with China over the Manchurian Incident of 1936, the government's labor management gradually switched to labor control in the late 1930s. Under the National Mobilization Laws (1938), the cabinet's Outline of Urgent Measures for Labor (August 1941) called all nationals:

to whip up the nation's patriotic spirit of hard work and to swiftly organize and strengthen the labor mobilization system. The government requires (the nation) being a nation at work, not a leisured nation, and not a nation with unemployed people.<sup>81</sup>

The mobilization laws took effect in the South Sea Islands in the same year, but the Laborers' Notebook Law was not effective until May 1942. Workers from between the ages of fourteen and sixty could be drafted for industries

TABLE 9. Occupations of Chamorros and Japanese Civilians (c. 1943).

	Natives			Japanese		
	Total Population	Male	Female	Total Population	Male	Female
Fishery	123	122	1	31	31	0
Mining	187	178	9	9	9	0
Industry	118	90	28	9 (11)	9 (11)	0
Business	58	21	37	23 (15)	2 (13)	2 (2)
Transport	37	33	4	2	2	0
Agriculture	8,756	4,353	4,403	21 (9)	15 (9)	6
Others	1,049	611	438	104 (2)	91 (2)	13
Unemployed	13,132	6,147	6,985	256	92	164
Total	23,460	11,555	11,905	455 (37)	270 (35)	185 (2)

Source: Sanbō Honbu, "Ōmiyatō heiyō chishi shiryō" (1944), Tables 2 and 3.

Numbers in parentheses show the Japanese residents who immigrated to Guam before 1941.

People who were more than sixty years old and less than eighteen years old were considered unemployed if he/she did not have an independent occupation.

designated by the government. Because of Guam's location and its governance by the same military operational plans, Guam had to improve in order to meet the new labor standards for the South Sea Islands. This meant Guam had to follow two policies: to "obey" as an occupied people and to "work" as Japan's nationals.

Table 9 shows the results of a Minseibu occupation survey. The data are undated, but the population of 23,374 in June 1943 increased slightly to 23,460 as indicated in this survey. Other relevant data inserted next to the original data were collected in October 1943. Table 9 shows a Japanese population of 455, with about 104 were categorized as "others," probably including 80 Minseibu administrators. The 256 "unemployed" would have been family members of Japanese workers. Meanwhile, the Chamorro work force in 1943 consisted of 123 fishermen, 187 manganese miners (118 in the navy guard unit, industrial yard and soap factories and 58 in commerce and distribution), 37 bus drivers for Nan'yō Kōhatsu and the naval guard unit, and 8,756 agricultural workers. "Others" would have been workers employed by the 54th Defence Guard Unit and the Minseibu. The number of 438 women listed as "others" was quite high. These women included Chamorro housemaids for Japanese civilians and soldiers. They responded to the policy as a way to establish "identity" or "individual security" under Japanese military rule, e.g., as a way to avoid being a "comfort woman."<sup>82</sup>

Chamorro workers totaled 10,328 (5,408 male and 4,920 female).<sup>83</sup> The Chamorro employment rate was as high as 47 percent for men and 41 percent for women in 1943. More than 50 percent of the population, and as much as 80 percent of male workers and 90 percent of female workers were engaged in manual agriculture. There are no data available for Guam's working population on the eve of the U.S. invasion, but the Chamorro population in agriculture was probably limited because agricultural production was mainly for home consumption. However, in 1943, the Minseibu's full-labor policy diverted these workers for the war effort.

In contrast, in December 1941, the total population in the South Sea Islands was 141,259 (90,072 Japanese, including Koreans and Taiwanese; 51,089 islanders; and 98 foreigners).<sup>84</sup> In September 1941, there were 28,070 registered laborers according to the Labor Coordination Law and the Laborer's Notebook Law records. These laborers were for government and military works: mining, manufacturing and processing, civil engineering and construction, freight traffic, communications, agriculture, forestry, and fishery.<sup>85</sup>

Of the total population, 53,753 people (48,923 Japanese; 4,808 Chamorros and Carolinians) lived on Saipan, Tinian, and Rota in the Marianas.<sup>86</sup> But the number of registered laborers in the Marianas was only 8,042 because the majority of workers already belonged to the Nan'yō Kōhatsu. In Fiscal Year 1941, the Bureau needed 34,521 more laborers, including 23,380 military workers, particularly in Palau and Saipan. It could arrange for 30,063 new laborers (4,780 from Japan, 23,550 Koreans, and 1,933 residents), totaling 58,133.<sup>87</sup> Still, 4,458 laborers needed were not available. Naturally, no laborers were sent to Guam from the South Sea Islands, except about 50 Japanese "industrial leaders" and 30 fishermen from the Saipan district. Thus, all new intensive development including land reclamation was done by the Chamorro workers because of the application of the independent industrial development policy for the occupied areas. Although the navy deemed Guam a supply base for the Marianas, no resources were provided to Guam.

Despite this full-labor operation policy, it was not the Minseibu's normal policy to fully enforce the *kyōsei rōdō* (compulsory work), at least during the first period (namely before October 1943). During the time Table 9 data were gathered, although the Laborer's Notebook Law in the South Sea Islands required workers between the ages of fourteen and sixty to be involved in industries designated by the government, the Minseibu only targeted those aged eighteen to sixty. There were 13,132 "unemployed" people on Guam. This potential labor pool included youth fourteen to seventeen years of age. During this time period, it was unnecessary to enforce compulsory work.

*Kyōsei rōdō* is a general term in Japanese meaning forced labor with disregard for the worker's will. Speaking correctly, the Minseibu's approach was that of *chōyō* (drafting) by which the government under the occupation coerced "nationals" to work in certain industries, except military service. Guam was regarded as a Japanese territory. As shown by the term for the Japanese language schools for Chamorros, *kokumin gakkō* (national school), Chamorros were regarded as new Japanese nationals.<sup>88</sup> Unlike the situation of people in the Philippines, Burma, and later Indonesia where Japan promised independent political statuses, as *chōyō* the Chamorros had a national duty to work for common goals of the Greater East Asia War.

Still, it was expected that Japan's oppressive rule over the Chamorros would generate antagonism. The cabinet Planning Board admonished administrators in the occupied areas and, therefore, the Minseibu employed the Chamorros under apparent "good guidance" to avoid unnecessary anti-Japanese feeling.<sup>89</sup> Nan'yō Kōhatsu employees were instructed to pay "extreme attention" to Chamorro labor treatment.<sup>90</sup> When a Japanese head killed a Chamorro mining worker with a machete, it was taken seriously and the head was ordered to leave the island.<sup>91</sup> During the period of 1942 and 1943 when U.S. attacks were not an imminent danger, Nan'yō Kōhatsu's Chamorro workers were employed by recruitment with payment by Chamorro village headmen through the Minseibu.

Furthermore, the nature of the navy's employment can be inferred from the navy's outline of military administration that directed wages be depressed as much as possible.<sup>92</sup> Nan'yō Kōhatsu's Shimano Kenji in charge of wages testified that the company's wage level was applied to Chamorros.<sup>93</sup> As of 1939, the Nan'yō Kōhatsu Sugar Manufacturing Office on Saipan paid a Japanese laborer ¥0.90 to ¥1.20 per day. But the majority of the Japanese laborers were Okinawans who were paid lower wages than Japanese from the mainland. Also, a Japanese day laborer on Saipan was paid ¥1.40 in 1939 while the islanders (mainly Chamorros) received ¥1.<sup>94</sup> Chamorros on Guam who were "the islanders" as well as "the occupied people" were regarded as Japanese nationals for the sake of convenience, yet were paid lower than the Japanese for the same work. Wage differentials between the Japanese and Chamorros were explained by lack of Japanese language ability, education, and skill level. On the other hand, the hourly wages of Chamorros in the soap factory were much higher than a Japanese factory chief's monthly salary of ¥80, but evidence indicates that this discrepancy is due to overtime work done by Chamorros.<sup>95</sup>

During the second period of 1943, airfield construction workers were paid ¥1.20 to ¥1.25 daily, but the yen had no value because money was not in



circulation at the time.<sup>96</sup> Chamorro workers welcomed payment in rice because the food distribution system had collapsed. The navy outline emphasized giving the occupied people technical education. But this was not done on Guam as the navy certainly needed as many low wage physical laborers and farmers as possible to save yen and increase production.

Rice production work shows another aspect of the navy's policy for mobilizing Chamorro laborers. The labor of Chamorro men, women, and children on land projects in early to late 1942 was described as "never follow the European style of 8 hours work per day, (everybody works) from early morning to evening."<sup>97</sup> Basically the ten-hour workday, common in Japan, was adopted. This was called *kinrō hōshi* (voluntary labor service) or *mura sōde no kyōdō sagyō* (village cooperative work) without pay because it was for community and national benefit. Both types of volunteerism spread to all villages in Japan after 1937. The background of voluntary service was the Japanese concept of moral education, of faithful devotion to the nation that was defined in the Imperial Rescript on Education (1890). It was assumed that all Guam land belonged to Japan and thus Chamorros were new nationals of Japan. Procurement of the indispensable food staple (rice) for the Japanese was not only an indicator of self-sufficiency but also was viewed as strengthening the coprosperity sphere. Rice production typically ought to have been done by *kinrō hōshi*. The Minseibu employed women, school children, and other unskilled and less strong residents for airfield construction. This was also *kinrō hōshi* because it was preparation for "national" defense.

On September 23, 1943, Imperial Headquarters and the Government established a new defense sphere in the Pacific and Indian Ocean, including the Western Carolines and the Mariana Islands for Japan that had to be held unconditionally. The Greater Asia Ministry decreed the mobilization of all human and physical resources to strengthen the fighting force within the defined perimeter. Mobilization or *chōyō* became more general in the occupied areas after October 1943, when the Chief Conference on Labor in the Southern Area was held in Singapore. This was also a turning point for the South Sea Islands, too. Based on the National Mobilization Laws (1938), the Order for Labor Coordination (1941), the Order for National Labor Services Cooperation (1941), and the Order for Laborer's Notebook were all called into force in the South Sea Islands. The first order targeted skilled laborers, and the second applied to Japanese males between fourteen and forty and females between fourteen and twenty-five. The third order included those who could be recruited and was applied to all Japanese nationals between fourteen and sixty years.<sup>98</sup> Unlike the South Sea Islands, a

characteristic of the military administration of Guam was that these orders were promulgated without official announcement. This was the approach implemented for the second stage of labor management on Guam.

Table 10 does not include the date of the survey in the original source. It was undoubtedly compiled by the Minseibu as directed by the army advance troop between January and February 1944, anticipating the arrival of a new group of army forces. The total Guam population of 23,915 in Table 10 was made up of 23,460 Chamorros and 455 Japanese in Table 9. The footnote for Table 10 identifies "special workers" as those "employed by the navy and primary civilian enterprise(s) or who are disabled." These were 138 workers in the Navy Civil Engineering Department who carried out ship repair, water supply and power plant work; 205 employees of the Minseibu; 466 workers for airfield construction; 332 workers for Nan'yō Kōhatsu; 780 workers

**TABLE 10. Total Population and Laborers (Late 1943 or Early 1944).**

Villages	Total Population	Number of Families	People Aged 16-60			
			Male	Special Workers	Balance	Female
Akashi (Agana)	4,770	983	1,080	498	582	1,396
Asai (Asan)	642	104	121	95	26	169
Shōten (Piti)	1,316	237	347	185	162	318
Suma (Sumay)	1,213	205	282	186	96	301
Naka (Agat)	1,335	235	288	221	67	330
Umata (Umatac)	491	55	123	96	27	125
Matsuyama (Merizo)	1,044	71	221	204	17	259
Inada (Inarajan)	1,090	180	248	220	28	287
Tasaki (Talofofo)	671	108	167	7	160	158
Harakawa (Yona)	930	158	161	16	145	238
Shinagawa (Shinajana)	3,039	516	614	167	447	704
Sawahara (Mangilao)	1,145	188	250	90	160	294
Haruta (Barrigada)	2,421	370	539	134	405	637
Takahara (Yijo)	919	139	204	21	183	184
Kita (Yigo-Ritidian)	639	99	142	10	132	149
Hiratsuka (Tumon-Dededo)	2,250	384	518	50	468	536
<b>Total</b>	<b>23,915</b>	<b>4,032</b>	<b>5,305</b>	<b>2,200</b>	<b>3,105</b>	<b>4,689</b>

Source: Sanbō Honbu, "Ōmiyatō heiyō chishi shiryō" (1944), Table 4.

"Special workers" were those "employed by the navy and primary civilian enterprise(s) or who are disabled."

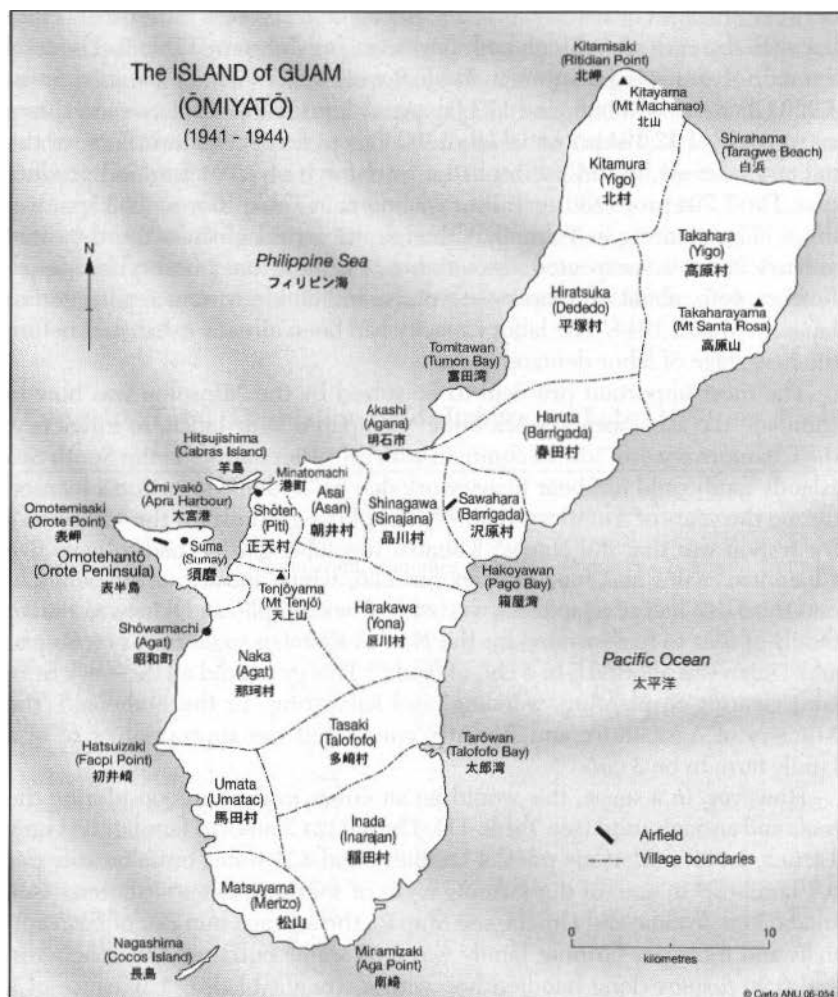
for rice production; 215 disabled; and 126 others, totaling 2,262 (2,200 in Table 10).<sup>99</sup>

Table 10's data reflects a policy shift from considering all civilian residents between the ages of sixteen and sixty as potential laborers rather than those between the ages of eighteen and sixty-seven, as shown in Table 9. The total number of employed laborers in Table 9 was 10,507 (5,408 Chamorro men, 4,920 Chamorro women, and 179 Japanese men). Table 10, however, shows an increase of 12,194 potential laborers. Except for "special workers" or the military laborers, the Minseibu had a work force of 7,794 for food production. The 7,794 projected agricultural laborers in Table 10 were 983 less than the 8,777 appearing in Table 9. Although the arrival of some ten thousand military forces was expected, the number of agricultural laborers decreased. Furthermore, about 180 Japanese women and children were repatriated to Japan in March 1944. The labor capacity had been already exhausted before the new stage of labor demand began.

The most important problem to be solved by the Minseibu was how to stimulate the Chamorros' work ethic. Compared with Japanese efficiency, the Chamorros were "idle in common with the other natives in the South Sea Islands" and could not bear heavy work due to "hedonistic customs learned during the years of American rule."<sup>100</sup> One of the grounds for the Minseibu's frustration was that the Nan'yō Kōhatsu vegetable garden had to have five Chamorro males and four females per chō, which meant an efficiency of one-third or a half of a Japanese worker.<sup>101</sup> For example, an Okinawan tenant family of four to five working for the Nan'yō Kōhatsu sugar farms on Saipan and Tinian was allotted 5 to 6 chō of land.<sup>102</sup> This group did all the work from land clearing to planting, weeding, and harvesting. In the homeland, the Ministry of Agriculture and Forestry considered the appropriate size of a family farm to be 3 chō.<sup>103</sup>

However, in a sense, this would be an unfair evaluation considering the tools and animals used (see Table 11). The 4,032 Chamorro families had only 1 truck, 1,688 cattle (one per 2.4 families), and 431 water buffalos (one per 9.4 families). In case of the farming areas of southern Guam (Shōten, Asai, Inada, Matsuyama, and Umata; see Map 2), the average number of farm animals and tools per farming family was 0.63 water buffalos, 1.04 machetes, and 0.90 *fusinos* (long handled hoe with a straight blade).<sup>104</sup> Because of a shortage of tools, working cattle, and fertilizer, and absent support from the homeland, agricultural output on Guam was poor. All agricultural labor by Chamorros, who were inexperienced in Japanese methods, was manual and was the extension of Japanese agricultural methods in the homeland.

In direct contrast with high production goals, the Greater East Asia Construction Council cautioned Japanese managers not to attempt rapid change of islanders' customs. Technical and economic measures were to be



**MAP 2. The Island of Guam (Ōmiyatō), 1941–1944.** © Cartography, The Australian National University. Source: Cartographic Services, Research School of Pacific and Asian Studies, College of Asia and the Pacific, The Australian National University.

TABLE 11. The Numbers of Agricultural Implements and Draft Animals on Guam (1944).

Implements	
Cultivators	0
Hoes	150
Forks	120
<i>Fusinos</i>	4,224
Machete	5,361
Shovels	300
Sickles	900
Sprayer	90
Threshing Machine	100
Trucks	1
Weed Killers	600
Draft Animals	
Cattle	1,688
Cow	102
Water Buffalos	431

Source: Sanbō Honbu, "Ōmiyatō heiyō chishi shiryō" (1944), pp. 51-52.

"Fushinos" is a long handled hoe with a straight blade.

decided according to actual conditions, especially the "cultural level of each race."<sup>105</sup> The council advised that local farmers be motivated to improve their morale. This policy was adopted to conceal Japan's inability to send materials or technical advice to the occupied areas. Although Chamorros had no reason to demonstrate the work ethic that the Japanese wanted, it was reported later that Chamorro work skill and efficiency had improved to 70 percent to 90 percent of Japanese workers "owing to good supervision" during the construction of an airfield.<sup>106</sup> According to a Naval Construction Battalion member, two bulldozers, one crane, two dump trucks, and a fire truck were available to build a runway (100 meters wide by 1,500 meters long by 200 meters wide by 1,400 meters long) in the First Airfield (Suma or Sumay). Some Chamorros operated American machinery, but the majority worked with shovels and picks. Their Japanese coworkers were strong men who had been discharged from military service, or else had been racketeers and prisoners.<sup>107</sup> It is easy to imagine their work conditions and "good supervision" from the testimony that a Korean laborer was killed at work. The work situation included forced laborers from Japan's colonies, lack of mechanical and technical expertise and equipment, mass mobilization for physical labor, and near absence of morale. These conflicts between Japan's needs and lack of the resource management created potentially explosive tension.

In the transition from the late first period to the second and third periods, I notice three cabinet decisions concerning the South Sea Islands (Table 12).

TABLE 12. **Outlines of the Transitional Policies for the South Sea Islands.**

	Food Policies for the South Sea Islands (August 1943)	Urgent Countermeasures for Supplementing Munitions Provisions in the South Sea Islands (February 1944)	Emergency Countermeasures for Wartime (April 1944)
Policies	<ul style="list-style-type: none"> <li>• Establish food self-sufficiency.</li> <li>• Stop dependency on imported rice.</li> <li>• Establish rice self-sufficiency on Saipan and Ponape.</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare for a response to decisive battle.</li> <li>• Supply rice and millet grain for the military.</li> </ul>	<ul style="list-style-type: none"> <li>• Unify with the military and prepare residents to fight as a reserve force.</li> </ul>
Measures	<ul style="list-style-type: none"> <li>• Import and stock rice as much as possible.</li> <li>• Implement Outline of Industrial Reorganization Plan (August 1943), which called for closing retail dealers and using that labor force for agriculture, fisheries, and mining.</li> <li>• Change sugarcane fields to dry fields for rice plant and cereals.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase production of rice, vegetables, and fish.</li> <li>• Develop unused land.</li> <li>• Reduce export to the homeland to the absolute minimum.</li> <li>• Gather labor for food production, military construction, and defense resources.</li> <li>• Agricultural farm for growing military food to be a responsibility of the South Seas Bureau.</li> <li>• Give function of food supply to the Nan'yō Kōhatsu.</li> </ul>	<ul style="list-style-type: none"> <li>• Civilian cooperation with military construction is the first priority.</li> <li>• Repatriate the elderly, women, and children.</li> <li>• Unite the South Seas Bureau with the military.</li> <li>• The Bureau is to employ military personnel. Officials are to become civilian employees of the military.</li> <li>• Implement Agreement between Nan'yō Kōhatsu and the navy (May 1944).</li> </ul>

Because the national defense line in the east-southern area was withdrawn from the Banda Sea to Eastern and Western Caroline Islands, and Mariana Islands in September 1943, these outlines were likely determined on the basis of Palau and Saipan. Labor management of Guam was undoubtedly strengthened during this period according to the progress of fortification plans.

With the enforcement of the Outline of Food Policies for the South Sea Islands (August 1943), the necessity of food self-sufficiency in the South Sea Islands was recognized to provide replacements for imported items from Japan. The sugarcane farms, which provided sizable South Seas Bureau revenues, had to be turned into other farms, such as sweet potatoes. The failure of rice on Guam influenced the navy and the Bureau officers' concerns. As well as securing more land for agriculture, the Industrial Reorganization Plans ordered the closure of small stores to free up individuals for food production and distribution works. On Guam this method of commercial control had been implemented since the beginning of the occupation. Agricultural work on Guam was at its peak during mid-1943, but beginning in November the large number of laborers was halved with the airfield construction that began 6 years later compared with Saipan and Tinian. The Minseibu encouraged agriculture laborers to work more efficiently with the aim of compensating for the loss. As a negative chain, working hours for Chamorros' self-sufficiency should be reduced.

The Outline of Urgent Countermeasures for Supplementing Munitions Provisions (February 1944) was decided prior to the Army's deployment in the Marianas. The navy expanded its control of food in two ways: the Bureau operated vegetable farms only for the military consumption and Nan'yō Kōhatsu should manage food distribution. Because the majority of agricultural land belonged to the company, this authorization made navy control easy, even the civilian production. Then the navy required full employment of the civilians in alignment with total war.

Similarly, the Guam Minseibu could not expect any shipments from Japan due to the loss of ships (in all, 3.60 million tons of ships were lost from December 1941 through March 1944) since the breakout of the war and rushed preparation for substitute foods. However, Guam's agricultural basis was tenuous given few experienced Japanese laborers and the limitation of Chamorro efficiency as well as time and materials. Cornered, the Minseibu requested the Fifth Base Force on Saipan to detail the Crop Cultivation Unit or the *Kaikontai* to Guam. However, only a few unit members were sent to Japan's Marianas (none to Saipan and Tinian and 10 members to Rota), while more than 170 members were dispatched to Guam. This demonstrates how urgent the need for workers was on Guam compared with the northern

Marianas. Moreover, the 170 Navy Crop Cultivation Unit members sent to Guam were not for the purpose of alleviating the Chamorro labor condition. The plan was to have the natives work under their leadership. Between late February and early April 1944, the First Airfield (including an air defense raid room, positions, antitank ditches, and land mines) in Suma and the Second Airfield (including the 54th Defense Guard shelter, positions, and a radar intercept receiver) in Tomioka (Tiyan) were mostly completed. The Fourth Airfield three kilometers north at Hiratsuka (Dededo) and the Third Airfield at Haruta (Barrigada) were started in late April and the early May respectively.<sup>108</sup> In addition to the 218th Naval Construction and Service Department, some thousands of the 217th members landed and began using Chamorro labor in April 1945. The use of Chamorro labor for airfield construction projects reduced agricultural labor by more than half.

Before entering the third stage of labor management, mass landings of army troops from Manchuria reached its peak. The Marshalls and Central Carolines were already in the hands of the United States and, for Palau and the Marianas, it was no longer "urgent" but "emergency" and "wartime," as the title of the new outline declared. The Outline of Emergency Countermeasures for Wartime (April 1944) in Table 12 aimed at "concentrating and mobilizing" all labor. The South Seas Bureau officials were incorporated into the navy structure and finally the civilian residents were directly involved in the war. The navy had been refusing repatriation of Japanese nationals to the homeland in order to maintain a labor force finally agreed in February 1944. They needed to reduce food consumption by elderly and female laborers because they were considered inferior to male workers. In addition, Japanese residents on Guam began repatriating to Japan in late March 1944.

One month after the Yano-Obara Agreement in the Marianas in April 1944, a similar agreement between Captain Sugimoto Yutaka, Guam Branch head of the Fifth Naval Construction and Service Department, and Fujiwara Masato, Nan'yō Kōhatsu director, was signed in May 1944. With these two agreements, the navy was granted the exclusive rights to all company assets on the Marianas and Guam including farmland, equipment, housing, medical facilities, employees, and farmers. It was the case that Chamorros on Guam were absorbed into the navy and became employees directly under navy command.

On Saipan, the navy could not dissolve the civilian authority, the South Seas Bureau, Saipan Branch Bureau, and the size of civilian population. But finally a navy officer took the Branch Bureau head position. Guam, an occupied area and fully administered by the navy, did not face this situation. The Minseibu staff was absorbed into the Fifth Navy Construction and



Service Department, Ōmiya (Guam) Sub-branch (*Dai-go Kensetsubu*) when the Minseibu was dissolved. Although the April 1944 outline used the phrase "unification with the military," Guam's civilian situation was dissolved. There was no more line separating the department from the military because the department's duty was defined as "matters relating to construction, transportation, war supplies and production, storage, supply, research, and development of self-sufficiency for Japan's fleets and forces."<sup>109</sup> Only the 150 Japanese nationals (100 male and 50 female) were placed in the Civil Administration Sub-section while Chamorros were under the direction of 37 former Minseibu police officers and teachers. The military police helped supervise Chamorros used as a labor source. In short, there was no civil administration of the Chamorros during this period.

When the Third Airfield construction began north at Tiyan in May 1944, conscription of Chamorro men, initially between sixteen and sixty years of age, was accelerated day and night for building the taxiway, munition storage, and shelters. Exhaustion of male laborers resulted in Chamorro females and children over twelve years old being drafted to work when the Crop Cultivation Unit arrived in May 1944. The chaotic work situation under military order amounted to psychological and physical forced labor.

During the state of confusion caused by the U.S. bombing and fleet attacks in June 1944, the Chamorro were released from military projects work. The impress of females ended 2 months later and thousands of Chamorros encamped in a jungle area in Manengon, central Guam, to avoid the violence of combat. Chamorro males continued to construct military positions until August 10, when the 31st Army Commander Obata Hideyoshi killed himself at the last command post in Yigo, northern Guam.

Japanese military forces in early July 1944 soon before the U.S. landing totaled 20,810. More than 2,000 were lost at sea during transport to Guam. Therefore, the estimated 7,500 Chamorro male workers were extremely valuable for the Japanese military that depended on human-wave tactics. When the Japanese Army landed on Guam, it expected Chamorros to be a war reserve, stating that Chamorros could be "decentralized and mobilized" under the "principle of having the workers in combat readiness."<sup>110</sup> This was possible for the Chamorros in the Marianas, who had been under the influence of the South Seas Bureau's thirty years of "Japanizing" education. But there was a great risk concerning Guam Chamorros' loyalty to Imperial Japan. Still, the military had to depend on Chamorro labor for safety in a combat zone. Therefore, Chamorros carriers were used at Lieutenant General Obata's last command post in Yigo, and they ended their lives in three ways: "death in battle," "escape," or beheading.<sup>111</sup>

To return to the original subject of labor management for industrial development, the Minseibu recruited Chamorros under the pretext of establishing food self-sufficiency of Guam including the natives. But the true purpose was food production for the Japanese military, not for Chamorros. Therefore there was wide-scale compulsion to achieve Japan's war objectives. Although the concept of labor is somewhat subjective, it must include collateral value of the work and independence of will. Even though the navy partly achieved its goal of development, the real nature of Japan's development was revealed by its harsh labor policy.

### Conclusion

In contrast with other occupied areas under the Japanese Navy's supervision, such as Dutch East Indies, Rabaul, and New Guinea, the navy's approach to Guam's industrialization was more straightforward and simplified. Besides Guam's characteristics (race and natural conditions), there were two reasons for the navy to introduce a rapid development policy. First, Guam was located in the Marianas where a major effort for advancing the war goals could be undertaken because of existing organized industries and large numbers of Japanese workers. Second, in regard to the Saipan and Tinian naval air bases (the Northern Mariana District), Guam was given its operational duties as a commissariat base along with Rota (the Southern Mariana District). This situation established a higher standard of administrative and developmental objectives that defined Guam as a "proper place."

It goes without saying that the primary objective behind policies encouraging self-sufficiency on Guam was rice production. If this could be achieved, the navy could rely on the food staple supplied by Chamorros which would mitigate the islanders' burden of direct military participation. However, the navy's fixed policy was doomed to fail. The consuming military populations on the island developed a tendency to increase step-by-step toward further operations. In the meantime, the labor population substantially decreased with the breakneck rush of fortification construction and combat readiness. Economic imbalance brought about by the military and its war activities disrupted the Chamorro labor supply. This anomaly readily brought all function of control on the Island to a complete standstill.

In anticipation of this situation, the navy invented the concept of "organic integration" as a way to persuade the Chamorros to carry out labor participation for Japan. This would, conceivably, be a mutually beneficial relationship. However, although the navy could establish "one" through its occupation by force, the key aspects of the concept—"close unification" and "logical

relationships”—were missing. This explains the failure of the navy's development of Guam and also provides a basis for the Chamorros' war claims.

## NOTES

This article was originally a part of the author's study of the Japanese Navy's "organic integration" policy. See Higuchi Wakako, "A U.S. Territory in Japan's South Sea Islands: The Japanese Navy Administration of Guam" (PhD diss., The Australian National Univ., 2006).

1. There are two pronunciations of the Japanese characters 大宮島: *Ōmiyatō* and *Ōmiyajima*. The author used *Ōmiyatō* based on her interview with the former Japanese military and the Guam Minseibu officials and because of recent official correction of *Iwōtō* from *Iwōjima*.

*Ōmiyatō* is incorrectly translated in English publications as the "Great Shrine Island." The root "*Ōmiya*" in "*Ōmiyatō*" means "the Imperial Palace" or "a Shinto shrine" according to the Japanese language dictionary *Daijirin*, 1st ed. (Tokyo: Sanseidō, 1988). I did not find any evidence that the Japanese Navy called Guam "a Shinto shrine island." Rather it is reasonable that the island was called "an island of the Imperial Court" because it was a former U.S. territory captured by Japan. Similarly, "Akashi" for Agaña (now Hagåtña) was incorrectly translated as "Red City." There is a location named Akashi that is close to Awajishima, the size of which size was the same as Guam.

The Japanese government's official name of the mandated territory was the South Sea Islands in English and *Nan'yō Guntō* in Japanese. After Mark R. Peattie titled his book, *Nan'yō: The Rise and Fall of the Japanese in Micronesia 1885–1945* (Honolulu: University of Hawai'i Press, 1988), non-Japanese scholars tend to use "*Nan'yō*" for the South Sea Islands. But "*Nan'yō*" is, for the Japanese, a geographically vague term, meaning Japan's southern areas, including the South Sea Islands, but mainly the Southeast Asia region, not specifically the South Sea Islands. The author uses the term "the South Sea Islands" in this article.

2. Bōeichō Bōei Kenshūjo Senshishitsu, *Senshi sōsho: Chūbu Taiheiyō hōmen kaigun sakusen*, vol. 1, *Shōwa jūnana-nen go-gatsu made* (Tokyo: Asagumo Shinbunsha, 1970), 271. Second Lt. Yanagiba Yutaka wrote 421 POWs arrived in Japan from Guam on January 16, 1942. See Higuchi Wakako, *Remembering the War Years on Guam: A Japanese Perspective*, submitted to War in the Pacific National Historical Park National Park Service, U.S. Department of the Interior, April 2001.

3. The Philippines was a U.S. colony but a commonwealth government was established in 1935 in anticipation of a transfer to independent status. It was also placed under Japanese army jurisdiction after the occupation.

4. The army was assigned densely populated areas that would demand complex administration such as Hong Kong, Philippines, British Malaya, Sumatra, Java, British Borneo, and Burma. The navy was responsible for the Dutch East Indies, New Guinea and the Bismarck Islands and Guam.

5. The South Sea Islands was formally a League of Nations mandate but gradually came to be considered an Imperial territory after Japan withdrew from the League in 1935.

6. One of the few official translations for *hakkō ichiu* appeared in a draft of a diplomatic memorandum to the United States dated May 12, 1941. The draft translated *hakkō ichiu* as: "Both Governments declare that it is their traditional concept and conviction that nations and races are composed, as members of a family are composed, of one household under the ideal of universal concord based on justice and equity, each [government] equally enjoying rights and admitting responsibilities with a mutuality of interest regulated by peaceful processes and directed to the pursuit of their moral and physical welfare, which they are bound to defend for themselves [as they are bound not to defend for themselves] as they are bound not to destroy for others. There should be, of course, neither oppression nor exploitation of the backward peoples." The government's last memorandum to President Roosevelt on December 6, 1941 translated "*onoono sono tokoro o eseshimuru*" as "It is the immutable policy of the Japanese government to insure the stability of East Asia and to promote world peace, and thereby enable all nations to find each their proper place in the world." Government of Japan confidential memorandum in English to the United States drafted on May 12, 1941; and Memorandum from the Japanese government to the United States sent on December 6, 1941, in Kase Toshikazu, *Nihon gaikōshi*, vol. 20, *Nichūbei kōshō* (Tokyo: Kajima Heiwa Kenkyūjo, 1980), p. 108 and p. 302. Also see Minister Matsuoka Yōsuke's statement of August 1, 1940, and the formal announcement of the Tripartite Alliance. U.S. Department of State, *Peace and War: United States Foreign Policy, 1931-1941*, 573.

7. Harry, J. Benda, James K. Irikura, and Kishi Kōichi, eds., "Senryōchi gunsei shori yōkō," March 14, 1942, in *Japanese Military Administration in Indonesia: Selected Documents*, Translation Series No. 6, (New Haven, CT: Southeast Asia Studies, Yale Univ. Press, 1965), 26.

8. The dictionary meaning of "organic" or "*yūkiteki*" in Japanese is "a situation where many parts gather to make one, in which close unification exists between each part, and where there are logical relationships between each part and the total." Niimura Izuru, ed., *Kōjien: dai san-han* (Tokyo: Iwanami Shoten, 1991), 2431-2432.

9. Naval Intelligence Division, *Pacific Islands*, vol. 4, *Western Pacific (New Guinea and Islands Northward)*, B.R.519C (Restricted), (Geographical Handbook Series, United Kingdom, 1945), 476-479.

10. Robert F. Rogers, *Destiny's Landfall: A History of Guam* (Honolulu: Univ. of Hawai'i Press, 1995), 158.

11. *The Annual Report of the Governor of Guam*, 1941, 41.

12. Ueno Fukuo, "Guamutō o miru," *Chirigaku Kenkyū* 2, no. 1 (January 1943): 37.

13. OSSR & A744, 1942, Guam: A Social-Political-Economic Survey (declassified from confidential), Washington, DC, Office of Strategic Services, National Archives, Microfiche, M1221 MF1-1, June 17, 1942, cited in Rogers, *Destiny's Landfall*, 158.

14. Miyasaka Gorō, "Guamutō shokuryō no jukyū kōzō," *Shokuryō keizai* 8, no. 10 (October 1942): 50-52.

15. Sanbō Honbu, "Ōmiyatō heiyō chishi shiryō" (1944), 47; and Miyasaka, "Guamutō shokuryō no jukyū kōzō," 54. The island's output in 1941 was 839 koku but 8,039 koku were imported. The daily requirements per person were: 180g of potatoes, 220g of other potatoes, and 180g of vegetables. The two sources noted above were based on the same source; figures on need and shortages differ slightly, but rates of self-sufficiency are approximately the same.
16. David, D. Purcell, Jr., "The Economics of Exploitation: The Japanese in the Mariana, Carolines, and Marshall Islands, 1915–1940," *Journal of Pacific History* 11, pt. 3 (1976): 209.
17. Mark R. Peattie, "Nihon shokuminchi shihaika no Mikuroneshia," in *Iwanami kōza: Kindai Nihon to shokuminchi*, vol. 1, *Shokuminchi teikoku Nihon* (Tokyo: Iwanami Shoten, 2001), 202; and Matsushima Yasukatsu, "Nishi Taiheiyō shotō no keizaishi: Kaiyō Aja to Nan'yō Guntō no keizai kankei o chūshin ni shite," in *Aja Taiheiyō keizaikenshi 1500–2000*, ed. Kawakatsu Heita (Tokyo: Fujiwara Shoten, 2003), 234–236.
18. Gaimushō Jōyakukyoku, *Inin tōchiryō Nan'yō Guntō: Gaichi hōseishi dai gobu, zenpen* (Tokyo: Gaimushō, 1952), 292.
19. *Ibid.*, 31–34.
20. "Takumu Daijin seigi Nan'yōchō bunai rinji shokuin secchisei chū kaisei no ken," (February 5, 1942), Kokuritsu Kōbunshokan, Tokyo. The Japanese population (including Koreans and Taiwanese) was 77,257 (43,860 in Saipan) in December 1939 and 90,072 (48,923 in Saipan) in December 1941. Nan'yōchō, *Shōwa jūnana-nenban: Nan'yō Guntō yōran* (1942), 37; and Nan'yōchō Naimubu Kikakuka, *Dai kyū-kai Nan'yōchō tōkei nenkan Shōwa jūyo-nen* (August 1941), 12–13.
21. "Takumu Daijin seigi Nan'yōchō bunai rinji shokuin secchisei chū kaisei no ken," (June 14, 1941 and April 11, 1942), Kokuritsu Kōbunshokan, Tokyo.
22. Higuchi Wakako, "The Nan'yō Kōhatsu: Rota Sugar Manufacturing Branch," *Draft Final Report Prepared for Archaeological Data Recovery Rota Route 100 Roadway Improvement Project, Rota Island, Northern Marianas* (Honolulu: International Archaeological Research Institute, Inc., 2003), 41.
23. Kasahara Yasumasa, interview by author, Shizuoka, Japan, April 14, 2006.
24. Willard Price, *Japan's Islands of Mystery* (New York: John Day, 1944), 49.
25. Benda, Irikura, and Kishi, eds., *Japanese Military Administration*, 26–46.
26. Kikakuin Kenkyūkai, *Daitoa kensetsu no kihon kōryō* (Tokyo: Dōmei Tsūshinsha Shuppanbu, 1943), 2–4.
27. "Nanpō shochiiki ni taisuru tsūka seido no kihon hōshin narabini Taikoku oyobi Futsuin ni taisuru tōmen no sochi in kansuru ken" (February 23, 1942), in *Zoku gendaishi shiryō* vol. 11, *Senryōchi tsūka kōsaku*, ed. Tatai Yoshio (Tokyo: Misuzu Shobō, 1983), 609.

28. Ibid., 612.
29. "Guamutō ni okeru tsūka kōsaku ni kansuru ken" (December 22, 1941); and "Guamutō ni okeru tsūka kōsaku ni kansuru geisai" (January 6, 1942), Kokuritsu Kōbunshokan, Tokyo.
30. *Annual Report*, 1941, 58.
31. Sanbō Honbu, "Ōmiyatō," 67.
32. Ibid., 73.
33. Okada Shōnosuke, interview by author, Tokyo, August 4, 1998.
34. Ida Diego, "Complete History of My Life during the Japanese Administration," Headquarters Island Command Guam (August 19, 1944), 18.
35. *The Annual Report of the Governor of Guam*, 1934–1941; and Sanbō Honbu, "Ōmiyatō," Table 1.
36. Benda, Irikura, and Kishi, eds., *Japanese Military Administration*, 29 and 39.
37. Ōkurashō Kanrikyoku, "Nihonjin no kaigai katsudō ni kansuru rekishiteki chōsa: Tsūkan dai nijūichi-satsu, Nan'yō Guntō hen, dai ni-bunsatsu: Dai ni-bu Nan'yō Guntō keizai sangyō," 35–36, and 143.
38. Miyasaka, "Guamutō shokuryō," 50.
39. "Takumu Daijin seigi Nan'yōchō bunai rinji shokuin secchisei chū kaisei no ken" (May 8, 1941), Kokuritsu Kōbunshokan, Tokyo.
40. Sanbō Honbu, "Ōmiyatō," 52.
41. Ibid., 48–49.
42. Calculated from Miyasaka, "Guamutō shokuryō," 50; and Sanbō Honbu, "Ōmiyatō," 47–51. Each Chamorro family had five to six persons. This was similar to the situation in Japan: of 4,881 farming families in four prefectures between April 1939 and April 1940, 46 percent operated farms of one chō to two chō. See, Rekishigaku Kenkyūkai, *Taihei'yō Sensōshi*, vol. 3, *Taihei'yō Sensō zenki* (Tokyo: Tōyō Keizai Shinpōsha, 1953), 92.
43. Shimizu Kōtarō, "Nan'yō watari aruki," *Nan'yō Guntō Kyōkaihō* (January 1, 1995): 35.
44. Asai Tatsurō, "Dai san-bu: Nihonjin," in *Ponapetō: Seitaiagakuteki kenkyū*, ed. Imanishi Kinji (Tokyo: Kōdansha, 1975), 350–351.
45. 300 chō: 9,000 koku: 3,000 people = 800 chō: 24,040 koku = 8,010 people.
46. Watanabe Masao, "Koshimuta nikki," *Nankōkai Tayori* 42 (December 1, 1990): 4–5.

47. "Kaigun Chōsaka, Tōa shokuryō taisaku ron" (August 4, 1942), in *Shōwa shakai keizai shiro jūrokkān*, vol. 16, *Kaigun shiryō*, ed. Doi Akira, Ōkubo Tatsumasa, Nagata Motoya, Maekawa Kunio, and Kyōdō Tōru (Tokyo: Daitō Bunka Daigaku Tōyō Kenkyūjo, 1991), 400.
48. "Nan'yō Guntō sokuryō taisaku yōkō," in "Nan'yō Guntō sangyō seibi keikaku yōkō ni kansuru ken" (August 10, 1943), Kokuritsu Kōbunshokan, Tokyo.
49. "Daitoashō shokan shokuryō taisaku ōkyūshisetsuhi hoka san-ken: Nan'yōchō tokubetsu kaikei yojōkin o motte yosangai shishutsu no ken" (December 21, 1943), Kokuritsu Kōbunshokan, Tokyo.
50. Sanbō Honbu, "Ōmiyatō," 48.
51. *Ibid.*, 52–54.
52. *Ibid.*, 53.
53. Nakajima Fumihiko, "Mariana monogatari," pt. 3, *Sakuraboshi* (Nihon Gōyū Renmei, 1960): 14.
54. Masao, "Koshimuta," 6.
55. Sanbō Honbu, "Ōmiyatō," 77.
56. Bōeichō Bōei Kenshūjo Senshishitsu, *Senshi sōsho: Chūbu Taiheiyō rikugun sakusen*, vol. 1, *Mariana gyokusai made* (Tokyo: Asagumo Shinbunsha, 1967), 518 and 605.
57. *Ibid.*, 534.
58. The *Kaikontai* consisted of 130 students of the Takunan Renseijo (Training Center for Developing the Southern Areas), Shizuoka, under the leadership of the Nōchi Kaihatsu Eidan (Agricultural Land Development Corporation). See Kuromusha Fujio, "Takunan Renseijo shuppatsu," in *Takukai banri hatō*, ed. Takunankai (Shizuoka: Takunan Renseijo Jimukyoku, 1988), 235–236.
59. "Nanpō keizai taisaku yōkō" (December 12, 1941), Kokuritsu Kōbunshokan, Tokyo.
60. *Ibid.*
61. "Nanpō sakusen ni tomonau senryōchi tōchi yōkō" (November 25, 1941), Kokuritsu Kōbunshokan, Tokyo.
62. Owings, Kathleen R. W., *The War Years on Guam: Narratives of the Chamorro Experiences*, vol. 2, *Miscellaneous Publications*, no. 5 (Guam: Micronesian Area Research Center, 1981), 650.
63. "Nan'yō Guntō sangyō seibi keikaku yōkō an" (August 1943), in "Nan'yō Guntō sangyō seibi keikaku yōkō ni kansuru ken" (August 10, 1943), Kokuritsu Kōbunshokan, Tokyo.
64. Masao, "Koshimuta," 4–5.

65. "Dairoku Iinkai: Nōrinsan shigen shutoku kaihatsu gaisoku (iinkai kettei)" (December 30, 1941), in Doi et al., *Kaigunshō shiryō*, vol. 14, 712 and 715.
66. Asai Tatsurō, "Dai san-bu," 345.
67. "Yushi kankei shiryō" (February 1942), in *Shōwa shakai keizai shiro shūsei dai jūgo-kan*, vol. 15, *Kaigunshō shiryō*, 346–347.
68. Sanbō Honbu, "Ōmiyatō," 65.
69. *Ibid.*, 69.
70. *Ibid.*, 63.
71. "Senryōchi gunsei shori yōkō" (March 14, 1942), Kokuritsu Kōbunshokan, Tokyo.
72. *The Annual Report of the Governor of Guam*, 1940, 92.
73. Higuchi Wakako, "Pre-war Japanese Fisheries in Micronesia—Focusing on Bonito and Tuna Fishing in the Northern Mariana Islands," *Migration Studies*, no. 3 (March 2007), 4–5.
74. Sanbō Honbu, "Ōmiyatō," 60.
75. *Ibid.*, 60–62.
76. *Ibid.*, 57.
77. *Ibid.*, 59.
78. Okada Shōnosuke, interview by author, Tokyo, August 4, 1998.
79. Nan'yō Keizai Kenkyūjo, ed., "Nan'yō Kōhatsu Kabushiki Kaisha sōgyōshi," in *Nan'yō shiryō* 52 (June 1942), 61.
80. Kenkyūkai, *Daitoa kensetsu*, 27.
81. Hōsei Daigaku Ōhara Shakai Mondai Kenkyūjo (<http://oisr.org>) ed., *Nihon rōdō nenkan tokusūban Taiheiyō sensōka no rōdōsha jōtai* (Tokyo: Tōyō Keizai Shinpōsha, 2000).
82. Tanaka Toraji, interview by author, Guam, June 30, 1998. Concerning Chamorro comfort women, see Higuchi Wakako, "A Report on Comfort Women of Guam" and "A Report on Comfort Women of the South Sea Islands" (both 1999), available from the Asian Women's Fund, Tokyo.
83. Sanbō Honbu, "Ōmiyatō," Tables 2 and 3.
84. Nan'yōchō, *Shōwa jūnana-nendo Nan'yō Guotō yōran* (Nan'yōchō, 1942), 37–38.



85. "Takumu Daijin seigi Nan'yōchō bunai rinji shokuin secchisei chū kaisei no ken" (April 11, 1942).
86. Nan'yōchō, *Shōwa jūnana*, 37–38.
87. "Takumu Daijin seigi Nan'yōchō bunai rinji shokuin secchisei chū kaisei no ken" (April 11, 1942).
88. Higuchi Wakako, "The Japanisation Policy for the Chamorros of Guam, 1941–1944," *The Journal of Pacific History*, 36, no. 1 (June 2001), 24.
89. Kenkyūkai, "Daitoa kensetsu," 27.
90. Okada Shōnosuke, interview by author, Tokyo, Japan, April 4, 1997; and Tanaka Toraji, interview by author, Guam, July 20, 1998.
91. Tanaka Toraji, interview by author, Tokyo, Japan, June 30, 1998.
92. "Senryōchi gyōsei shori yōkō" (March 14, 1942), Kokuritsu Kōbunshokan, Tokyo.
93. Shimano Kenji, interview by author, Guam, November 19, 1998.
94. Nan'yōchō Naimubu Kikakuka, *Dai kyū-kai Nan'yōchō tōkei nenkan Shōwa jūyo-nen* (Nan'yōchō, 1941), 98–99.
95. Tanaka Toraji, interview by author, Guam, June 30, 1998.
96. Yamamoto Satomi, interview by author, Hiroshima, September 24, 1999.
97. Ueno Fukuo, *ibid.*, 41.
98. "Nan'yō Guntō sangyō seibi keikaku yōkō" (August 1943), in "Nan'yō Guntō sangyō seibi keikaku yōkō ni kansuru ken" (August 10, 1943).
99. Sanbō Honbu, *ibid.*, Table 4.
100. *Ibid.*
101. *Ibid.*
102. Higuchi Wakako, "The Nan'yō Kōhatsu" (2003), 42.
103. "Kaigunshō Chōsaka: Tōa shokuryō seisaku ron" (August 4, 1942), in *Shōwa shakai keizai shiryō shūsei dai jūrok-kan*, vol. 16, *Kaigunshō shiryō*, 405.
104. Miyasaka, "Guamutō shokuryō," 51.
105. Kenkyūkai, "Daitoa kensetsu," 302.
106. Sanbō Honbu, "Ōmiyatō," Table 5, and 51.
107. Yamamoto Satomi, interview by author, Hiroshima, September 24, 1999.

108. According to the Japanese Army's documentation, the Third Airfield was at Hiratsuka and the Fourth Airfield was at Haruta. I referred to the Japanese Navy's documentation. Daini Fukuinkyoku, Guamutō Kaigunbutai Zanmu Seirihan, "Guamutō kaku Kaigun butai sentō jōkyō" (January 15, 1947); and Bōeichō Bōei Kenshūjo Senshishitsu, *Senshi sōsho: Chūbu Taiheiyō Rikugun sakusen*, vol. 1, *Mariana gyokusai made* (Tokyo: Asagumo Shinbunsha, 1969), 532.
109. "Tokusetsu kaigun kensetsubu rei, Nairei dai 2180-gō" (November 24, 1942).
110. "Nan'yō Guntō senji hijō sochi yōkō ni kansuru ken" (April 14, 1944).
111. Henri I. Shaw, Bernard C. Nalty, and Edwin T. Turnbladh, *Central Pacific Drive: History of U.S. Marine Corps Operations in World War II*, vol. 3, (Washington, D.C.: Historical Branch, G-3 Division, Headquarters, U.S. Marine Corps, 1966), 561. During mopping-up operation in August 1944, the U.S. 21st Marines found a truck with thirty Chamorros beheaded and twenty-one more bodies of natives in the Yigo area. The investigation concluded that these victims worked on the defense at the last command post of Japan's 31st Army.
112. Nan'yōchō, Dai ni-kai Nan'yōchō tōkei nenkan Shōwa kyū-nen jūni-gatsu kankō (Nan'yōchō, 1934).
113. Nan'yōchō, Dai san-kai Nan'yōchō tōkei nenkan Shōwa jū-nen kankō (Nan'yōchō, 1935).
114. Nan'yōchō, Dai rok-kai Nan'yōchō tōkei nenkan Shōwa jū-nen kankō (Nan'yōchō, 1938).