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# FORCES OF NATURE

New Perspectives on Korean Environments

Edited by David Fedman, Eleana J. Kim, and Albert L. Park

Foreword by Ann Sherif

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Cover image: South Korean seaweed farms. NASA Earth Observatory image by Jesse Allen, using Landsat data from the U.S. Geological Survey.

# RICE FIELDS, MOUNTAINS, AND THE INVISIBLE MEATIFICATION OF KOREAN AGRICULTURE

Anders Riel Muller (Yeonjun Song)

A trip through the South Korean countryside means passing through landscapes dominated by rice fields and tree-covered mountains. This landscape, and the farmers working the land, represents a kind of national authenticity to many Koreans and stands in contrast to high modernist images of high rises that dominate the urban landscape in South Korea. The countryside evokes a kind of authenticity that positions agricultural producers, the paddy rice landscape, and tree-covered mountains as symbols of Korean national identity and tradition. Of course, such notions are to a large extent imagined. The verdant mountains are mainly the result of reforestation efforts beginning in the 1960s and the current layout of irrigated rice fields owes much to the rural modernization schemes beginning in the 1970s. Irrigated rice fields cover much of the agricultural land area of the southern part of the peninsula within the territory of South Korea. In 2017, more than half of Korea's 1.6 million hectares of agriculturally productive land was used for paddy rice cultivation. The notion that rice is central to Korean culture and identity is thus not only something reproduced through nationalist narratives and food practices, but it also manifest in the physical landscape.1

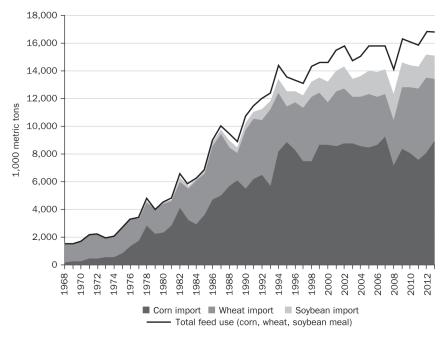
State support of rice production and consumption has been a central pillar of Korean agricultural policy since the 1970s, when the country embarked on a national food self-sufficiency drive reversing two decades of encouragement of Western diets based on mostly US-subsidized food imports.<sup>2</sup> The government of Park Chung-hee implemented a range of agricultural policies to increase domestic agricultural production, initially with a strong emphasis on rice through price-support schemes and agricultural modernization policies focused on new

rice varieties, fertilizer production, mechanization, and rural infrastructure.<sup>3</sup> Indeed, as Yonjae Paik reveals in chapter 8, state support for rice production and consumption has been a central pillar of agricultural policy for more than four decades.

In 2013, about a third of the agricultural-sector budget was spent on rice support measures, despite declining rates of consumption.<sup>4</sup> Rice production also remains a major source of income for many of South Korea's approximately one million farm households. On average, the income from rice farming amounted to 63 percent of total farm household income from agricultural activities.<sup>5</sup> Thus, the continued dominance of rice fields in the agricultural landscape reflects the importance of rice at the farm level as well as in agricultural policy. Yet, despite the continued dominance of rice fields in the agricultural landscape, South Korean agriculture has undergone significant changes in the past three decades. The first change is quite visible: the rise of horticulture in poly-tunnel greenhouses since the early 1990s. Greenhouse cultivation has been a major source of new revenue for many of South Korea's small-scale farmers, who still make up the majority of agricultural producers. The controlled environment in greenhouses has enabled longer growing seasons, more effective pest control, and, ultimately, higher yields of especially high-value vegetables, mushrooms, and berries.<sup>6</sup>

But the dominance of rice agriculture conceals major transformations of the Korean agricultural sector over the past three decades. Since the late 1970s, livestock production has risen dramatically, from 249,000 metric tons in 1975 to more than two million metric tons in 2013.7 That is an eightfold increase in less than forty years, putting South Korea on par with the production numbers of Denmark, a major exporter of meat products in Europe. Meat production has also become the most important source of revenue for the agricultural sector overall.8 But the expansion of livestock production and transformation of the agricultural sector is barely visible in the landscape. It is useful to compare the cases of Denmark and South Korea, since both countries have roughly the same yearly domestic production of meat, around 2.1 million metric tons. Yet, there are major differences in how this has affected land use in each country. In Denmark, 80 percent of agricultural land (or approximately 3.5 million hectares of farmland) is today used for feed-crop production.9 By comparison, South Korea produced animal feed on, roughly, only 300,000 hectares of land in 2014 (or roughly 17 percent of total agricultural land).10

The difference in land use between Denmark and Korea signifies the extent to which South Korea has expanded livestock production using imported feed crops rather than depending on domestic feed production. Denmark imports approximately 2.1 million tons of soybean products to supplement its domestic production of feed of around thirty million tons, or 7 percent of total feed needs. <sup>11</sup> South



**FIGURE 6.1.** Imports of corn, wheat, and soybean meal (1000 mt). Source: United States Department of Agriculture, Foreign Agricultural Service, Production, Supply and Distribution (online 2014).

Korea imports approximately 76 percent of ingredients for its annual twenty-seven million tons of feed consumption.<sup>12</sup> This makes South Korea not only extremely dependent on feed imports, but also one of the largest grain importers in the world (figure 6.1).

Unlike South Korea, the Danish agricultural landscape has undergone significant changes to feed its growing livestock production in recent decades. Relative large-scale mono-cropped fields of feed grains and roughage today dominate the landscape. One environmental impact of the expansion of feed production is a drastic reduction in biodiversity. The hedgerows between fields that provide shelter and food for wild animals, birds, and insects have become fewer as field sizes have increased. In South Korea, the expansion of animal production has not resulted in significant changes to land use, because of the heavy reliance on imported feed. Despite farm consolidation, the predominant agricultural landscape in South Korea remains that of rice fields intermixed with horticulture and orchards.

This chapter examines how South Korea's biggest agricultural transformation in its modern history occurred without significantly affecting land use and, thereby, agricultural landscapes. How do we conceptualize this externalization of land-use changes in South Korea, and what have been the effects in Korea as well as abroad? To understand how South Korea developed such a significant reliance on import feed for an expanding livestock sector requires studying a particular agricultural policy formation that has been termed a *bifurcation strategy*. McMichael and Kim argue that, in the case of South Korea, the agricultural markets have been characterized by a "subdivision into a heavily protected national circuit of rice, as the basic food staple, and other agro-food circuits involving varying degrees of international commodity relations, such as the livestock complex and processed flour goods."<sup>14</sup>

Building on this work, I here argue that the bifurcation strategy allowed the livestock sector to expand without converting vast tracts of South Korea's agricultural land to pasture and feed grain production. Owing in part to the liberalization of agricultural trade, the environmental effects of livestock production were externalized to territories overseas. Paying careful attention to how bifurcation enables agricultural transformation without major land-use change allows us to complicate academic and political debates that tend to focus on agricultural protection feet versus free trade policies. There is no doubt that trade liberalization has influenced agriculture in South Korea, often to the detriment of small farmers, but trade liberalization has also enabled *meatification* while maintaining rice agriculture as a principal crop. The support of the support of the detriment of small farmers, but trade liberalization has also enabled *meatification* while maintaining rice agriculture as a principal crop.

To more fully understand South Korea's agri-food politics, then, we must track the meatification of Korean agriculture and diet. Tony Weis argues that "meatification"—that is, rising meat consumption and industrial livestock production—is an inescapable part of the agricultural restructuring of global food systems, especially in Asia. He is echoed by Cindy Schneider, who argues that part of what drives financiers to invest in farmland overseas is the demand for feed grains to meet rapidly growing demand for feed grains from Asian countries such as China and India. This hypothesis nicely captures the situation of South Korea. The rise in meat production plays a major part in the country's declining grain self-sufficiency and the country's incorporation into the transnational and corporate agri-food system, but the historical trajectory for how this came to be in South Korea is more complex and political than what is presented by Weis and Schneider

The South Korean agricultural sector has often been presented as opposed to trade liberalization and a champion of food self-sufficiency.<sup>22</sup> This chapter suggests that the bifurcation policy shows a more ambivalent position toward trade liberalization among South Korean farmers and agricultural industries. While the agricultural sector has been vehemently opposed to trade liberalization of rice and livestock products, it has embraced trade liberalization in other sectors

such as the market for feed grains. Though focused mainly on the development of the cattle sector, this analysis reveals dynamics of feed import dependence that bear on the livestock sector writ large.

### The Expansion of Livestock Production

Modern commercial livestock production did not occur until the 1970s, when the regime of Park Chung-hee pushed for agricultural modernization and greater food self-sufficiency. Since the late 1950s, South Korea had relied heavily on US food aid and did little to develop the domestic agricultural sector. With waning US aid, the government was forced to either import food or increase domestic production. Consumption patterns also changed. The emerging urban middle class led to higher demand for meat products as a symbol of upward economic mobility.<sup>23</sup> To protect the country's trade balance and limit foreign exchange expenditures, the government instituted restrictions on imports of strategically important agricultural commodities while encouraging domestic production. Commercial meat production in Korea was a direct effect of this state-led food supply policy that intended to meet changing domestic demands and reduced food aid from the United States.<sup>24</sup>

From the mid-1970s, the government heavily encouraged commercial live-stock farming through capital injections for new production systems and scientific research. Some sectors became increasingly specialized, unlike the general trend of small-scale multifunctional farms. The Samsung group was a pioneer in the building of large-scale livestock operations. In 1973, Samsung established an intensive, vertically integrated hog breeding and research operation in Kyŏnggi Province.<sup>25</sup> Such was also the case for poultry production, in which large-scale commercial operations also began to address the increasing demand for meat and eggs.<sup>26</sup>

The beef sector developed quite differently. In 1975, 92.5 percent of all cattle was raised on small farms with one or two heads per farm, whereas only 0.9 percent was raised in herd sizes greater than fifty heads.<sup>27</sup> By 1980, almost one million farm households raised cattle, but the average herd size was only 1.4 per household. Of those households, 94 percent raised only one or two head of cattle.<sup>28</sup> Small farmers had a cost advantage because feed produced on-farm such as wild grasses, rice straw, and rice bran were readily available. Large-scale farmers had to rely more on imported feed grains, and these imports were severely restricted by the government.<sup>29</sup> The combination of low capital investments, low labor intensity, and high returns made cattle rearing a very attractive

option to many small farmers and was as such incorporated into the existing multifunctional family farm structure.  $^{30}$ 

To provide feed for the livestock sector, the government began to prioritize pastureland development in the late 1970s and early 1980s. Feed production was encouraged through initiatives to reclaim upland areas and research initiatives sought to use idle paddy land for winter forage crops. This led to an increase in pastureland from 57,850 hectares in 1973 to 312,350 hectares in 1981. The number of cattle raised in pastures increased from 139,000 in 1973 to 1,231,000 during that same period. The livestock sector continued to enjoy trade protection during the 1980s and this meant that Korean livestock producers were able to expand production in a relatively protected market free from international competition. The government policy of developing domestic feed production, however, became increasingly difficult to sustain in the 1980s because of pressure from the United States and Australia to open agricultural markets.

In 1980, South Korea faced a severe economic crisis, prompting the Chun Doo-hwan administration to launch an economic liberalization program in return for loans from the International Monetary Fund. South Korea agreed to open up markets for US wheat, tobacco, and feed grains to avoid facing penalties on industrial commodity exports to the United States, the country's biggest export market. The liberalization of feed markets dealt a decisive blow to further expansion of domestic feed production and, in the second half of the 1980s, efforts to develop domestic feed production ended. Imports of feed grains such as corn, wheat, and soybean meal for feed use increased dramatically through the 1980s. In 1980 South Korea imported 4.5 million metric tons of corn, wheat, and soybean meal for feed uses. By 1987, this figure had climbed to ten million metric tons for feed use.

By the early 1980s the contours of the bifurcation policy were thus already visible. South Korea maintained a strong emphasis on national food self-sufficiency for trade balance purposes, but external pressures led the government to allow for limited liberalization of some agricultural commodities. During the Uruguay Round Agreement of Agriculture of the GATT negotiations in the late 1980s, South Korea, under heavy pressure from the United States, agreed to phase out restrictions on remaining agricultural sectors by the 1990s. The outcome was that import quota restrictions on all agricultural commodities, except rice, were lifted and that tariffs would be reduced over a ten-year period. All told, 285 agricultural commodities were scheduled to have import quotas removed over a ten-year period. Items in this group included beef, poultry, pork, and dairy products. Finally, South Korea agreed to reduce subsidies on rice, barley, corn, soybean, and vegetables.<sup>39</sup>

To prepare the agricultural sector for trade liberalization, the Korean government announced a 42 trillion *won* (US\$40 billion) agricultural investment and loan program. These programs sought to enhance the competitiveness of the agricultural sector through agricultural modernization and specialization. The program first scheduled to run until 1998 was later extended until 2004 with an additional 45 trillion *won* allocation for agricultural modernization. This new program marked a significant change in Korean agricultural policy, indicating a shift from a productivist-oriented approach to one of structural adjustment.

For cattle producers, structural adjustment meant, among other things, the introduction of quality standards. Until 1992, there was no official quality grading system for beef in Korea; the beef market was quite undifferentiated, and there was little knowledge among the general population of what constituted superior quality. Since the major competition came from US imports, the National Livestock Cooperative Federation responded by introducing a grading system for domestically produced beef that mimicked the US quality system. The quality grading system ranked beef carcasses according to meat yields and meat quality. As in the US grading system, the most important quality criteria was fat marbling, high concentrations of which garnered steep price premiums. The system was implemented nationwide in 1995 and was introduced at the retail level in 1997.

The quality grading system had significant implications for the domestic beef industry. The focus on high fat marbling and white fat color imposed stricter production requirements. Obtaining the optimal level of carcass yield, fat content, fat marbling, and fat color required standardized feeding regimes and knowledge of feed optimization, especially in the final months of the animal's life, when fat marbling enhancement takes place. Central to obtaining the desired meat characteristics (high levels of high intramuscular fat marbling) is the use of soy and corn-rich compound feed. Corn-feeding in the right amounts, especially in the late stages of feeding regimes, is a well-known and widely used practice in the United States, Australia, Canada, and Japan, where fat marbling is also prized.<sup>44</sup>

The grading standards and need for highly specialized compound feed entrenched the need for imported feed grain. While the bifurcation strategy of the early 1980s had protected beef and rice markets from overseas direct competition, trade liberalization and introduction of US grain-fed beef for general consumption prompted Korean cattle producers to shift to compound feed to become competitive in the premium market where profits could be made. Thus, the development of the grading system implemented to help Korean producers adjust to trade liberalization also caused the sector to become increasingly integrated into, especially, the North American and South American industrial grain circuits. From an economic perspective, this was not a major issue because world

prices of wheat, corn, and soybean remained low during most of the 1990s and early 2000s. Low world market prices for feed grain thus made it possible for the Korean beef sector to scale up and remain somewhat price competitive, especially vis-à-vis beef from the United States and Australia that still faced import quota restrictions.

The expansion of livestock production is arguably the biggest agricultural transformation in South Korea over the past thirty years. Development and expansion of domestic pastureland to supply feed for the expanding livestock sector was a priority in the late 1970s and early 1980s, in the line with the state's attempt to limit foreign expenditure on agricultural imports. When the government was forced to liberalize parts of the agricultural trade in the early 1980s, the first contours of the bifurcation model was put in place. The bifurcation model was decisive in shaping the contemporary systems of livestock production in South Korea based on imported feed. As trade liberalization was forced on the agricultural sector as part of the Uruguay trade negotiations in the early 1990s, the government attempted to protect the livestock sector by developing quality standards. At the same time, it began to promote the consumption of Korean-produced meat as a patriotic duty, one that brought with it the myriad health benefits of an "indigenous" diet. Needless to say, such claims were fundamentally at odds with the growing dependence on feed from abroad.

## Intrasectoral Politics and Bifurcation Policy

One cannot understand the politics behind bifurcation policy without first recognizing the role of agricultural producers in the broader political landscape of South Korean development. Simply put, the crux of agricultural policy formation has been the question of agricultural protectionism versus trade liberalization. The political and academic debates about agricultural protectionism versus trade liberalization have hinged largely on the detrimental effects of trade liberalization for the agricultural sector, on one hand, <sup>46</sup> and the cost-effectiveness of agricultural trade liberalization, on the other. <sup>47</sup> Each side focuses on different aspects of the trade liberalization debate. The first camp is concerned principally with South Korea's ability to maintain agricultural activity in its own right for reasons related to national food self-sufficiency, cultural heritage, and the protection of rural communities. Their critics view agricultural activity as a matter of economic costs and benefits from a broader national economic perspective and have become strong proponents of full trade liberalization. Both sides appear to be right, but at the same time both sides, I argue, also get key points wrong.

As we have seen, the growth of the livestock sector was enabled by the partial liberalization of agricultural trade, by allowing feed imports while concurrently protecting meat markets from outside competition. If the government had continued its policy of food self-sufficiency and agricultural protectionism, the domestic agricultural sector would have had to face some difficult choices about land use. An expansion of livestock based on domestic feed would have required significant land-use changes and a reduction in horticulture and rice production. The predominance of paddy rice cultivation in the Korean landscape would have had to give way for feed-crop production, or at least systems of crop rotation. In either case, the land available for rice and horticulture production would be diminished significantly and, therefore, so would the agricultural landscapes. Thus, in order to understand the trajectory of this phenomenon, we need to also understand the intrasectoral agricultural politics of South Korea in the past decades. Intrasectoral politics refers to the political struggles between different segments of the agricultural sector over agricultural policy formation. 48 For example, the economic interests of rice farmers and livestock farmers may or may not align and as such they may have different policy preferences.

From the late Chosŏn period through Japan's colonial rule in Korea, agriculture on the peninsula was characterized by the concentration of arable landholdings within a small group of elite landowners, who relied heavily on tenants or agricultural laborers. The economic inequalities of this system led to widespread dissatisfaction as well as rebellions against the ruling classes before and during Japanese colonization. Following the dissolution of the Japanese empire and the division of the Korean peninsula, North Korea's regime quickly implemented sweeping land reforms to assuage widespread discontent among the majority who labored as tenant farmers and agricultural workers in an exploitative system exacerbated by Japanese colonial rule. The South Korean state followed suit in the wake of the Korean War in order to appease people's demands.

These land reforms led to a relatively homogeneous small-scale farm agricultural commodity production system, which is still prevalent in South Korea today. Only 8.7 percent of farms are larger than three hectares. This system is defined by its relative homogeneity of agricultural production, with rice, live-stock, and horticulture as dominant activities—a "unimodal mini-farm structure," in the words of Larry Burmeister. This unimodal structure has also determined the class identity of farmers in South Korea, at least since the political mobilization of South Korean farmers in the late 1970s and 1980s. The relative homogeneity of farm economic activity across the mini-farm agricultural system, with rice as a major income-generating activity supplemented with either livestock or horticulture for many farmers, played a central role in the political mobilization of farmers.

The multifunctional mini-farm system still dominates South Korean agriculture. Farmers are dependent on multiple streams of agricultural revenue as well as nonfarm income. Any conversion of limited farmland to other uses leads to diminishing income from other agricultural activities. Imported feed allowed the Korean agricultural sector and farmers' organizations to avoid difficult decisions about whether rice or meat production should be given priority on the limited land available. Agricultural policy could maintain rice production as the main agricultural activity in both economic and land-use terms while simultaneously expanding meat production. This explains the ambivalent position that agricultural trade liberalization plays in Korean agricultural policy. To be sure, farmers have vehemently opposed and actively protested attempts to liberalize rice and meat markets with quite some success over the decades. But agricultural trade liberalization also created new economic opportunities that would not have been possible if agricultural self-sufficiency and trade protection policies had continued.

The united front to oppose trade liberalization of rice and livestock sectors<sup>52</sup> is in large part due to political coalitions spanning a range of agricultural subsectors.<sup>53</sup> Rice and livestock producers as well as feed companies were able to muster strong opposition to trade liberalization of rice and meat markets in successive multilateral and bilateral trade negotiations.<sup>54</sup> Liberalization of these sectors would have been detrimental to agricultural producers and feed companies. The liberalization of feed grain imports, on the other hand, supported the economic interests of domestic feed companies, livestock producers, and rice producers as it allowed them to expand livestock operations without converting farmland to feed-crop production. In this sense, the economic interests of rice farmers, livestock producers, and industry were accommodated in the free trade negotiations—or at least a political compromise was reached that balanced the economic interests of dominant agricultural sectors.<sup>55</sup>

Despite some consolidation in the beef cattle sector due to specialization and economies of scale, the vast majority of producers have for the last three decades been relatively small. In 2001, of the total 260,000 cattle farms in South Korea, as many as 256,000 farms had fewer than fifty head of cattle. <sup>56</sup> Most of these were smaller multifunctional farms in which cattle breeding was secondary to rice farming or horticulture. By relying on imported feed, farmers were able to maintain an additional income from cattle without having to convert farmland dedicated to rice or horticulture to feed production. As such, the dependence on imported feed allowed smaller farmers to remain in the cattle sector, but in doing so, they became increasingly enmeshed in global agricultural production systems.

### The Consequences of Externalization of Feed Production

The expansion of livestock agriculture in Korea (and concomitant maintenance of rice as the dominant crop in the agricultural landscape) has been one of the effects of the bifurcation policy pursued since the 1980s. Few seem to critically question the fact that South Korea's meat sector relies on roughly four million hectares of farmland overseas—from the US Midwest to Canada, from Australia to Argentina and Brazil.<sup>57</sup> That is an area twice as big as the total area under cultivation in South Korea today.<sup>58</sup> Thus, to view the landscapes that feed the Korean meat sector, we need to move from images of rice fields and mountains to that of large corn and wheat fields on former prairieland in Iowa or Alberta, and soybean fields on what used to be pampas in Argentina or the rainforests of Brazil. It is in these locations that the effects of the meatification of Korean agriculture become fully visible.

The dependence on imported feed continued without much worry until the global food crisis of 2007–2008. As world prices for wheat and corn skyrocketed in those years, Korean livestock producers saw their own production costs soar. The dependence on imported feed suddenly became regarded as a liability rather than an advantage, not because of its negative impacts abroad but rather because international grain production and trade was in the hands of foreign companies. In newspapers and policy papers, experts argued that the problem was that Korean lacked control of overseas grain production and trade. This, these experts argued, led to a situation in which the country's food supply had become dominated by US and Japanese grain trading companies. 59

These fears fueled the launch of the Overseas Agricultural Development Strategy (OADS), announced by the Lee Myung-bak administration in 2008.<sup>60</sup> To protect national food security, the government announced they would offer low-interest loans and guarantees to Korean companies that were willing to invest in overseas grain production and trade. The strategy had three main objectives: (1) to establish Korean controlled grain-trading companies in key markets such as the United States, Argentina, and Brazil; (2) to encourage investments by Korean nationals in overseas food production and agriculture by leasing and buying farmland mainly in Southeast Asia and Far East Russia; and (3) to explore possibilities for developing domestic feed resources. The last item in this strategy was the most contentious, as it would involve reprioritizing agricultural lands within South Korea, raising difficult questions regarding what crops to prioritize. In the short run, at least, overseas land acquisitions and control of overseas grain procurement production became the key priorities.

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At the end of 2014, 149 Korean-owned companies were active in twenty-seven countries, controlling a total of 53,677 hectares of farmland. These figures, while slight, testify to the growing scope of South Korea's expansion abroad. In order to protect the livestock sectors from being at the mercy of foreign corporate interests, South Korean companies were encouraged to establish farming and trading operations overseas. The companies heeding the call of the government ranged from gargantuan corporations such as Samsung and Hyundai to smaller companies and, perhaps most notably, several companies set up by Korean farmers' organizations. The motivation for farmers to invest in overseas farmland was to secure a supply of feed grains at stable prices independent of the world market. OADS thus signaled a significant shift in how South Korea seeks to secure animal feed, by controlling land overseas as well as entering the grain trade. Such a system can only be developed through free trade agreements that allow export and import of feed grains without too many restrictions.

This new strategy had clear impacts on land use in places outside South Korea's territorial borders. One such example was the company Chungnam Overseas Agricultural Corporation (COAC), a joint venture between the Chungnam livestock cooperative and the Chungnam provincial government, which, with the financial and technical assistance of the government, embarked on agricultural investments in Cambodia. To these farmers, OADS was their salvation in times of rising grain prices: "Every cattle farmer had the same concern—there was no future for cattle farms without stable feed supply. The Government's overseas agricultural development project became our new hope." 62

The company managed to secure 474 hectares of land in the Koh Sla region approximately three hours from the capital Phnom Penh in 2009.<sup>63</sup> Here the farmers constructed milling and drying facilities and started planting corn, which they intended to ship back to Korea. COAC was not the only Korean company growing crops in the Koh Sla region. One study revealed that some of these Korean investments had forced hundreds of local villagers off their land.<sup>64</sup> From personal observation, it is clear that the presence of Korean companies contributed to radically altered land use and landscapes in Koh Sla. The mixture of tropical forest, small-scale subsistence farming, and pastureland has been increasingly replaced by large land concessions for monocrop agriculture intended for export to Korea, among other countries. Other Korean livestock cooperatives (especially those active in Southeast Asia) engaged in similar investments, accelerating dispossession and agricultural transformation overseas.

Overseas agricultural investments continue as livestock producers, along with other agricultural sector producers, keep advocating for trade protection against imported agricultural products at home. A key argument in Korean agricultural policy for continued protection is predicated on the agricultural multifunction-

ality argument in the Uruguay Agreement that allows for continued protection of agriculture on the grounds that such activity has several positive externalities including environmental protection, balanced economy, and, not least, the protection of cultural heritage. The latter effort includes the continued protection of rice production as a central component of Korean cultural heritage. Yet, as this chapter has shown, the continued dominance of rice fields in the Korean landscape is contingent on the livestock sector's ability to utilize overseas territories for feed production. A cultural landscape still dominated by rice fields is therefore the effect not only of agricultural protection, but also of trade liberalization that has allowed the externalization of feed production overseas.

This chapter examines how the bifurcated agricultural policy pursued from the 1980s enabled the expansion of livestock production in Korea without significant changes to the agricultural landscape in South Korea. Critically, the bifurcation policy protected domestic markets for meat while allowing the expansion of livestock production through imported feed. Whereas the state was willing to liberalize the agricultural sector in order to maintain access to major export markets for industrial goods, the agricultural sector, through political mobilization across subsectors, was able to gain considerable concessions that limited the import of products strategically important to the domestic agricultural sector—most notably rice and meat products. The bifurcation policy essentially became a political compromise that allowed the domestic livestock sector to expand and consolidate itself during the 1980s and 1990s.

Such a compromise also enabled agricultural policy to maintain rice production as the dominant crop by contracting out feed-grain production to overseas territories. Traveling through a Korean agricultural landscape of rice fields intermixed with orchards and horticulture is thus possible because South Korea's livestock sector relies on millions of hectares of industrial scale monoculture overseas. Only by acknowledging the soybean fields of Argentina and Brazil, the cornfields of the US Midwest, or the former tropical forest areas of Cambodia can one truly comprehend how the meatification of South Korean agriculture has altered land use and agricultural landscapes. The massive forest fires that ripped across much of the Amazon basin in the summer of 2019 testify to how the maintenance of a paddy rice landscape in South Korea has destructive effects that ripple well beyond the peninsula.