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COMMUNITY ENTREPRENEURSHIP IN CENTRAL ASIA : LEARNING FROM THE "ONE TAMBON, ONE PRODUCT" PROGRAM IN THE GREATER MEKONG SUBREGION

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November 2021

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Scholars were encouraged to research CAREC integration topics and undertake comparative analysis between (sub)regions to draw lessons for promoting and deepening regional integration among CAREC members, particularly as anticipated in the CAREC 2030 strategy and stated operational priorities.

This paper is written by Linda Tjia Yin-nor, City University of Hong Kong, and Guanie Lim, National Graduate Institute for Policy Studies.

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List of Abbreviations

ADB	Asian Development Bank
AE	Agricultural Enterprises
AHIK	Association of Halal Industry of Kazakhstan
CAREC	Central Asia Regional Economic Cooperation
GDP	Gross Domestic Product
GI	Geographical Indication
GIEI	Global Islamic Economy Indicator
GMS	Greater Mekong Subregion
GNI	Gross National Income
JICA	Japan International Cooperation Agency
MNCCI	Mongolian National Chamber of Commerce and Industry
MOFALI	Ministry of Food, Agriculture and Light Industry
OIC	The Organization of Islamic Cooperation
OSOP	One Settlement—One Product
OTOP	One Tambon One Product
OVOC	One Village One Craft
OVOP	One Village One Product
SDC	The Swiss Agency for Development and Cooperation
SFA	Sustainable Fiber Alliance
SMEF	Small and Medium Enterprise Fund
SOEs	State-Owned Enterprises
TRAM	Trade Related Assistance to Mongolia
UAE	United Arab Emirates

Abstract

This study is a comparative SWOT analysis of Mongolia's and Kazakhstan's respective agricultural products — camel wool and halal-certified lamb meat — against the famed "One Tambon One Product" (OTOP) program implemented in the Greater Mekong Subregion (GMS). For Mongolia, not only has its camel wool gained popularity among apparel manufacturers in coastal China, there has also been hopes to establish wool-processing operations in Mongolia itself. For Kazakhstan, its halal-lamb industry's relatively small size signifies substantial growth potential, to the extent that the product may even help reduce the country's current account deficit.

The GMS and Central Asia Regional Economic Cooperation (CAREC) economies are juxtaposed here not only for having comparable states of development but also for their past socialist influence, reliance on state-owned enterprises (SOEs), and generally underdeveloped entrepreneurial flair. Mongolia and Kazakhstan may therefore draw lessons from GMS countries' growth trajectories and challenges, for example, emulating the GMS's growing integration with wealthier, more advanced East Asian countries to usher in additional investment, technology, as well as stronger commercial and socioeconomic exchanges. Such are opportunities that international organizations including the Asian Development Bank (ADB) and the CAREC Institute can help orchestrate.

The study therefore analyzes not only factors that underlie the OTOP's critical success but also developmental issues (e.g., rural self-sufficiency, product differentiation, sociocultural preservation, infrastructural deficits, and lack of public-private cooperation), as well as examines OTOP's adaptability/replicability in Mongolia and Kazakhstan, thereby illustrating how OTOP may be relevant and impactful to the CAREC 2030 vision. As the analysis shows, much hinges on place-specific factors, so policies that may best facilitate industrial and economic growth, suggested herein, include: consistent, steadfast leadership at both national and local levels; properly planned and executed incentivization (e.g., star-rating and product certification, in particular, GI certification); and increased private-sector participation to encourage sustainable, bottom-up entrepreneurship.

Introduction: Learning from the Greater Mekong Subregion

With large, young populations and natural resources, member countries of the Central Asia Regional Economic Cooperation (CAREC) Program are expected to play a more meaningful role in regional as well as international production networks in the coming years. Indeed, at the 16th Ministerial Conference on CAREC in 2017, the "CAREC 2030: Connecting the Region for Shared and Sustainable Development" strategic framework was launched (CAREC, 2017). It details long-term vision to ensure the region's relevance in the global economy. However, the road ahead will likely be full of challenges, not least given the international community's struggles to contain the fallout of the Coronavirus Disease 2019 (COVID-19) since early 2020 (Burrow, 2020). Responding to the CAREC Institute's research grants program, this study undertakes *a comparative analysis of two indigenous agriculture products and their development in two key CAREC member countries: Mongolia and Kazakhstan*. More specifically, this study highlights policy learning opportunities from the famed "One Tambon One Product" (OTOP) program (and its other variants), a well-known policy program amongst development practitioners and academicians in the Greater Mekong Subregion (GMS).[1]

[1] The GMS comprises Cambodia, the People's Republic of China (specifically Yunnan Province and Guangxi Zhuang Autonomous Region), Lao People's Democratic Republic, Myanmar, Thailand, and Vietnam. In 1992, with assistance from the Asian Development Bank (ADB), these six countries sharing the Mekong River entered into a program of subregional economic cooperation, designed to enhance economic relations. It has since grown into one of the most vibrant regions in Asia, generating a total gross domestic product (GDP) of USD1.4 trillion in 2017 (Greater Mekong Subregion Statistical Database, 2017).

The GMS is chosen for the following reasons. First, several member states within the GMS and CAREC were influenced by (or still adopt) socialist economic philosophies (Hirsch & Scurrah, 2015). Despite having transitioned into market economies, they still share common structural features and legacies such as heavy reliance on state-owned enterprises (SOEs) in critical industries, and general underdevelopment of entrepreneurial flair. Second, the GMS has, since the 1990s, become increasingly integrated with their wealthier, more advanced eastern neighbors (e.g., Japan and Korea), with an ensuing cost differential and factor availability facilitating the migration of investment and technology from east to west. However, although these CAREC member states have yet to attain the integration levels seen in the GMS, they have welcomed efforts from the governments as well as business groups of the East Asian economies to facilitate stronger commercial and socioeconomic exchanges (Murashkin, 2018; Sudo, 2020). This justifies policy diffusion and learning opportunities, with international organizations such as the Asian Development Bank (ADB) and the CAREC Institute playing an orchestrating role.

Third, despite substantial support from international organizations and donors, the development and advancement of the GMS and CAREC remain works-in-progress. For example, Vietnam's previously primitive motorcycle manufacturing industry has grown exponentially to become fourth largest in the world after receiving technical assistance from Japanese manufacturers and donors. While Vietnamese firms have gained and developed expertise in manufacturing low- to middle-end components, previous studies have illuminated that implementation of higher-order innovation policies has been uneven, resulting in modest domestic progress in making critical components (Lim, 2018; Fujita, 2013). A similar perspective can also be gleaned from the development of Pakistan's cotton-cum-textile industry (Kouser & Qaim, 2013). These studies demonstrate that while state planning (on the recipient's part) and donor support are important, sustainable development is a complicated process necessitating timely state support and persistent trial-and-error from the ground up.

The overall objective of this research is to promote policy learning in CAREC, illustrating how OTOP can be applied to promote the "Trade, Tourism, and Economic Corridors Cluster" of CAREC 2030. It analyzes contemporary development issues (e.g., rural self-sufficiency, product differentiation, and sociocultural preservation) through a comparative perspective. It also extends the lessons learned by isolating OTOP's critical success factors and examining the possibilities of adaptation/replication in the contexts of Mongolia and Kazakhstan. Similarly, development challenges (such as infrastructure deficits and lack of public-private cooperation) are to be identified early on to prevent resource misallocation. More specifically, the goal is to identify relatively primitive (but unique) products that can generate alternative high commercial and economic returns, while decentralizing economic decision-making to the grassroots.

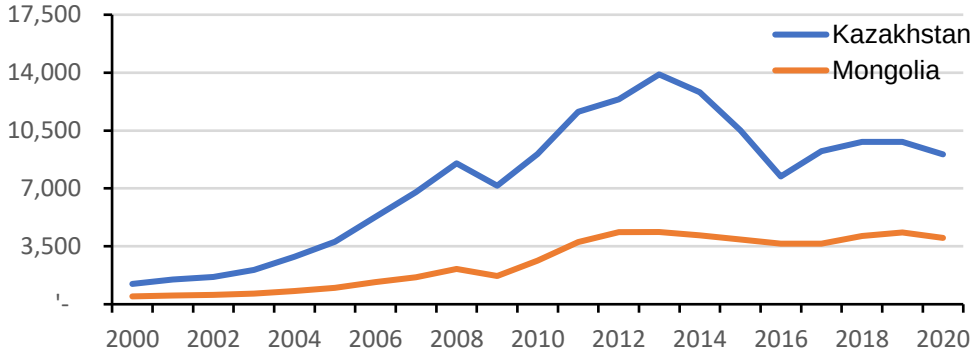
The paper puts on center stage two highly place-specific agriculture products: camel wool from Mongolia and halal-certified lamb meat from Kazakhstan. Both products will be analyzed in detail using a case study method. For Mongolian camel wool, recent surveys suggest that it is a popular raw material for apparel manufacturers in coastal China (UNIDO, 2011; Wong & Elbegsaikhan, 2020). The immediate goal is to tap its place-based reputation by encouraging businesses to establish wool-processing operations in Mongolia. Related activities such as laboratory certification, relevant value-added processing, and tailor-made ecotourism have also been mooted. For Kazakhstani halal-certified lamb meat, there is substantial room for growth as the country remains a relatively small halal food producer in the world. In addition, the global halal market is estimated to be worth USD1.4 trillion in 2017 and is expected to reach USD2.6 trillion by 2023 (ASEAN Post, 2019). Moreover, the grooming of this niche product could reduce Kazakhstan's economic dependence on Russia and China, two of its major neighbors–cum–trade partners, who are not (yet) substantial halal meat consumers.

The next section explores the economic context of Mongolia and Kazakhstan. It also highlights the similarities between these two countries and Thailand and Vietnam. The latter represent two GMS economies where OTOP have been implemented relatively expeditiously, offering useful comparative insights in the subsequent analysis. The paper then critiques literature on OTOP, illustrating its origins, evolution across countries, and variegated impact on development outcomes. Subsequently, the research methodology is described. The following sections will focus on Mongolian camel wool and Kazakhstani halal-certified meat. A SWOT analysis of both products will be presented, in addition to policy suggestions on how best to facilitate their growth. The last section concludes with a summary of the main findings and offers Mongolian and Kazakhstani policymakers some comparative insights distilled from the OTOP experience of Thailand and Vietnam.

Background: Contextualizing Mongolia and Kazakhstan

Following the dissolution of the Soviet Union in late 1991, Mongolia and Kazakhstan gained more policy freedom to chart their economic pathways. However, the Soviet Union's breakup also reduced demand for Mongolian and Kazakhstani goods and services, which resulted in a sharp contraction of their gross domestic product (GDP) during the early to middle 1990s. It was not until several years later that both countries found their footing. Indeed, Figure 1 shows that Kazakhstani and Mongolian GDP per capita in 2020 stood at USD9,056 and USD4,007, respectively. These figures translate to gross national income (GNI) per capita of USD8,680 and USD3,670, respectively, placing Kazakhstan and Mongolia as middle-income economies.[2] In addition, the GDP per capita of Mongolia and Kazakhstan have enjoyed generally upward trends since the turn of the millennium. Between 2000 and 2020, the GDP per capita growth increased by almost 8.5 times and 7.4 times for Mongolia and Kazakhstan.

Figure 1 Gross domestic product per capita (current USD) of Mongolia and Kazakhstan, 2000–2020



Source: World Bank Database

Despite efforts to industrialize and urbanize, Mongolia and Kazakhstan still have a relatively high rural population. Table 1 shows that both countries' rural population in 2020 stood at 31.3% and 42.3%, respectively, notwithstanding a downward trend over most of the last two decades. For Mongolia, its small population size (3.3 million in 2020) means that a fairly small urbanization push will likely result in a significant drop (in percentage terms) of the entire country's rural population. The relatively high rural population in Mongolia and Kazakhstan is partly a result of their physical geography and history. Both countries encompass vast steppe lands, in addition to housing herders/dwellers who practice a

[2] World Bank (2021) defines lower middle-income economies as those with a GNI per capita between USD1,036 and USD4,045. Upper middle-income economies refer to those with a GNI per capita between USD4,046 and USD12,535.

lifestyle of nomadic or semi-nomadic pastoralism.[3] For many of these herders/dwellers, livestock such as horses and camels are considered family assets and symbols of cultural heritage. This place-specific context translates into the prominence of agriculture-related activities (see Table 1). However, there has not been a proportional value-added to the national GDP. As of 2020, the value-added of Mongolian and Kazakhstani agriculture, forestry, and fishing sectors accounts for 12.1% and 5.3% of their GDP, respectively. Both places have also witnessed a progressive decline in their rural workforce participation.

Table 1 Share of rural population and value-added in agriculture, forestry, and fishing sectors in Mongolia and Kazakhstan, 2000–2020

		2000	2005	2010	2015	2020
Rural Population (Percentage of Total Population)	Kazakhstan	43.9	43.5	43.2	42.8	42.3
	Mongolia	42.9	37.5	32.4	31.8	31.3
	Thailand	68.6	62.6	56.1	52.3	48.6
	Vietnam	75.6	72.7	69.6	66.2	62.7
Agriculture, Forestry, and Fishing, Value-Added (Percentage of Gross Domestic Product)	Kazakhstan	8.1	6.4	4.5	4.7	5.3
	Mongolia	27.4	19.8	11.7	13.4	12.1
	Thailand	8.5	9.2	10.5	8.9	8.6
	Vietnam	24.5	19.3	18.4	17.0	14.9

Source: World Bank Database

As mentioned, Mongolia and Kazakhstan (and more generally, CAREC member countries) share some common structural features with their GMS counterparts. Thailand and Vietnam, in particular, offer interesting comparative insights. The GDP per capita of Thailand (USD7,189) and Vietnam (USD2,786) in 2020, and Kazakhstan (USD9,056) and Mongolia's (USD4,007) figures are relatively close. All four countries also have a significant rural population, although it is somewhat higher for Thailand (48.6% in 2020) and Vietnam (62.7% in 2020) (see Table 1). In addition, the value-added of agriculture-related activities are at similar levels in these countries, except Kazakhstan. Apart from Thailand, the weightage of public institutions and SOEs in the economies of the other three countries is comparatively high, as they only began to transition into market economies since the late 1980s–early 1990s. As such, we believe that Mongolia and Kazakhstan could learn some lessons from Thailand and Vietnam.

Literature Review: The Origin and Development of "One Tambon, One Product"

Drawing inspiration from Japan's "One Village One Product" (OVOP) program, the Thai government introduced the OTOP program in 2001 at the sub-district (tambon) level to stimulate the rural economy. Its goal is to support the discovery of locally made products across Thailand's 7,255 tambons by encouraging each to select one renowned product to market to the domestic and international economy. In return for carefully curated local products, the communities receive official support ranging from training and provision of tools and machinery to soft loans (Pholphirul et al., 2020;

[3] The number of herders/dwellers has declined in both countries as the youth generally prefer a more settled lifestyle (usually in the cities).

Natsuda et al., 2012). OTOP products encompass a wide gamut, including but not limited to handicrafts, agro-food products, pottery, fashion accessories, and household items (OTOP 5 Star).

The products are evaluated and awarded by an OTOP committee—with members representing the Ministry of Commerce, Ministry of Interior, Ministry of Industry, Ministry of Agriculture and Cooperatives, and private sectors. Its four main criteria are export-worthiness through a strong brand name, consistent production quality, customer satisfaction, and the degree to which each product is connected to local society and culture. The committee ranks these products from one star (lowest) to five stars (highest), with certificates and logos awarded to top performers (Kurokawa, 2009). Existing research notes a positive correlation between higher starred producers and improved access to financial support, training, and provision of production equipment (Pholphirul et al., 2020; Natsuda et al., 2012).

The OTOP is organized within a three-tier system: national, provincial, and district. At the provincial and district levels, local OTOP subcommittees select locally identified products, integrate them into their respective constituencies' development planning, and allocate annual budgets to support the products' development (JICA, 2003, cited in Natsuda et al., 2012). In practice, the national government in Bangkok held considerable sway in the financing and planning of OTOP, occasionally frustrating the provincial and district bureaucrats. However, the OTOP, since its launching in the early 2000s, Nevertheless, the OTOP has become a mainstay of the economy. This is evidenced by successive governments' continued support for the program. In the 2020 fiscal budget, 363 million Thai Baht (USD12 million) has been allocated to the OTOP scheme (Theparat, 2020).

In neighboring Vietnam, the "One Village One Craft" (OVOC) program began in 2006, with the Vietnamese Ministry of Agriculture and Rural Development serving as the main promoter. Quang Ninh, situated at the northeast corner of the country, was the first province to pilot this initiative. As its name implies, the goal is to develop village capacities to produce handicrafts. Although the OVOC leaned toward a top-down structure at the beginning, local communities soon took on a more influential role due to the lack of commitment and leadership from the national authorities (ASEAN, 2014; Thanh et al., 2018). Nevertheless, its bottom-up nature has arguably contributed to rural entrepreneurship. For one, OVOC is correlated with tourism development, increasing handicraft sales as well as stimulating the growth of related industries (such as transportation and tour provision). Some of the handicrafts are gaining popularity not only in the provincial market, but also in the national (and to a smaller extent, overseas) markets (Thanh et al., 2018).

Detractors argue that such schemes can be subjected to patronage politics. In Thailand, the OTOP was pioneered by former Prime Minister Thaksin Shinawatra (2001–2006), who is known as a strong, action-oriented leader. This also meant that the Thai government machinery of that era (including the OTOP) was managed in a highly centralized manner centered around Thaksin. Critics allege this management style led to creeping personalized authoritarianism, which was one of the reasons causing Thaksin's downfall (see Phongpaichit & Baker, 2008; Pye & Schaffar 2008). Nevertheless, the OTOP has since been emulated as a best practice model in other parts of developing Asia such as Laos and the Philippines, although the main promoter has been the Japan International Cooperation Agency (JICA).[4] According to ASEAN (2014), who surveyed all of the Southeast Asian economies (except Singapore), these schemes have two distinguishing features, i.e., top-down versus bottom-up organizing mechanism; and economic versus social goals. Thailand's OTOP is regarded as a classical top-down scheme that pursues mainly economic goals (e.g., eradicating rural poverty through enterprise formation). Vietnam, on the other hand, has evolved into a bottom-up model, but its main objectives are highly economic, much like in the Thai case. On the other hand, OVOP, which was

[4] At least in the countries surrounding Thailand, OTOP and Japan's OVOP are frequently conflated.

initiated in Oita Prefecture (Japan) during the late 1970s, devolved more autonomy to the local authorities to reverse rural depopulation through promoting place-specific goods and services. Though commercial in nature, it was ultimately very much socially motivated (Kurokawa, 2009).

In practice, the two features evolve and shift over time; much depends on the local context and how the program unfolds. For ASEAN (2014), it is more important to follow several broad principles rather than advocating a one-size-fits-all solution. First, OTOP/OVOP and other similar schemes require strong, determined leadership both at the national and local scales. Second, material commitment (e.g., financial support and technical assistance) over a sustained period is critical. This is usually secured through the national government, especially if overseas aid is involved. Third, if the main initiator is the national government, then some checks-and-balances should be installed. Some of these include clear objectives and sunset clauses on the incentives provided, ensuring private sector contribution rather than depending entirely on government support, and encouraging "demonstration" effect to other prospective communities. Lastly, as much as possible, the initiative should be driven by the local community as they are the ones with on-the-ground knowledge (of whether to pursue more economic-centric or social-centric goals). In other words, a bottom-up perspective is just as useful as a top-down structure, each offering a different set of advantages. It is more fruitful to deploy them strategically, complementing one another rather than seeing them as mutually exclusive.

Methodology: Process Tracing and Data Triangulation

This research adopts process tracing to identify events and processes. Process tracing is a research tool widely used in qualitative research to investigate whether the hypothetical explanation fit the events and processes of the identified cases. By "process tracing on the sequencing of who knew what, when, and what they did in response" provide inference to the establish backward causal relations from observed outcomes to potential causes and forward explanations from the possible causes to subsequent outcomes (Bennett, 2010). This methodology enables researchers to uncover alternative explanations and eliminate potential spuriousness in ways pure statistical modeling cannot accomplish. This is particularly useful for comparing country cases on a specific development model, such as OTOP, as the tracing process reveals nuanced implementation evolvements resulting from variegated locational endowments, as well as political and cultural legacies. Focusing on possible policy emulation, we rely on the empirical research of the qualitative process to ascertain the existing adoption of OTOP and possible future development. At this stage of development, we do not have the necessary quantitative data for statistical inference.

While adopting process-tracing methods to document OTOP's best practice and potential applications, we note the caveat about having a limited sample size (small-N), and have as a result sought assistance from local researchers in Mongolia and Kazakhstan to trace as much salient evidence as possible through primary in-depth interviews with stakeholders and secondary data triangulation. A list of the in-depth interviewees and interview questions is in the Annex. It has not been easy to arrange interviews largely because of the COVID-19 outbreak, which has put many people under extreme stress in Ulaanbaatar and Almaty where our researchers reside. Nonetheless, they have reached out to their personal and business networks, as well as through cold calling and snowballing referrals to identify and enlist informants who represent the relevant stakeholders in our projects. As such, our interviewees include state agents and regulators, business managers, academic researchers, journalists, camel wool and halal meat traders, livestock breeders, meat processing practitioners, and halal certification experts (see the Annex for the lists of interviewees).

Secondary data collection involves meticulous desk-bound research of reports and articles published by: 1) international and regional institutes such as the World Bank, the United Nations, ADB, OECD,

JICA, and the CAREC Institute; 2) local authorities such as government departments, statistical offices, industry associations, and research institutes; 3) international and local newspapers or news agencies such as the BBC, Reuters, Nikkei Asia, Astana Times, Vietnam Investment Review, Bangkok Post, Kursiv News, Kazakhstan Forbes, and Inbusiness.kz; and 4) academic journal articles and books.

Mongolia's Camel Wool

Recent surveys suggest that camel wool is a popular raw material for apparel manufacturers in China (UNIDO, 2011; Wong & Elbegsaikhan, 2020:716; CEIC, n.d.). Given the huge demand, the OTOP development model could be instrumental to tap this unique and precious place-based reputation and incentivize businesses to establish wool-processing operations in Mongolia. Related activities such as sustainability policy support, laboratory certification, value-added processing, logistics arrangements, and tailor-made ecotourism should be considered as parts of a development package.

Mongolia: "One Settlement, One Product"

OTOP is not a new initiative in Mongolia. Supported by the JICA in 2003 (JICA, 2005), the Mongolian government approved the "One Settlement—One Product" (OSOP) National Program in June 2005 based on the idea of OTOP/OVOP. The Program was implemented under the aegis of the Deputy Prime Minister in two stages between 2005–2012, mainly focusing on advocacy, financing, training, product fairs, market access, and product development. OSOP remained a component of the rural development and livelihood policies and is included in many governmental and local policy documents under different guises: "One Soum—One Brand," "One Settlement—One Pride," "One Soum—One Fine Product," "One Bag—One Product."

To discover unique premium value products for niche markets, these OSOP-related programs were supported directly and indirectly by a few multilateral and bilateral partners including the UNDP Enterprise Mongolia Project (United Nations Development Programme, 2013), the ADB Agriculture and Rural Development Project (ADB, n.d.), the World Bank Livestock and Agriculture Marketing Project (World Bank, n.d.), the Swiss Agency for Development and Cooperation (SDC)'s "Green Gold" Eco System Management Project (Swiss Agency for Development and Cooperation, n.d.), and the EU-funded Trade Related Assistance to Mongolia ("TRAM") Project (Trade Related Assistance to Mongolia, n.d.).

Of particular importance is the Enterprise Mongolia-2 project implemented by UNDP (UNDP project) with financing from JICA from 2009 to 2013, which established four regional Enterprise Mongolia Centers to support the local initiative and SMEs. Integrating with the Local Cluster Development Initiative, these centers sought to help business clusters, such as buckthorn clusters, to overcome problems related to business scale. The project targeted a few services, including business assistance services provided by the four regional centers, a loan program implemented in cooperation with a commercial bank, and assistance with sales through the establishment of sales points and participation in trade fairs in neighboring countries (United Nations Development Programme, 2013).

As a result of the UNDP project, several local products, mostly in the food sector, have become national successes, i.e., sea buckthorn and rock salt from Uvs aimag, bee honey from Selenge, millet-grain from Bulgan, red-skin garlic from Zavkhan. Today, seven years after project completion, these products are still referenced as OSOP's success stories, with few new additions to the list (Erdenesaikhan, 2021).

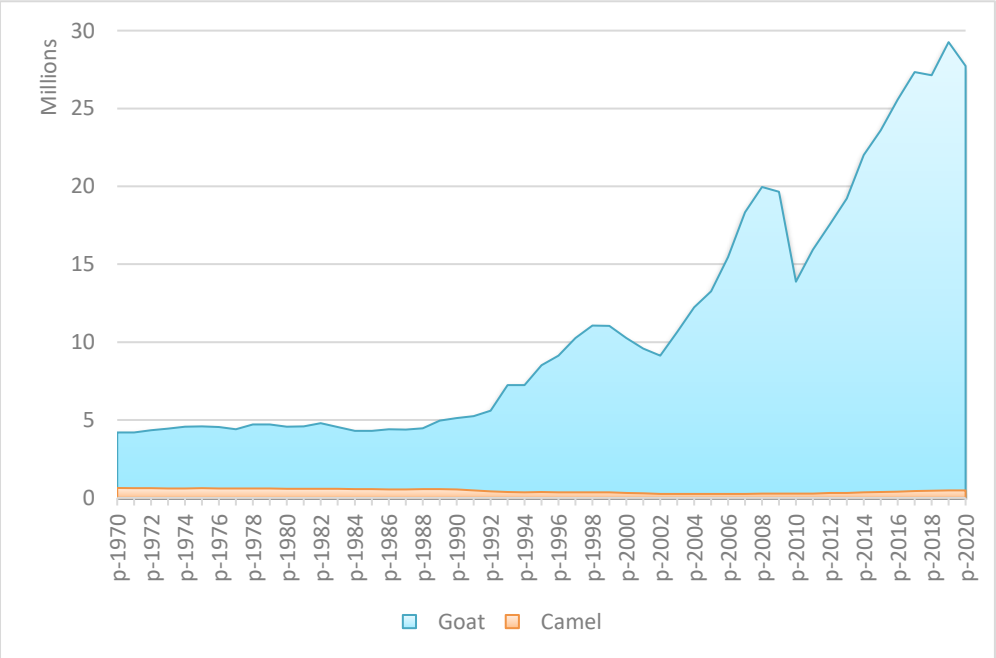
Currently, the main government institutions in charge of OSOP are the Ministry of Food, Agriculture and Light Industry ("MOFALI"), and MOFALI's Small and Medium Enterprise Fund ("SMEF"). On the

local level, the governors of the capital city and the aimags are responsible for implementing the OSOP (MFALI, 2020; GOM, 2019). Implemented as a "campaign" under the "Support for Small and Medium Enterprises" National Program, OSOP is included in the government's Action Plan 2020–2024, as well as Vision 2050. Campaign activities are mostly limited to trade fairs and awards for the best product of each aimag/soum. Not much work was undertaken in 2020, however, due to a lack of funds and the COVID-19 outbreak (MOFALI, 2020a).

Camel Wool Industry in Mongolia

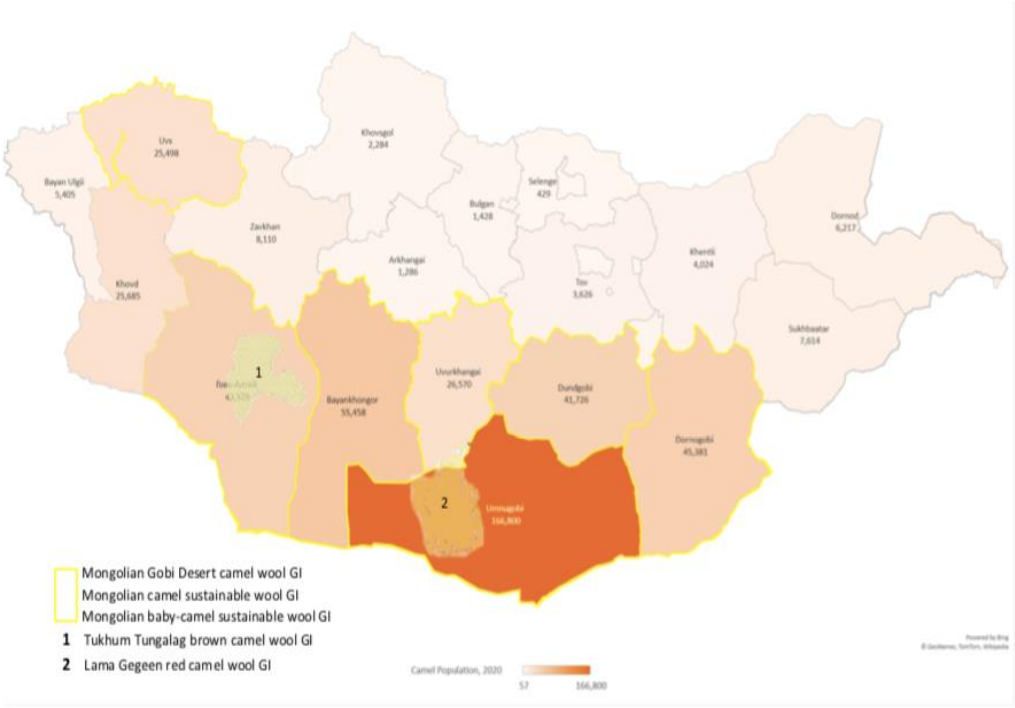
Mongolia is home to the world's largest population of the two-humped, Bactrian camels. As of 2020, the 473,000 Bactrian camels in total account for only one per cent of the country's total livestock (Mongolian Statistical Information Service, 2020; see comparison with goat population in Figure 2). Camels are mostly bred in the Gobi and Altai areas, stretching throughout the south of the country to the northwest. Some of these areas are also main tourist destinations, and camel festivals are used as one of the cultural attractions (Figure 3). During the early years of transitioning into a market economy between 1990 and 2002, the number of camels decreased twofold (Figure 4) because of inadequate policy support for herd management, and because slaughtering camels for their meat and hides generates higher returns than herding them for milk, wool, and other uses (Yondonsambuu & Bolormaa, 2017). In 2011, the Mongolian government tried to increase the camel population by providing ₮2,000 ($0.7) per kilogram cashback for wool sold to domestic producers, and ceased paying ₮15,000 per camel hide in December 2012. Such an incentive adjustment has resulted in the camel population rising in the last decade (Gerege Partners, 2013).

Figure 2 Camel and goat population in Mongolia, 1970–2020



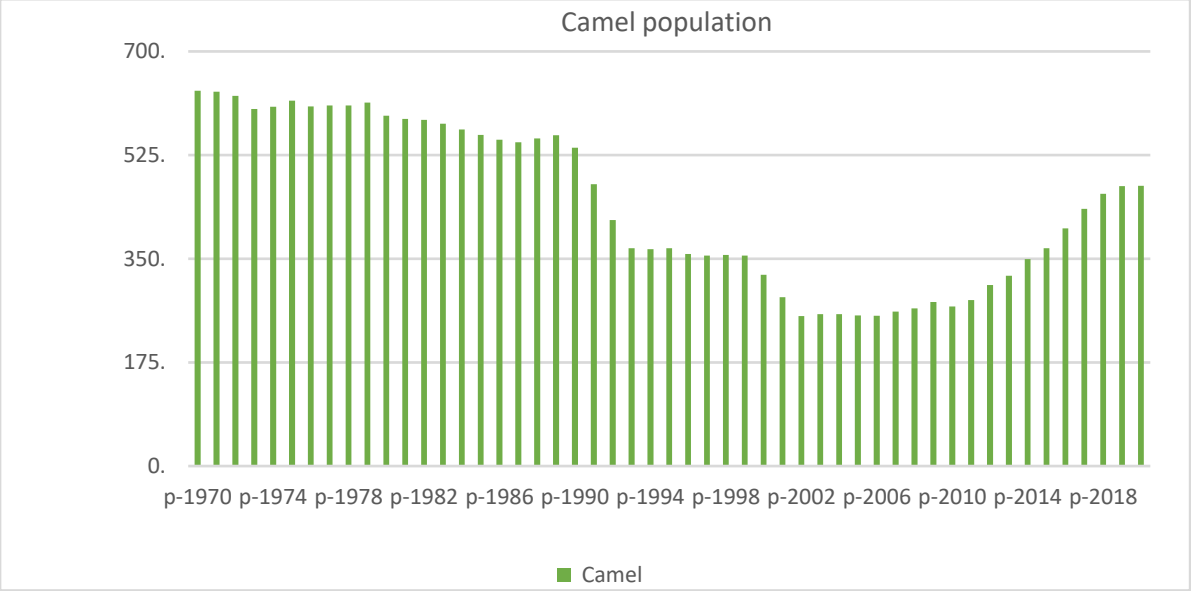
Source: Mongolian Statistical Information Office.

Figure 3 Camel population by aimags and GI location



Source: Authors' compilation based on data from the National Statistical Office and GFA, 2016

Figure 4 Camel population in Mongolia, 1970–2018.



Source: Mongolian Statistical Information Office

The camel wool industry in Mongolia is intricately linked with the more developed and lucrative cashmere industry.[5] Cashmere commands 10 times the price of camel wool (telephone interview with trading practitioner A) and is the main source of income for herders in Mongolia. It is a well-established luxury fiber and is the fourth main export item for Mongolia. Cashmere goats and camels are herded together in a traditional nomadic way, moving between seasonal pastures. Their wool moves up the

[5] Not to be confused with camel wool, cashmere wool, usually simply known as cashmere, is a fiber obtained from cashmere goats, pashmina goats, and some other breeds of goat.

same value-added chain mostly toward the same markets. Due to cashmere profitability, the number of goats has grown six-fold in the past 30 years. However, the cultivation of goats has led to overgrazing, resulting in overwhelming pasture degradation. Goats' dietary habit of eating plants with roots has made the situation worse. On the contrary, camels, which sustain themselves on shrubs and plants avoided by other livestock, have far less environmental impact. This increased demand for sustainably sourced fibers has brought camel wool into focus as a sustainable alternative to cashmere.

Premiumization of Camel Wool

Having been implemented for more than 15 years, Mongolia's OSOP has experienced some initial progress in premium izing camel wool as a rare, environmental product. Focusing on agricultural produce, our preliminary research shows that camel wool has great potential to achieve export-worthiness through developing a strong brand name, maintaining consistent production quality, meeting customer satisfaction, and connecting to local society and culture. Much of the work on the premiumization of camel wool for a differentiated market involves careful investigation and upgrade of the value-added chain which will be discussed in detail in this section.

Developing A Strong Brand Name for Baby Camel Wool

Mongolia's camel wool reserves were estimated at 1,800 t in 2019, 13% of which remained unutilized, 22% was manufactured into end-products such as knitwear, textile, and blankets for domestic consumption, and most of the rest was exported to China after primary processing (MOFALI & MWMU, 2019; Mongolian Customs, n.d.).

Mongolian camels need to withstand the extreme cold of winter and the desert heat of summer, thus their wool has exceptional thermostatic properties: it is durable yet light. On the minus side, it is thicker and longer than cashmere and is more polluted due to dust bathing and the alkalinity of sweat, making its processing more difficult and the end-products not as soft. The quality and quantity of camels' hair also depend on environmental factors (temperatures, elevation, pasture plants) as well as correct herding practices (ensuring high intake of water in spring, consumption of certain grass in summer, grazing at high altitudes in autumn, etc.) (Gerege Partners, 2013). They also vary across breeds and with age (baby and adolescent camels have finer wool than adults).

Recent research into baby (one-year-old) camel wool has established that when combed, as opposed to sheared, its fibers are as fine as cashmere, and, with the correct processing, result in comparable end-products. Following the research, in 2015, standard MNS 0036:2007 on camel wool preparation and its technical requirements were revised to place combed baby camel wool into the premium (Mongolian Noble Fiber) category (GFA Consulting Group GmbH [GFA], 2017). As such, baby camel wool has the potential to become a new, luxury, yet sustainable fiber that can be promoted as an alternative to cashmere for a differentiated market.

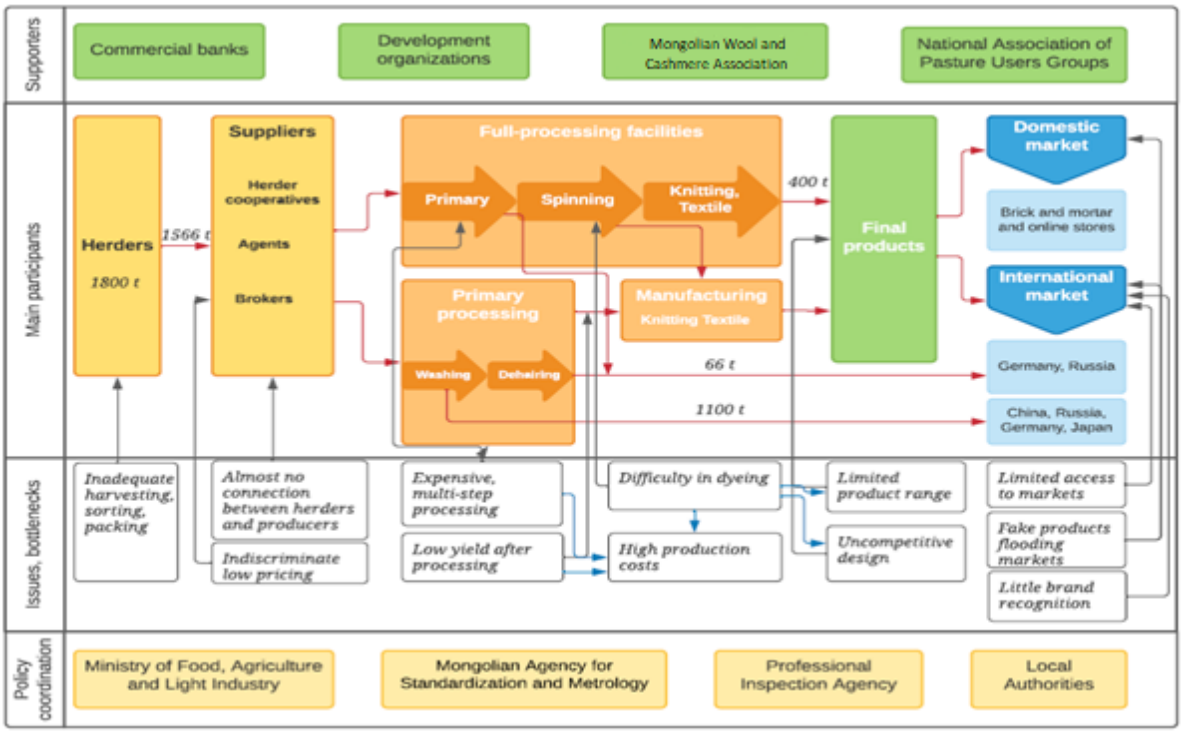
Baby camel wool products started appearing in the market in the last decade. The Green Gold and TRAM projects are assisting producers to establish baby camel as a luxury fiber both domestically and on international markets. For example, TRAM provides technical assistance to the Mongolian National Chamber of Commerce and Industry (MNCCI) to help its members to navigate the EU's trading regulatory framework, to operate a baby camel wool cluster that helps members to attend trade fairs in the EU, and to run an online shop (Mongolian Green Labels, n.d.).

Maintaining Consistent Wool-production Quality

Another key premiumization involves carefully upgrading the value-added chain in terms of production and trading of raw materials, primary processing, and final production, as well as sales and consumer services (see Figure 5 for a detailed value-added chain for the camel wool industry in Mongolia). These inter-related steps could be incentivized through the OVOP program to improve quality control, enhance customer satisfaction, and benefit the local community.

Until recently camel wool harvesting was done using ineffective and primitive methods: felling the camels to the ground, shearing using old-style scissors, involving no sorting or pre-cleaning of the wool, and packing it in plastic bags of varying sizes. Following efforts from donors (especially SDC) to raise the value of the camel wool, herders have been educated on how to better prepare the wool to increase its value and meet the manufacturers' needs. For example, combing a camel before cutting its long-tangled hair makes it easier to process, and sorting wool according to color and age of the camels gives the herders a premium on the more valuable types of wool (Camel Wool Preparation and Quality Improvement, 2016). The absence of direct communication between herders and manufacturers was considered one of the main weak links in the chain (GFA, 2017). To increase the value of camels and their wool in the long run, the herders are encouraged to specifically breed camels for wool, to increase yield and quality of the hair and, ultimately, create a breed that maintains baby wool–like fine hair throughout their lifetime (Yondonsambuu & Bolormaa, 2017).

Figure 5 Camel wool industry value-added chain



Source: Authors' compilation based on Gerege Partners (2013)

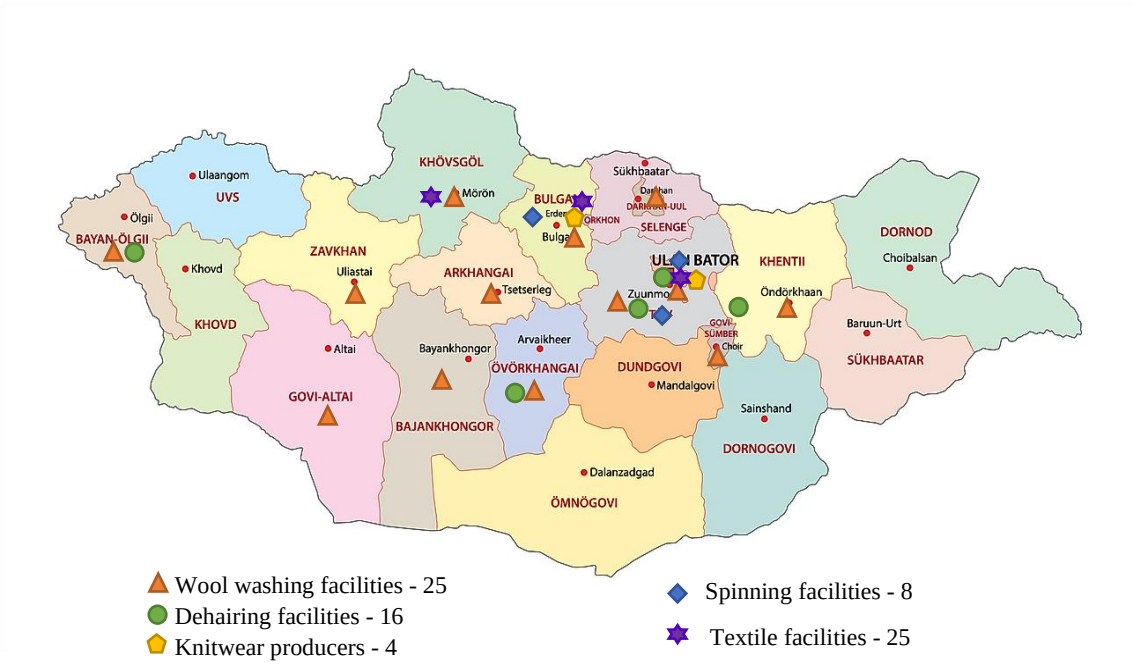
Harvested wool reaches the processors/manufacturers through three channels: 1) traders-middlemen, who often offer low price regardless of the quality of the wool (telephone interview with traders A and B); 2) agents of domestic manufacturers; and 3) herder cooperatives. The Green Gold and TRAM projects organize annual match-making events to link herder cooperatives and manufacturers, where they agree on wool preparation quality and prices. Last year, the Green Gold project facilitated the supply of 15 tons of combed baby camel wool from herder cooperatives directly

to domestic producers (Enkh-Amgalan, 2021). Still, it has proved difficult to remove the intermediaries, as brokers have decades-old relations with herders, are often relatives, and provide them with loans which are later repaid in wool (telephone interview with mining practitioner A; Khaliun, 2019).

Meeting Customer (Manufacturer) Satisfaction for Primary/Final Processing

Wool processing procedures are complicated and involve multiple stages. In Mongolia, as each processing step progresses, relevant facilities gravitate toward the capital city (see Figure 6). In 2020, the Mongolian government provided policy and financing support to the wool processing industry, aiming to decrease the export of wool as raw material and increase domestic processing and final product manufacturing (MOFALI, 2020). Such a complex production cycle leaves ample room for improvement to catch up with and meet the changing needs of the manufacturers. Currently, camel wool is sold to the manufacturers at a low price for the high processing costs incurred and its relative thickness that translates into low quality products (Camel Wool Preparation and Quality Improvement, 2016). This is particularly important for product diversification and differentiation of camel wool into different categories for various market segments.

Figure 6 Map of wool processing facilities in Mongolia



Source: Adapted from MOFALI et al., 2019.

Primary processing of camel wool includes sorting, washing (scouring), and carding (dehairing). There are 25 wool washing facilities across 13 locations in Mongolia. Camel wool has a low yield after processing and higher processing costs. Due to the thickness as well as high dirt and sweat contamination of camel wool, the standard process does not provide satisfactory results and degrades the equipment. Nevertheless, a special multi-step technique for scouring/carding the camel wool has been successfully developed and tested (Enkh-Amgalan, 2021).

Most of the washed/dehaired wool is directly exported as a semi-finished product. Almost all of the washed wool goes to China, whereas the dehaired wool is destined for Russia and European countries. Part of the remaining wool proceeds to final production to be turned into beddings, especially blankets, which has proved to be a successful export item. What remains undergoes bleaching or

dyeing, and is spun into yarn. Camel wool does not take dyeing well, thus it is usually used in its natural colors (off-white, light/dark brown). This limits the appeal of the final products. However, it has been proven possible to achieve some vibrant coloring of baby camel wool (GFA, 2017). The yarn is then used to produce knitwear, fashion wear, and household textiles.

Several domestic producers (Sor Cashmere, Blue Sky Cashmere, Altai Cashmere, etc.) recognize the potential of their baby camels and are developing their product lines. Mongolian Noble Fiber certification, applicable to premium-grade wool including baby camel wool, was introduced to promote and distinguish Mongolian wool and cashmere internationally. The first export of dehaired cashmere under the certification was exported to Italy in June 2021, paving the way for baby camel wool to follow (Anudari, 2021).

A small number of herders make, on a household production scale, camel wool ropes, socks, scarves, and vests. Due to a lack of equipment, and use of time- and effort-intensive traditional methods, they are not able to meet demands at the soum level (Gerege Partners, 2013). To support value creation in herder communities, SDC provides two local women NGOs with knitting equipment and processed wool.

Connecting Local Society and Culture

Camel wool products are sold domestically through producers' factory and brand stores, major department stores, and, recently, online. Some smaller manufacturers also sell their products on retail markets, the "Made in Mongolia" outlet, and on Facebook. Apart from domestic consumers, tourists purchase a sizable portion of the sales through these channels. On the other hand, large manufacturers fulfill orders from foreign entities, or through their stores abroad, while scalpers buy camel wool products in Mongolia and take them across the border to sell. Mongolia has preferential trading agreements with the EU and Japan, but these remain underutilized, with producers requesting more government support in accessing foreign markets (MOFALI et al., 2019). Recently, an influx of cheap, subpar, fake camel yarn and products, labelled "Made in Mongolia" from abroad has made it difficult for domestic products to compete, tarnishing the reputation of Mongolian products not only domestically but also in foreign markets such as Russia (Gerege Partners, 2013; MOFALI & MWMU, 2019).

The variegated supply and demand for camel wool have underscored the urgent need for the timely development and implementation of sophisticated mechanisms for quality verification. This is especially important for premier camel wool which can be traced to its origin, playing up the precious linkage to indigenous culture and unique community heritage. To this end, a geographical indication (GI) system was introduced in Mongolia in 2003, with the Intellectual Property Office of Mongolia registering 33 local GIs to date, five of which pertaining to camel wool (Intellectual Property Office of Mongolia, n.d.).

In 2007, the Mongolian Gobi Desert Camel Wool GI was registered to the Mongolian Wool and Cashmere Association (the manufacturers). It covers the whole camel habitation area and includes only processed camel wool products (see Figure 3 above). Unfortunately, it has not been used much, and the GI has not been registered in the EU as intended (telephone interview with an academic IP researcher; Wong & Elbegsaikhan, 2020). In 2020, four more camel wool GIs were registered. Two of them, the Mongolian camel sustainable wool GI and Mongolian baby-camel sustainable wool GI, were registered to the National Association of Pasture Users Groups. These two new GIs cover the same camel habitation area as the Mongolian Gobi Desert Camel Wool GI does (see area outlined in yellow in Figure 3), but have additional requirement of sustainable herding practices and traceability using a "Responsible Nomad" system. The remaining two GIs, the Lama Gegeen Red camel wool GI of

Bayankhongor aimag and the Tukhum Tungalag Brown camel wool GI of Gobi-Altai aimag (see areas 1 and 2 in Figure 3 above; Intellectual Property Office of Mongolia, n.d.) are registered to provincial (aimag)-level associations of pasture user groups. These registrations give ownership of the GIs to herders (Pasture User Groups are associations of herders), as opposed to manufacturers, and apply to the whole value-added chain from raw wool to finished products. The latter two GIs cover specific, small geographic areas for local camel breeds, making OVOP distinction easier.

Continuous improvement and deployment of GIs and other traceability mechanisms allow local producers to trace wool to specific herders, and to distinguish and protect the unique characters of their products. For example, the TRAM project declared its support to register the Uvs Seabuckthorn GI in the European Union (Bold, 2019), SDC's Green Gold project created the "Responsible Nomad" traceability system which allows practitioners to scan a barcode to track the source of a product (Enkh-Amgalan, 2020), and Sustainable Fiber Alliance (SFA) successfully piloted using blockchain to trace cashmere all the way back to the goat that produced it (Chandran, 2020). The direct and transparent linkage established with a specific herder family from which the artisan wool was harvested and processed with special care to the camel could give rise to a premium experience and desirable outcome for the local communities.

Policy Suggestions for Facilitation of OSOP in Camel Wool

There has been certain progress in increasing the value of Mongolian camel wool in the past decade: baby camel wool has been discovered as a potential alternative to cashmere, new wool harvesting and processing methods as well as standards have been developed, new product lines have been created, and several certifications have been established. There has also been attempts to cut-out the middleman and directly connect herders with manufacturers, as well as a government wool incentivization program. As a result of these measures, the price of camel wool increased from ₮4,000 in 2013 (Gerege Partners, 2013) to ₮11,000 (interview with trading practitioners A and B, 2021).

In this period, the number of camels increased 55% (see Figure 1 above), reflecting the efficacy of these policies and showing growing importance of camels in the herders' livelihood. For example, a family with 100 camels now earns ₮5.2 million ($1,824) annually by selling the wool: 4 kg/camel × 100 × ₮13,000 (₮11,000 – market price + ₮2,000 – government cash-back). In 2020, Mongolian herders earned an estimated ₮18.7 billion ($6.6 million) from camel wool (1,566 tons at ₮10,000 + ₮2,000).

However, much remains to be done. Most of the measures described above have been performed by donors, without much coordination with the government, or among themselves (interview with project manager A). Two main projects involved are closing in 2021, which might reverse the achieved progress, especially in their work with the herders and in creating direct links between herders and manufacturers. More government involvement and comprehensive policy development for the camel wool industry is required. The OTOP experience in Thailand and Vietnam suggests that the role of the government is critical, especially in fostering dialogue and requesting financial support from foreign donors. Governmental support is akin to a catalyst that leads to further process and product innovation, not least for a fairly recent product such as baby camel wool. Even if the goal is only to counterbalance the output of goat cashmere, substantial support is still required in areas such as product development, marketing, and advocacy.

There are also synergies with several cashmere initiatives under the UNDP's Sustainable Cashmere Platform (UNDP Mongolian Sustainable Cashmere Platform, n.d.), which brings together stakeholders from government, donors, and the private sector. Among other things, through the Sustainable Fiber Alliance, goat herders are linked with international luxury brands (Hugo Boss, LVMH, Johnstons of Elgin, etc.). This platform can be used to support baby camel wool as well.

Successful premiumization of baby camel wool that brings its price to the level of cashmere would add ₮14.2 billion ($5 million) at current camel numbers (1.5 kg/baby camel × 85,829 – number of baby camels in 2020 × ₮110,000 – price of cashmere) nationwide, and ₮2.9 million ($1,000) to a family with 100 camels — a substantial increase considering that the average annual household income was ₮18 million ($6,300) in 2020 (1212.mn, n.d.).

Baby camels account only for around 18% of the total camels. Therefore, there is a need to increase the value of adult camel wool. This can be done through further improving wool harvesting and processing methodology, enhancing wool quality through selective breeding, and finding more uses for camel wool. For example, the camel wool's exceptional thermostatic properties could be used to provide a cruelty-free alternative to goose down in bedding and outerwear. Construction insulation materials could be developed from coarser hair. More research is needed to investigate the possibility of developing herder-made traditional camel wool items, into marketable, scalable products or souvenirs for tourists. We argue that successful premiumization of camel wool involves integrated efforts on multiple fronts, as discussed above, and OVOP could be further institutionalized to follow through with the initiative.

As quality of the wool varies depending on the breed, locale, and herding practices, differentiation is possible from soum to soum and even from herder to herder. Verification through a GI and traceability system could assist in creating more value for the herders and herder cooperatives and help them to create an OSOP brand. Registration of local camel wool breeds as a GI by Groups of Pasture Users from Bayankhongor and Gobi-Altai could serve as an example for others. In addition to the innate qualities of the local wool, improved harvesting, sorting, and packing of the wool to meet manufacturer's needs with the use of traceability systems could allow certification and differentiation of wool right at the herders' doorsteps.

Policy interventions need to be systematically considered and done in correlation with each other. For example, if herders have been convinced to adopt new ways of harvesting and sorting their wool yet are unable to sell it at a better price, they will revert back to their old, "easier" ways, and it will become more difficult to change their behavior later, when sales channels become available. If manufacturers produce ample quantities of baby camel wool products when the market is not ready, by the time market awareness rises, the product designs might have become outdated.

Development of camel wool OSOP products would not only improve the livelihood of the herder communities, but it will also assist in the rehabilitation of pastures, supporting the fragile Gobi ecosystem, and maintenance of traditional nomadic culture. Below are a few policy recommendations to facilitate the process:

- Facilitate collaboration between herders, manufacturers, and academia on improving the value-added chain at all levels: breeding camels for wool, developing better and cheaper ways for camel wool processing, and dyeing.
- Consider reframing OSOP policies around local one-stop shop centers, that provide comprehensive assistance in product development, marketing, and access to finance and markets.
- Coordinate work on camel wool premiumization done by donors and the government to reduce overlap and increase synergy. To that end, work to include camel wool in existing

multi-stakeholder sustainable fibre initiatives, such as UNDP's Sustainable Cashmere Platform.

- Conduct domestic and international advocacy of baby camel wool, underlining the cultural and environmental significance of the fiber in addition to its cashmere-like properties.
- Scale existing efforts to educate herders in all camel breeding areas on proper ways and tools to harvest, sort, and price camel wool.
- Support direct linking of herders and their cooperatives to domestic and international manufacturers, introduce give-back schemes so that herder communities can develop products from processed camel wool.
- Research development of handcrafts from camel wool, especially in tourist destination areas.
- Support the use of GI and traceability systems, and the Mongolian Noble Fiber mark.
- Continue policy incentives to increase and keep the processing of camel wool and production of finished goods within Mongolia.
- Strengthen customs control to prevent fake camel wool products from entering the country. Enforce protection of Mongolian certification marks, GIs, and trademarks internationally.
- Assist manufacturers to access international markets, and individual herders and their cooperatives to access international online marketplaces (e.g., Amazon, Ebay, Etsy)

Role of local government

Both the OSOP implementation and the camel wool premiumization fall under the portfolio of the Ministry of Food, Agriculture and Light Industry. While the Ministry provides policy development and coordination as well as facilitates trade and R&D in the camel wool industry, it could use support from aimag and soum level authorities in operating local OSOP centers, educating herders and streamlining support for herder cooperatives and Pasture User Groups. This kind of community-based capacity-building program relies much on the groundwork by the local government.

Kazakhstan's Halal-Certified Meat

The global halal market has reached USD1.72 trillion in 2020 and is expected to reach USD2.41 trillion by 2027, with a compound annual growth rate of 5.8% between 2021 and 2027 (WBOC, 2021). In two more optimistic reports, the global halal market is estimated to reach USD2.4 trillion (Dinar Standard, 2020) and USD2.6 trillion (The ASEAN Post Team, 2019) by 2023. Amid such vast market opportunity, shares of the halal food sector rank second at 31.2% (Islamic finance ranks first at 51.6%) (Shahbaneh, 2021).

Despite proclaiming Kazakhstan as a secular state, President Nazarbayev appreciated the Muslim Ummah as part of the country's heritage (2012). Kazakhstan has also witnessed the "Islamic revival" as a basis for restoring its spiritual tradition (Malik, 2019). In addition to subscribing to a religious

belief, this also means observing certain religious practices. As such, a so-called "bourgeois" Islam emerges among the urban middle class with growing popularity in halal restaurants and halal food, Islamic fashion (Abdullah, 2021), halal leather footwear (Yergaliyeva, 2019), cosmetics (Kusnfyk, 2018), as well as practices that follow Islamic ethics such as Islamic banking and schooling (Malik, 2019; Laruelle, 2018). Marat Sarsenbayev, Chairman of the Kazakhstan Halal Industry Association (AHIK), said in 2015 that the consumption of halal food in the country had grown for the previous 10 years in tandem with the increase in Muslim population, while there was also a noticeable rise in demand for such foodstuffs from among non-Muslims (Dhabi, 2015).

There are multiple reasons fueling the increase in demand. At least within west/central Asia, there has been growing awareness of Muslim identities and experiences. One of the clearest outcomes emanating from this development is the emergence of halal goods and services, including but not limited to meat provision (Botoeva, 2020). These halal products have variegated potentials for Kazakhstan to pitch a premiumized market for profit enhancement and to promote place-based development. To diversify its export of non-resource goods and services, including halal products, the Kazakhstani government began to promote the "Made In Kazakhstan" brand in 2019 for the international market.

In 2020, Aibek Atashev, Director of Halal Damu in Kazakhstan suggested that there are around 400 organizations in Kazakshtan exporting halal products to 43 countries in the world (Ibadulla, 2021). Among their products, halal food has received significant attention. With combined efforts from the Committee on Religious Affairs, the Ministry of Agriculture, the Spiritual Administration of Muslims, and the Association of Halal Industry and Entrepreneurs, the Kazakhstani government has approved five national halal standards (Kovalev, 2020).

On the other hand, demand for Kazakhstan-produced meat has also been increasing in the last 10 years. Meat production in Kazakhstan grew 3.7% between 2019 and 2020 (Kursiv, 2021). Domestically, since Kazakh people consume fewer meat products per capita than the developed world, there exists ample opportunity to increase the domestic demand, especially when the Kazakhstani become wealthier in the future (see Table 2). Internationally, increasingly tense U.S.-China trade ties have also partially opened up business opportunities for Kazakhstani-based meat producers. For example, the 47% tariff imposed by the Chinese government on U.S. beef has lured Tyson Foods to set up its beef plant in Kazakhstan for its convenient vicinity to the potential market in China, Russia, and the Middle East (Meyer, 2019). According to an interview with a meat producer, China and Iran have been the most important markets for Kazakh meat, which also includes halal meat (face-to-face interview with a top manager of meat processing company, 2021). In 2020, Kazakhstan sent 22 tons of halal lamb and beef shipment to the United Arab Emirates (UAE) alone (Inbusiness.kz, 2020). Although this was a special arrangement in return for UAE's humanitarian aid including medical goods and cooling facility to Kazakhstan during the COVID-19 outbreak, Kazakhstan's halal meat export has been a positive development.

Table 2 Annual meat consumption in Kazakhstan and select countries 2020

Annual Meat consumption kg/capita	Beef and veal	Poultry	Sheep	Pork	Total
Kazakhstan	20.9	19.6	8.7	4.5	53.7
USA	26.0	50.9	0.4	23.8	101.1
Australia	18.1	45.2	5.8	20.5	89.6
World total	6.3	15.1	1.8	11.8	35.0
OECD total	14.4	33.0	1.3	22.9	71.6
Russia	10.1	32.3	1.3	21.9	65.6
China	4.0	14.2	3.6	31.1	52.9
Iran	6.4	25.5	4.0	0	35.9

Source: OECD 2020.

As such, the following discussion focuses on halal-certified meat in general and halal lamb in particular for two reasons: first, given Kazakhstan's significant rural population (43% as of 2019, see Table 1), premiumization of halal meat could bring direct impact on the well-being of a large number of rural households; second, Kazakhstan has demonstrated initial interest in adopting such program to enhance the capacity of its long herder tradition in pastoral farming.

Kazakhstan: Potential for On-the-Ground Development

OTOP/OVOP is new to Kazakhstan but not to Central Asia. Co-funded by the JICA and local governments, several Kyrgyz communities have taken on various OVOP grassroots capacity building programs for different identified products such as rare-herb and wild honey. The best-known of these projects took place in 2006 in the Issyk Kul region (Dadabaev, 2016a, 2016b), through which a unique handcrafted felt product was carefully curated to achieve product differentiation. The project brought not only immediate monetary profits to the participants, but also long-term ecological advancement to the local community. The product was eventually selected in 2010 to be included in the marketing network of MUJI, a popular Japanese brand of lifestyle products (Found MUJI Kyrgyzstan, n.d.)

In September 2020, upon a request from Kazakhstan representatives, JICA advisors, including the JICA Kazakhstan Field Office, JICA Kyrgyz Republic Office, and JICA OVOP Project members in the Kyrgyz Republic, met with the National Chamber of Entrepreneurs of the Republic of Kazakhstan (Atameken) via Zoom. They shared the experience and challenges in setting up OVOP projects in Kyrgyzstan, the certification of manufacturers, and various sales and marketing strategies. In the meeting, Ms. Lazzat Ramazanova, chairperson of the Businesswomen Council, showed particular interest in using OVOP as a tool to empower women in the rural area (JICA, 2020).

Kazakhstan's OTOP/OVOP initiative has procrastinated partly because of the pandemic outbreak. Our fieldwork has revealed that none of our informants have heard of OTOP/OVOP or its variants. However, our preliminary research in the halal meat market and the industrial development in Kazakhstan shows that halal-certified lamb has great potential to achieve export-worthiness through four stages of product premiumization: 1) developing a strong brand name; 2) maintaining consistent production quality; 3) meeting customer satisfaction; and 4) connecting to local society and culture. The next section reviews the existing meat market and the geography of meat production in Kazakhstan, followed by an analysis of the potential for halal lamb to be premiumized and how it could

affect the well-being of the local community. Relevant policy recommendation will be provided at the end based on our empirical analysis.

Halal Meat Industry in Kazakhstan

Kazakhstan aims to become a significant producer of halal meat and is strategically poised to provide for neighboring Islamic countries and beyond in a massive market (Oryngaliul et al., 2020). However, despite its efforts, Kazakhstan has not taken up a leading place in the global halal food market. In 2019, Brazil, India, and the U.S. were the top three countries regarding the total export value of halal food to OIC countries. The best-prepared countries to tap into the halal food economy as measured by a weighted Global Islamic Economy Indicator (GIEI) were led by Malaysia, Singapore, and the UAE. To this end, it would be strategically sensible for Kazakhstan to target the global halal market by focusing on developing a differentiated halal meat such as pre-immunized halal lamb. This not only allows Kazakhstan to tap into the growing global economic market, but also fosters a distinctive, sophisticated cultural connection with its Islamic heritage.

Kazakhstan has a total area of 2.7 million square kilometers and is administratively divided into 14 provinces/regions and two cities (Astana and Almaty). Geographically, 33% of the country's territory is composed of steppe and 53% is desert and semi-desert. As such, 80% of the land is used for agriculture, with the steppe zones providing vast pastures to feed herds (Food and Agriculture Organization of the United Nations, 2016). These steppes are situated at four different areas—northern Kazakhstan with various perennial grass and wild oats, the semi-desert central territory, the southwest area with woody vegetation, and the southern pastures interspersed with desert basins (see Figure 7). In the past, 80% of Kazakh households adopted a nomadic lifestyle and traveled at least twice a year to locate feeding resources for livestock rearing (Konuspayeva & Faye, 2020), but by the end of the 19th century, most Kazakhs had been driving their livestock over shorter distances and were planting grains in the winter for fodder and human food, so almost no more pastoral nomads were left in the country (Olcott, 1981). This gave rise to the possibility to develop traceable premiumized halal meat.

Figure 7 Types of rangelands in Kazakhstan

Source: Adapted from Levi Westerveld, WWF (2001) One way of defining and illustrating rangelands of the world

Premiumization of Halal Meat

The development of a Kazakhstani meat brand is not new. For example, the Kazakhstani government has implemented a pedigree livestock program since the 1990s to improve the quality of the nation's herds (OECD, 2013). However, the majority of the budget spent on importing elite bulls or semen for

artificial insemination has mainly benefitted large-scale farms and enterprises with minimum 30 cows to be eligible (Baranowski et al., 2020:8). Such an elite bull program forms a crucial state-led livestock policy. In 2017, the Ministry of Agriculture of Kazakhstan estimated that Chinese consumers were willing to pay 40% more for branded, organic, and pasture-fed meat (Kaznex Invest, 2017). In 2020, the Ministry announced a steady growth of 4% of the livestock industry, primarily because of the pedigree program (Official Information Source of the Prime Minister of the Republic of Kazakhstan, 2020). To complement the elite bull program, we suggest diversifying the premiumization effort with OTOP-inspired institutional assistance to showcase a distinctive placed-based premium lamb with particularistic farm-to-fork features.

Developing A Strong Brand Name of Kazakhstan's Household Indigenous Lamb

Kazakhstan has three distinct farm types—large-scale agriculture enterprises, medium-to-large-scale private peasant farms, and small-scale household farms. The agricultural enterprises (AE) are farms privatized from Soviet collective entities. These farms usually have abundant resources for high-quality fodder, support longer-distance grazing, and keep a few thousand to tens of thousands of livestock. Private peasant farms are formed by joint family labour unions, and usually keep dozens to thousands of animals using diverse grazing practices. Household farms are the smallest farming unit with only a few animals. However, these small farms are most commonly found in Kazakhstan, contributing to 66% of animal husbandry (Baranowski et al., 2020:2; Hankerson et al., 2019:4).

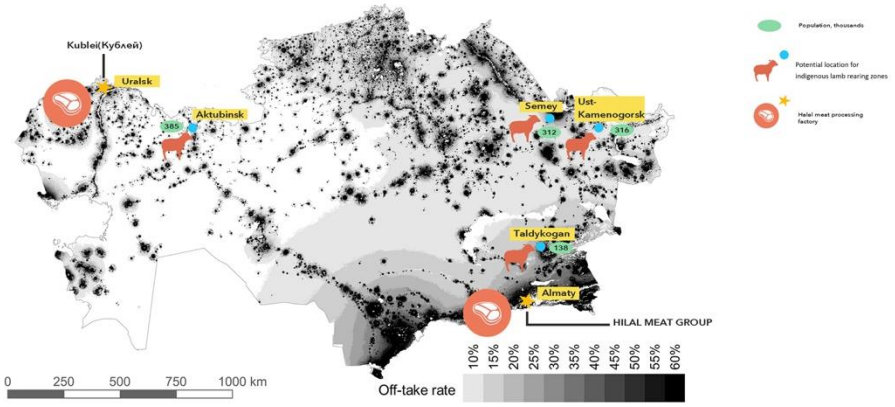
As mentioned, the Kazakhstani government has been subsidizing the livestock industry through its pedigree livestock program since the 1990s, with a focus to resolve the food security issue (OECD, 2013). For example, the Agrofirm Dinara-Ranch in Almaty has improved meat productivity and culinary characteristics by crossing the Kazakh white-headed breed with the world-famed Aberdeen-Angus breed (Nurgazy et al., 2019). Despite the importance of mass meat production, this research has identified a parallel diversification opportunity to encourage household farms to focus on small-scale yet premiumized indigenous purebred lamb meat.

Indigenous breeds have been considered part of the agriculture renaissance in developed countries such as the UK where farmers believe they provide their communities a sense of identity and pride (Slow Food in the UK, n.d.). In Kazakhstan, small farmers do not receive government subsidies, so they have to rely on native breeds which have evolved over centuries, and are well adapted to the climate, soil, food, and diseases (telephone interview with a livestock breeder, 2021). As such it is best for small households to bring forth the value of keeping harmony with nature with inputs available in their specific “terroir,” thus reducing their impact on climate. We asked a person from the field of agriculture. According to him, the state subsidizes the breeds brought from abroad. Local breeds are bred by small farmers who do not receive government subsidies. According to him, it is more profitable to breed local breeds, as it does not require transportation costs, it is already adjusted to climatic conditions, etc.

We therefore believe that it is prudent to initiate the OTOP program for indigenous purebred lamb rearing among small household farms in the eastern and northwestern parts of Kazakhstan for three reasons. First, the northern part of Kazakhstan has already specialized in large private farms and agriculture enterprises to rear cattle for meat and milk to maximize land productivity. Milk production is low for sheep and goats, and large farms raise sheep primarily for wool (Hankerson et al., 2019:4, 14). Given the low off-take rates and low livestock numbers in the east and northwest parts of Kazakhstan (Hankerson et al., 2019:18; see Figure 8), these regions have great potential to develop a strong brand name for Kazakhstan’s purebred lamb. Second, small household farms have long developed a tradition and preference for keeping sheep and goats for self-consumption and trade at local bazaars because they are small and are quicker to consume than cattle, which requires more

refrigeration facilities for storage (Baranowski et al., 2020:4). They usually house their livestock in the backyard at night and graze them on pasture within a half-day walking distance. Such style of family farming with place-based personalistic care is the best way to relate to the premiumization of indigenously bred lamb. Based on a few potential locations for the production of organic, non-GMO meat products suggested by the Kazakhstan's Ministry for Investment and Development, we suggest and an expert in agriculture development with family members working in the agriculture management and livestock breeding business agrees that Ust-Kamenogorsk, Semey, and Taldykogan in eastern Kazakhstan, and Aktubinsk in the northwest could be targeted as experimental premium farming zones (see Figure 8; WhatsApp interview with an agriculture expert, 2021).

Figure 8 Off-take pattern in Kazakhstan and suggested halal lamb rearing zone



Source: Adapted from Hankerson et al. (2019) and Kaznex Invest (2017:35)

Maintaining Consistent Halal-certification Standard

While indigenous lamb could have less meat efficiency than its crossbreed counterparts, it has been widely considered as a thoughtful, holistic, respectful way of household rearing that could empower the local community by preparing a unique, premiumized product to be further branded by the halal-certification standard.

"Halal" means "lawful" and "permitted." Halal products should therefore strictly respect the Divine Orders and emphasis on health, cleanliness, and safety (Elasrag, 2016). In addition to checking that all ingredients are strictly free of alcohol, pork, tobacco, and lipids from animals in all forms including gelatin, enzymes, lecithin, and glycerine, as well as flavorings and coloring, the halal certification also ensures that the whole process complies with Shariah principles (Wee, 2018; Zakaria, 2008). This includes how the animals are kept healthy, not subjected to suffering, that only live animals can be slaughtered by a Muslim slaughterer, and that the slaughtering and bleeding must follow proper ritual before consumption (Zoethout, 2013). The meat products also have to be kept separately throughout the supply chain to avoid contamination (Alqudsi, 2014). For most certifying bodies, halal certification involves systematic control of the entire production process (face-to-face interview with a Halal certification expert, 2021).

By 2019, Kazakhstan has 130 halal slaughterhouses and over 600 halal businesses (Malik, 2019:358). In view of the complicated process which requires careful attention and must observe strict regulations, such as the fixation of the animal, the sharpness of the knives used, the method of cutting to facilitate the bleeding out, etc., it is important to maintain the standard through proper halal

certification. Soon after its independence from the Soviet Union, Kazakhstan became a member of the Organization of Islamic Cooperation (OIC) in 1995 and established its Association of Halal Industry of Kazakhstan (AHIK) for halal certification in 2006 (Latif, 2016).

Despite the clear potential and enormous interests from AHIK to expand the halal industry (Association of Halal Industry of Kazakhstan (AHIK), n.d.), this paper notes the relatively underdeveloped halal certification process in Kazakhstan. Top government officials of Kazakhstan including the first and second presidents on several occasions emphasized the importance of halal production in Kazakhstan. As early as 2007, first president Nursultan Nazarbayev paid special attention to the development of halal production in Kazakhstan (Ibadulla, 2020). AHIK has also been working with Jabatan Kemajuan Islam (JAKIM, Department of Islamic Development Malaysia) and various foreign halal associations and certification bodies from Iran, Indonesia, Malaysia, and the UAE. However, this became problematic because these organizations adopt different practices and are competing with each other. As a result, halal certification in Kazakhstan requires more effort to unify the standard (face-to-face interview with a Halal certification expert, 2021).

In addition to non-compatibility, there could also be problems with the integrity of the certification procedures, which are further complicated by the nuances between the requirements driven by different prevailing Islamic trends. As a result, the National Accreditation Center suggests establishing uniform rules for all halal practitioners. (Buyanov, 2019; face-to-face interview with a top manager of a meat processing company, 2021). In 2020, the Kazakhstan government developed a national standard on halal under the code STRK 3483-2019 “Halal Products. Fundamental Provisions,” which puts in place a set of halal “package standards” to cover the slaughtering, processing, certification, transportation, labelling, and catering aspects (Sadikhova, 2020; Zakon.kz, 2020)

With a view to enhancing the halal certification of our proposed household indigenous lamb in east and northwest Kazakhstan, it is important for the government to assist household farmers in terms of lamb slaughtering and meat processing. The OTOP program could consider seeking cooperation with nearby halal processing facilities, so they can spare adequate capacity for the production of pre-immunized meat. Two premises are preliminarily identified for such cooperation: the Kublei Meat Processing Complex located at Uralsk, capital of West Kazakhstan, and the Hilal Meat Group Inc. located at Almaty, the trading and cultural hub of Kazakhstan (see Figure 8).

The Kazakh government has been providing agribusiness with subsidies in general business certification and arranging exhibitions and marketing tours (face-to-face interview with a top manager of a meat processing company, 2021). The OTOP program could consider subsidizing the halal specific certification of facilities that are specially designated for the premium household lamb. In 2021, halal certification for an entire meat processing plant costs around USD20,000 to USD30,000 (Masanov, 2021).

Meeting Customer Satisfaction for having Halal Meat Consumption

Customers of halal food are driven by specific motives to preserve the sanctity of religion, to safeguard Islamic beliefs, to respect life, as well as to maintain a sustainable future (Riaz & Chaudry, 2017). Recent research on halal customers suggests that the majority of the respondents from Singapore, Malaysia, and Australia are willing to pay more for premium halal meat with a 100% halal supply chain. In addition to having a unified halal standard and certification in place, it is also important to enforce education and to practice self-monitoring to ensure that halal rules and standards are perfectly observed (Alqudsi, 2014). As such, in addition to a halal certified label, a consistent and reliable halal supply chain is key to gaining customers' trust in the long term (Ali et al., 2017). Satisfied consumers are not only happy to pay a premium to get halal food that they trust, they are also always loyal to the halal brands that have consistent standards, which would spur faster growth in the halal market (Yousef, 2010).

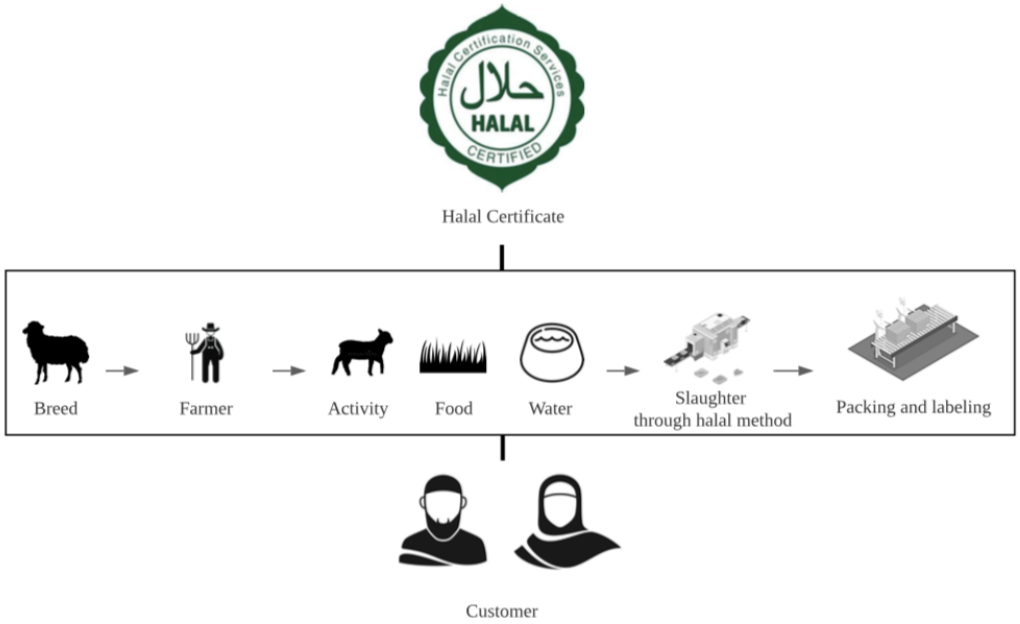
One of the insights picked up during our fieldwork is how COVID-19 has led to increased home-based cooking, following social distancing measures. In order to deal with unexpected circumstances, companies have changed their business strategy, quickly adapting to consumer preferences. Some examples are developing e-commerce platforms, selling ready-to-eat foods, and introducing cloud-based kitchens, which are restaurants that produce food only for delivery (Colpaart, 2019). Indeed, Kazakhstan could take this opportunity to build and promote the premium household indigenous lamb for home cooking as well. With premiumization, halal meat manufacturers can drive more sales in spite of the poor economic situation brought by the COVID-19 pandemic. This could prepare for the post-COVID period when social gatherings such as public meetings, banquets and ceremonies resume and will require halal meat as part of the special meals.

Connecting Local Society and Culture

The mooted OTOP program is to support the discovery of locally made products and market in the domestic and international economies. For the premium household halal lamb, the success and sustainability of the scheme as well as the end products rely on a carefully curated linkage between the end users and the producers. Such an idea of traceability is not new in the livestock industry, especially for the premium sector. For example, the American company Pure Bred is a family-run farm that emphasizes their "unmistakable" approach to animal husbandry, in which the company has adopted a patented quality control method to assign each lamb a unique identification number and to record every lamb's lifecycle information, including its farmer, feeder, activities, as well as food, water, and forage intake (Pure Bred, n.d.).

By designating a region for Kazakhstan's unique brand of household halal lamb, the government could consider working with relevant stakeholders to develop a similar lamb identification process (see Figure 9) to ensure gene-to-fork traceability.

Figure 9 Suggested halal lamb identification process



Source: Adapted from Pure Bred (n.d.)

Policy Suggestions for Facilitation of OTOP in Halal Lamb

Comments on the strengths of halal lamb production in Kazakhstan are as follows: though producers, government officials, and certifying agencies view the situation from different angles and each sees its own strong parts, they are all sure of halal's good prospects in the markets in Kazakhstan as well as its export capacity. This stems from the growth of meat production and export sales in the last seven to 10 years, and despite the pandemic, they have not wavered. With a view to expanding the coverage of existing industrial policies, the paper suggests to move beyond the large-scale livestock enterprises in northern Kazakhstan and empower household farmers in the east and northwest regions. Regional branding for meat producers should focus on differentiating mass production (which focuses on meat efficiency by crossbreeding) from premium curation (where small producers could come to represent regional quality and purity of grass).

As discussed, where there are great potentials in household halal indigenous lamb, determination in institutional support in the four processes of premiumization are crucial to the success of the OTOP program. For example, small households with limited start-up resources shall receive initial support for gaining access to land (Dzhakub, 2016). Extreme heat and drought have led to extensive drying up of pastures and loss of livestock, in which case small households shall be proveded with financial and technical assistance as well as insurance (Kazinform, 2021; Forbes, 2021). In terms of maintaining consistent halal standards, subsidies could be given to specific factories that have been halal-certified.

As regards meeting changing customer satisfaction and enforcing their trust toward halal food, relevant authorities should also endeavor to provide close updates of international trends toward food security. For example, the recent COVID-19 pandemic has driven the two largest halal food importers, Saudi Arabia and the UAE, into formulating different strategies toward maintaining food security (Dinar Standard, 2020). Saudi Arabia launched a US$533.3 million loan program to fund agriculture products and secure food supply (Reuters, 2020). The UAE now collaborates with the Food

Organization of the United Nations by introducing the National Food Security Strategy 2051 to promote international partnerships, diversify food source, enhance nutritional intake, and reduce food waste (United Arab Emirates, n.d.). There is also rising concern for sustainable halal development. For instance, the GSO 2055-1:2015 is a standard that should be followed, from receiving to packaging halal food (GCC Standardization Organization, 2015).

Lastly, with a view to tracing the lifecycle of purebred native lamb, it would be worthwhile to look into various technologies that allow a reliable traceability system to be implemented. Pure Bred's patented unmistaken approach could be a good point of reference (Pure Bred, n.d.).

We believe that either the Taldykogan or Aktubinsk experimental zone would be a good testbed for implementing a trial OTOP program to study the feasibility of developing Kazakhstan's household indigenous halal lamb. Not only would this improve the livelihood of the local communities, it would also assist in building awareness of pasture rehabilitation, curbing unnecessary transport to reduce environmental impact, and strengthening the Islamic identity and halal culture. Below are several policy recommendations to facilitate the process:

1. Facilitate the identification of Kazakhstan indigenous lamb by providing necessary assistance to local households such as land access, insurance against extreme climate, and an identification system
2. Implement a detailed and holistic approach to halal certification that reconciles domestic and regional discrepancies
3. Liaise with specific halal meat enterprises for processing premium lamb with subsidies and awareness training on halal certification
4. Develop customer loyalty for premium halal products through ensuring a 100% halal supply chain
5. Explore the possibility of using a digital tracking system

Role of local government

The local government can play an essential role in halal meat production in Kazakhstan. For example, local officials collecting and distributing state subsidies could carefully allocate resources to facilitate company registration, halal trademarks certification, disease control, meat quality assurance, logistics infrastructure, etc. In addition to these regular business activities, the local government could be proactive in emergency support such as epidemiological and veterinary control, extreme weather mitigation measures.

Large companies, including meat producing and processing factories, provided local employment opportunities and taxation income for the local government. They have received preferential policies in the past. With the premiumization approach, local government should also consider taking some necessary action to differentiate the mainstream and niche markets between large and small-scale producers, resolve the deep-seated tensions between the two, and help the small herders to gain better access to the pastures, waterways and public road transport.

Conclusion

This paper has demonstrated how the pursuit of products with highly place-specific characteristics can promote rural industrialization in Mongolia and Kazakhstan. More importantly, both Mongolian camel wool and Kazakhstani halal lamb meat are likely to be in-demand when both regional and global

economies recover from the complications of COVID-19. Their rural origins also offer solutions to overcrowded quarters in their respective urban hubs, alleviating healthcare concerns. Despite their potential and the policies recommended in the sections above, it is important to take stock of how OTOP and other similar schemes have taken root in Thailand, Vietnam, and other countries. Our analysis shows that much hinges on place-specific factors, meaning that policies to promote Mongolian camel wool and Kazakhstani halal meat have to carefully consider the peculiarities of the industries and/or regions in question. The experience of OTOP (and similar programs) in the GMS shows that the policy recommendations outlined in the sections above have to be cognizant of several issues:

First, OTOP's fruition requires determined, consistent leadership at both national and local levels. In practice, this means devising a bureaucratic structure to secure buy-in from key players at both levels. This is perhaps easier on the Mongolian side as it already has several OSOP schemes, meaning that existing personnel and resources can be leveraged. What it can do is to modify them to better suit the needs of the camel herders and their proponents, in addition to improvising existing weaknesses in the OSOP schemes. For example, our findings suggest that there is a lack of dialogue between the Mongolian government and donors as well as amongst the latter. This can perhaps be bridged by taking a leaf out of Thailand's management of OTOP. To ensure equal participation from relevant parties, the Thais evaluate and award prospective products through an OTOP committee, with representation from several line ministries and private sector participants. For Kazakhstan, perhaps a more dispassionate reading of how the OTOP has materialized in other countries (such as Japan, Thailand, and Vietnam) can be conducted before rolling out the scheme. Closer to home, there are several JICA-funded OVOP undertakings adjacent to Kazakhstan, including the aforementioned rural agro-food schemes in neighboring Kyrgyzstan. Lacking the "institutional memory" of Mongolia in pushing their own version of OTOP, enterprising Kazakhstani policymakers and private firm managers/owners are in a good position to observe and learn from the projects in Kyrgyzstan and elsewhere. At the very least, they can design an organizing mechanism that incorporates the best practices from both a top-down (Thailand) and a bottom-up (Vietnam) system.

Second, should incentives be granted, there should be clear reasons on why they were given out and sunset clauses to prevent wastage and inefficiency. Judging from the OTOP experience in the GMS as well as this paper's coverage on Mongolian camel wool and Kazakhstani halal lamb, one of the most valuable incentives that can be provided is certification. In the Thai case, a one to five-star certificate/logo is awarded to firms that fulfill particular criteria. This is a useful measure that could be emulated in Mongolia and Kazakhstan. Moreover, with an ever more demanding consumer base, GI certification is arguably more useful to signal place-specific qualities and imaginaries, thereby creating extra value and profits for the firms involved. GI certification also potentially opens up more possibilities to secure other forms of support, such as loan financing and opportunities to attend trade exhibitions, creating a "virtuous cycle."

Relatedly, at least at the early stage, it is worthwhile to "target" communities that will most likely yield results, thereby creating "easy wins." Once such "easy wins" are attained and demonstrated, more private sector players would be drawn toward the industry. The importance of private sector participation must be reiterated as one of the key goals of programs like OTOP, which is to encourage bottom-up entrepreneurship through various support measures, but not to the extent of over-patronizing the participants (Dadabaev, 2016a). There must be a sense of ownership at the local level, with the long-term objective of making these businesses self-sustainable.

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Annex

List of interviewees in Mongolia

Mining specialist a, telephone interview, Ulaanbaatar. 25 May 2021.
Academic IP researcher, telephone interview, Ulaanbaatar. 10 June 2021.
Trading practitioner a, telephone interview, Umnugobi, 12 June 2021.
Trading practitioner b, telephone interview, Dundgobi. 12 June 2021.
Project manager a, telephone interview, Ulaanbaatar. 12 July 2021.

Interview *questions in Mongolia*

TRADERS

1. What is the price of cashmere?
2. What is the price of camel wool?
3. How much for baby camel wool?
4. Do you pay a premium for sorted and pre-cleaned wool?

IP AGENT

1. What GIs for camel wool are registered in Mongolia?
2. What is the geographical area covered by these GIs?
3. Who owns the GIs?
4. Was there any donor assistance in GIs registration?
5. How does GI acquisition help with exporting camel wool and products?
6. What are the barriers preventing GI registration abroad, i.e. EU?

PROJECT COORDINATOR

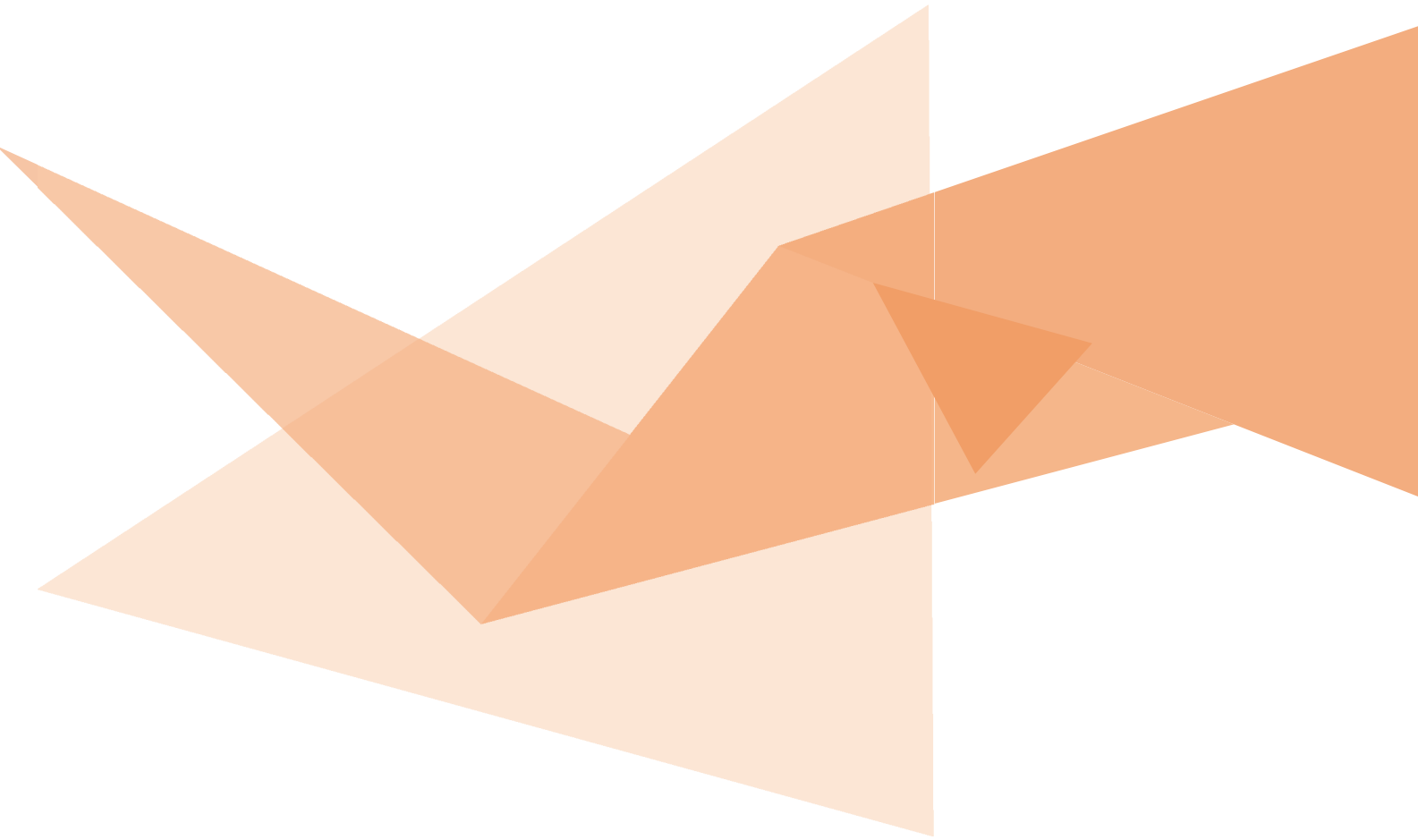
1. Could you please describe the work performed by your project and other donors regarding the camel wool premiumization?
2. What are the main difficulties and weakest links in developing the value-added chain for camel wool?
3. Are the R&D findings funded by your project in camel wool processing currently used by the manufacturers?
4. Is there any coordination among the donor community and with the Government
5. How do the traceability systems developed by your project and other similar initiatives work?
6. What are the following steps to continue the progress on camel wool premiumization?
7. What policy recommendations would you give?

List of interviewees in Kazakhstan

Halal certification expert, face-to-face interview, Almaty, 25 April 2021.
Top manager of a meat processing company, face-to-face interview, Almaty, June 1, 2021.
Village Journalist, face-to-face interview, Almaty, June 19, 2021.
Local livestock breeder, phone interview, East Kazakhstan, August 5, 2021.
Agriculture expert with family working in the industry, WhatsApp interview, Almaty, August 5, 2021.

Interview questions in Kazakhstan

1. Can you tell us more about the halal meat development in Kazakhstan?
2. How does the halal certification work?
3. How important is Halal meat in your industry? Do you have competitors?
4. Which parts of the country is key for Kazakhstan's halal lamb industry? Why?
5. What are the constraints limiting the industry's further growth
6. What are the significant constraints for the halal meat sector?
7. What kind of support do local firms need from the government and other institutions?
8. How do the local firms cope with COVID-19?
9. How do you see the impacts of the Kazakhstan halal lamb industry on rural entrepreneurship?
10. Is there an OVOP/OTOP scheme in Kazakhstan?
11. How can OVOP/OTOP scheme help in developing the halal lamb sector?



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