

Project on “Intellectual property and gastronomic tourism in Peru and other developing countries: Promoting the development of gastronomic tourism through intellectual property”:

SCOPING STUDY

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Consultant: Carmen Julia García Torres

TABLE OF CONTENTS

Introduction	5
Chapter I: Background	7
Chapter II: Justification	9
Chapter III: Analysis of Peruvian gastronomy	13
3.1 The environment and products	15
3.2 Economic analysis	21
3.3 Reputation and influence	27
3.4 Potential challenges	38
Chapter IV: Analysis of the study' geographical focus	43
4.1 Selection criteria	43
4.2 Lambayeque	45
4.3 Lima	54
4.4 Arequipa	66
4.5 Tacna	74
4.6 Cuzco	81
4.7 Loreto	90
Chapter V: Analysis of regional culinary traditions	98
5.1 Lambayeque	98
5.2 Lima	108
5.3 Arequipa	119
5.4 Tacna	128
5.5 Cuzco	140
5.6 Loreto	149
Chapter VI: Round table	165
6.1 Onion	166
6.2 Garlic	169
6.3 Ají chili peppers	169
Bibliography	173
Acronyms	177
Annexes:	
Annex 1: List of Peruvian culinary traditions	
Annex 2: Fact sheets and questionnaires	

Annex 3: List of interviewees

Annex 4: Food market directory

Annex 5: Peruvian restaurants abroad

INTRODUCTION

Peru has been recognized as the best culinary destination in the world for the eighth consecutive year by the World Travel Awards¹, strengthening the country's association with gastronomy in the minds of Peruvians and foreigners alike.

Over the past ten years, Peruvian cuisine has not only gained international renown and recognition, but has become a unifying force, a catalyst for social cohesion and a source of pride, bolstering Peruvians' national identity.

Peruvian cuisine has also been a driver for the country's development, offering hope for solving the structural problems affecting Peruvian society, since it is an equalizing force which forges a sense of national belonging among all Peruvians, despite their differences.

Nevertheless, many improvements could still be made in this sector, such as by systematizing and managing relevant data for decision-making within the sector, formalizing these establishments and improving their health and sanitation conditions, and enhancing knowledge about Peru's gastronomic history and the nutritional value of foods from its rich flora and fauna.

Identifying the resources, traditions, tools, techniques and forms of consumption that make Peruvian cuisine so unique and sets it apart from other cuisines is also key. A better understanding of these will help to reaffirm the value of Peruvian traditions and to appreciate, preserve and disseminate them.

It is in this context of strengthening of Peru's gastronomic sector that this project emerged to promote the development of intellectual property and gastronomic tourism, coordinated by Peru's National Institute for the Defense of Competition and the Protection Intellectual Property (INDECOP), with support from the Commission for the Promotion of Peru's Exports and Tourism (PROMPERÚ). Hence, the project entitled "Intellectual property and gastronomic tourism in Peru and other developing countries: promoting the development of gastronomic tourism through intellectual property" was presented to the Committee on Development and Intellectual Property (CDIP) of the World Intellectual Property Organization (WIPO), which

¹ See <https://www.worldtravelawards.com/award-worlds-leading-culinary-destination-2019>, from 29.12.2019.

approved the implementation of this project in Peru and in three other pilot project countries: Malaysia, Morocco and Cameroon.

The present document is the project's scoping study, which fulfills the main objective of identifying and cataloguing Peruvian culinary traditions. This study also enabled interviewing various stakeholders in the Peruvian gastronomic ecosystem about the project. Most of the interviewees' feedback on this project and its objectives has been positive.

This study is divided into six chapters: the first provides project background information; the second discusses the project's relevance; the third outlines the main definitions and concepts that were required to set out the theoretical framework; the fourth is an analysis of Peruvian gastronomy; the fifth lists culinary traditions with an analysis of the different areas of the regions studied; and, the sixth provides an analysis of the value chain of the various traditions.

This scoping study is also meant to serve as a road map for strengthening the preservation of products and dishes, with a view to ensuring the sustainable use of these resources and fair compensation for producers. The idea down the line is that identifying Peruvian products through various IP tools would facilitate their traceability and reach on the domestic and international markets, which would in turn help to raise their profile and thereby also raise the profile of Peruvian gastronomy more generally.

In this regard, intellectual property tools can also serve as potential drivers of Peru's development, leading to an economy that is not only sustainable, but also socially and territorially cohesive.

We hope that this scoping study can lay the groundwork for the project's development and provide relevant information on Peruvian culinary traditions.

CHAPTER I: BACKGROUND

In 2018, INDECOPI submitted a proposal to the Committee on Development and Intellectual Property (CDIP) of the World Intellectual Property Organization (WIPO), to work on the project entitled, “Intellectual property and gastronomic tourism in Peru and other developing countries: promoting the development of gastronomic tourism through intellectual property”.

The overall aim of the project is to promote intellectual property linked to culinary traditions (food and beverages) in order to apply this to the tourism industry. The specific objectives are:

- Facilitate the cataloguing, development and sustainable use of Peru’s culinary traditions.
- Build the capacity of the economic operators linked to the gastronomic tourism industry and of national entities, including IP offices, to use and capitalize on IP tools and strategies.
- Raise awareness about the benefits that applying IP can have in the development of gastronomic tourism activities.

The present scoping study, described in detail below, is one of the project’s deliverables. The main aim of this study is to build an inventory of the main Peruvian culinary traditions and their value chains. The following objectives were also set out:

- (i) Set out an approach for linking gastronomy and intellectual property by identifying and cataloguing culinary traditions which are understood as comprising dishes, products, recipes, culinary techniques and utensils.
- (ii) Lay the foundations for and establish general guidelines for carrying out the project.
- (iii) Provide relevant information for developing this project, including an analysis of the value chain underpinning the culinary traditions examined in this scoping study. This would help to identify the IP tools that could be used by the different stakeholders in the gastronomic ecosystem and who are part of these value chains.

In order to meet these objectives, an extensive list of culinary traditions was established. In this context, “culinary tradition” is understood as knowledge on methods or techniques for preparing and cooking foods that is passed down from generation to generation through the custodians of the Peruvian culinary value chain. These custodians include the farmers, creators, recipe implementers, the oral narrators of this know-how and consumers. This knowledge comprises production methods, inputs, utensils, techniques and consumption habits, which, taken together, are a part of the given group’s cultural identity. These culinary traditions are materialized through and consist of products (recipes) and the utensils and techniques used to prepare these.

This study includes a comprehensive list of recipes from each of Peru’s 24 regions², obtained from bibliographical sources and initial interviews with experts in Peruvian culinary research. See Annex 1.

In order to narrow down the scope of this national study, a sample of six (6) of Peru’s regions were selected: Lambayeque, Lima, Arequipa, Tacna, Cuzco and Loreto. See Chapter IV for details on this selection.

² For the purpose of this study, the constitutional province of Callao was considered to be part of the Lima region.

CHAPTER II: JUSTIFICATION

The impetus for this scoping study is the impact of tourism and gastronomy as drivers of economic and social development. The relevance of these two drivers of economic and social development is outlined below.

2.1 The importance of tourism

According to “City Travel & Tourism Impact 2017, Latin America”, published by the World Travel & Tourism Council (WTTC) and Oxford Economics³, the travel and tourism sector generates 3.9% of GDP in Peru and 4.6% of GDP in the capital city of Lima, and this sector is expected to grow by 7.2% on average in the period from 2016-2026. In Lima, travel and tourism employment stood at 181,600 in 2016, a figure which is expected to grow by an average of 3.2% in the period from 2016-2026, to reach 248,400 jobs.

In 2018, international tourist arrivals worldwide increased to 1.403 million arrivals, a 5.6% increase compared to 2017⁴. According to the Ministry of Foreign Trade and Tourism of Peru (MINCETUR), in 2018, Peru received 4.1 million international travellers, whose main purpose of travel was for vacation, recreation or leisure, according to a PROMPERÚ international tourist profile report.

According to the PROMPERÚ international vacationer profile report, in the last five years, vacation tourism increased by 40%. The average length of stay of international vacationers in Peru is ten nights, during which they spend an average of \$1,013, and visit an average of three administrative departments, chiefly Lima, Cuzco, Tacna, Puno and Arequipa.

It should be noted that according to a survey of international vacationers⁵ and culinary tourism in Peru conducted by PROMPERÚ in 2016 and 2017⁶, 82% of vacationers deem Peru to be a culinary destination and value its traditional gastronomy and/or food, citing “to try Peruvian cuisine and typical dishes” as among their five main reasons for travel, surpassed only by the

³ Cusirramos, C. (2018). Beneficios del turismo en las ciudades latinoamericanas [“The benefits of tourism in Latin American cities”], in “Turismo IN”, N° 42: Promperú. <https://www.promperu.gob.pe/turismo/Boletines/2018/feb/>. Accessed in September 2019.

⁴ UNWTO World Tourism Barometer 2019

⁵ A distinction should be made between “tourists” and “vacationers”. The notion of “tourists” covers all persons who come to the country and stay at least one night, regardless of the purpose of their visit (business, medical, vacation, family visit, etc.), whereas “vacationers” refers to those who arrive at the destination with the chief purpose of their travel being vacation, recreation or leisure. It is important to make this distinction since it is on the “vacationer” category that Promperú and other tourism promotion agencies focus and concentrate most of their promotional efforts.

⁶ PROMPERÚ. Gastronomic Study in Peru 2016.

aim of visiting Machu Picchu and the city of Cuzco, learning about Peruvian culture (history, historic sites) and visiting the city of Lima. Moreover, 93% of these tourists report having had a unique and memorable culinary experience, and 81% believe that food and drink help to better understand the local culture.

The importance of the tourism industry in Peru and its contribution to the development and promotion of Peruvian gastronomy is evident. Not only does food tourism generate jobs and economic activity in Peru, but these types of culinary experiences and traditions mentioned above help to preserve the favoring of locally-sourced products (localism), cultural identity and communities.

2.2 The importance of gastronomy

Over the past twenty years, Peruvian cuisine has exploded onto the culinary stage, which has made it gain international renown, and also bolstered it as a reflection of cultural identity and national pride among Peruvians. Gastronomy is a potential driver of sustainable and inclusive development and drives a value chain involving approximately six million people (including chefs, waitstaff, farmers, artisanal fisherfolk, transporters, merchants and tour operators)⁷.

The secret of Peru's gastronomy lies in the richness of its land (biodiversity), the amalgam of its cultures (cultural diversity) and its adaptation of millenia-old cultural traditions to modern culinary techniques. This makes Peruvian cuisine one of the main components of Peru's intangible heritage, considered to be essential to all Peruvians. Peru has an exquisite gastronomy which consists of unique flavours and a wide variety of dishes. In fact, the regions have more than one typical dish, many of which might share the same name, but have distinct regional characteristics on the basis of distinctive products or techniques used in their preparation.

Peruvian cuisine has been gaining international recognition for more than a decade, including through its being awarded the recognition of "cultural heritage of the Americas" by the Organization of American States (OAS) in 2011⁸. That same year, a Peruvian restaurant was

⁷ Valderrama, M. (2016). *¿Cuál es el futuro de la gastronomía peruana?* ["What is the future of Peruvian gastronomy?"] Lima: APEGA, p. 21+.

⁸ https://www.oas.org/es/centro_noticias/comunicado_prensa.asp?sCodigo=C-582/11. Accessed 27.12.2019.

included in “The World’s 50 Best Restaurants”⁹ for the first time, and two out of the three Peruvian restaurants currently in this ranking are in the top ten. In 2012, Peru was recognized as the best culinary destination in the world by the World Travel Awards¹⁰, a distinction which it has continued to earn every year since. In 2013, a list was established of “Latin America’s 50 Best Restaurants”¹¹, which included seven Peruvian restaurants. This list now includes 11 Peruvian restaurants, two of which are the highest ranked in the list. In 2016, Lima was included in National Geographic’s list of the “World’s top ten food destinations”¹² and also hosted the second World Forum on Gastronomy Tourism. In recent years, Peruvian chefs have started to gain international notoreity as being among the world’s top chefs base don their trajectory, progress and contributions.

In a survey of vacationers above the age of 18 visiting Peru from the United States, France, Colombia, Brazil, Argentina and Spain, conducted by PROMPERÚ in 2016 and 2017¹³, respondents cited *cebiche* (marinated fish) and *lomo saltado* (a beef stir-fry) as the dishes they had liked the most, while *anticucho* (meat skewers) and *causa* (a mashed potato terrine) had been the least in demand from a list of no more than 10 different typical Peruvian dishes. This is a key finding, reflecting the need to establish an adequate register of typical dishes, building on the offering of dishes and acquainting both locals and tourists alike with Peru’s wide array of dishes, as well as the other components of culinary traditions. Accordingly, cataloguing and registering these culinary traditions enables their protection through the appropriate legal tools, hence facilitating their subsequent promotion and dissemination via the relevant entities.

2.4 Methodology

The methodology used in this scoping study aims to obtain an overall, approximative view on how to bolster gastronomic tourism through IP, with a view to promoting IP use in Peru’s culinary traditions (food and beverages). Research was undertaken to raise awareness about relevant culinary traditions in selected regions of Peru, with a view to ensuring the correct application of intellectual property and its benefits in the food tourism industry.

This study involved the following steps:

⁹ In 2011, “The World’s 50 Best Restaurants” included Peruvian restaurant Astrid & Gastón, which ranked 42nd. <https://www.theguardian.com/lifeandstyle/2011/apr/18/worlds-50-best-restaurants-2011>. Accessed 27.12.2019.

¹⁰ <https://www.worldtravelawards.com/9winners/2012/world>

¹¹ <https://www.theworlds50best.com/latinamerica/en/previous-list/2013>. Accessed in November 2019.

¹² <https://rpp.pe/economia/economia/national-geographic-lima-entre-10-destinos-gastronomicos-mundiales-del-2016-noticia-931423>. Accessed in November 2019.

¹³ PROMPERÚ. Gastronomic Study in Peru 2016.

- Data compilation: Data was compiled from primary and secondary sources, the criteria and methodology were validated, and included the collection of culinary traditions from every region of Peru, giving priority to each region's most representative dishes.
- Data analysis: An analysis was made of the historic, socio-cultural, economic, environmental and legal aspects as well as aspects relating to reputation, influence and possible challenges that these present for the country.
- Field work: Interviews were conducted with stakeholders in the culinary tourism sector, including experts in Peruvian culinary research.
- Structure of the scoping study: A series of recommendations and proposals for implementation in a subsequent phase of the project were included.

CHAPTER III: ANALYSIS OF PERUVIAN GASTRONOMY

Peru has abundant flora and fauna that have been consumed since pre-Incan times. Some of the traditions from which have been maintained in Peru's food consumption habits today are the use of animal protein sources such as crustaceans and fish from rivers, lagunas and oceans, as well as partridges, ducks, ostriches and other birds. Some traditions have remained concentrated in certain communities, such as the consumption of larvae, caterpillars and ants; while others have been abandoned, such as the consumption of sea lions and fur seals¹⁴. Some of the vegetables, greens, tubers and grains which were consumed in ancient times are still eaten today. These include maize, porotos cayhua (a stuffing cucumber), potatoes, the arracacha root vegetable, and quinoa¹⁵, about which ancient Peruvians had considerable knowledge on their properties and adaptability to micro-climates and soil quality.

This age-old consumption reflects historic process behind Peruvian cuisine, which includes elements that are vital to the country's environment and the resources developed. In addition, as the Ministry of Culture notes, Peruvian cuisine also includes a space producing a peoples' culture, where there is a concentration of social practices, values and symbolic aspects in relation to how the culinary traditions are produced, traded, prepared and consumed¹⁶:

"In Peru, food practices are framed within a complex and dynamic symbolic, expressive and sensory system, while also turning into benchmarks of regional and national identity. This universe contains a series of derivative and identifiable expressions and elements, such as ancestral techniques and tools for the production and conservation of food, native ingredients, specific modes of preparation, distribution mechanisms, consumption contexts, social practices and social practices and expert uses. It is the combination of all of these elements, against the backdrop of historic and environmental processes which have occurred on the territory, that gives Peruvian cuisine its particular characteristics".

¹⁴ Antúnez, S. (1996). *Puede la dieta precolombina superar la malnutrición contemporánea* ["Can the pre-Columbian diet help overcome modern-day malnutrition?"]. In: *Cultura, Identidad y Cocina en el Perú* ["Culture, Identity and Cuisine in Peru"]. Lima: USMP, pp. 24 – 29.

¹⁵ *Ibid.* pp. 29 - 38.

¹⁶ Cánepa, G.; Hernández, M.; Biffi, V.; Zuleta, M.; Ministry of Culture. (2011). *Op. Cit.*, p. 18.

In this respect, the development of culinary traditions is linked to the transfer of knowledge on native inputs as well as on their production, preservation and adaptation, and the transfer of knowledge on food preparation and consumption, whether for home or business consumption or for festivities. This is also linked to consumers and their consumption habits, as part of rituals, festivities or celebrations.

This chapter provides an analysis of various aspects of Peruvian culinary traditions, which have their origins in Peru's pre-Inca and Inca civilizations, but are also a product of *mestizaje*, the adaptation of products and culinary influences from other parts of the world. As is well-known, Peruvian cuisine has been influenced by Spanish, Moorish (*morisca* and *mora*), African, Italian and Japanese cuisine.

Indeed, while the Peruvian cuisine that we know today maintains some of its original indigenous aspects, it is also a product of this *mestizaje* which began with the Spanish conquest. As Isabel Álvarez notes, "our national cuisine cannot be explained without *mestizaje*, (...) *Mestizaje* means fusion, blending, plurality and unity, all at once"¹⁷.

This social phenomenon and historic process means that Peruvian cuisine is not singular, but is as diverse as it is varied, and can have regional culinary characteristics.

Against this backdrop, *picanterías* and *chicherías* merit special mention, as these types of traditional restaurants contributed to the preservation of culinary traditions and are still found in various regions today. Both types of establishments serve *chicha de jora* (a fermented maize beverage) and *picantes* (small traditional dishes). According to researchers, these types of establishments date back to the early colonial period and join together the indigenous tradition of drinking *chicha de jora*, which is from the Americas, with business establishments brought by the Spaniards, giving rise to the first Andean forms of restaurants¹⁸.

The section below looks at the way the environment and the products used in Peruvian cuisine forge unique traditions. It also provides an analysis of the economic impact, influence and reputation of Peruvian gastronomy and its traditions, and outlines potential challenges.

¹⁷ Álvarez, I. (1996). *La Cocina Criolla* ["Creole Cuisine"]. In: *Cultura, Identidad y Cocina en el Perú* ["Culture, Identity and Cuisine in Peru"]. Lima: USMP, p. 272.

¹⁸ Llosa, E. (1996). *Comer en una Picantería Cusqueña* ["Eating in a *Picantería* in Cusco"]: *Cultura, Identidad y Cocina en el Perú* [Culture, Identity and Cuisine in Peru]. Lima: USMP, p. 15.

3.1 The environment and products

The renowned scholar with a doctorate in Natural Sciences, Antonio Brack Egg, through his book, *Ecología del Perú*, defines the environment as “the external world surrounding all living beings and which defines their existence”¹⁹.

Therefore, a cuisine is defined by the resources surrounding human beings, who turn these resources into inputs for use in the preparation of various dishes which, over an extended period of time, become culinary traditions.

As mentioned above, Peru is considered to be among the ten mega-diverse countries. Peru harbours 28 of the planet’s 32 climate types and 84 of its 117 life zones, which are defining characteristics influencing Peru’s various cuisines.

Peru is divided into 24 regions and one constitutional province. Peru is traditionally divided into three geographical regions: the coast (*costa*), the highlands (*sierra*) and the jungle (*selva*). The coastal region stretches along the Pacific Ocean, and consists chiefly of plains; the highlands region is marked by the Andes mountain range; and the jungle region is marked by forests and high-flow rivers. The geographer, Javier Pulgar Vidal, however, in his 1938 dissertation²⁰, subsequently divided Peru geographically by its altitude ranges, as well as by its flora and fauna, as follows²¹:

Figure 3.1.1 Geographical divisions

¹⁹ Brack, A. and Mendiola, C. (2010). *Ecología del Perú* [“The Ecology of Peru”], 3rd edition. Lima: Asociación Editorial Bruño, p. 8.

²⁰ https://es.wikipedia.org/wiki/Javier_Pulgar_Vidal. Accessed in September 2019.

²¹ Pulgar, J. (2014). *Geografía del Perú. Las ocho regiones naturales* [“Geography of Peru. The Eight Natural Regions”], 12th edition. Lima: Nicole Bernex Weiss.



Source: PROMPERÚ

The above geographical divisions of the Andean region developed by Pulgar Vidal recognize that topography and climate influence a region's particular characteristics, which give rise to the development of specific flora and fauna. The flora and fauna of each region is summarized in the table below (2014):

Table 3.1.1

Region	Flora	Fauna
Chala (plain) or coast (0 – 500 m a.s.l.)	Olive trees, grape vines, mangroves and plantains.	Anchovy, grouper, sardines, mackerel, bonito, lisa, shrimp, crayfish, concha negra (black clam), calamari, octopus, mussels, palabritas (surf clam), scallops, squid and barnacles.
Yunga (500 – 2,300 m a.s.l.)	Reed, tara, agave, huarango, boliche, retama, molle and pitajaya. Fruit trees and shrubs: avocado, lúcuma (eggfruit), chirimoya (custard apple), guava and plum.	Doves, tórtola birds, hummingbirds, centipedes, snakes, vipers, lizards, chaucato birds, taurigaray birds, tigrillos (tiger cats), foxes, vizcachas, spectacled bears, pumas.
Quechua (2,300 – 3,500 m a.s.l.)	Arracacha (root vegetable), yacon (tuber), ñuña or fíjol reventón (common bean), pashullo, maize (more than 100 varieties), pumpkin, passion fruit, tomatoes, papaya and the tuna rayuela fruit.	Vizcachas, hawks, sheep, camelids.
Suni (3,500 – 4,000 m a.s.l.)	Sauco, cantuta, cola de zorro, wiñay-wayna, quinoa, cañihua, tarwi beans, oca and olluco.	Zorzal negro (bird), allagay, cuy (Peruvian guinea pig).

Jalca or Puna (grasslands) (4,000 – 4,800 m a.s.l.)	Ichu (main livestock feed), potato amarga or mashua (bitter potato), barley.	Llamas, alpacas.
Janca or Cordillera (mountain chain) (4,800 – 6,768 m a.s.l.)	Moss, lichens.	Condors.
Selva alta or Rupa (upper jungle) (400 to 1,000 m a.s.l.) in the eastern Andes	Quina or cascarilla (cinchona, national tree), ojé, barbasco, palo balsa, cinnamon, mohena.	Gaillto de las rocas or tunqui (Andean cock-of-the-rock), otorongo (jaguar), sajino (collared peccary), guacamayos (macaws), snakes, caimans, tortuga motelo (tortoise).
Selva baja or Omagua (lower jungle) (83 to 400 m a.s.l.)	Mahogany, cedar (has the finest wood), tornillo, lupuna (highest tree in Peru), aguaje palm, chuchuhuasi.	Same fauna as in the “Selva alta” (upper jungle), plus anacondas and paiche fish.

Prepared by the authors.

Brack Egg also proposed a geographical division which highlights the significant influence of the Andes mountain range in determining Peru’s geographical heterogeneity, as well as the influence of the Peruvian or Humboldt Current and the El Niño Current on the rich diversity of life in the Peruvian sea²². These geographical features also influence human beings’ development of “the knowledge and technology relating to each geographical reality, as well as each region’s domestication of plants and animals”²³.

By contrast to Pulgar Vidal, Brack identified 11 eco-regions, each covering a geographical area of shared climate, soil, water, flora and fauna characteristics.

Table 3.1.2

Eco-region	Location	Flora	Fauna
Cold Sea of the Peruvian Current	Eastern Pacific, spanning 100 miles	Phytoplankton, algae	Zooplankton, marine otters, birds (albatross, petrels, swallows, piquero booby, penguins), 600 fish species (including the anchovy, pejerrey (atherine), sardine, bonito, jurel (horse mackerel), cojinova (silverside fish), machete,

²² Brack, A and Mendiola, C. (2010). *Op. Cit.*, p. 84.

²³ *Ibid*, p. 86.

			lorna, lisa, corvina (sea bass), robalo (snook), chamaco (red fish), chita (grunt fish), sole, tollos (shark) and stingrays, crayfish, octopus, mussels, urchins, sea lions, cuttlefish.
Tropical Sea	Marine area stretching northward from 5° S. latitude to Baja California (Mexico)	Phytoplankton, mangroves	Bonito shark, flying fish, dorado, yellowfin tuna, bigeye tuna, skipjack tuna, swordfish, black marlin, blue marlin, bullhead shark, lobster, conch, stingrays, crayfish, black clams, oysters; birds (giant petrel, cape petrel, frigatebird, tropic birds, coots, herons); largartijas de playa (iguanas), vultures, condors, osprey, the sechura desert fox, crocodile, oso manglero (crab-eating raccoon), anteater.
Pacific Coast Desert	Coastal area (from 5° to 27° S. latitude) of varying width, with altitudes rising to 1,000 m a.s.l.	Cacti, amancaes, tara, palillo turmeric, huarango.	Opossums, bats, mice, vizcachas; birds (more than 70 species), river shrimp.
Equatorial Dry Forest	Coastal beltway 100 to 150 km wide, covering the departments of Tumbes, Piura, Lambayeque and La Libertad, and stretching from 7° S. latitude on the Eastern slopes and the dry portion of Marañón valley to 9° S. latitude.	Dry forest, sapote, hualtaco, ceibo, palo santo, faique, carob, papelillo, caña brava.	Anteaters, venado gris (type of deer), ardilla de nuca blanca (type of squirrel), iguanas, pacaso (green iguana), chilalo bird, pava aliblanca (white-winged guan), crayfish, shrimp, toads.
Pacific Tropical Forest	From northern Peru to Central America, nestled in the Tumbes department (El Caucho).	Dense tropical forest, orchids, bromelias, lianas.	Jaguar, ocelot, primates, venado colorado (type of deer), tigrillo (tiger cats), sajino (collared peccary), armadillos, boas, pumas, sechura desert fox, more than 380 bird species.

Highland Steppes	Western Andean slopes, from the department of La Libertad (7° S. latitude) to northern Chile (1,000 – 3,800 m a.s.l.).	Cacti, alder, chocho (tarwi beans).	Woodpeckers, cotorra de wagler parakeet, urcututu owl, partridge, torcaza pigeon, colivioleta garganta verde (violet-tailed bird), tijeral (spinetail bird), guanaco, blackbird, amphibians, kingfisher.
High Andean Plain (Puna grasslands)	Above 3,500 – 3,800 m a.s.l., from Cajamarca, south of the Porculla pass, to Chile and Argentina.	Pajonal grassland, keuña or quinoal trees, puya raimondi plant.	Pichisamca, tórtola cordillerana dove, aguilucho cordillerano hawk, giant hummingbird, cernícalo (kestrel), vicuñas, vizcachas, suri alpaca, taruca, serrana partridge, trout, pejerrey (atherine), ismis, snails, conch.
Páramo (high plateau)	From Venezuela to northern Peru, north of the Porculla pass, in the Andes, starting from 3500 m a.s.l.	Frailejón plant.	Tapir, wild rabbit, venado colorado del páramo (type of deer), sachacabra (brocket deer), shrew.
High Jungle	Eastern slopes of the Andes. In the north, it extends to both sides of the Marañón river valley and through the Pacific watersheds of Piura, Lambayeque and Cajamarca.	Orchids, aroids, bromelias, ferns, moss, lichens, fig trees, jacaranda, tuna (prickly pear fruit) and the cochineal.	Centipedes, snails, blackbirds, gralaria wading birds, crowned hummingbirds, guacamayo rojo (red macaw), spectacled bear, porcupine, skunk, mono choro (woolly monkey), marsupial cuatro ojos (gray four-eyed oposum), relojero (highland motmot bird), pilco (black-tailed trogon bird), king vulture, picaflor admirable hummingbird, Andean cock-of-the-rock.
Low Jungle (tropical Amazonian rainforest)	The country's largest eco-region, which includes the Amazon, below 800 m a.s.l.	Palm trees, aguaje palm, Guadua bamboo, paca, mahogany, cedar, tornillo, lupuna. More than 65,000 plants (including medicinal plants).	At least 5 million species, including the majaz (paca), tapir, sajino (collared peccary), red deer, jaguar, armadillo, trompetero bird, monkeys and paiche fish.

Palm Tree Savannah	Strictly in the Heath river plains, in Madre de Dios.	Aguaje palm, açai palm, ungurahua palm.	Marsh deer and the maned wolf.
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Prepared by the authors.

This plethora of regions, eco-regions and geographical areas make Peru an exceptional destination, brimming with resources that elevate the value of Peruvian cuisine and the kind of tourism the country can offer. These resources have been used since time immemorial, and as Isabel Álvarez states: *“a region’s cuisine and biodiversity must be understood as part and parcel of an indivisible unit”*²⁴.

While the natural resources of Peru’s biodiversity are a component of its cuisine, it is also the use of these resources that forges the country’s identity, converting these inputs, the way these are prepared and consumption habits into traditions, which are then passed down from one generation to the next. Hence, the Arca del Gusto en Peru, [The Ark of Taste in Peru], published by Slow Food²⁵ (2017, p. 16) underscores the link between biodiversity, land and local communities for building cultural identity and local gastronomy. As is well known, there are traditions that must be protected in order to give meaning to identity.

It should be noted that because Peru includes a part of Andean territory, it is recognized as one of the world centers of origin of domestication as identified by Nikolai Vavilov, according to whom “the majority of these centers had been interacting and trading domesticated species since prehistoric times, with the exception of the American center, which comprises two sub-centers: the Andean and the Mesoamerican centers”²⁶. This is yet more evidence of the importance of the resources existing in Peru and which make the country the world’s food pantry. This includes products that have marked a turning point in world history, such as the potato²⁷:

²⁴ Álvarez, I. (2017). *Reflexiones sobre turismo y cocinas del Perú*. [“Reflections on tourism and the cuisines of Peru”]. Lima: Promperú, p.16.

²⁵ Slow Food (2017). *El Arca del Gusto en Perú. Productos, Saberes e Historias del Patrimonio Gastronómico* [“The Ark of Taste in Peru: products, knowledge and history of the gastronomic heritage”], Lima: Ed. Dauro Mattia Zocchi, p.16.

²⁶ Salaverry, O. (2012). *La Comida en el Antiguo Perú. Haku mikumusum (vamos a comer!)* [“Food in Ancient Peru: Haku mikumusum (let’s eat!)”]. In: Historia de la Salud Pública [“History of Public Health”].

<https://rpmesp.ins.gob.pe/index.php/rpmesp/rt/printerFriendly/379/2498>. Accessed in October 2019.

²⁷ Brack, A. and Mendiola, C. *Op. cit.*, p. 35.

“The potato is Peru’s most significant contribution to the world’s food and one of humankind’s four essential food crops, together with maize, rice and wheat. About 325 million tons of potatoes are grown annually worldwide. It is imposible today to imagine Europe, North America or a part of Asia without this food”.

In addition, according to the Ministry of Agriculture of Peru:

“Peru has a high level of genetic diversity because it is one of the world’s most significant centers of plant and animal genetic resources. It is the leading country in varieties of potatoes, peppers, maize (36 species), Andean grains, tubers and root vegetables. It has a large number of species of fruit (650), cucurbits (squash) and medicinal, ornamental and food plants (787 especies).

It has 128 species of native domestic plants with hundreds of varieties as well as wild species (approximately 150 wild species of potatoes and 15 of tomatoes).

Peru possesses high genetic diversity of two (potato and maize) of the four most important crops for human consumption in the world (wheat, rice, potatoes and maize). It has 4,400 native plant species with known uses, including species that have nutritional (782), medicinal (1,300) and ornamental (1,600) properties, as well as aromatic, cosmetic and tinctorial qualities.

*Peru has five types of domesticated animals: alpacas, domesticated versions of vicuñas (*Lama vicugna*); llamas, domesticated versions of guanacos (*Lama guanicoe*); “cuys”, domesticated versions of mountain guinea pigs (*Cavia tschudii*); “patos criollos” (Muscovy ducks), domestic versions of the Amazonian duck (*Cairina moschata*).*

The Peruvian Andes make up a large share of the world’s largest diversity centers. Diversity centers are genetic resource sites of highly diverse crops, characterized by a long agricultural history and ecological and cultural diversity. The Andean region’s striking geographical contrasts make it a significant crop origin and domestication center. Farmers work vertically along the various ecological levels, in a range of micro-climates. Maintaining crop fields at different altitudes and in different environmental conditions has helped to develop a broad range of highly adaptable crop varieties” (InSitu Project)²⁸

²⁸<http://minagri.gob.pe/portal/objetivos/47-sector-agrario/recurso-biodiversidad/347-diversidad-genetica>. Accessed 12.12.2019.

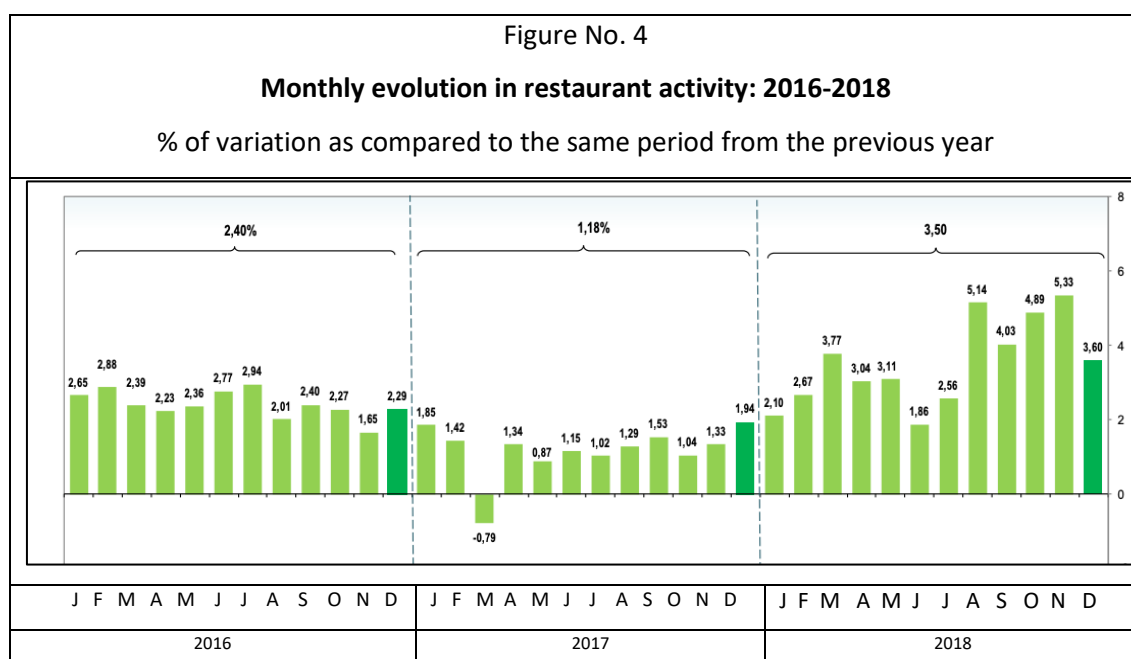
3.2 Economic Analysis

While economic data on the gastronomic sector is sparse, in the context of this study, existing data was collected from various entities and bibliographic data.

In 2018, Peru's gross domestic product amounted to 534,695,194 thousand soles, with the hotel and restaurant sector accounting for 16,789,000 thousand soles, or 3% of total GDP. It should be noted, however, that gastronomy extends beyond the restaurant sector, as is discussed in greater detail below.

The National Institute of Statistics and Information of Peru (INEI) carries out a monthly survey of services covering shops, restaurants and services to enterprises²⁹. This statistical survey provides a snapshot of restaurant activity and reflects sustained growth in the restaurant sector starting in April 2017.

Figure 3.2.1 Monthly evolution in restaurant activity



Source: INEI³⁰

²⁹ The target population for this restaurant survey was legally-established businesses with food and beverage services as their primary activity.

Division 56 (food and beverage service activities) of the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4 (ISIC, Rev. 4) covers the following: 5610, Restaurants and mobile food service activities; 5621, Event catering; 5629, Other food service activities; 5630, Beverage serving activities).

It collects data from these businesses, through a self-assessment in electronic form available on the INEI website.

³⁰ <https://www.inei.gob.pe/media/MenuRecursivo/boletines/boletin-estadistico-del-sector-servicios-n-02-febrero-2019-1ra-correccion.pdf>

It should be noted that this positive trend can be explained by an increase in three of the four components of restaurant activity:

Table 3.2.1

Component	Increase*	Note
Group of restaurants	3.8%	This includes chicken rotisseries (<i>pollerías</i>) establishments, fast food eateries, Creole food eateries, restaurants, ice-cream parlors and seafood restaurants specializing in ceviche (<i>cevicherías</i>). A contributing factor was the organization of events such as the food fairs “Peru, mucho gusto, Tumbes”, “Lo mejor de mi tierra” Huaral 2018, “Cómprale al Vraem” in Ayacucho, the first iteration of the “Feria 100% Vraem”, “Navidad Vegana” and “Dulce Navidad” festival in Lima.
Other food service activities	6.74%	Food concessionaries: Large food catering contracts for cafeterias in health facilities, sports centers, shopping malls, industrial and mining companies and financial institutions.
Beverage service activities	2.35%	Bars, coffee shops, dance clubs and juice bars.
Catering services	-4.03%	Smaller catering contracts for the preparation and distribution of food services at events.

*Increase reported in December 2018.

It should also be noted that, according to the Ministry of Foreign Trade and Tourism (MINCETUR), there is a partial registry of the restaurants of in different cities across the country, citing 3,939 establishments, including 169 categorized restaurants, and 3,770 uncategorized restaurants.

Table 3.2.2

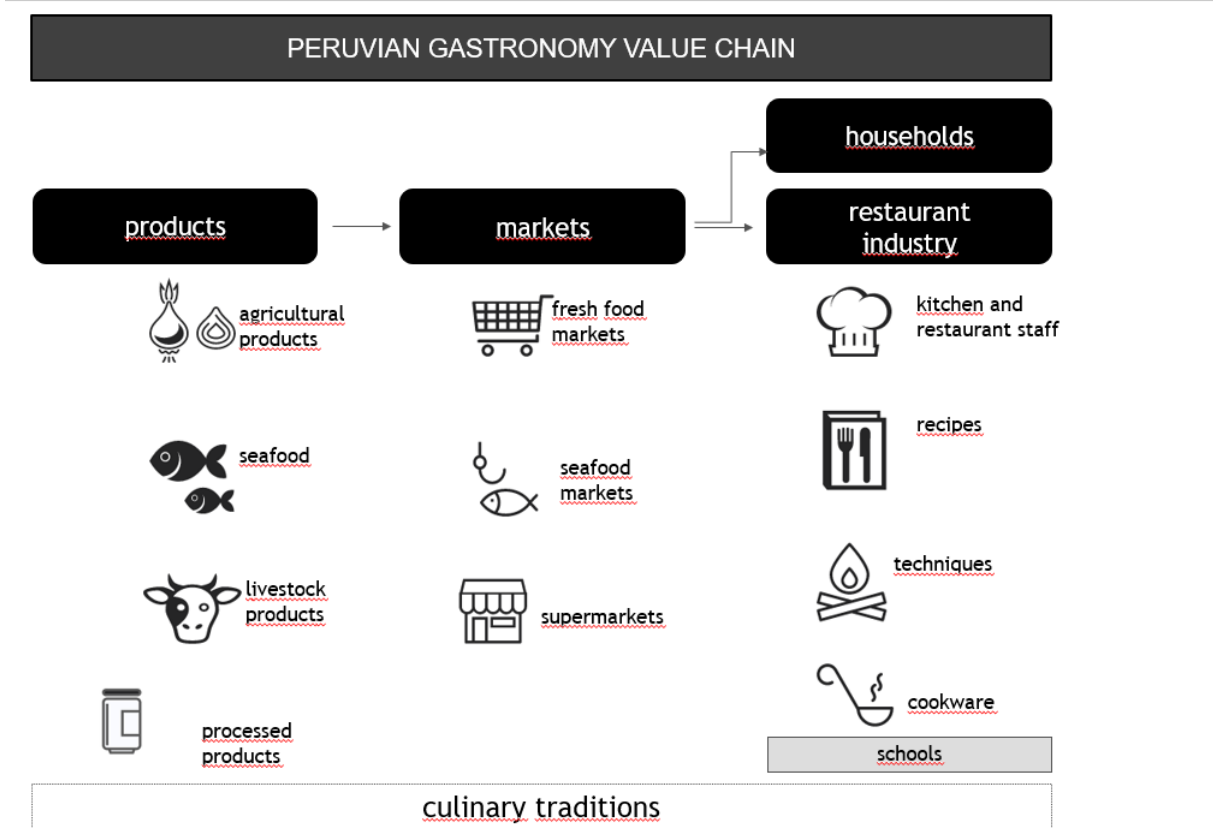
Category by “fork rating”	Number of establishments	Number of tables	Number of seats
One fork	18	361	1,379
Two forks	38	855	3,262
Three forks	15	392	1,652
Four forks	2	49	228

Five forks	3	52	208
Three tourist forks	9	215	860
Five tourist forks	84	1240	4,956
Uncategorized (presented sworn statement)	3,770	32,980	127,890
Total	3,939	36,144	140,435

Source: MINCETUR, Statistic System of the Regions, "SET Regiones 2017".

It should be noted that gastronomic activity extends beyond food and beverage services, and includes agro-industry, fishing, processed products, food markets, fish markets and supermarkets, as well as educational activity, which covers not only schools for chefs, but also for wait staff, as well as the manufacturing and sale of cookware. In addition, gastronomic activity also includes the very culinary traditions which are in turn composed of recipes, techniques, utensils and other know-how.

Figure 3.2.2



Prepared by the authors.

4.2.1 Agriculture and livestock products

Agriculture and livestock are a component of the value chain and also help to forge culinary traditions since the farmers themselves influence resource preservation and production, and are hence the custodians of the knowledge behind culinary traditions.

Ancient Peruvians are known to have been very knowledgeable about the properties of different resources, as reflected in Santiago Antúnez de Mayolo's observations on Incas' mastery of their diet, noting specifically that "their stews, the domestication of their plants, the wide range of their crops were not merely the result of the use of natural resources, but a consequence of their seeking out and making use of the healthiest options in relation to the activities they needed to undertake"³¹. This is an important factor in ancient Peruvians' domestication and preservation of resources.

Today, Peruvian gastronomy is making an impact both nationally and internationally. Not only has it become a source of national pride and social cohesion, but it has also driven economic growth, sectoral development, entrepreneurship and innovation in the country. This has helped to raise the profile of farmers as key drivers in the development of Peruvian gastronomy. That is why it is important to observe this sector's performance.

The agriculture and livestock sector accounted for 6% of the GDP of Peru in 2018, or 28,495,000 thousand soles, and according to statistics from the Ministry of Agriculture, the sector generates millions of soles. The table below shows the growth of agricultural and livestock production by product group in 2015 and 2016.

³¹ Antúnez, S. (1996). *Op. Cit.*, p. 22

Figure 3.2.1.1

C.1 PERÚ: VALOR BRUTO DE LA PRODUCCIÓN AGROPECUARIA POR GRUPOS DE PRODUCTOS SEGÚN AÑO, 2015-2016 (millones de soles a precios 2007)					
GRUPO	2015	2016	Var. % 2016/2015	Aporte p.p. 2016	Aporte % 2016
SECTOR AGROPECUARIO	31,646	32,273	2.0	2.0	100.0
PRODUCTOS DE LA AGRICULTURA, HORTICULTURA Y JARDINERÍA COMERCIAL	19,150	19,272	0.6	0.4	59.7
Cereales	4,383	4,155	-5.2	-0.7	12.9
Hortalizas	2,871	2,851	-0.7	0.1	8.8
Frutas y nueces	3,536	3,866	9.3	1.1	12.0
Semillas aceiteras y frutos oleaginosos	324	378	16.8	0.2	1.2
Raíces y tubérculos comestibles con alto contenido en almidón o inulina	2,877	2,754	-4.3	0.4	8.5
Cultivos estimulantes, de especias y aromáticos	1,810	2,070	14.4	0.9	6.4
Legumbres (hortalizas leguminosas secas)	453	429	-5.3	-0.1	1.3
Cultivos de azúcar	762	731	-4.1	-0.1	2.3
Productos de forraj, fibras, plantas vivas, flores y capullos de flores, tabaco en rama, y caucho natural	2,134	2,037	-4.5	0.3	6.3
ANIMALES VIVOS Y PRODUCTOS DE ANIMALES (EXCEPTO LA CARNE)	12,486	12,991	4.0	1.7	40.3
Animales vivos	9,587	10,001	4.3	1.4	31.0
Leche cruda	1,582	1,624	2.7	0.1	5.0
Huevos de gallina u otras aves, con cáscara, frescos	1,193	1,239	3.8	0.1	3.8
Otros productos de animales	124	127	2.5	0.0	0.4
PRODUCTOS FORESTALES Y DE LA TALA¹	10	11	7.4	0.0	0.0
Productos forestales no madereros	10	11	7.4	0.0	0.0

¹ Sólo productos de cultivos o crías
Fuente: SIA

3.2.2 Food markets

According to the most recent national food market census conducted by the National Institute of Statistics and Information of Peru (INEI)³², in Peru, there are 2,612 food markets, including 44 wholesale markets and 2,568 retail markets.

Figure 3.2.2.1

Number of food markets by type and geographical area, 2016				
Market type	National total		Area	
	No.	%	urban	rural
Wholesale	44	2%	41	3
Retail*	2,568	98%	2,253	315
Total	2,612	100%	2,294	318

Note:(*) These include mixed markets (retail and wholesale)
Source: National Food Market Census 2016
Prepared by the Office of Economic Studies (PRODUCE)

Food markets have created approximately 9,000 jobs, growing by 138% over the past 20 or so years, since the last recorded data date back to 1996, at which time this sector was reported to have a total of 1,097 jobs. It should be noted that, with respect to spending on food products,

³² Data from the national food market census 2016 conducted by INEI.
https://www.inei.gov.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1448/libro.pdf

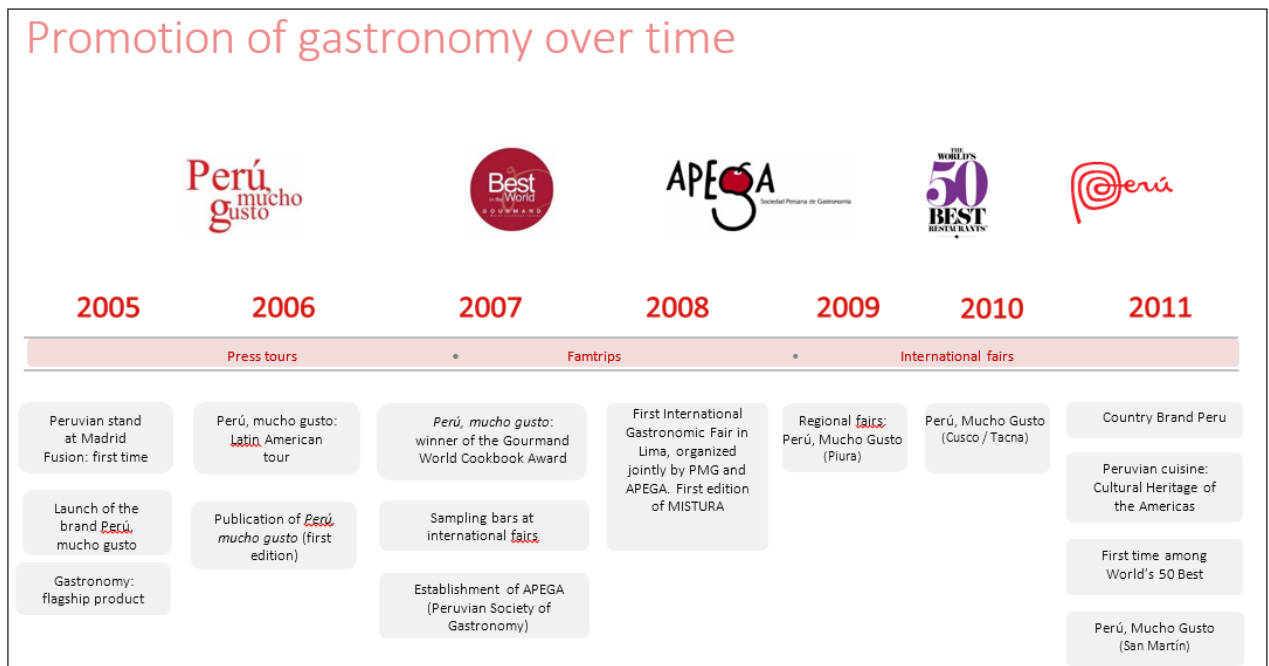
according to the national household survey for 2016, conducted by INEI, 76.3% of household spending went to food markets (wholesale and retail), street vendors and grocery stores, while the remaining 23.7% was spent in specialized shops, supermarkets or other³³.

In relation to the regions selected for this study: There are 63 food markets in Lambayeque; 1,232 in Lima; 118 in Arequipa; 44 in Tacna; 72 in Cuzco; and 32 in Loreto 32. (See Annex 4).

3.3 Reputation and influence

Gastronomy is one of the key sectors helping to raise the country’s profile. This sector has been gaining traction since 2005, when Peru first participated in the Madrid Fusión³⁴ food fair, where there was an exclusive stand for the promotion of Peruvian cuisine. Since then, PROMPERÚ has been developing various strategies and activities to promote Peruvian cuisine. The tables below highlight the outreach efforts undertaken from 2005-2018:

Figure 3.3.1



³³ https://andina.pe/agencia/noticia-existen-2612-mercados-abastos-peru-generan-mas-9000-empleos-670746.aspx?fbclid=IwAR0jiU_iXOknqcwWLnC7rMdTn9tXH4yfcSKCOCOvrSz2_thQ3b0y_sg0ygm. Accessed in November 2019.

³⁴ Madrid Fusión is a gastronomy fair that has been organized yearly since 2002. It is organized by the SLU debate forum, and was created as a platform for sharing the latest modern cooking trends among chefs and gastronomy professionals from around the world, and as a forum for learning and exchange of know-how at all levels. More information can be found here: <https://www.madridfusion.net/es/>

Figure 3.3.2



Source: PROMPERÚ

It should be noted that different strategies and activities have been adopted at the national and international levels: Within Peru, the aim was to bolster a sense of national identity and pride through Peruvian cuisine, while Peru's international outreach efforts aim to strengthen the country's image as having a rich history and culture and a wealth of resources, with Peruvian gastronomy as the common denominator pooling these attributes together. The main initiatives undertaken to strengthen Peru's image domestically and internationally are highlighted below.

3.3.1 National initiatives

The relevant Peruvian cultural institutions have recognized various traditions as forming part of the country's cultural heritage, highlighting certain aspects of Peruvian gastronomy and directly influencing the promotion of this gastronomy. Efforts to promote Peruvian gastronomy have enhanced the recognition of various dishes and ingredients alike, strengthening a sense of Peruvian belonging and identity, which in turn helps to project its gastronomy outside the country.

The recommendations include:

- **Pisco:** In 1988, the National Institute of Culture of Peru (INC)³⁵, by its administrative decree No. 179-88/INC-J recognized pisco as a part of Peru’s cultural heritage, which led to the development of Peru’s first appellation of origin. This recognition was signed into law (Law 30639) in 2017. In addition, the Industrial Property Directorate of the Institute of Industrial Technology Research and Technical Standards of Peru (ITINTEC), by its decree No. 072087-DIPI of 12 December 1990, declared “pisco” to be a Peruvian appellation of origin, applying to the products obtained by distilling the must resulting from the fermentation of mature grapes exclusively, prepared in the coastal areas of the administrative departments of Lima, Ica, Arequipa, Moquegua and in the valleys of Locumba, Sama and Caplina in the Tacna administrative department.³⁶
- **Picantería Arequipeña:** The Ministry of Culture of Peru, through its Vice-ministerial decree No. 033-2014-VMPCIC-MC, 2014, recognized “picantería arequipeña” as a space for the preparation and sale of typical foods and beverages from the Arequipa region, and a space for interaction among villagers of different social classes. This decree recognizes that this type of space dates back to the colonial period, before which, in pre-Hispanic times, these eating and gathering spaces were known as “qatus”. These places have preserved modes of preparing food that have been lost in other home cooking spaces, hence becoming a significant sanctuary of local memory³⁷.
- **Picanterías and chicherías of the Lambayeque, La Libertad, Cuzco, Piura and Tumbes regions:** In 2015, the Ministry of Culture of Peru, through Vice-ministerial decrees Nos. 156-2015-VMPCIC-MC, 157-2015-VMPCIC-MC, 158-2015-VMPCIC-MC, 159-2015-VMPCIC-MC and 160-2015-VMPCIC-MC³⁸, recognized picanterías and chicherías as spaces where a great amount of traditional culinary knowledge has been transmitted, helping to bolster regional cuisine and to reaffirm Peruvian cultural identity and help promote Peruvian cultural events. In these establishments, women play a key role in transmitting traditional culinary knowledge, helping to build social bonds and cultural identity. Picanterías and chicherías distinguish themselves from other types of establishments in that they specialize in the sale and consumption of traditional dishes

³⁵ Replaced by the Ministry of Culture.

³⁶ https://www.indecopi.gob.pe/documents/20195/199774/1+R01_072087-1990.pdf/8db2cb10-6961-49e3-b4da-2139e306747c

³⁷ <https://www.gob.pe/institucion/cultura/normas-legales/204709-033-2014-vmpticic-mc>.

Accessed 28 August 2019.

³⁸ <https://www.gob.pe/institucion/cultura/noticias/47537-declaran-las-picanterias-y-chicherias-de-las-regiones-lambayeque-la-libertad-cusco-piura-y-tumbes-como-patrimonio-cultural-de-la-nacion> . Accessed 28 de agosto de 2019.

seasoned with different varieties of chili peppers and in which *chicha* (a beverage made from maize) plays a central and vital role.

- The system for producing Shacta, a sugarcane liquor from Huánuco: the Ministry of Culture, through Vice-ministerial decree No. 079-2016-VMPCIC-MC³⁹, recognizes that this system involves specific, traditional knowledge, know-how, techniques and practices. The end product, known as shacta, which dates back to the vice-royalty, remains an identity marker for the people of Huánuco to this day.
- Technique used to dry Peruvian anchoveta in the country's central coast: the Ministry of Culture, through Vice-ministerial decree No. 126-2016-VMPCIC-MC⁴⁰, recognized the ancestral technique used to dry Peruvian anchoveta (anchovy) as a cultural expression which involves particular know-how, practices and knowledge that combine the activity of artisanal fishing, the ancestral food preservation practice of salting and sun-drying and people's eating habits. Currently, the Peruvian anchoveta is part of the coastal population's diet, especially in Caleta de Carquín, in the administrative department of Lima, where it is the main ingredient in the typical dish called "Charquicán", the adjective for the inhabitants of Carquín:
- Traditional fishing with artesanal sailboats in Cabo Blanco and El Ñuro: the Ministry of Culture, through Vice-ministerial decree No. 117-2018-VMPCIC-MC⁴¹, recognizes this type of fishing with a view to conferring recognition and added value to this type of fishing, which is also selective and sustainable. This decree also recognizes the communities which have been transmitting this type of fishing from generation to generation.
- "Sebiche", a traditional dish of Peru: The National Institute of Culture, through its national decree No. 241/INC⁴² of 23 March 2004, recognizes this dish which is generally eaten throughout Peru as part of Peru's national cultural heritage, with a historical reference: it sets out that, during the time of the Conquest, information was collected indicating that "they eat raw fish and meat" on the coast, and citing "Gualquen" as a raw fish stew. This custom was also prominent near Lake Titicaca and its tributary rivers in the 17th century. Over time, this indigenous dish became known as "Sei-vech", and

³⁹ <https://www.gob.pe/institucion/cultura/normas-legales/204330-079-2016-vmptic-mc>. Accessed 28 de agosto de 2019.

⁴⁰ <https://www.gob.pe/institucion/cultura/normas-legales/204284-126-2016-vmptic-mc>. Accessed 28 de agosto de 2019.

WIPO FOR OFFICIAL USE ONLY

⁴¹ <https://www.gob.pe/institucion/cultura/noticias/17593-la-pesca-tradicional-con-veleros-artesanales-en-cabo-blanco-y-el-nuro-ya-es-patrimonio-cultural-de-la-nacion>. Accessed 28 de agosto de 2019.

⁴² http://administrativos.cultura.gob.pe/intranet/dpcn/anexos/15_1.pdf?4965218. Accessed 28 de agosto de 2019.

then as “seviche”, after a dish by the same name which is marinated in citrus juice and was brought to Peru by Moorish women. It then came to be known as “sebiche”, which has become Peru’s quintessential national dish, enjoyed in all three regions of Peru.

- “Faena colectiva ritual Yarqa Aspiy de Carcosi – Huancavelica”: the Ministry of Culture, through Vice-ministerial decree No. 104-2019-VMPCIC-MC⁴³, recognizes this as an ancestral form of organizing communal labor (faena). Its structure, which is based on duality and ritual, reflects a particular conception of the world, and also ensures efficient and sustainable water management.
- Knowledge, know-how and uses relating to the basketwork of the village of Ese Eja, Esipi Ese Ejaja or Ese Ejaja Esipi in the administrative department of Madre de Dios: the Ministry of Culture, through its Vice-ministerial decree No. 046-2018-VMPCIC-MC⁴⁴, recognizes this know-how as an art reflecting the ties between this people and its ancestral land, together with its sustainable use and management of plant species.
- Qhasqa de Taya is a ceremonial cycle integrated into the productive calendar in Lluta district in the Caylloma province of Arequipa: the Ministry of Culture, through its Vice-ministerial decree No. 077-2019-VMPCIC-MC⁴⁵, recognizes Qhasqa de Taya as a space which reproduces the cosmovision and memory, and transmits the knowledge and system of traditional authorities of Taya. It is also recognized as fostering cooperative work efforts, the social management of natural resources, reciprocity within a community and continuity in rituals worshipping Mother Earth.
- "Sequia Pitsé" cleaning of the canals of the Raquia community, Ancash: The Ministry of Culture, through its Vice-ministerial decree No. 236-2017-VMPCIC-MC⁴⁶, recognizes “Sequia Pitsé” as an annual tradition in which members of the Raquia community organize the cleaning of canals. This is done in a celebratory manner following rituals, reflecting the significance of this age-old system in local agricultural production. This set of values, know-how and practices relating to the efficient use of water and respect for the environment remain relevant today.
- Qhashwa de Checca, in the Checca district of Canas province, administrative department of Cuzco: The Ministry of Culture, through its Vice-ministerial decree No.

⁴³ <https://www.gob.pe/institucion/cultura/normas-legales/281858-104-2019-vmpticic-mc>. Accessed octubre de 2019.

⁴⁴ <https://www.gob.pe/institucion/cultura/normas-legales/203974-046-2018-vmpticic-mc>. Accessed 28 de agosto de 2019.

⁴⁵ <https://www.gob.pe/institucion/cultura/normas-legales/276419-077-2019-vmpticic-mc>. Accessed 28 de agosto de 2019.

⁴⁶ <https://www.gob.pe/institucion/cultura/normas-legales/204023-236-2017-vmpticic-mc>. Accessed 28 de agosto de 2019.

191-2018-VMPCIC-MC⁴⁷, recognizes Qhashwa de Checca as an expression closely linked to the local rituals performed in various celebrations and festivities, whereby members of a community worship nature as a means to reaffirm the continuity of their social bonds and ties to the sacred. This practice is meant to foster the reproduction of herds, harvests and rains.

All of the above have influenced the country's culinary memory and have strengthened the reputation of Peruvian gastronomy and traditions, linking this to Peruvian identity, influence and outreach, both within and outside the country.

3.3.1.1 Mistura

The Mistura food festival has also served as a means to build the reputation and influence of Peruvian cuisine, and hence, that of its culinary traditions.

This international Mistura food festival has become emblematic in Peru over the past ten consecutive years. It was first organized in 2008, under the slogan, "Peru, mucho gusto", set out by PROMPERÚ. From its second iteration onwards, the event became known as "Mistura", which soon became a lovetable, generating business, including the creation and expansion of business. Not only did Mistura become the largest food festival in Latin America, but it also anchored itself as part of Peruvian culture and identity.

Mistura was organized by the the Peruvian Gastronomy Association (APEGA), a private, non-profit entity which has promoted Peruvian gastronomy through an inclusive approach that brings together various public and private national and international stakeholders. The aim of APEGA is to promote gastronomy as a driver of identity and sustainable, decentralized and inclusive development. APEGA notes that "*Gastronomy has the potential to forge a new vision of Peru through a bottom-up development approach that promotes equality and inclusion by empowering small local initiatives and generating more jobs than other economic sectors*".⁴⁸

Participation in Mistura grew from approximately 28,000 persons at its first iteration in 2008, to nearly 400,000 persons in 2016 and approximately 300,000 persons in 2017. The event has not

⁴⁷ <https://www.gob.pe/institucion/cultura/normas-legales/211920-191-2018-vmptic-mc>. Accessed 28 de agosto de 2019.

⁴⁸ Valderrama, M. (2016). *Op. Cit.*, p. 15.

taken place since. According to conversations with Mistura members, the event was suspended because of the high cost of its organization.

3.3.1.2 “Peru, mucho gusto”

Among the public initiatives to build the reputation and influence of Peruvian gastronomy and culinary traditions has been the organization of fairs and activities under the slogan, “Peru, mucho gusto”.

This catchphrase, which was the title of the first gastronomy book published by PROMPERÚ, has become the brand for the promotion of Peruvian gastronomy abroad. It was first used at Madrid Fusión in 2006, a major global culinary platform which was the world’s first introduction to Peruvian chef Gastón Acurio.

Starting in 2012, “Peru, mucho gusto” became the name of a regional food fair which aims to bolster Peruvian identity and pride by raising national awareness about Peruvian cuisine, showcasing the rich flavors and cultural significance of a variety of Peruvian foods and beverages. These fairs have attracted thousands of people from nearby villages. In addition, the fairs that take place in Tumbes (northernmost Peru) and Tacna (southernmost Peru) encourage cross-border tourism from neighboring countries.

3.3.1.3 Other actions

Other actions to enhance the reputation and influence of Peruvian gastronomy, and consequently, its culinary traditions, include national tourism promotion campaigns focusing on Peruvian gastronomy, such as the campaigns: “Peru, Nebraska”, “Loreto, Italy”, “Más Peruano que”, and “Intercambiados”.

These outreach efforts are undertaken by both the public and the private sectors, with the latter developing its own campaigns in order to attract consumers through gastronomy, knowing that this is a source of national pride: For example, according to an Ipsos survey entitled, “Reasons to feel proud of Peru”, 46% of respondents cited Peruvian gastronomy as a source of pride⁴⁹.

⁴⁹ <https://rpp.pe/lima/actualidad/de-que-se-sienten-orgullosos-los-peruanos-noticia-1139700>. Accessed in November 2019.

According to another Ipsos survey, commissioned by PROMPERÚ, 93% of respondents cited “natural products including quinoa, ají chili peppers and maca” as a source of national pride⁵⁰.

3.3.2 At the international level

As noted above, the aim is to build a positive image of Peru abroad as a country with a rich history, resources and culture. Various efforts have been made to strengthen Peru’s reputation and influence abroad, helping to showcase Peruvian gastronomy and culinary traditions.

3.3.2.1 COPROBA

In 2004, the commission for flagship Peruvian products, COPROBA, was established and recognized 13 flagship products, including: South American camelids, Pisco, lúcuma (eggfruit), Peruvian gastronomy, cotton, maca root, Chulucana ceramics, asparagus, coffee, Peruvian silverware, Paso horses, quinoa and cocoa. Efforts to render these products exportable and to bolster their presence on international markets had been successful by 2018, and the commission was thus disbanded.

3.3.2.2 Recognition

In 2011, Peruvian cuisine was declared to be part of the Cultural Heritage of the Americas by the Organization of American States (OAS), and Peru has also been recognized as the world’s best culinary destination by the World Travel Awards for eight consecutive years since 2012.

Furthermore, the “World’s 50 Best” and “Latin America’s 50 Best” have featured Peruvian restaurants in their lists:

Table 3.3.2.2.1

The World’s 50 Best Restaurants							
2011		2012		2013		2014	
Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant
42	Astrid and Gastón	35	Astrid and Gastón	14	Astrid and Gastón	15	Central
				50	Central	18	Astrid and Gastón

⁵⁰ <https://www.gob.pe/institucion/mincetur/noticias/49204-ministro-vasquez-encuesta-determina-los-principales-motivos-de-orgullo-para-todos-los-peruanos>. Accessed in November 2019.

The World's 50 Best Restaurants									
2015		2016		2017		2018		2019	
Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant
4	Central	4	Central	5	Central	6	Central	6	Central
14	Astrid and Gastón	13	Maido	8	Maido	7	Maido	10	Maido
44	Maido	30	Astrid and Gastón	33	Astrid and Gastón	39	Astrid and Gastón	67	Astrid and Gastón

Prepared by the authors

Table 3.3.2.2.2

Latin America's 50 Best Restaurants													
2019		2018		2017		2016		2015		2014		2013	
Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant	Rank	Restaurant
1	Maido	1	Maido	1	Maido	1	Central	1	Central	1	Central	1	Astrid & Gastón
2	Central	2	Central	2	Central	2	Maido	3	Astrid & Gastón	2	Astrid & Gastón	4	Central
9	Oso Carnicería y Salumería	8	Astrid & Gastón	7	Astrid & Gastón	7	Astrid & Gastón	5	Maido	7	Maido	7	Malabar
12	Isolina	13	Isolina	12	Oso Carnicería y Salumería	12	La Mar	12	La Mar	11	Malabar	11	Maido
13	Astrid & Gastón	16	Rafael	15	La Mar	27	Oso Carnicería y Salumería	31	Fiesta	15	La Mar	13	Rafael
19	Rafael	17	La Mar	21	Isolina	30	Rafael	34	Oso Carnicería y Salumería	20	Fiesta	14	Fiesta
21	Kjolle	25	Oso Carnicería y Salumería	24	Rafael	34	Fiesta	36	La Picantería	27	Rafael	15	La Mar
26	La Mar	39	Malabar	30	Malabar	38	Malabar	50	Rafael	31	La Picantería		
36	Mil	48	Amaz	46	Fiesta	41	Isolina						
48	Malabar			47	Amaz								
49	Mayra												

Prepared by the authors.

3.3.2.3 International outreach

PROMPERÚ has conducted international outreach campaigns highlighting strategic sectors such as gastronomy. These outreach efforts have been assessed to determine the level of association between the country and strategic products that Peru promotes. The main results of this survey follow:⁵¹

Figure 3.3.2.3.1

⁵¹ Full-length videos: <https://www.youtube.com/watch?v=42AXjcP-B2U> and <https://www.youtube.com/watch?v=FB0n4l6Zn0U&t=25s>

Campaign: “You will remember Peru”

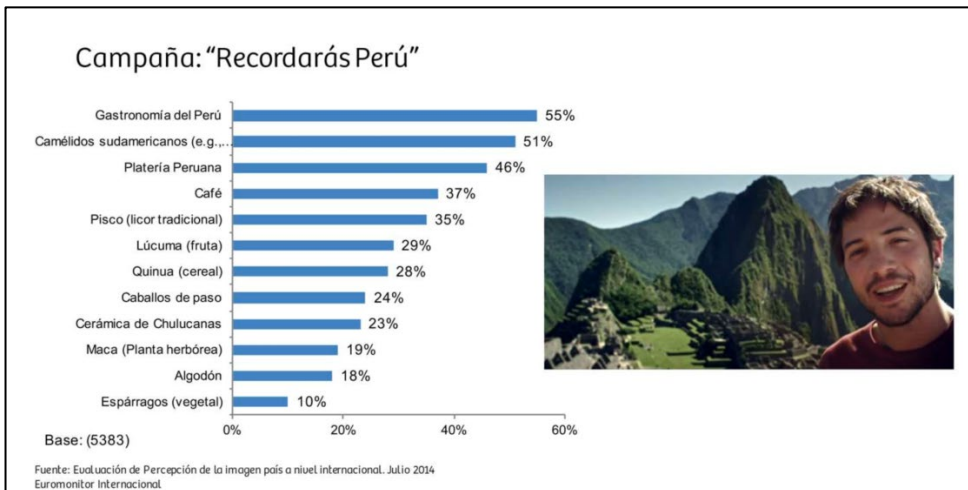
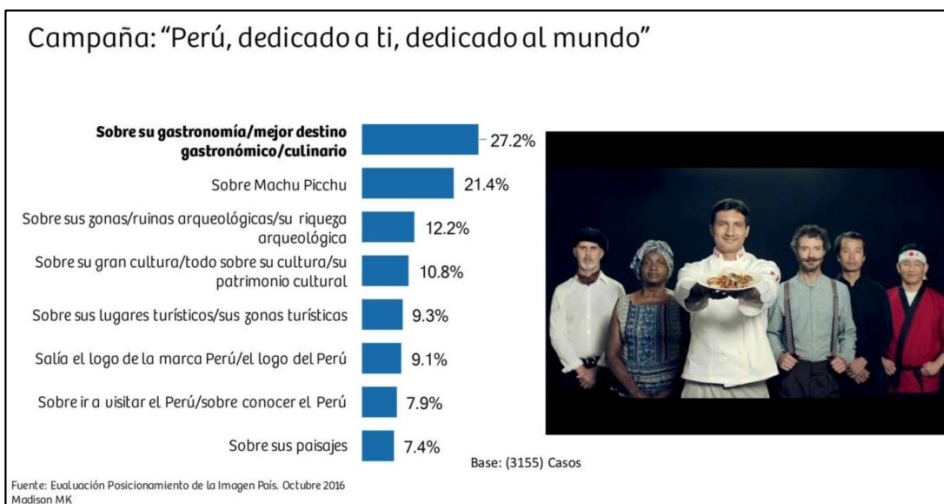


Figure 3.3.2.3.2



Efforts to promote Peruvian gastronomy in order to boost the country’s reputation abroad have also included the following:

In 2017, Peru started work on its brands in different sectors, namely through the launching of its “Superfood Peru” brand and campaign to promote the country’s exportable products in its priority markets. Other similar initiatives followed, also focusing on prioritized products, including: “Cafés del Perú”, “Pisco, Spirit of Peru” and “Alpaca del Perú”.

The use of brands in outreach efforts helps to raise awareness and increase the level of recall of a given product associated to a country

3.3.2.4 International presence of Peruvian restaurants

A significant way to build the reputation and influence of Peruvian gastronomy and culinary traditions is through Peruvian restaurants abroad. This has been a way to project Peru's history, culture and resources to the private sector both domestically and abroad, by reflecting the profitability of investing in Peruvian restaurants.

A 2017 database prepared by Peru's Ministry of Foreign Affairs indicated that there were 1,665 Peruvian restaurants across all five continents, distributed as follows:

Table 3.3.2.4.1

Continent	No. of restaurants
Africa	5
America	1,238
Asia	101
Europe	304
Oceania	17
TOTAL	1,665

Prepared by the authors.

Of the 1,665 Peruvian restaurants identified outside of Peru, at least 111 were declared to be foreign-owned, 313 were declared to be Peruvian-owned, and the remainder did not specify the owner's nationality (See Annex 5).

The country with the highest number of Peruvian restaurants outside of Peru is the United States of America (509 restaurants), followed by Chile (208), Argentina (150), Colombia (121) and Spain (115).

3.4 Potential challenges

The potential challenges to promoting culinary traditions could be viewed from different angles. This chapter analyzes the challenges relating to the culinary practices themselves and other challenges relating to this study's objectives.

3.4.1 Need for a public policy to promote Peruvian cuisine

The aim of establishing a public policy for promoting Peruvian cuisine is to set out common objectives for its sustainable development. These objectives would then be organized in such a way as to identify the relevant stakeholders for each value chain.

Establishing a public policy will also facilitate decisions and actions to help address the challenges facing the gastronomy sector today. These challenges include the lack of systematized data, the informal nature of the sector, issues related to health, nutrition and the preservation of resources and recipes as well as the valuation of culinary traditions. A public policy for promoting Peruvian cuisine could also help to build synergies among public and private stakeholder efforts, raise awareness and build confidence around the meaning of Peruvian cuisine as part of Peruvian culture, and project a well-defined and unique image of Peru's gastronomy in order to place it on people's perceptual map worldwide.

3.4.2 Need for systematized data on the gastronomy sector

There is a need for systematizing data on Peru's gastronomy sector, for example, by keeping a comprehensive and validated national inventory of culinary traditions, including relevant aspects such as resources, recipes, utensils and techniques. Data should also be compiled on the food and beverage establishments and higher education facilities which offer their services to the various stakeholders in the sector, among other important data that might be needed to better organize the sector and set out projections.

Data from other sectors that inform the gastronomy sector could also help to set clear objectives in developing Peruvian cuisine. This might include current data from the Ministry of Agriculture on cultivated areas, types of crops and the number of persons working in the sector, for example⁵².

3.4.3 Need for nutritional education

⁵² The most recent agricultural census was conducted in 2012.

While Peru is a country with rich food resources and nutrients, Peruvians lack knowledge about how to make healthy choices in the resources and nutrients they consume, as part of a healthy diet. Hence the need for nutritional education in Peru.

This nutritional education challenge is currently being addressed through a private entity called “La Revolución”, directed by Karissa Becerra, which is implementing an innovative food education project, “Saber Comer” (“Knowing how to eat”). This three-pronged project, involving knowledge, science and cooking, adopts a scientific approach to cooking while also making science more accessible to children.

The next step for Karissa Becerra’s team is to bring this project to schools. They are currently developing teachers’ guides for teachers and parents alike. Ms. Becerra notes that “while children must learn certain materials, teachers can be as creative as possible in how they teach this material. What we have done is match the subject matter they are already studying with what they could be learning”⁵³.

This will not only lead to healthier diets, but will also enhance knowledge about the foods themselves and their properties, culture and history. A healthy diet also plays a key role in children’s skills development in their first years of life.

Nutritional education can also have other positive effects, such as helping to tackle issues related to Sustainable Development Goal 2 (“Zero hunger”)⁵⁴. One such issue is anemia:

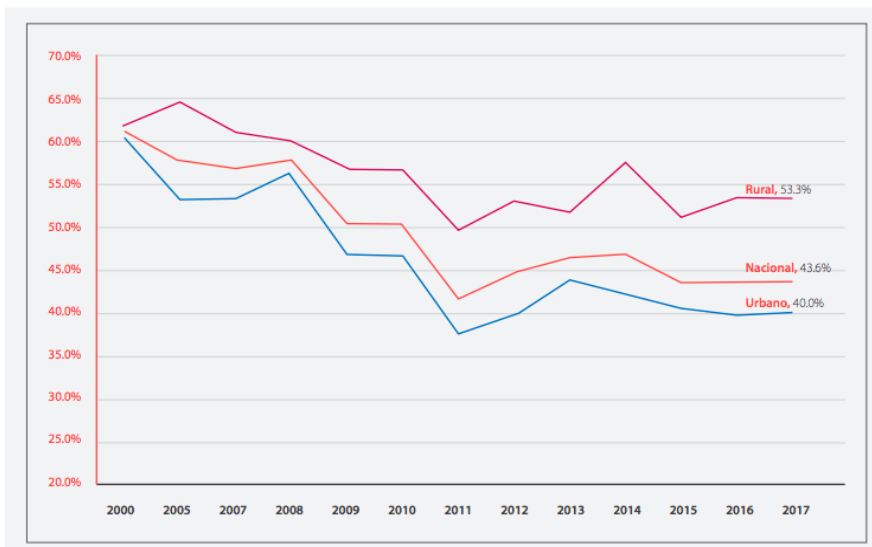
As is well-known, anemia is one of Peru’s biggest health problems, especially in children from 6 to 35 months old. The graph below, prepared by INEI, illustrates the prevalence of anemia in children in this age bracket in rural and urban areas of Peru from 2000 to 2017, broken down by residence and geographical area. This graph illustrates that, between the years 2000 and 2017, anemia prevalence in urban areas dropped from 60% to 40% (a 20% drop), whereas rural areas experienced a more modest drop in this rate, from approximately 60% to 53.3%.

⁵³ Becerra, K., in: López, M. (13.07.2018). In: La revolución gastronómica y social de Karissa Becerra [“Karissa Becerra’s culinary and social revolution”]. <https://cosas.pe/personalidades/128229/la-revolucion-karissa-becerra/>. Accessed 10.02.2020.

⁵⁴ In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, providing an opportunity for countries and societies to follow a new path for improving the lives of all persons, leaving no one behind. The Agenda has 17 sustainable development goals (SDGs), which address a wide range of matters including poverty eradication, combating climate change, education, gender equality, environmental protection and city design. <https://www.un.org/sustainabledevelopment/>. Accessed on 04.02.2020.

The overall national anemia prevalence rate among children in the relevant age bracket was 43.6% in 2017, reflecting that anemia is a serious public health problem in Peru⁵⁵.

Figure 3.4.3.1



Source: INEI. (2018). Outcome indicators from budgetary programs from 2012-2017.

This led the Ministry of Development and Social Inclusion of Peru (MIDIS) to launch anemia control efforts, and to develop a multi-sectoral plan to combat anemia in the last quarter of 2018⁵⁶. The main goal of this plan is to drastically reduce anemia prevalence in children under 36 months old and in pregnant women. A commitment has been made to reduce this rate from 43% (figure from the end of 2018) to 19% in 2021.

3.4.4 Development of academic research

There is a need to continue and build on research on Peruvian culinary traditions, since so few of the research projects being carried out in this area produce enough literature that is easily understood by the Peruvian public. Also, once a public policy is adopted for the promotion of Peruvian cuisine, a public or private entity should be established in order to manage existing information and serve as a repository of consultable information.

While APEGA had been partially fulfilling this role, the question of who will take over should be considered in the light of this entity's supposedly lacking sufficient work in recent years.

⁵⁵ Ministry of Development and Social Inclusion (MIDIS), "Plan Multisectorial de lucha contra la anemia" ["Multi-sectoral plan to combat anemia"]. <http://www.midis.gob.pe/dmdocuments/plan-multisectorial-de-lucha-contra-la-anemia-v3.pdf>. Accessed 04.02.2020.

⁵⁶ Idem.

Developing academic research is also important since this can potentially directly influence innovations in Peruvian cuisine. For example, the agro-industry engineer, Julio Garay Barrios, developed a cookie called “Nutri H” that staves off anemia, a project which won the History Channel competition, rewarding his idea to change history in 2019.⁵⁷

Furthering academic research in this context would also enable tracking potential variations to culinary traditions, as a contribution to the historical process and as a stepping stone for processes yet to be developed.

CHAPTER IV: ANALYSIS OF THE STUDY’S GEOGRAPHICAL FOCUS

4.1. Selection criteria for the study’s geographical focus

The geographical selection for this scoping study was made on the basis of the following criteria:

4.1.1 Location:

Peru is commonly divided into three regions: the coast (costa), the highlands (sierra) and the jungle (selva). Each region has its own distinct geographical and environmental characteristics, which are also reflected in the characteristics and components of each region’s culinary traditions. That is why the first selection criterion for the study’s geographical focus is to have each of the three regions represented.

Peru’s coastal region is the narrow strip of land between the Pacific Ocean and the Andes; the highlands or Andean region covers the Andes mountain range; and the jungle lies east of the Andes.

Therefore, the study will first of all include at least one area from each of the three traditional regions. The selection was made on the basis of the following classification per region:

- Coast⁵⁸: Tumbes, Piura, Lambayeque, La Libertad, Lima, Ica and Tacna.

⁵⁷ <https://gestion.pe/peru/peruano-creador-de-galletas-contra-anemia-gana-concurso-de-history-channel-noticia/>. Accessed on 09.02.2020.

⁵⁸ Although Ancash, Arequipa and Moquegua are on the coast, they were considered to be part of the highlands region since that is where their capital cities are located.

- Highlands: Cajamarca, Ancash, Huánuco, Pasco, Junín, Huancavelica, Ayacucho, Apurímac, Cuzco, Arequipa, Moquegua and Puno.
- Jungle: Amazonas, Loreto, San Martín, Ucayali and Madre de Dios.

4.1.2 Level of gastronomic development (customs, appellations of origin and cultural heritage):

Another selection criterion for the study's geographical focus was the level of gastronomic development, determined via a preliminary assessment of the number of traditions per region (products that are native to and associated with a region, as well as representative regional recipes), the number of appellations of origin, recognized cultural heritage and the preservation and sustainability of traditions, evidenced by commonly recognized traditions in each region. In addition, it was concluded that for the next steps of the study, it would be important to involve associations that are linked to the gastronomy sector, as these could serve as project partners facilitating the exchange of information and coordination that might be required going forward.

4.1.3 Level of development of tourism

A last selection criterion was the level of development of tourism. This was determined preliminarily by examining the percentage of international tourist arrivals in the different regions of Peru and by domestic tourism figures generated in 2018.

It should be noted that, according to the international tourist profile report published annually by PROMPERÚ⁵⁹, in 2018, Peru received 4,198,051 international tourists, of whom 2,728,733 (65%) were vacationers. Vacationers are tourists whose purpose for travel to a given destination is recreation or leisure. In the context of efforts to promote tourist destinations, vacationers are an important segment since they tend to research travel destinations before deciding on where to go. Vacationers should thus be the target audience for relevant outreach efforts, in order to attract their attention.

It is also helpful to examine the share of domestic tourism, that is, travel by Peruvians within Peru. According to the national vacationer profile report⁶⁰, in 2018, 4.9 million

⁵⁹ International tourist profile report, 2018. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019.

⁶⁰ National vacationer profile report, 2018. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfVacacionistaNac>. Accessed 27.12.2019.

trips were taken in the context of domestic tourism in Peru, supporting 1.383 million jobs in the different regions and representing 1.6 million vacationers who cited vacation, recreation or leisure as their purpose for travel. It should be noted that domestic vacationers spent more on food (31% of their travel budget) than on any other category, including accommodation (17%).

As will be seen in greater detail below, the regions selected for this scoping study are relevant in terms of the impact of both international and domestic tourism there.

Based on a combination of the criteria and sub-criteria above, the following three regions were selected from the outset: Lambayeque, Arequipa and Loreto.

Next, Peru's capital, Lima, was selected, since it plays a key role in the country's gastronomic development and hosts cultural and gastronomic events representing the rest of the country.

Lastly, two additional regions, Cuzco and Tacna, were selected on the basis of their significance as tourist destinations: Cuzco, because it is Peru's main tourist destination, home to one of the New Seven Wonders of the World and classified as a UNESCO World Heritage Site; and, Tacna, which, as a border city, develops the most gastronomic tourism.

4.2 Lambayeque

4.2.1 Selection criteria

a. Location:

The Lambayeque region is in northwestern Peru, along the coast. It comprises three provinces (Chiclayo, Lambayeque and Ferreñafe) and 38 districts, harboring a wide variety of fauna and flora thanks to its diverse geographical makeup. Chiclayo is the capital city.

Lambayeque is part of the coastal region and extends 14,231 km², with a population of 197,260 according to a 2017 census⁶¹.

b. Gastronomic development

⁶¹ From the 2018 Statistical Compendium of Peru, published by INEI.
https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1635/compendio2018.html

Lambayeque's native agricultural products include loche squash, native *ají* chili peppers such as the *ají cerezo*, *ají cacho de cabra* ("goat's horn" chili), *ají limo norteño* (Northern limo chili pepper), *frijol de palo criollo* (Creole palo bean), Creole pigeon peas, the pacay or guaba fruit, and summer fruit eaten by locals.

The seafood that is eaten in this region and a part of its culinary traditions include *life monsefuano* (a catfish) which is used to make *panquitas de life*; salted mackerel as a cebiche starter to *arroz con pato* (rice with duck); *palabritas* (surf clams), which have been eaten since pre-Incan times; and sun-dried guitarfish, which is used in dishes such as *chinguirito*⁶².

Prepared foods which are a part of pre-Inca traditions include *chicha de jora* (a fermented corn beverage), the best known of which is *chicha de jora morropana*, which is consumed at the largest local festivities and used as an ingredient in a variety of dishes including *cabrito* (suckling goat) and *sudados* (steamed dishes)⁶³.

The region's most iconic culinary traditions are *arroz con cabrito* (rice with suckling goat) or *seco de cabrito* (suckling goat stew), *arroz con pato* (rice with duck), *espesado* (stew), *chiringuito*, *humitas*, *chirimpico* (stew), *causa ferreñafana* (layered mashed potato dish), *frito*, *king Kong* (a dessert), *arroz con mariscos* (rice with seafood), zarandaja beans, *cebiche de tollo* (shark ceviche), *tortilla de raya* (stingray tortilla), *chupe* (chowder), *cebiche de palabritas* (surf clam ceviche), *cebiche de caballa* (mackerel ceviche) and *tortitas de choclo* (choclo maize paddies).

In addition, Lambayeque was conferred an appellation of origin, "Loche de Lambayeque", by INDECOPI Distinctive Signs Office decree No. 018799-2010/DSD-INDECOPI. Also, under Vice-ministerial decree No. 156-2015-VMPCIC-MC of the Ministry of Culture, the region's picanterías and chicherías are recognized as a part of Peru's cultural heritage, as gathering places in which women play a key role in conveying traditional culinary knowledge, helping to strengthen social bonds and

⁶² Slow Food (2017). *Op. Cit.*, pp. 23 -85.

⁶³ *Ibid*, p. 50 - 51

cultural identity. Lastly, Lambayeque has a gastronomy association (*Sociedad Lambayecana de Gastronomía*) in place to preserve the region's culinary traditions.

c. Tourism development

Lambayeque is one of the regions of Peru with the greatest tourism potential, since it harbours archeological remains of the pre-Incans of Peru, who were of great importance in the country's history. It is where one can find the popular royal tombs of Señor de Sipán, and the Túcume, Sicán and Chotuna and other archeological sites. Lambayeque also has various beaches that are popular among international and domestic tourists alike, including Pimentel, Puerto Eten, San José and Santa Rosa beaches.

Lambayeque's gastronomy is gaining clout in Peru. Its best-known dishes are *arroz con cabrito* (rice with suckling goat), *arroz con pato* (rice with duck) and *chinguirito*. It is also known for a regional sweet called "King Kong" and its Algarrobina cocktail.⁶⁴

International tourists stay an average of five days in the Lambayeque region, with most (83%) partaking in cultural activities there, and 29% enjoying "sun and beach" activities⁶⁵.

As for domestic vacationers, according to the 2018 national vacationer profile report, Chiclayo is one of the cities that produces most of Peru's domestic tourists, and the region receives 4% of all Peruvian vacationer arrivals. Most vacationers (54%) spend four to seven days in Lambayeque, and 39% stay from one to three days. Average spending in the region is 483 soles⁶⁶.

4.2.2 Food and the environment

Lambayeque is chiefly a coastal area characterized by vast deserts and coastal plains; its highlands area covers the western part of the Andes mountain range; and it also has a

⁶⁴ <https://www.peru.travel/>. Accessed 28.12.2019.

⁶⁵ Profile of international tourists visiting Lambayeque – Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019.

⁶⁶ National profile of vacationers visiting Lambayeque 2018 – Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfVacacionistaNac>. Accessed 27.12.2019.

modest jungle area in the Huancabamba River basin, in Cañaris district, Ferreñafe province⁶⁷.

According to the Brack classification, this region falls under the Peruvian Pacific coastal area and dry equatorial forest area⁶⁸, and, according to the Pulgar Vidal classification, it falls under the following natural areas: mostly the chala (plains) area, the yunga maritime and river area, the quechua and rupa rupa or upper jungle area⁶⁹.

Lambayeque's oceanfront is predominantly influenced by the Peruvian or Humboldt Current, and is also influenced by the El Niño Current.⁷⁰ Lambayeque is one of the regions affected by the El Niño–Southern Oscillation phenomenon, which occurs periodically and generates major ocean and climate shifts. It warms the sea water that flows in the direction of the Peruvian Current and triggers ocean anomalies and an increase in rainfall along Peru's northern coast, resulting in floods, overflowing of rivers and damage to city infrastructure (roads, bridges and homes).

Lambayeque has fauna and flora of the chala (plains) and coastal areas (See Table 3.1.1) and of the cold sea of the Peruvian Current and the tropical sea (See Table 3.1.2). The following are eaten in the region: *palabritas* (surf clams), *tollo* (shark), bonito, *pampanito*, *peje blanco* (Ocean whitefish), *jurel* (horse mackerel), *chita* (Peruvian grunt fish), *lenguado* (sole), *pota* (cuttlefish) and *rayas* (stingrays).

See also the products listed under 4.2.1 (b).

For the purpose of this study, the zarandaja bean will be highlighted:

Zarandaja beans are native to the Americas and are grown in Peru's northern coastal area. These beans, also called chileno beans in the north, can be consumed fresh or dried and are used to accompany cebiche, dried meat or *arroz con cabrito* (rice with

⁶⁷ Minagri and the regional government of Lambayeque. (2008). Regional Strategic Plan of the Lambayeque Agricultural Sector 2009 – 2015. <https://www.minagri.gob.pe/portal/plan-reg-agrario>. Accessed 29.12.2019.

⁶⁸ Brack, A and Mendiola C. (2010). *Op. Cit.*, p. 85.

⁶⁹ Pulgar, J. *Op. Cit.*, p. 22.

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⁷⁰ The El Niño Current is characterized by its warm waters and affects Peru's northern coast, while the Peruvian or Humboldt Current is characterized by its cold waters and moves from South to North, with a resulting temperate coastal climate. Brack, A and Mendiola C. *Loc. Cit.*

suckling goat). In 2018, Lambayeque was Peru's main zarandaja producer, yielding 1,193 mt, followed by Cajamarca (505 mt) and La Libertad (260 mt)⁷¹. A benefit of producing this legume is that it is unaffected by El Niño⁷².

4.2.3 Economic Analysis

According to figures from INEI, in 2018, Lambayeque's GDP reached 11,835,545 thousand soles, with agriculture accounting for 1,025,465 thousand soles and the hotel and restaurant sector accounting for 311,837 thousand soles, or 9% and 3%, of the region's total GDP, respectively⁷³.

Agriculture plays a key role in Lambayeque, which has a cultivated area of a 128,511 hectares (ha), where 70 different crops are grown, including 40 temporary crops and 30 permanent and special crops. The temporary crops, covering 4.1% of the land set aside for this purpose, include: Paddy rice (50,012 ha), hard yellow maize (12,453 ha), starch maize (2,827 ha), dry Lima beans (2,792 ha), choclo (large kernel) maize (2,391 ha), sweet potatoes (1,942 ha), zarandaja beans (1,906 ha), wheat (1,730 ha), green peas (1,343 ha), cowpeas (1,334 ha) and bell peppers (885 ha). The permanent and special crops, which cover 3% of the area used for such crops at the national level, include: Sugarcane (24,065 ha), mangoes (4,123 ha), coffee (2,404 ha), Peruvian lime (1,764 ha), avocado (1,419 ha), asparagus (1,243 ha), blueberries (1,054 ha), alfalfa (1,035 ha), grapes (1,018 ha), passion fruit (932 ha), bananas and plantains (731 ha) and oranges (482 ha)⁷⁴.

Lambayeque has 42 legally established associations to help carry out its agricultural and livestock production. These include the Comunidad Integrada por Campesinos Naturales – Batangrande, the Asociación de Productores Agropecuarios De Olmos, the Asociación de Agricultores y Ganaderos San Pedro De Morrope, 18 livestock production associations and 10 regional associations of producers specializing inter alia in beans, yellow maize, cotton, rice, loche squash, lime, beekeeping, environmentally-friendly

⁷¹ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018 [Statistical report of agricultural production 2018"]. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

⁷² <https://agraria.pe/noticias/legumbres-son-una-alternativa-de-cultivo-durante-9270>. Accessed 02.01.2020.

⁷³ INEI. (2018). GDP of economic activity by year.

<https://www.inei.gob.pe/estadisticas/indice-tematico/pbi-de-las-actividades-economicas-por-anos-9096/>. Accessed 02.01.2020.

⁷⁴ Plan Nacional de Cultivo ["National crop plan"]. Harvest year 2018 – 2019. Adopted by Ministerial Decree No. 0313-2018-MINAGRI.

production, mangoes and capsicum.⁷⁵ The above associations are important because they are potential focal points for coordination with relevant producers in the culinary tradition value chains.

In this context, the Olmos hydroenergy and irrigation project⁷⁶ is worthy of mention. This project aims to channel water from the Atlantic to the Pacific Oceans through a trans-Andean tunnel with a view to generating electricity and irrigating arid land where climate conditions are conducive to agricultural production. This is an opportunity to improve the region's agricultural sector since it will render a large swath of arid land usable. This project is already being implemented, and is helping to irrigate approximately 25,000 ha of land.⁷⁷

According to a regional trade report prepared the Ministry of Foreign Trade and Tourism of Peru (MINCETUR), in 2018, the region's economy grew by 4.1% thanks to agro-industrial growth (+11%). Also, Lambayeque is Peru's leading producer of bell peppers and Lima beans, its second leading producer of sugar, mangoes, limón, blueberries and passion fruit, and its third leading producer of rice and piquillo pepper⁷⁸.

In addition, Lambayeque produces the following fruit for export: mangoes, avocados, cranberries, fresh grapes, canned fruits and vegetables, passion fruit, mangoes, asparagus, both fresh and refrigerated. The main exporters in the region include: Gandules Inc. S.A.C., Perales Huancaruna S.A.C., Agribrands Purina Perú S.A.C., HFE Berries Peru S.A.C. and Agroindustrias AIB S.A..⁷⁹

More specifically, the MINCETUR report notes that "Lambayeque is Peru's fourth leading agro-exporter, and 99% of the region's exports are from the agro-industrial sector. In recent years, the region has been significantly expanding its exportable supply of

⁷⁵ Information obtained from the Regional Government of Lambayeque. <https://www.regionlambayeque.gob.pe/> Accessed 27.12.2019.

⁷⁶ Located in the administrative department of Lambayeque, approximately 900 km from Lima in the northwesternmost part of Peru. WIPO FOR OFFICIAL USE ONLY
<https://www.regionlambayeque.gob.pe/web/tema/detalle/1958?pass=MTA1Nw==>. Accessed 28.12.2019.

⁷⁷ From interviews conducted in Lambayeque.

⁷⁸https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/estadisticas_y_publicaciones/estadisticas/reporte_regional/RRC_Lambayeque_2018_Anual.pdf. Accessed 12.01.2019.

⁷⁹ From SIICEX, PROMPERÚ. http://www.siicex.gob.pe/siicex/portal5ES.asp?_page_=160.00000 Accessed 29.12.2019.

avocados, blueberries, prawn feed and grapes.” In 2018, Lambayeque had record export figures (US\$ 524 million), representing 25% growth compared to 2017, owing to an increase in the export of blueberries (+414%), avocados (+129%), asparagus (+89%), grapes (+36%) and bell peppers (+16%). This growth is the result of an increase in the cultivated land area and to greater business investments, as well as implementation of the Olmos project⁸⁰.

Lambayeque has 63 wholesale food markets, 59 retail outlets and 4 mixed markets (Moshoqueque market in Chiclayo, Cayaltí market, the Ferreñafe central market and the Monsefú food market), accounting for all of the region’s wholesale and retail sale of products.

The restaurant sector includes tourist as well as *campesre* (country-style) restaurants which serve the region’s various traditional dishes, mainly *arroz con cabrito* (rice with suckling goat) and *arroz con pato* (rice with duck), at the following establishments: El Pacífico, El Rincón del Pato, El Cántaro and La Cucarda. Chiclayo city’s restaurants include Sabores Peruanos, Paprika, Vichayo and El Fiesta. El Fiesta, owned by the Solís family, is particularly noteworthy since the restaurant they opened in Lima’s Miraflores district in 1996 was recognized as one of the “50 Best Latin American Restaurants” in 2013 (14th place), 2014 (20th place), 2015 (31st place) and 2016 (46th place).

4.2.4 Socio-economic and historical analysis of the region

Pre-Incan cultures flourished in this region, including the Cupisnique (1500 – 1000 BC, which fell under Chavín influence until 500 BC), the Salinar (500 – 100 BC)⁸¹, the Moche or Mochicas (100 BC – 800 AD), the Sicán or Lambayeque (600 – 1400 AD) and the Chimú (1100 – 1400 AD) cultures.⁸² It should be noted that the influence of the Mochica culture is still evident in Peru today.

It is said that the flavors of ancient gods can be savored in Lambayeque. Ceramics and iconography found in the tomb of the Lord of Sipán, a Moche ruler, illustrated that he

⁸⁰ https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/estadisticas_y_publicaciones/estadisticas/reporte_regional/RRC_Lambayeque_2018_Anual.pdf. Accessed 12.01.2019.

⁸¹ Cultura Salinar. <https://historiaperuana.pe/periodo-autoctono/cultura-salinar/>. Accessed 29.12.2019.

⁸² <https://www.peru.travel/es-pe/sobre-peru/identidad-peruana/historia.aspx> Accessed on 29.12.2019

ate duck, fish, shellfish, tumbo fruit, venison, cuy (guinea pig), loche squash, avocado, achiote (annatto), Lima beans, pacay and even *chicha de jora* (a fermented corn beverage). Most of these products remain a part of the local diet in Lambayeque⁸³.

The Mochica people, for their part, would fish in traditional reed rafts called “caballitos de totora”, a practice which continues today on various beaches along Peru’s northern coast, such as off the shores of the Pimentel, Santa Rosa and San José (in Lambayeque) and Huanchaco beaches (in La Libertad). The Mochica had advanced agricultural techniques as they used irrigation canals for growing foods such as cassava, cucumber, maize, lúcuma fruit, pumpkin, and also for livestock farming, for the domestication of *auquénidos* (South American camelids).⁸⁴ The Mochica are also known to have been avid consumers of *ají* chilis, as archeological remains of ceramics and headwear feature representations of this food, which was consumed by various Peruvian civilizations since its domestication in 8,000 B.C.⁸⁵.

According to Carlos Elera, director of the Sicán Museum, there is archeological evidence indicating that there are culinary traditions which date back to ancient Lambayeque or Sicán culture that are still used in the region today, with the exception of the consumption of fish, which has shifted to beef and chicken today.

The city of Lambayeque was founded in 1553 and the administrative department of Lambayeque was established on 27 November 1874. Sugar production was an important industry in the 19th and 20th centuries.⁸⁶

Lambayeque has a population of 1,197,260 inhabitants (4.1% of Peru’s total population), with 46.1% of the population living in the region’s capital city of Chiclayo. Most people in the region (80%) live in urban areas, while 20% live in rural areas. The

⁸³ Promperú. (2016). *Perú mucho gusto. Cómo descubrir un país a través de su Gastronomía*. [“Peru mucho gusto: How to discover a country through its gastronomy”]. Lima: Fábrica de Ideas.

⁸⁴ Cultura Mochica. <https://historiaperuana.pe/periodo-autoctono/cultura-mochica/> Información accessed on 29.12.2019.

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⁸⁵ The Peruvian Gastronomy Association, UNALAM, Inia, USMP. (2009). *Ajjes peruanos. Sazón para el mundo*. Lima: The Peruvian Gastronomy Association.

⁸⁶ Banco Central de Reserva del Perú (Peru’s Central Reserve Bank) (2008). Economic and Social Report of the Lambayeque region.

population comprises 51.5% women and 48.5% men, and population density is 82.1 inhabitants per km².⁸⁷

The age distribution in Lambayeque is as follows⁸⁸:

Figure 4.2.4.1

group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	325,621	294,700	240,625	186,044	150,270

Source: National census report 2017 – INEI.

In the area of education, Lambayeque, like some other regions, still has gaps to fill, as it has a 5.4% illiteracy rate; 21.9% of the population aged 15 or older has only a primary school education, while 41.6% has completed secondary school, and 18.2% had completed university studies, of which 11% went on to obtain a master’s or doctoral degree.⁸⁹

In the area of health, the most recent census indicates that 921,107 persons (76.9% of the population) has some form of health insurance.⁹⁰

In the area of employment, the region has 485,678 economically active persons, of which 85% live in urban areas. Average monthly per capita income in the region is 971 soles, and has been increasing in the past few years.⁹¹ In the region, 31.8% of the population lives in poverty and 6.5% lives in extreme poverty.⁹² Lastly, the prevalence of anemia among children under 36 months old in the region was 36.7%.⁹³

4.3 Lima

⁸⁷ National Census Report 2017 – INEI.

https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

⁸⁸ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*

⁹¹ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1600/. Accessed 11.01.2020

⁹² https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 11.01.2020.

⁹³ <http://www.midis.gob.pe/dmdocuments/plan-multisectorial-de-lucha-contra-la-anemia-v3.pdf>. Accessed 11.01.2020

4.3.1 Selection criteria

a. Location

The Lima region is in central western Peru, along the coast. It is subdivided into 10 provinces and 171 districts. Its provinces include Barranca, Cajatambo, Canta, Cañete, Huaral, Huarochirí, Huaura, Lima, Oyón and Yauyos. Lima province is both the regional and national capital, and can be sub-divided into two regions: The Lima region, and the Lima metropolitan area, which is Peru's most populous.

There is also the Constitutional Province of Callao, which comprises seven districts: Callao, Bellavista, Carmen de La Legua Reynoso, La Perla, La Punta, Ventanilla and Mi Perú. It is considered as a region with constitutional standing.⁹⁴

For the purpose of this study, Lima is understood as comprising three different administrative areas: the Regional Government of Lima, the Municipality of Metropolitan Lima and the Constitutional Province of Callao.

Lima is part of the coastal region, but also stretches considerably into the highlands. The Lima region has an area of 34,823.4 km² and is Peru's most populous, with 9,485,405 inhabitants, according to the 2017 census⁹⁵.

b. Gastronomic development

Products native to the Lima region include the *ají arnaucho* chili, with origins linked to the Huaura, Barranca and Huaral provinces; guanabana (soursop), which is used to make *champús de guanabana*, a fruit beverage that has been consumed since the 19th century; huacatay (Peruvian black mint), with origins in Huaral province, which is used for marinating fish or meat (*pachamanca*).⁹⁶ There are also products found at higher altitudes, in the Lima highlands, which include *lúcuma* (eggfruit), *chirimoya* (custard apple), *mastuerzo* or *alcaparra de las indias* (Indian cress), *caigua criolla* (Creole stuffing cucumber) or *caigua serrana* (highlands stuffing cucumber), which are used in soups or stews, or are stuffed (*caigua rellena*); *capulí* or *guinda*

⁹⁴ Final and transitory provision XII of the Political Constitution of 1993.

⁹⁵ Datos obtenidos del Compendio Estadístico del Perú 2018 prepared by INEI. En: https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1635/compendio2018.html

⁹⁶ Slow Food (2017). *Op. Cit.*, p. 23 -85. WIPO FOR OFFICIAL USE ONLY

(black cherry), used in jams; and the guinda alcoholic beverage, prepared similarly to wine⁹⁷.

The Lima region's culinary traditions include: *pachamanca*, *carapulcra limeña* (a stew), *causa limeña* (mashed potato paddies), *lomo saltado* (a beef stir-fry), *ají de gallina* (a creamy chicken dish), *picarones* (pumpkin fritters), *turrón* (sweet), *mazamorra* (a maize-based dessert porridge), *champús de guanabana* (a fruit beverage), *ranfañote* (a bread pudding), *sanguito* (a sweet), *melcocha* (another sweet), *anticucho* (meat skewers), *emoliente* (a beverage), *chicha morada* (a purple maize beverage) and *suspiro a la limeña* (a dessert).

Lima also produces Pisco, a product that received recognition as an appellation of origin by the Industrial Property Directorate of the Institute of Industrial Technology Research and Technical Standards (ITINTEC) on 12 December 1990, through decree No. 072087-1990/DIPI⁹⁸. Furthermore, Vice-ministerial decree No. 126-2016-VMPCIC-MC of the Ministry of Culture recognized the ancestral technique used to dry Peruvian anchoveta (anchovy) as a cultural expression which involves particular know-how, practices and knowledge that combine the activity of artisanal fishing with the ancestral food preservation practice of salting and sun-drying. This technique is still practiced in Caleta de Carquín, in Lima.

Lastly, the Peruvian Gastronomy Association (APEGA) was established in Lima in 2007. This non-profit organization aims to showcase and raise the profile of Peruvian gastronomy including through the organization of the Mistura international food fair.

c. Tourism development

Not only is Lima the capital of Peru, it is also known as the capital of South American gastronomy, based on the growing national and international reputation and significance of its tourism sector.

⁹⁷ *Ibid.* P. 87 - 217.

⁹⁸ <http://repositorio.indecopi.gob.pe/handle/11724/4517> . Accessed 28.12.2019.

Lima has various tourist attractions, including Plaza Mayor square, its cathedral, the San Francisco Convent and the House of Peruvian Gastronomy. Both international and national tourists are known to visit the Larcomar shopping center and Costa Verde. Other favorite tourist attractions in the region, but outside Lima city, include: the Pachacamac archeological sanctuary, Lunahuaná (known for its nature) and the Sacred City of Caral-Supe⁹⁹.

Lima city has the infrastructural capacity to host large events, which, in recent years, have included the Pan American and Parapan American Games (2019), the recent Libertadores Cup (2019), the XXIII Inter-American Congress of Ministers and High-Level Authorities of Tourism of the OAS (2015)¹⁰⁰, the Board of Governors of the World Bank Group and the Boards of Governors of the International Monetary Fund (IMF) (2015)¹⁰¹ and Asia-Pacific Economic Cooperation (APEC) meetings in 2016¹⁰².

In the light of Peru's relatively limited air transport connectivity, Lima city plays a vital role as an obligatory point of entry for the majority of travelers from abroad. Accordingly, the 2018 international tourist profile report notes that 73% of international tourists arriving in Peru (irrespective of the purpose of their visit) visited Lima, where they stayed an average of five nights¹⁰³.

As regards domestic tourism, according to a national vacationer profile report¹⁰⁴, in 2018, Lima was the main region visited by Peruvian vacationers (27%), of whom more than 80% stayed 1 to 3 nights on average, spending approximately 297 soles.

4.3.2 Food and the environment

The Lima region lies along Peru's central coast and consists of both coastal and inter-Andean areas. According to the Brack classification, this region extends through Pacific

⁹⁹ <https://www.peru.travel>. Accessed 28.12.2019.

¹⁰⁰ <http://www.oas.org/en/sedi/desd/itc/2015/about.asp>. Accessed 28.12.2019.

¹⁰¹ <https://www.worldbank.org/en/news/press-release/2012/09/14/world-bank-group-imf-hold-2015-annual-meetings-lima-peru>. Accessed 28.12.2019

¹⁰² <https://elperuano.pe/noticia-peru-sera-sede-11-eventos-internacionales-hasta-2019-58543.aspx>. Accessed 28.12.2019

¹⁰³ International tourist profile 2018 - Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019

¹⁰⁴ National vacationer profile 2018 - Promperú.

<https://www.promperu.gob.pe/TurismoIN/sitio/PerfVacacionistaNac>. Accessed 27.12.2019

coastal desert areas, with highland steppes and the puna and high Andean plains¹⁰⁵. According to the Pulgar Vidal classification, the region spans the following natural regions: most of the chala region, the yunga maritime and river region, the quechua region, suni region as well as small parts of the puna grasslands region¹⁰⁶.

The major crops in this region are apples, tangerines, *frijol vainita* (the common bean), strawberries and *frutilla* (woodland strawberries), sugarcane, *pallar grano verde* (green baby lima beans) and sweet potatoes. Other crops found in the region include hard yellow maize, chala maize, oranges, alfalfa, potatoes and other vegetables. In addition, in the light of the influence of the Peruvian Current along the region's coast, one can also find the fauna listed under Figures 3.1.1 and 3.1.2 below.

The Lima region also boasts the products listed under 4.3.1 (b).

This study will highlight the lúcuma and chirimoya fruits:

Lúcuma (eggfruit), also known as lucma, rujma or rucuma, is a fruit that grows in the yunga area, such as in Canta (a province of the Lima region), and has export potential. Lúcuma was cultivated by ancient Peruvians, and it is reported that, at the time of the conquest, the fruit was being brought into the Quechua region, as evidenced by its growing at altitudes above 3,000 m a.b.s.l. According to legend, this fruit is associated with human reproduction: Sir Clementes R. Markham recounted the legend of a virgin goddess who bore a son after a god named Uira-cocha dropped a lúcuma fruit upon her¹⁰⁷.

In the northern valleys, lúcuma seeds were found in clay vessels, pottery and in the tombs of nobles. Today, this fruit is found in the regions of Piura, La Libertad, Cajamarca, Ancash, Lima, Pasco, Huancavelica, Ayacucho, Cuzco and Moquegua¹⁰⁸.

One of the relevant associations operating in the region is Prolúcuma, which was established in 1999 with support from the Commission for Export Promotion (Prompex,

¹⁰⁵ Brack, A (2010). *Op. Cit.*, p. 89.

¹⁰⁶ Pulgar, J. *Op. Cit.*, p. 22.

¹⁰⁷ *Ibid.* P. 72

¹⁰⁸ <https://peru.info/es-pe/superfoods/detalle/super-lucuma>. Accessed 12.01.2020

since replaced by PROMPERÚ). Its aim is to coordinate efforts in relation to lúcuma production, processing, marketing, research and promotion. This association has a number of agricultural partners, which has given it a predominant role in the lúcuma market. Prolúcuma continuously strives for more uniform production that complies with quality standards and norms, hence helping to guarantee its acceptance in the demanding international markets.

Currently, lúcuma in frozen pulp, powdered and freeze-dried form is being marketed both locally and internationally¹⁰⁹. Lúcuma powder is exported to countries including the United States, the United Kingdom and Portugal via the main exporters: Algarrobos Orgánicos del Perú S.A.C., Villa Andina S.A.C., Ecoandino S.A.C. and Peruvian Nature S & S S.A.C.¹¹⁰

Chirimoya (custard apple), for its part, is a fruit with white, syrupy pulp that has been consumed since ancient times. Spaniards called it “the white delicacy” after this fruit’s color and intense sweetness. Chirimoya grows at 1,500 meters above sea level, at the foot of the Andes, and is found in the administrative departments of Cajamarca, Piura, Lambayeque, Ancash and Lima. Today it is used in the food and cosmetics industry. This fruit is nutritious: Its carbohydrate content makes it a high-energy food. It is also a valuable source of fiber, vitamin B-complex, vitamin C and potassium, and has anti-oxidant properties.¹¹¹

This fruit is currently registered under the collective mark “Chirimoya Cumbe”, to distinguish products in class 31 of the International Classification of Goods and Services for the Purposes of the Registration of Marks. This mark is registered under the Village of Cumbe, located in the San Mateo de Otao district of Huarochirí province in the Lima region.¹¹²

¹⁰⁹ <https://mep.pe/asociacion-de-productores-de-lucuma-prolucuma-2/>. Accessed 12.01.2020.

¹¹⁰ <https://agapperu.org/noticias/despachos-al-externo-de-harina-de-lucuma-llegaron-a-valores-de-us-953-mil/>. Accessed 12.01.2020.

¹¹¹ <https://peru.info/es-pe/superfoods/detalle/superchirimoya>. Accessed 12.01.2020.

¹¹² https://www.wipo.int/sme/en/best_practices/peru.htm. Accessed 12.01.2019.

The relevant associations include the Association of Agro-industrial Producers of Chirimoya Cumbe¹¹³ and the Association of Chirimoya Lucumay Producers, which are part of one of the main production areas: Mateo de Otao in the Huarochirí province of Lima region¹¹⁴.

Chirimoya is exported to the United States, Japan, Chile and the Netherlands, according to PROMPERÚ¹¹⁵. According to the study “Chirimoya in the United States” carried out by PROMPERÚ in 2017, this fruit is a dynamic product with great export potential:

*“Chirimoya exports continued to grow at a rather dynamic rate: in the past year alone, their export value grew by 55%, while their export volume grew by more than 67% compared to 2015. This trend is the result of the key role Chile has played as a market for chirimoya, with Peruvian chirimoya exports to Chile valued at approximately one million dollars (+54%) and totalling 354 tons (+67%) in 2016 alone. It should be noted that 22 exporters were able to supply 13 international markets in the last year alone. While Canada had been the main export market destination, Chile has now taken the lead, accounting for 71% of the total exportable supply. This growth in exports is the result of businesses being located in northern Lima, specifically in Huaral”.*¹¹⁶

4.3.3 Economic Analysis

Lima’s GDP is 234,336,656 thousand soles, of which 4,438,371 thousand soles correspond to the agricultural sector, and 10,976,790 thousand soles correspond to the hotel and restaurant sector, accounting for 2% and 5% of total GDP, respectively¹¹⁷.

While agriculture may not play a dominant role in Lima’s economy, the region nevertheless has a total cultivated area of 136,331 ha¹¹⁸. A total of 85 crops are grown

¹¹³ <http://www.anpeperu.org/noticias/2018-09-12-000000/fortalecimiento-de-la-planta-de-procesamiento-de-la-asociacion-de>. Accessed 12.01.2019.

¹¹⁴ <https://andina.pe/agencia/noticia-productores-chirimoya-huarochiri-realizaran-primera-exportacion-a-canada-565137.aspx>. Accessed 12.01.2019.

¹¹⁵ <http://www.siicex.gob.pe/siicex/resources/fichaproducto/69pdf2014Jul23.pdf>
Accessed 12.01.2020.

¹¹⁶ <https://agapperu.org/wp-content/uploads/2017/11/Chirimoya-en-Estados-Unidos.pdf>. Accessed 12.01.2019.

¹¹⁷ INEI (2018). GDP of economic activity by year. <https://www.inei.gob.pe/estadisticas/indice-tematico/pbi-de-las-actividades-economicas-por-anos-9096/>. Accessed 02.01.2020.

¹¹⁸ This area includes the Lima provinces and the Lima Metropolitan areas, both of which are considered as being within the region of Lima, for the purpose of this study. It should thus be noted that Callao is not included in the National Crop Plan. 2018 – 2019 growing season. Adopted by Ministerial decree No. 0313-2018-MINAGRI.

in the region, including 48 temporary crops and 37 permanent and special crops. The temporary crops, which cover 3.1% of the land set aside for this purpose, include: hard yellow maize (19,173 ha), sweet potatoes (6,616 ha), lettuce (4,267 ha), potatoes (3,989 ha), broccoli (2,390 ha), choclo (large kernel) maize (3,363 ha), carrots (1,810 ha), paprika (1,710 ha), green beans (1,616 ha), garlic (1,374 ha), tomatoes (1,317 ha), purple maize (1,226 ha), cassava (1,205 ha), strawberries (1,145 ha), dry beans (1,026 ha), gherkins (1,010 ha), seed cotton (949 ha), onions (920 ha), cilantro (892 ha), ají chilis (869 ha), cowpeas (819 ha) and cauliflower (817 ha). The permanent and special crops, which account for 4.4% of the total area set aside for this purpose, include: sugarcane (11,492 ha), alfalfa (9,996 ha), apples (8,026 ha), avocados (6,492 ha), tangerines (6 067 ha), grapes (3 964 ha), peaches (3 511 ha), mangoes (567 ha), asparagus (2,371 ha), passion fruit (1,883 ha), chirimoya (1,754 ha), prickly pears (1,541 ha), oranges (994 ha), mangoes (752 ha) and lúcuma (676 ha).

The Lima Metropolitan area grows a total of 58 crops, including 41 temporary crops and 16 permanent and special crops. The temporary crops include: Lettuce (949 ha), broccoli (799 ha), radishes (679 ha), beetroot (613 ha), celery (587 ha), cilantro (478 ha), leeks (469 ha), scallions (459 ha), basil (314 ha) and ají peppers (312 ha). The permanent and special crops include: tangerines (228 ha), lúcuma (227 ha), avocado (129 ha), apples (75 ha), olives (70 ha), prickly pears (58 ha) and grapes (55 ha).¹¹⁹

As Peru's capital, Lima is home to the main associations relating to agricultural production and trade, including:

- The Chamber of Commerce of Lima (CoC).
- The National Association of Industries (SIN).
- The Exporters Association (ADEX).
- The Foreign Trade Association of Peru (COMEX).
- Associations of Agricultural Producers of Peru (AGAPP), comprising the Peruvian Institute of Asparagus and Vegetables (IPEH), the Association of Citrus Producers of Peru (Procitrus), the Association of Hass Avocado Producers of Peru (Peru ProHass), the Association of Mango Producers and Exporters, the Association of Table Grapes of Peru (ProVid), the Association of Pomegranate Producers of Peru (Progranada) and the Association of Blueberry Producers of Peru (Proarandanos).

¹¹⁹ National Crop Plan. 2018 – 2019 growing season. Adopted by Ministerial decree No. 0313-2018-MINAGRI.

Lima is the region with the most food markets in Peru (1,232 markets), including: 21 wholesale markets (13 in Lima, 1 in Huaura, 2 in Huaral, 4 in Cañete and 1 in Barranca); 1,125 retail markets; and 86 mixed markets. The wholesale market of the Villamaría del Triunfo seafood market is worthy of mention.

Callao, for its part, has 171 markets, including 167 retail markets, 3 mixed markets (the Callao fish market, the Modelo Mi Perú cooperative and the Señor de Los Milagros market), and 1 wholesale market (the Robles de Santa Rosa market).

It should be noted that food offerings can also be found in some of Lima city's retail markets, such as in Surquillo markets Nos. 1 and 2, the Chorrillos Modelo market, the Surco market, the Jesús María market, the Magdalena market and the Risso No. 2 market.

Lima has the greatest number and variety of restaurants in Peru. It also has Peru's most internationally renowned, award-winning restaurants, including Astrid & Gastón, Maido and Central, which are listed among the World's 50 Best Restaurants; and, Fiesta, Malabar, Rafael, La Mar, La Picantería, Osso, Isolina and Kjolle, listed among Latin America's 50 Best Restaurants (See figures 4.3.1 and 4.3.2).

Lima also has restaurants that offer different types of cuisine:

- Chifa (Peruvian-Chinese) and Chinese: Titi, Madam Tusan, Hou Wha, Wa Lok, O-Mei, Royal and Internacional.
- Regional Peruvian: Amaz, Fiesta, Don Fernando, El Rinconcito Arequipeño, El Tarwi, El Rocoto, El Rincón que no conoces, Huancahuasi and Ventarrón.
- Nikkei (Japanese-Peruvian) and Japanese: Maido, Osaka, Costanera 700, Hanzo, Matsuei, Edo Sushi Bar, Ache, Tzuru, and Tosshi Restaurante Nikkei.
- Creole: Isolina, Panchita, El Bodegón, José Antonio, Huaca Pucllana, La Picantería, La Antigua Taberna Queirolo and Brujas de Cachiche.
- Modern Peruvian: Rafael, Central, Astrid & Gastón, Cosme, La Gloria, Mayta, Matria, Amorambar and Malabar.
- Cebiche and seafood: La Mar, El Mercado, Francesco, Cala, Pescados Capitales and La Red.

- Roasted chicken: Primos, La Granja Azul, Don Tito, Pardos, Mediterráneo, Villa Chicken, Rasson and La Panka.
- Best country-style cuisine: the Chaxras eco-restaurant, La Gloria del Campo, Mesa de Piedra, Balcón del Cielo, El Huerto de Torcuato, Kusina Pachacamac, La Huerta de Pachacamac and El Refugio de Santiago.

4.3.4 Socio-economic and historical analysis

Lima's ancestral civilizations included the Caral, the oldest civilization in the world, which developed in parallel with major civilizations such as in Mesopotamia, India, Egypt and China. The Caral settlement is on terraced land topped with various constructions for protection from potential natural disasters such as mudslides or floods. This 5,000-year-old civilization was inscribed in the UNESCO World Heritage List as the first sustainable civilization.¹²⁰ Another notable ancient civilization is the Lima civilization, which dates back to roughly 200 B.C. to 100 A.D., at which time the region flourished, its population boomed and its agriculture was greatly improved.

The Lima region is also home to the Pachacamac sanctuary, which was the main sanctuary on Peru's central coast for more than 1,200 years. It was a site for pilgrimages and visits, overlooking the land, and was consulted as an oracle thought to accurately predict the future.¹²¹

As to the region's history, on 18 January 1535, Francisco Pizarro founded the *Ciudad de los Reyes* (City of Kings), which soon became known as Lima. This was selected for its strategic location, being by the ocean, but also set far enough back as to be kept safe from potential attacks. While it was officially named "Ciudad de los Reyes", it subsequently took on the city's indigenous name, "Rímac", which, according to Garcilaso de la Vega, was the origin for the name "Lima". Indeed, the capital was known under a range of other names throughout its history, including the City of Kings, the Pearl of the Pacific, the Thrice-crowned Villa and the Garden City.¹²²

¹²⁰ <https://www.peru.travel/es-pe/que-hacer/milenario/ciudad-sagrada-de-caral.aspx>. Accessed 02.01.2020.

¹²¹ <http://pachacamac.cultura.pe/nosotros/historia>. Accessed 10.01.2020.

¹²² <http://educared.fundaciontelefonica.com.pe/blog/calendario-civico/fundacion-de-la-ciudad-de-lima/>. Accessed 10.01.2020

The Lima region is the country's most populous, with 9,485,400 inhabitants, accounting for 32.3% of Peru's total population. The Callao region (which, for the purpose of this study, is studied jointly with the Lima region) has a population of 994,500 inhabitants, or 3.4% of Peru's total population. Also, 98.3% of Lima's population and 100% of Callao's population is urban.

The Lima region has a population density of 272.3 per km², a significant increase as compared to 236.6 per km² in 2017, and is notably high in Lima province alone (3,276.8 per km²). The population density in Callao is 6,815.8 per km², compared to 5,774.1 per km² in 2007.

In both Lima and Callao, 51.2% of the total population is female, and 48.8%, is male.¹²³

The breakdown by age group in Lima is as follows¹²⁴:

Table 4.3.4.1

group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	2,132,876	2,420,156	2,187,501	1,536,309	1,208,563

Source: National census report 2017 – INEI.

The breakdown by age group in Callao is as follows¹²⁵:

Table 4.3.4.2

group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	243,225	246,305	223,547	158,260	123,157

Source: National census report 2017 – INEI.

In terms of education, in the Lima region, 816,374 individuals aged 15 or older (11.1% of persons in this age group) had completed primary school as their highest level of

¹²³ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 10.01.2020

¹²⁴ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

¹²⁵ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

education; 3,245,671 (44.1%) had completed secondary school. At the higher education level, 1,288,605 (17.5%) had completed non-university higher education, and 1,856,314 (25.2%) had completed university studies, of which 14.7% went on to obtain a master's or doctoral degree.

In the Callao region, 82,570 individuals (11% of the population aged 15 or older) had completed primary school as their highest level of education, while 354,900 persons (48.6%) had completed secondary school. At the higher education level, 149,440 persons (19.9%) had completed non-university higher education, and 140,963 persons (18.8%) had completed university, of which 9.7% went on to obtain a master's or doctoral degree.

In the Lima region, 6,903,489 persons (72.8% of the population), had some form of health insurance. In Callao, that figure was 774,607 (77.8% of the population).¹²⁶

In terms of employment, 4,770,95 persons in the Lima region are economically active, of which 98% live in urban areas¹²⁷.

The poverty rate in the Lima region was 15.4% of the total population, and the extreme poverty rate was 0.8%¹²⁸. Moreover, 4.9% of children under the age of 5 suffered from chronic malnutrition; 36% of children aged 6 to 34 months were anemic, while that figure for youths aged 15 to 19 years was 23.2%.¹²⁹

In the Callao region, 474,434 persons are economically active, all of whom live in urban areas,¹³⁰ 32.4% of children under the age of 36 months is anemic, and 15% of the population is poor, with 14.4% living in poverty and 0.6% in extreme poverty.¹³¹

4.4 Arequipa

4.4.1 Selection criteria

a. Location:

¹²⁶ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 10.01.2020

¹²⁷ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1600/

¹²⁸ https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 08.01.2020

¹²⁹ http://sdv.midis.gob.pe/Sis_Anemia/Uploads/Indicadores/LIMA.pdf. Accessed 08.01.2020

¹³⁰ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1600/

¹³¹ https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 08.01.2020

Arequipa is a region in southern Peru. It is comprised of 8 provinces (Arequipa, which is also the region's capital, Camaná, Caravelí, Castilla, Caylloma, Condesuyos, Islay and La Unión) and 109 districts.

Although this region is along Peru's coastline, it is traditionally considered to be a part of the highlands, where most of its territory lies, including its capital. It has an area of 63,343.9 km² and a population of 1,382,730 inhabitants, according to the 2017 census¹³².

b. Gastronomic development

Arequipa has products from the coast, such as Arequipa river shrimp, but also from the highlands, including the *tuti año* or *izaño*, a tuber which is used to make *mazamorra de año* (a sweet corn porridge) and *huatia* (a stew); Tuti fava beans, eaten plain, with cheese, in stews, or in "*revuelto de habas*"; *lacayote* (figleaf gourd), *llichu* leaves, used in soups or to make *loritos* (leafy paddy side dish), cabanita maize, Tapay apples, mountain papayas or Arequipeña papayas, pears and *rocoto serrano* chili peppers¹³³.

Arequipa traditional cuisine includes *boyo de cabanaconde*, a typical bread from the Cabanaconde district in the Colca valley, Lluta red cheese, *chicha de jora* (a fermented corn beverage), hot peppers, stuffed rocoto peppers, *pastel de papa* (potato gratin), *almendrado* (made with almonds), adobo stew, *cuy chactado* (fried guinea pig), *ocopa* (potato dish), prawn soup, *queso helado* (iced cheese dessert), *chicha de guiñapo* (a signature corn beverage) and *solterito* (a salad).

Arequipa is also part of the area covered by the Pisco appellation of origin, and its picanterías were recognized as part of Peru's national cultural heritage, under Vice-ministerial decree No. 033-2014-VMPCIC-MC of the Ministry of Culture. These are recognized as social gathering spaces bringing together people from different classes, and are considered to be local memory storehouses which keep various cultural traditions alive.

¹³²Datos obtenidos del The Statistical Compendium of Peru 2018 prepared by INEI. En: https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1635/compendio2018.html

¹³³ Slow Food (2017). *Op. Cit.*, p. 87 - 217.

Arequipa has its own gastronomic association, which has been dedicated to raising the profile of Arequipa's cuisine since its establishment in 2006.

c. Tourism development

Arequipa is a well-known tourist destination with an array of offerings, including snow-capped mountains, monuments, nature and gastronomy. It is known as “the White City” as most of its architecture is made from a white volcanic stone called sillar.

Arequipa city's main tourist attractions include: the Arequipa Cathedral, the Santa Catalina Convent, Casa Goyeneche, and a must: a museum visit to see Juanita, the the human mummy also known as the Lady of Ampato. This mummy is well-known because it is in excellent condition, preserved from the times of the Inca civilization. Outside the city, sites include the Colca Canyon, Chivay, Sabandía, the Yanahuara scenic viewpoint, the Founder's Mansion and Misti Volcano.¹³⁴

Arequipa, Cuzco and Puno comprise Peru's better-known international tourist circuit: 22% of international tourists to Peru visit the Arequipa region, staying four days on average. Most international tourists to the region (94%) engage in cultural activities, while 67% engage in nature activities¹³⁵.

With regard to domestic tourism, the region receives 5% of Peruvian vacationers, most of whom (47%) stay 1 to 3 days, while 43% stay 4 to 7 days. Average spending in the region is 592 soles. Peruvians visiting the region mostly engage in urban tourism (84%) and nature activities (55%)¹³⁶.

4.4.2 Food and the environment

Arequipa is in southern Peru, where the Andes mountain chain influences climatic variety and aridity, “manifested in low rainfall, low relative humidity and major

¹³⁴ <https://www.peru.travel>. Accessed 28.12.2019.

¹³⁵ Profile of international tourists visiting Arequipa 2018 - Promperú.
<https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019

¹³⁶ Profile of national vacationers visiting Arequipa 2018 - Promperú ONLY
<https://www.promperu.gob.pe/TurismoIN/sitio/PerfVacacionistaNac>. Accessed 27.12.2019

temperature variations, which dominate the temperate climate: it is hot on the coast, and cold and dry in the highlands”¹³⁷. According to the Brack classification, the Arequipa region falls under the Pacific coastal desert areas, and its coast is affected by the cold Peruvian Current. Most of the region, however, lies between the highland steppes and the puna grasslands and high Andes¹³⁸. See Figure 3.1.1. for an overview of the region’s fauna and flora

The Arequipa region spans the following natural regions according to the Pulgar Vidal classification: most of the chala region, the yunga maritime and river region, the quechua region, the suni region, the puna grasslands and smaller parts of the janca¹³⁹. See Figure 3.1.2. for an overview of the region’s fauna and flora. It should also be noted that, in Arequipa, just as in Cuzco and Puno, alpaca meat is eaten in various dishes, substituting beef and pork.

For an overview of the region’s products, see 4.4.1 (b) above.

For the purpose of this study, the relevant products from the Arequipa region are Tuti fava beans and mountain papayas.

Fava beans are known to originate from the Middle East and were introduced to Peru by the Spaniards, before their cultivation extended into cold climate areas in the 17th century¹⁴⁰. The Tuti district of Caylloma province, in the Arequipa region, produces native fava beans, including the Gigante de Yunguyo and Verde Anta varieties¹⁴¹.

These fava beans can be eaten fresh or dried in their pods; they can be boiled, served in *revuelto de habas*, a dish cooked with onions, ají peppers, potatoes, milk and cheese; or used in different stews. The distinctive feature of fava beans produced in Tuti is that they grow in soil fertilized with the guano (droppings) of llamas, alpacas and sheep bred

¹³⁷ Ministry of Agriculture and Irrigation (MINAGRI) and the Regional Government of Arequipa. (2008). Strategic Regional Plan for the Agrarian Sector of de Arequipa 2009 – 2015.

<https://www.minagri.gob.pe/portal/plan-reg-agrario>. Accessed 29.12.2019.

¹³⁸ Brack, A (2010). *Op. Cit.*, p. 89.

¹³⁹ Pulgar, J. *Op. Cit.*, p. 22.

¹⁴⁰ Acurio, G. (2008). *Larousse de la gastronomía peruana*. Lima: Larousse, p. 185.

¹⁴¹ Slow Food. (2017). *Op. Cit.*, p. 130.

in the highlands area,¹⁴² enabling this product to be certified as organic¹⁴³. Growers in Tuti say that the beans' distinctive flavor comes directly from the Mismi mountain stream water that irrigates the soil where they are grown¹⁴⁴. It should be noted that, although Tuti fava beans have promising market potential, they are not well-known by consumers, who do not distinguish these from other fava beans produced in the region.

According to the 2018 Statistical Yearbook of Agricultural Production, Peru produced 78,380 metric tons (Mt) of dried fava beans and 69,618 Mt of green fava beans, with Arequipa as Peru's second leading green fava bean producer after Junín.¹⁴⁵ These beans are also exported to the United States of America, France, Canada, Spain and other markets.

The Papaya arequipeña (or Mountain papaya) is a native fruit of Peru which dates back to pre-Hispanic times. It is an elongated, aromatic and tangy fruit that is less pulpy than the common papaya. It is used in juices, compotes, jams and fruit salads, and grows in sub-tropical mountain areas or high jungle areas (from 1,500 to 3,000 meters above sea level)¹⁴⁶. It is mainly found in the Cuzco and Arequipa regions, and can now also be found in Puno. It is a fast-growing plant which bears fruit soon after planting. This has favored its cultivation on pre-Columbian platforms; each plant can produce 50 to 200 papayas.

This green papaya is oven-roasted and used as a squash, or its papain can be extracted, as this gelatinous substance is used for marinating and tenderizing meat. Its seeds can be used to add some spice to typical Andean dishes like *solas*. "The papaya and its derivatives strengthen the immune system, promote digestion and have an anti-inflammatory effect" and the gelatinous liquid extracted from the fruit is used to prevent tooth decay".¹⁴⁷ This fruit is mostly consumed locally as its existence and

¹⁴² *Idem*.

¹⁴³ Silvera, J. (2013). Arequipa: Alimentos agroecológicos de Tuti se lanzan a conquistar mercado. La República (23.04). <https://larepublica.pe/archivo/706288-arequipa-alimentos-agroecologicos-de-tuti-se-lanzan-a-conquistar-mercado/>. Accessed 12.01.2020.

¹⁴⁴ Mismi is a mountain of volcanic origin at an altitude of 5,822 meters in the Andes of Arequipa, Peru.

¹⁴⁵ Ministry of Agriculture and Irrigation (MINAGRI) (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

¹⁴⁶ Acurio, G. (2008). Op. Cit., p. 283.

¹⁴⁷ Slow Food. (2017). Op. Cit., p. 195.

properties are not well known outside the region, and because the tropical papaya is already highly competitive on the market.¹⁴⁸

Nevertheless, since 2011, the Danper company has been processing mountain papaya and marketing it both nationally and internationally. It is sold under the Miskichay brand, in the form of a papaya pulp syrup, a dessert for any time of year. In 2015, the Association of Organic Andean Papaya Producers (ASPPAO), registered papaya sales at 450,000 soles, facilitated by a Sierra Exportadora business plan¹⁴⁹.

4.4.3 Economic Analysis

According to INEI figures, Arequipa's GDP was 31,493,424 thousand soles in 2018, accounting for 6% of the country's GDP. The region's share of agriculture amounted to 1,800,677 thousand soles and the hotel and restaurant sector totalled 622,981 thousand soles, or 6% and 2% of regional GDP, respectively¹⁵⁰.

The main economic activities in the region are mineral and hydrocarbon extraction (37% of regional GDP), manufacturing (11%), trade (9%), construction (8%) and agriculture (6%), as mentioned above¹⁵¹.

The Arequipa region produces 80 crops, including 63 temporary crops and 27 permanent and special crops. The harvested area with temporary crops covered 65,859 ha, or 3.1% of the total area allocated for this type of crop in the country, while that figure for permanent and special crops was 50,230 ha, or 3.5% of the national total¹⁵².

The crops with the largest harvested areas (93% of the total) include paddy rice, onions, potatoes, starch maize, garlic, dry beans, choclo maize, carrots, green peas, wheat, green broad beans, quinoa, tomatoes, squash and paprika. These 15 crops alone

¹⁴⁸ *Idem*.

¹⁴⁹ *Sierra y Selva Exportadora* (Exporting highlands and jungle) is a public entity under the Ministry of Agriculture and Irrigation of Peru (MINAGRI), which aims to promote competitive and sustainable market access for [organized](#) small and medium agricultural producers from the country's highlands and jungle.

¹⁵⁰ INEI. (2018). GDP of economic activity per year.

<https://www.inei.gob.pe/estadisticas/indice-tematico/pbi-de-las-actividades-economicas-por-anos-9096/>. Accessed 02.01.2020.

¹⁵¹ *Idem*.

¹⁵² <https://agroarequipa.gob.pe/images/AGRICOLA/PLAN%20NACIONAL%20DE%20CULTIVOS%202018-2019%20APROBACION.compressed.pdf>. Accessed 08.01.2020

account for 93.2% of the area with these types of crops in the region. The main permanent crops are alfalfa, olives, artichokes, prickly pears, grapes, avocados, oregano and sugarcane, which cover 49,406 ha of harvested land, or 98% of the regional total.¹⁵³

Agricultural exports in the Arequipa region increased to a record \$135,000,000 million dollars in 2018. These included avocado exports, which grew by 166%, and grape exports, which grew by 41% compared to the previous year, exported mainly by the company Agrícola Pampa Baja.¹⁵⁴

According to INEI, the Arequipa region has approximately 110 food markets, in which the following have the most stalls: (i) in Arequipa city: the San Camilo and the Producers markets; (ii) in Cayma: the “24 de junio” area market; (iii) in Cerro Colorado: the Río Seco wholesale metropolitan market; (iv) in José Luis Bustamante and Rivero: the “4 de agosto”, Gratersa, Metropolitan, Altiplano Los Incas, and Nueva Esperanza markets; (v) in Miraflores: the Teniente Ferre market; (vi) in Camaná, the Camaná central market; and, (vii) in Majes: the “triumfo 2000” market and “El Óvalo 1” food market.¹⁵⁵

In relation to the region’s gastronomy, Arequipa has a wide range of renowned restaurants in many of its cities. Picanterías play an important role in preserving the region’s culinary traditions. There is also a significant offering of cosmopolitan, fusion cuisine catering to the taste buds of the international tourists visiting the region. The best-known picanterías are: La Nueva Palomino, which won the 2019 Summum award for best restaurant in the region¹⁵⁶, Sol de Mayo, La Lucila, Típika and La Benita. There are also well-known restaurants, including Chicha, with its renowned chef, Gastón Acurio, la Trattoria Monasterio, a fusion restaurant combining Arequipa and Italian cuisine and ZigZag.

4.4.4 Socio-economic and historical analysis

¹⁵³ <https://agroarequipa.gob.pe/images/AGRICOLA/PLAN%20NACIONAL%20DE%20CULTIVOS%202018-2019%20APROBACION.compressed.pdf>. Accessed 08.01.2020

¹⁵⁴ https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/estadisticas_y_publicaciones/estadisticas/reporte_regional/RRC_Arequipa_2018_Anual.pdf. Accessed 07.01.2020

¹⁵⁵ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1447/libro.pdf. Accessed 07.01.2020

¹⁵⁶ <https://summum.pe/regiones/mejor-restaurante-de-arequipa/>. Accessed 08.01.2020

According to legend, the word “Arequipa” dates back to the year 1170, when the Inca Mayta, upon arriving in Arequipa valley, exclaimed to his army, “Ari Quepay” (“let’s stay here”) in Quechua. This name is also thought to have its origins from the Aymara language, in which “Ari” means “summit” and “Quipa”, means “behind”, possibly alluding to the Misti volcano, which dominates the city’s skyline.

The Arequipa region is where the pre-hispanic communities of the Yarabayas, the Chimbos and the Collaguas settled (around the 11th century), with their agrarian economy, followed by the Chuquibamba and Churajón communities (in 1000 A.D.). The Inca conquest drove technological developments in agriculture, with the construction of major irrigation systems and terracing.

After the arrival of the Spaniards, agriculture became the predominant activity, focusing specifically on grape and olive production. This enabled the region to develop its production of wines, grape spirits and olive oil, chiefly in present-day Yauca district (in the Caravelí province). Also, Spaniards comprised the majority of this city’s population, even surpassing their numbers in Lima.

The Arequipa region has a population of 1,382,730 inhabitants (4.7% of Peru’s total population), which is mostly urban (91.8%). Arequipa’s population density grew from 18.9 to 21.8 persons per square kilometer from 2007 to 2017.

Women comprise 51% of the region’s total population, making Arequipa one of the administrative departments with the highest percentage of women.

Breakdown by age group in Arequipa¹⁵⁷:

Table 4.4.4.1

group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	327,945	349,813	312,877	219,915	172,180

Source: National census report 2017 – INEI.

¹⁵⁷ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

In terms of education, 136,268 persons aged 15 or older, or 13% of persons in this age group, had completed primary school as their highest level of education, representing a 12.8% increase compared to 2007; 412,369 persons (39.1%) had completed secondary school. Also, 201,182 persons (19.1%) had completed non-university higher education, and 270,782 persons (25.7%) had completed university studies, of which 20,097 (10.4%), had gone on to obtain a master's or doctoral degree.

In terms of health, Arequipa is one of the regions with the lowest health insurance coverage: only 65.8% of the population is covered. Nevertheless, this is a significant improvement as compared to 2007, when only 42.9% of the population had some form of health insurance.¹⁵⁸ In addition, the prevalence of anemia among children under 36 months old is 32.4%.¹⁵⁹

In terms of employment, 685,138 persons in the Arequipa region are economically active, or 63.9% of the working-age population, of which 91.4% live in urban areas¹⁶⁰.

Lastly, the poverty rate is 16.9% of the population, and the extreme poverty rate is 4.1%.¹⁶¹

4.5 Tacna

4.5.1 Selection criteria:

a. Location

Tacna is in southern Peru, near the coast and also sharing a border with Chile. It is subdivided into 4 provinces (Candarave, Jorge Basadre, Tacna, which is also the region's capital, and Tarata) and 28 districts.

¹⁵⁸ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitaless/Est/Lib1539/libro.pdf. Accessed 07.01.2020

¹⁵⁹ It should be noted that the Multi-sectoral Plan to Combat Anemia only shows data for the age group of children under the age of 36 months. WIPO FOR OFFICIAL USE ONLY

http://sdv.midis.gob.pe/Sis_Anemia/Uploads/Indicadores/PlanMultisectorial_v_larga.pdf. Accessed 08.01.2020

¹⁶⁰ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitaless/Est/Lib1600/

¹⁶¹ https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 08.01.2020

It is a part of Peru's coastal region, although it also extends into the highlands. It has a total area of 16,075.7 km² and a population of 329,332 inhabitants, according to the 2017 census¹⁶².

b. Gastronomic development

There are various products native to Tacna, including the *pacaes de Tacna* chili pepper, olives and olive oil, *zapallo de carga de Tacna* (a giant pumpkin), as well as seafood¹⁶³. Other products such as *choclo de Pachía* maize, oregano and apricots are also found in the region.

Tacna's culinary traditions include *picante a la tacneña* (a spicy Tacna-style stew), *picante de guatita* (a spicy tripe dish), adobo (a stew), marraqueta bread rolls, *charquicán tacneño* (a meat stew), *patasca tacneña* (a soup), *adobo tacneño* (a meat dish), *pastel de choclo* (a corn dish), roast Candarave lamb, *cazuela a la tacneña* (Creole chicken dish) and octopus in an olive sauce.

Tacna has two appellations of origin: "Pisco" and "Aceituna de Tacna" (Tacna olive), through decree 023772-2014/DSD-INDECOPI issued by the INDECOPI Distinctive Signs Office on 10 December 2014, covering production in the areas of La Yarada, Sama and Ite.

Tacna has a gastronomy board, which was established in 2019, with a view to raising the profile of the region's culinary identity.

c. Tourism development

Tacna has various tourist attractions, including archeological sites, nature sites where one can enjoy hot springs and water-sports. It is known as a Pisco and wine-tasting area.

¹⁶² Data from the Statistical Compendium of Peru 2018, prepared by INEI: https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1635/compendio2018.html

¹⁶³ Slow Food (2017). *Op. Cit.*, p. 23 -85.

Tacna city has various sites to visit, including its cathedral, Casa de Zela and its municipal theater. Sites outside the city include Viejo de Tacna Valley, the Calientes-Pachias hot springs, the Miculla archeological site and Locumba Valley¹⁶⁴.

Most tourists in the Tacna region are visiting from Chile, and most come for health- or food-related travel. This region hosts the annual “Perú, mucho gusto” gastronomy fair. Tacna receives 28% of the total international tourists visiting Peru, and 33% of vacationers. The average stay in the region is two days¹⁶⁵.

4.5.2 Food and the environment

Tacna is in southernmost Peru and shares a border with Chile. It can be divided into two areas: the coast, with a dry climate, highly favorable for growing fruits and vegetables with export potential; and, the highlands, with favorable farming potential in the inter-Andean valleys.¹⁶⁶

According to the Brack classification, this region is part of the Pacific desert coastal area, by the cold sea of the Peruvian Current, the Highland Steppes and Puna areas¹⁶⁷. See Figure 3.1.1 for an overview of the region’s fauna and flora.

According to the Pulgar Vidal classification, this region spans the following natural regions: Chiefly the chala plain and yunga maritime and river regions, with small sections of the quechua, suni and puna regions¹⁶⁸. See Figure 3.1.2 for an overview of the region’s fauna and flora.

See Figure 4.5.1 (b) for a list of the region’s products.

Among the regional products relevant to this study is a giant pumpkin called *zapallo de carga* or *zapallo blanco*. The Spanish word “zapallo” (pumpkin) comes from the Quechuan word “Sapallu”, which means “tongue of the gods”. It is found in the Pachía

¹⁶⁴ <https://www.peru.travel/es-pe/>. Accessed 28.12.2019.

¹⁶⁵ International tourist profile 2018 – Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt> . Accessed 27.12.2019.

¹⁶⁶ MINAGRI (Ministry of Agriculture and Irrigation) and the Regional Government of Tacna. (2009). Regional Strategic Plan of the Agriculture Sector of Tacna 2008 – 2015. <https://www.minagri.gob.pe/portal/plan-reg-agrario>. Accessed 29.12.2019.

¹⁶⁷ Brack, A (2010). *Op. Cit.*, p. 89.

¹⁶⁸ Pulgar, J. *Op. Cit.*, p. 22.

district in Tacna province, and in Curibaya in the Candarave district¹⁶⁹. Curibaya has a cultivated area of 64 hectares, yielding up to 600 Mt of this crop annually, most of which is currently for local consumption¹⁷⁰.

4.5.3 Economic Analysis

In 2018, the Tacna region's annual GDP was 7,113,094 thousand soles, accounting for 1.3% of total GDP in Peru, with agriculture totalling 522,997, and the hotel and restaurant sector totalling 117,439, contributing 7.4% and 1.7% of the region's GDP, respectively¹⁷¹.

¹⁶⁹ Slow Food (2017), Op. Cit., p. 84.

¹⁷⁰ <https://diariocorreo.pe/edicion/tacna/produccion-de-zapallo-de-carga-es-de-mas-de-600-toneladas-al-ano-876075/>. Accessed 09.12.2020.

¹⁷¹ INEI, (2018). GDP of economic activity per year. <https://www.inei.gob.pe/estadisticas/indice-tematico/pbi-de-las-actividades-economicas-por-anos-9096/>. Accessed 02.01.2020.

Agriculture is Tacna's fourth leading economic activity, after mineral and hydrocarbon extraction, trade and construction, which contribute 35%, 11% and 9% of the region's GDP, respectively.¹⁷²

Approximately 50 crops are grown in the Tacna region, of which most (30) are temporary crops and cover a harvested area of 5,502 ha, or just 0.3% of the total area set aside for this purpose in Peru. The region's main crops are: Ají chilis, starch maize, watermelon, potatoes, quinoa, onions, squash, tomatoes, green beans, choclo maize, bell peppers, green broad beans, lettuce, cabbage, broccoli, paprika, celery, cauliflower, gherkins and sweet potatoes. The total cultivated area used for these 20 crops covers 96% of the region's total area for such crops.

The region's main permanent crops are olives, alfalfa, oregano and grapes, which, together, cover 98% of the region's total area for such crops.

In 2018, Tacna's agricultural exports accounted for 24% of its total exports, totalling \$50.7 million US dollars, a historic record for regional exports. This is explained by the growth in exports of products such as mushrooms, which grew by 68% compared to the previous year; olive exports grew by 17%, and watermelon exports grew by 16% compared to 2017. There has been sustained growth in watermelon exports over recent years, with exports doubling from 2014 to 2019 to reach \$1.2 million US dollars. The main market for Peru's exportable watermelon is Chile.

The leading agricultural exporters in 2018 were: Corporación ADC S.A.C., whose uncooked pasta exports grew by 114%, Nobex Agroindustrial S.A., whose preserved olive exports grew by 45%, and Fundo La Noria S.A.C., whose preserved olive exports grew by 11%. The latter two companies are the main olive exporters. Brazil and Chile are the main markets for these exports, concentrating about 90% of Tacna olive demand.¹⁷³

¹⁷² <https://www.inei.gob.pe/estadisticas/indice-tematico/economia/>. Accessed 08.01.2020

¹⁷³ https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/estadisticas_y_publicaciones/estadisticas/reporte_regional/RRC_Tacna_2018_Anual.pdf. Accessed 07.01.2020

According to INEI, the Tacna region has about 45 food markets. The food markets with the most stalls include: the Ciudad Nueva market, the Santa Rosa market, the Héroes del Cenepa market and the Asociación de Adjudicadores of the municipal program, in Coronel Gregorio Albarracín Lanchipa district; the “24 de junio” market, in Poccoyay district; and the Grau commercial market, Mercado Central, Coronel Bolognesi market and Dos de Mayo market in Tacna city.¹⁷⁴

Like many other regions of Peru, the Tacna region has varied gastronomy on offer in establishments like markets, which serve a wide array of regional soups and dishes, and picanterías, and restaurants which offer Tacna fusion cuisine.

The region’s best-known restaurants are La Glorieta, one of Tacna’s oldest restaurants, which substantially preserves the region’s culinary traditions, el Cacique and el Cebillano.

4.5.4 Socio-economic and historical analysis

The Toquepala cave paintings, and petroglyphs from the Picata and Miculla archeological sites are evidence that Tacna was inhabited as far back as approximately 10,000 B.C..

While archeological remains were found which indicate that the Aymara migrated to higher-altitude regions, no pieces of Inca origin were found; only signs of intensification of agriculture bound for Cuzco.

Records of the Almagro expedition to Chile at the time of the Spanish conquest indicate that three peoples inhabited this region: the Aymara and the Incas, both at higher altitudes, and fisherfolk on the coast. It was only in 1572 that the Spaniards settled in Tacna, in order to obtain a “reducción” site of indigenous peoples who provided labor in agriculture and trade, in the light of Tacna’s strategic location between Arica, Potosí and La Paz.

¹⁷⁴ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitaes/Est/Lib1447/libro.pdf. Accessed 08.01.2020

European migration led to the development of artistic and intellectual expressions in Tacna city, helping to raise the level of education, which remains evident today. It was in Tacna that the first uprisings for independence took place, first in 1811 and then in 1813, culminating in Tacna's being declared the Heroic City in 1828.

As is well-known, in the aftermath of the War of the Pacific, Chile was to occupy Tacna, Arica and Tarapacá for ten years, launching the "Chilenization" process. However, Peruvians in Tacna and Arica showed resistance to this process.

At the end of the ten-year period, these areas were not returned and their people were forced to serve in the Chilean military. Moreover, these three cities received a strong influx of Chileans, which drove many young people out of these cities.

In 1925, a referendum was scheduled to take place between Peru and Chile, mediated by the United States. Many Peruvians born in Tacna returned to the area to vote in favor of returning the city to Peru, but this referendum was rejected by the Chileans and was never held. This gave rise to numerous uprisings in which Peruvians lost their lives defending their territory. It was 49 years later, on 28 August 1929, that Tacna rejoined Peru.

Being separated from Peru was not the only challenge Tacna has endured since ancient times, as it has been struck by no less than earthquakes, with magnitudes ranging from 8° to 8.5° on the Richter scale. This is because Tacna lies near one of the country's active volcanic regions.

One of Tacna's most important celebrations is called "El Paseo de la Bandera", which is held on 28 August in commemoration of the Sunday mass during which the Peruvian flag procession was initiated in 1901, marking the first time Chile authorized this ceremony celebrating Peru's national festivities. Other festivals in Tacna include the Lord of Locumba festival and the Virgin of Rosario de Callagua festival.

The Tacna region has a population of 339,322 inhabitants, accounting for 1.1% of Peru's total population. It has a population density of 20.5 per km². Women account for 50.3% of Tacna's total population.

Tacna is one of the 20 regions in which more than half the population is under age 30. The population breakdown by age group in Tacna is as follows:

Table 4.5.4.1

Group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	75,874	84,602	79,698	54,002	35,156

Source: National census report 2017 – INEI¹⁷⁵.

As regards education, in the 2007-2017 intercensal period, the share of the population without any formal education decreased by 34.2% in the region; 35,580 inhabitants (14%) of persons aged 15 and older had completed primary school as their highest level of education; and 26,765 inhabitants (31.5% of the population) had completed secondary school. At the higher education level, 38,770 inhabitants (15.3%) had completed non-university higher education, while 60,363 inhabitants (23.8%) had completed university, of whom 4,838 (12%), had gone on to obtain a master's or doctoral degree.

As regards health, Tacna also has one of the lowest health insurance coverage rates in Peru; only 60.7% of the population is covered. Nevertheless, this figure has improved considerably since 2007, at which time only 35.1% of the population had some form of health insurance.¹⁷⁶ In addition, the prevalence of anemia among children under the age of 36 months in the region was 37%.

As regards employment, 172,932 persons in the Tacna region are economically active (66.9% of persons of working age), of which 89.1% live in urban areas¹⁷⁷. Moreover, Tacna has a poverty rate of 17.5%, and an extreme poverty rate of 1.6%.¹⁷⁸

4.6 Cuzco

4.6.1 Selection criteria

a. Location

¹⁷⁵ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

¹⁷⁶ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

¹⁷⁷ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1600/. Accessed 11.01.2020

¹⁷⁸ https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 11.01.2020

Cuzco is located in southeast Peru. It is subdivided into 13 provinces (Acomayo, Anta, Calca, Canas, Canchis, Chumbivilcas, Cuzco, which is also the region's capital city, Espinar, La Convención, Paruro, Paucartambo, Quispicanchi and Urubamba) and 112 districts.

Cuzco is considered to be a part of the highlands region, although part of it stretches into the jungle region. It has a total area of 71,986.5 km² and a population of 1,205,527 inhabitants, according to the 2017 census¹⁷⁹.

b. Gastronomic development

Cuzco has various native products including “Maíz Blanco Gigante Cuzco” (giant white maize from Cuzco) and “Café Machu Picchu – Huadquiña”, both of which are protected by an appellation of origin, and *chicha de jora* (a fermented corn beverage). Other products include *achira del Valle del Río Apurímac* (an arrow-root variety), the atacco herb, the ayrampo cactus, white chuño, black chuño (freeze-dried potatoes), huaytampo larvae, chulpe maize, purple maize, pesqoruntu maize, the mullaca plant, native Pampacorral potatoes, Maras pink salt and ullpu ferns. Cuzco's jungle area grows products such as chuncho cocoa from la Convención.¹⁸⁰

The region's culinary traditions include *pachamanca*, *puchero* (a stew), oven-roasted cuy (guinea pig), *frutillada* (fruit beverage), *huatia* (a stew), chiriuchu, kapchi lima bean casserole, timpu (meat and vegetable soup), *sara lava*, chairo soup, *cuchicauca*, lechón (suckling pig), pan chuta de oropesa bread and pan de wawa bread.

As mentioned above, Cuzco has two appellations of origin: “Maíz Blanco Gigante Cuzco” and “Café Machu Picchu – Huadquiña”.

The “Maíz Blanco Gigante Cuzco” appellation of origin was recognized by decree No. 012981-2005/OSD-INDECOPI of the INDECOPI Distinctive Signs Office on 2 September 2005, in order to distinguish this white giant maize species (*Paraqay sara*).

¹⁷⁹ Data from the Statistical Compendium of Peru 2018 prepared by INEI. En: https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1635/compendio2018.html

¹⁸⁰ Slow Food (2017). *Op. Cit.*, p. 87 - 217.

The “Café Machu Picchu – Huadquiña” appellation of origin was recognized by decree No. 003917-2011/DSD-INDECOPI of the INDECOPI Distinctive Signs Office on 8 March 2011, to help identify this green arabica coffee bean.

Lastly, Cuzco has a gastronomic association that was established in 2015 with a view to raising the profile of the region’s gastronomy.

c. Tourism development

The Cuzco region is considered to be Peru’s tourism destination par excellence, and the City of Cuzco was declared the Historic Capital of Peru¹⁸¹. Cuzco is considered to be the capital and heart of the Tahuantinsuyo Inca empire.

Cuzco region is home to great displays of age-old engineering through its buildings made of stone. Its best-known archeological tourist sites include: Sacsayhuamán, Choquequirao, Qenko, Tambomachay, Ollantaytambo and the Macchu Picchu Citadel, which was listed as one of the New Seven Wonders of the World in 2007¹⁸².

Other tourist sites include San Blas, also known as artisans’ quarter, the Sacred Valley, known for producing the best maize grain, the Maras salt mines and Paucartambo, among other cities.

Cuzco is the ideal destination “for aficionados of archeology, religious monuments and popular traditions, for lovers of cultural immersion tourism and adventure sports, handicraft collectors and birdwatchers”¹⁸³.

The City of Cuzco is also known for its gastronomy and renowned regional cuisine and fusion restaurants. The region’s most representative restaurants are listed further below.

¹⁸¹ Under article 49 of the Political Constitution of Peru Constitución Política del Perú de 1993.

¹⁸² <https://world.new7wonders.com/wonders/>. Accessed 28.12.2019.

¹⁸³ <https://www.peru.travel/es-pe/>. Accessed 28.12.2019.

In terms of tourist arrivals¹⁸⁴, in 2018, 37% of all tourists arriving in Peru visited Cuzco, and 51% of tourists whose purpose of travel in Peru was vacation, recreation or leisure visited Cuzco.

The average stay in Cuzco is six days, and most tourists coming to the region visit Macchu Pichu (94%). Also, 99% of international tourists engage in cultural activities, and 86% engage in nature activities¹⁸⁵.

Moreover, Cuzco accounted for 7% of domestic tourism, placing it among Peruvians' top five tourism destinations. Most Peruvians visiting the region (65%) stayed an average of 4 to 7 days in Cuzco, spending an average of 1,159 soles. The activities carried out by national tourists were cultural tourism (96%), urban tourism (87%) and shopping (50%).¹⁸⁶

4.6.2 Food and the environment

Cuzco is in southeastern Peru, and is part of two regions: (i) the coast, with a dry climate, greatly favorable for growing fruits and vegetables with export potential; and, (ii) the highlands, with farming potential in the inter-Andean valleys.¹⁸⁷

According to the Brack classification, this region covers the puna grasslands and high Andes areas and the upper and lower jungle areas¹⁸⁸. see Figure 3.1.1 for an overview of the region's fauna and flora.

According to the Pulgar Vidal classification, this region spans the following natural regions: the yunga river area, quechua, suni, puna, janca, the rupa or upper jungle area and the lower jungle or omagua area¹⁸⁹. See Figure 3.1.2 for an overview of the region's fauna and flora.

¹⁸⁴ International tourist profile 2018 – Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019.

¹⁸⁵ Profile of international tourists visiting Cusco 2018 – Promperú. En <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019.

¹⁸⁶ Profile of national vacationers visiting Cusco 2018 – Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfVacacionistaNac>. Accessed 27.12.2019

¹⁸⁷ Ministry of Agriculture and Irrigation (MINAGRI) and the Regional Government of Tacna. (2008). Strategic Regional Plan for Tacna Agrarian Sector 2009 – 2015. <https://www.minagri.gob.pe/portal/plan-reg-agrario>. Accessed 29.12.2019.

¹⁸⁸ Brack, A (2010). *Op. Cit.*, p. 89.

¹⁸⁹ Pulgar, J. *Op. Cit.*, p. 22.

For an overview of the region's products, see 4.6.1 (b) of the present report.

The relevant regional product selected for the purpose of this study is chulpe maize.

Chulpe maize, also known as *chulpi* or *chullpi*, is found in various areas south of the Andes and is eaten in toasted or parboiled form as an appetizer or to accompany soups and traditional dishes, or as a street snack. Chulpe maize is recognized as one of the six oldest types of maize, from which all the sweet maize varieties are derived. It was very popular during Inca times and disseminated to different areas. This maize is preserved using a traditional method still in use today called "guayunga", which consists of pruning the plants before they reach full maturation, then hanging them to dry in a designated room called a "qolqa".¹⁹⁰ In 2016, the chulpe maize of Paruru, Peru, was recognized as the best Andean grain from among 64 countries participating in Russia's thirteenth international festival.¹⁹¹

Accordingly, in order to boost production and the competitiveness of producers from Cuzco, Cajamarca, Apurímac, Ayacucho and Junín, Peru's Ministry of Agriculture and Irrigation (MINAGRI) provided farmers with a new chullpi maize variety, under international certification, "INIA 622 CHULLPI SARA". This variety reportedly has favorable yields and could help to improve the profitability of more than 12,800 small-scale producers in the regions mentioned.

This product is exported to various countries. In 2018, 2,352,576 kg of maize were exported¹⁹², including chullpi maize, mote (boiled maize) and cancha (roasted maize kernels) (compared to 2,38,297 kg in 2017). Exporters include: Miranda-Langa Agro Export S.A.C., Megabusiness Perú S.A.C. and Globenatural Internacional S.A..¹⁹³

4.6.3 Economic Analysis

¹⁹⁰ Slow Food. (2017). Op. Cit., pp. 148 – 149.

¹⁹¹ <https://rpp.pe/peru/cusco/maiz-chullpi-de-paruro-fue-premiado-en-rusia-noticia-965135?ref=rpp>. Accessed 07.01.2020.

¹⁹² <https://www.agrodataperu.com/2019/04/maiz-chullpi-mote-cancha-peru-exportacion-2019-marzo.html>. Accessed 07.01.2019.

¹⁹³ <https://agraria.pe/noticias/crece-exportacion-de-maices-tipo-cancha-chullpi-y-mote-16112>. Accessed 07.01.2020.

In 2018, Cuzco's annual GDP was 21,707,765 thousand soles, accounting for 4% of national GDP. The agricultural sector and the hotel and restaurant sector accounted for 1,027,938 soles and stood at 951,965 soles contributing 4.7% and 4.4% of the region's GDP, respectively¹⁹⁴.

Agriculture is the region's fifth leading economic activity, after mineral and hydrocarbon extraction, trade, construction and manufacturing, which account for 45%, 8%, 7% and 5% of total GDP, respectively¹⁹⁵

In Cuzco, a total of 61 crops are grown, including 36 temporary crops, which cover a cultivated area of 121,387 ha, or 5.8% of Peru's total area used for this type of crop. In 2018, permanent crops covered a cultivated area of 98,713 ha, or 7% of the national total for this type of crop.

In Cuzco, the 13 temporary crops which covered the largest swath of cultivated areas in Cuzco included: potatoes, starch maize, barley grain, dry broad beans, wheat, olluco (a tuber), oats, quinoa, dry peas, tarwi beans, choclo maize, hard yellow maize, oca (a tuber) and dry beans. Together, these 13 crops cover a cultivated area accounting for 93% of the regional total for these types of crops. The main permanent crops are: Coffee, cocoa, achiote (annatto), bananas and plantains, alfalfa, oranges, prickly pears, tea, pigeon peas and pineapples, accounting for 95.7% of the regional total.¹⁹⁶

The Cuzco region's economic impact is significant as it is the country's fifth largest contributor to GDP, (3.6% of total GDP). The region's economy is a major contributor of goods and services exports and tourism.

In 2018, Cuzco's agricultural exports amounted to \$18.6 million US dollars, down 7% from 2017. This was due to the drop in the sale of coffee (-22%) and giant maize (-

¹⁹⁴ INEI. (2018). GDP of economic activity per year.

<https://www.inei.gob.pe/estadisticas/indice-tematico/pbi-de-las-actividades-economicas-por-anos-9096/>. Accessed 02.01.2020.

¹⁹⁵ <https://www.inei.gob.pe/estadisticas/indice-tematico/economia/>. Accessed 07.01.2020

¹⁹⁶ <https://agroarequipa.gob.pe/images/AGRICOLA/PLAN%20NACIONAL%20DE%20CULTIVOS%202018-2019%20APROBACION.compressed.pdf>. Accessed 08.01.2020

16%)¹⁹⁷, Cuzco being the main producer of the latter. Nevertheless, the same year also saw an increase in exports of products such as quinoa, which increased by 94% with respect to 2017, and artichokes and cocoa, which increased by 25%.

The region's main agro-industrial companies, chiefly exporting artichokes, giant white maize and cocoa, are: Agrícola Alsur Cuzco S.A.C., Vidal Foods S.A.C. and the Asociación de Productores Cocoa Vrae, respectively.

According to INEI, the Cuzco region has 74 food markets. Those with the most stalls include: Mercado Modelo, in Calca; the Central Market in Sicuani; the San Pedro, Casccaparo and Rosaspata markets, in Cuzco city; the Vinocanchón market, in San Jerónimo; the Zarzuela and Huancaro markets, in Santiago; the Wanchaq, Molino II and Ttio markets, in Wanchaq; the Espinar market, in Espinar; and, Mercado Modelo and Maracaná market, in Santa Ana.¹⁹⁸

Cuzco has a broad gastronomic offering in terms of flavor, prices and other attributes. One can tour the region and taste regional cuisine at markets such as the San Pedro market, which is along the region's gastronomic circuit.

Cuzco is Peru's most visited inland region for tourism. As mentioned above, it receives numerous international tourists who come to visit Cuzco's renowned tourist attractions. This significant tourism inflow means Cuzco is a showcase to the world, which is why it has a concentration of well-known restaurants serving the best Peruvian gastronomy. It has a range of different types of restaurants and a variety of cuisines on offer, including regional, Creole and fusion cuisine, and an array of pastries. Among the restaurants which have gained notoriety or received awards, including the Summum award, are: Cicciolina, chef Gastón Acurio's Chicha restaurant, Map Café, El Huacatay, Incanto, Pachapapa and La Bodega 138.

4.6.4 Socio-economic and historical analysis

¹⁹⁷ https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/estadisticas_y_publicaciones/estadisticas/reporte_regional/RRC_Cusco_2018_anual.pdf

Accessed 09.02.2020. Cabe indicar que el Informe elaborado por el MINCETUR no procesa las razones de la caída de venta del café y el maíz gigante.

¹⁹⁸ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1447/libro.pdf. Accessed 08.01.2020

Cuzco's cave paintings provide insight into the region's pre-ceramic era (12,000 to 5,000 B.C.). These depict groups carrying out pastoral activities and using camelids, representing Cuzco's first human settlements. Later, pre-Inca ethnic groups focused on agriculture, which helped them to prosper. These groups represented a significant contribution to Peru's history through the archeological remains found and the oral tradition collected by chroniclers.

The Inca empire dates back to the 13th century A.D.. Then, after two centuries of struggle to strengthen its hold in Cuzco, the empire began its great expansion, under its ninth ruler, Pachacútec, who expanded the Inca empire to include modern-day Colombia, Chile, Bolivia and Argentina. It had a powerful army based on an imposed organizational structure which emphasized compulsory labor, a harmonious mutually-beneficial coexistence, and had a single language and a single religion. Pachacútec designed the perimeter of the sacred city of Cuzco in the shape of a crouching puma.

According to chronicles, one hundred years later, by the time of the Spaniards' arrival (1534), Cuzco city had 100,000 dwellings and an estimated population of 125,000 to 300,000 rural and urban inhabitants.

Later, during colonial times, the region was marked by its production and trade of textiles. However, the establishment of the Viceroyalty of the Río de la Plata in 1776 led to a drop in this production and trade. Under the republic, Cuzco started along its road to independence at a time when the economy had been weakened by the founding of the Republic of Bolivia, Arequipa's rise as a thriving trade center, and the debt burden from the war of independence. That turned around in 1830, when Cuzco's economy recovered by exporting sheep and alpaca wool to Europe, via Arequipa. It began to modernize its production with the establishment of its first textile mill and six breweries.

By 1925, Cuzco was southern Peru's most modern city which was deemed to be cosmopolitan owing to its cultural environment and links to foreign markets. Cuzco has artistic expressions which reflect the fusion of two worlds, it produces artful textiles, it has renowned tourist attractions such as Machu Picchu, Choquequirao and the Sacred Valley, and has rich and diverse traditions. All of this has perpetuated Cuzco's being perceived as diverse, reflecting a dichotomy between modernity and tradition and the urban and rural environments. It also attracts young and old alike, with offerings ranging

from adventure sports to the exquisite stews that are mentioned throughout this report.

Cuzco has a population of 1,205,527 inhabitants, accounting for 4.1% of Peru’s total population. Its population density is 16.7 per km², and women outnumber men, accounting for 50.5% of the population.

The population by age group in Cuzco¹⁹⁹:

Table 4.6.4.1

group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	327,336	309,072	253,802	181,512	133,805

Source: National census report 2017 – INEI.

The percentage of the population aged 15 or older that had completed primary school as the highest level of education was 20.8% (182,798 inhabitants), while 38.2% of the population (335,351 inhabitants) had completed secondary school. At the tertiary level, 13.1% of the population (114,871 inhabitants) had completed non-university studies, while 18.1% (159, 256 inhabitants) had completed university, of whom 11.7% (12,827 inhabitants), had gone on to obtain a master’s or doctoral degree.

In terms of health, 75.8% of the region’s total population had health insurance. This is up from 2007, when only 49.9% of the population had coverage.²⁰⁰ In addition, the prevalence of anemia among children under 36 months old was 55.3%.

In terms of employment, 534,027 persons in the Cuzco region are economically active, accounting for 59.2% of the working age population²⁰¹. Furthermore, 30.4% of Cuzco’s population lives in poverty and 20.7% lives in extreme poverty.²⁰²

¹⁹⁹ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

²⁰⁰ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 10.01.2020

²⁰¹ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1600/. Accessed 10.01.2020

²⁰² https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 08.01.2020

4.7 Loreto

4.7.1 Selection criteria

a. Location

Loreto is located in northeastern Peru. It is subdivided into 8 provinces (Maynas, Alto Amazonas, Loreto, Mariscal Ramón Castilla, Requena, Ucayali, Datem del Marañón and Putumayo), and 53 districts. Loreto's capital city is Iquitos, in Maynas province.

Loreto is part of the jungle area, and is the largest region of Peru, extending 368,799 km². It has a population of 883,510 inhabitants, according to the 2017 census²⁰³.

b. Gastronomic development

Loreto has exotic products, including the camu-camu fruit, the aguaje palm, aguaymanto (goldenberry), plantains, chonta (heart of palm), anihuayo fruit, arazá fruit from the Río Ucayali valley, caimito fruit, macambillo fruit, metohuayo fruit, naranja podrido fruit, pandisho fruit, cashews, sacha culantro, sacha mango, Chambira vegetal salt, ungurahui fruit, umarí fruit, pumpkin; ají peppers such as the charapita, sweet ají, ají malagueta; river shellfish and fish such as the carachama (a catfish), paiche fish, churo (river snails); and mammals such as the picuro or majaz (lowland paca).²⁰⁴

Loreto's culinary traditions include cecina (dried, smoked meat), tacacho, juane, roast picuro (paca), patarashca, suri larvae, masato de pijuayo (a peach palm fruit beverage) and tucupi (a sauce). There are also alcoholic beverages made with products from the area, such as huitochado, and chuchuhuasi liquor.

c. Tourism development

Loreto is a region with a richly biodiverse fauna and flora. The Amazon River, considered to be the world's largest river, flows through this region. This river (which includes the portion running through Peru) was deemed to be one of the New Seven Wonders of Nature²⁰⁵.

²⁰³ Data from the Statistical Compendium of Peru 2018 prepared by INEI.

²⁰⁴ Slow Food (2017). *Op. Cit.*, pp. 219 - 311.

²⁰⁵ <https://world.new7wonders.com/wonders/>

The Loreto region has various tourist attractions, is a place to observe unique species such as pink dolphins or endemic birds, and also has various types of soils. Its main tourism sites include the Pacaya Samiria and Alpahuayo Mishana National Reserves. It also has the Quistococha tourist center, Lake Zungarococha and Belén village²⁰⁶.

Loreto receives 2% of international vacationers to Peru²⁰⁷, who stay an average of eight days in the region²⁰⁸. In Loreto, 90% of vacationers engaged in cultural activities, 89% engaged in nature activities and 72% engaged in adventure sports.

4.7.2 Food and the environment

Loreto is in northeastern Peru. It has two types of terrain, alluvial and hilly, with islands, beaches, river banks, river bends, terraces and low-lying hills within the Amazon river basin.²⁰⁹

According to the Brack classification, this region is predominantly in the lower jungle or tropical Amazon forest area, extending slightly into upper jungle areas in western Loreto²¹⁰. For an overview of the region's fauna and flora, see Figure 3.1.1.

According to the Pulgar Vidal classification, the Loreto region is predominantly part of the lower jungle or Omagua area, also called the "Amazon plain". A small portion of the region is in the Rupa or upper jungle area in the southwestern part of the region²¹¹. For an overview of the region's fauna and flora, see Figure 3.1.2.

For an overview of the region's products, see 4.7.1 (b) of the present report.

²⁰⁶ peru.travel. Accessed 28.12.2019.

²⁰⁷ International tourist profile 2018 – Promperú. <https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt> Accessed 27.12.2019.

²⁰⁸ International tourist profile que visita Loreto 2018 – Promperú.

<https://www.promperu.gob.pe/TurismoIN/sitio/PerfTuristaExt>. Accessed 27.12.2019.

²⁰⁹ Ministry of Agriculture and Irrigation (MINAGRI) and the Regional Government of Loreto. (2008). Strategic Regional Plan for Tacna's Agrarian Sector 2009 – 2015. <https://www.minagri.gob.pe/portal/plan-reg-agrario>. Accessed 29.12.2019.

²¹⁰ Brack, A. (2010). *Op. Cit.*, pp. 89.

²¹¹ Pulgar, J. *Op. Cit.*, pp. 22.

The Amazon River, which is the world's largest and mightiest river, flows through the Loreto region, where manatees and pink dolphins can be observed. The river's source is in the snowcapped mountains in Caylloma (Arequipa). "Its river basin is the largest in the world and is a source of life for the Amazon, the planet's largest tropical rainforest and its lungs."²¹²

The relevant regional product highlighted in the context of this study is the aguaje.

Aguaje is a palm tree variety native to the Amazon jungle of Peru, that yields several fruit varieties, including the *shambo* (reddish pulp) and *ponguete* (yellowish pulp) varieties. This fruit is used to make a drink called aguajina, ice creams or jams²¹³, and its kernels can be used to extract edible oil. Loreto is Peru's largest aguaje fruit producing area, particularly in the Pacaya Samiria National Reserve.

Aguaje is vital, as it carries meaning in the indigenous cosmovision and is also known as the "tree of life" or "bread tree", denoting its importance as a staple in the local diet. It is also a staple feed for local fauna species, and helps to mitigate climate change since it stores approximately 600 Mt of carbon dioxide per hectare²¹⁴. Aguaje is a nutritious product that is rich in vitamins A and C, and also contains phytoestrogens, which help to reduce the risk of cancer and cardiovascular disease and to mitigate the symptoms of menopause.

Although aguaje is not yet fully domesticated, in 2017, Peru's National Forestry and Wildlife Service (SERFOR), implemented a project to boost the income and employment of aguaje-producing families in the Loreto region. This project helped 197 beneficiary families from five indigenous communities of Bajo Marañón, in Maynas province, Loreto: the Roca Fuerte, San Roque - "7 de Junio", Santa Rosa de Lagarto, San José de Parinari and the Parinari communities. The aim was to boost aguaje production and establish centres for processing, packaging and preserving frozen aguaje pulp.²¹⁵ This project enabled the "20 de enero" indigenous community to specialize in the

²¹² <https://www.peru.travel/es-pe/>. Accessed 11.01.2020.

²¹³ Acurio, G. (2008). *Op. Cit.*, p. 21.

²¹⁴ <https://peru.info/es-pe/gastronomia/noticias/2/13/aguaje--el-arbol-de-la-vida>. Accessed 12.01.2019.

²¹⁵ Andina Agencia de Noticias ["Andean News Agency"] (2017). Producción de aguaje mejorará ingresos de comunidades indígenas de Loreto ["Aguaje production will boost the income of indigenous communities in Loreto"] (01.02). <https://andina.pe/agencia/noticia-produccion-aguaje-mejorara-ingresos-comunidades-indigenas-loreto-654313.aspx>. Accessed 02.01.2020.

production of aguaje body oils and soaps, while other communities specialized in marketing its fruit and pulp. In the context of ExpoAmazónica 2019, organized by the Regional Government of the Amazon, the Ministry of Foreign Trade and Tourism (MINCETUR), the Ministry of Agriculture and Irrigation of Peru (MINAGRI) and PROMPERÚ, a Japanese company showed interest in marketing aguaje-based products.²¹⁶

4.7.3 Economic Analysis

Loreto's annual GDP was 8,935,097 thousand soles in 2018, accounting for 1.7% of Peru's GDP. The agriculture and hotel and restaurant sectors accounted for 807,674 soles and 290,231 soles contributing 9% and 3% of the region's GDP, respectively²¹⁷.

Agriculture is the region's third largest economic sector, after hydrocarbon and mineral extraction and trade, which contribute 18% and 3% of the region's GDP, respectively.²¹⁸

Loreto produces 55 crops, including 17 temporary crops. The cultivated area for temporary crops was 133,724 ha, or 6.4% of the area used for this type of crop in Peru; and 56,132 ha for permanent crops, or 4% of the total cultivated area for this type of crop at the national level.

The eight temporary crops with the most extensive cultivated areas in the region are: cassava, hard yellow maize, paddy rice, cowpeas, choclo (large kernel) maize, dry beans, groundnuts and watermelon. These crops covered 97,5% of the total cultivated area used for this type of crop in the region.

There are 15 main permanent crops: Bananas and plantains, oil palm, camu-camu fruit, aguaje, pineapples, pijuayo (peach palm fruit), lime, papaya, cocona fruit, umari fruit,

²¹⁶ SERFOR (2019). Jabones y aceites elaborados por comunidades indígenas de Loreto atraen el interés de empresario japonés ["Soaps and oils made by indigenous communities of Loreto attract the interest of a Japanese businessman. (17.08). <https://www.serfor.gob.pe/noticias/negocios-sostenibles/jabones-y-aceites-de-aguaje-elaborados-por-comunidades-nativas-de-loreto-atraen-el-interes-de-empresario-japones>. Accessed 10.01.2020.

²¹⁷ INEI (2018). GDP of economic activity per year. <https://www.inei.gob.pe/estadisticas/indice-tematico/pbi-de-las-actividades-economicas-por-anos-9096/>. Accessed 02.01.2020.

²¹⁸ <https://www.inei.gob.pe/estadisticas/indice-tematico/economia/>. Accessed 08.01.2020.

pacay fruit, coconut, grapefruit, cocoa and oranges. Altogether, these 15 crops cover 91.8% of the region's cultivated area.²¹⁹

Agricultural export figures were the same in 2018 as in 2017, totalling \$4.4 million US dollars. In 2018, the exports with the highest growth were cocoa, which grew by 29% compared to 2017, and essential essential oils, which grew by 16%.

According to the Ministry of Foreign Trade and Tourism (MINCETUR), the region's essential rosewood and aguaje oil exports amounted to \$405,000 dollars. The region has 34 agricultural exporters, namely, Industrias del Shanusi S.A. and Raíces Verdes S.R.L., which sell cocoa beans and vegetable oils, respectively.²²⁰

According to INEI figures, the Loreto region has 32 food markets. The markets with the most stalls are: the Yurimaguas district central market, the Nauta district municipal market, the Belén La Casona market in Belén district, the Indiana district municipal market, the Norteñita market in Iquitos district, the Requena district municipal market and the Contamana district street market.²²¹

In terms of gastronomy, Loreto has renowned restaurants, including Summum 2019 award nominees and winners: Al Frío and al Fuego, Fitzcarraldo Restaurante Café, Amazon Bistró, Ikíitu, El Mijano, El Sombrero de Paja, Gran Maloca, El Mesón and Bucanero.²²²

4.7.4 Socio-economic and historical analysis

In the 16th century, with the arrival of the Spaniards, expeditions in search of El Dorado began, which led to discovering the riches of the Peruvian jungle. At the time, indigenous peoples were evangelized by Jesuit and Franciscan missionaries, who also taught them how to farm and raise smaller animals. San Pablo de los Napeanos, a

²¹⁹ https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/estadisticas_y_publicaciones/estadisticas/reporte_regional/RRC_Loreto_2018_Anuar.pdf. Accessed 10.01.2020.

²²⁰ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1447/libro.pdf. Accessed 08.01.2020.

²²¹ Data from the national food market census 2016, conducted by INEI.

https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1448/libro.pdf

²²² <https://summum.pe/regiones/mejor-restaurante-de-loreto/>. Accessed 09.01.2020

settlement founded in 1757, became the Amazon River's chief port and was renamed the city of Iquitos.

The founding of the Republic of Peru (in 1821) led to initiatives to settle the jungle area and Loreto broke from the customary isolation it had experienced with the arrival of the Spanish missionaries. Nevertheless, because of the lack of roads connecting Loreto to the capital, the region remained isolated.

After falling under a succession of different territorial jurisdictions, in 1866, the administrative department of Loreto was established, with Iquitos as its capital. Later, at the end of the 19th century, the region experienced an economic and cultural boom from rubber harvesting, and received European, Brazilian and Chinese immigrants as well as an influx of Jews and religious missionaries. This influx of various cultures remains evident today, for example in Iquitos city architecture, including the Casa de Hierro ("Iron House") built by Gustave Eiffel and Moorish-style constructions. During this period, through 1905, the city became better connected to Europe, with which it maintained trade relations.

The oil exploration era, which began around 1938, started a new phase in Iquitos which began to bear fruit around 1960. This phase was marked by trade and an interest in improving and increasing school education coverage in the region. The oil economic boom which began in the 1970s led farmers to leave their lands and dedicate themselves to building the Norperuano pipeline, which led to a slowdown in agriculture.

The next economic boom to impact Iquitos stemmed from tourism, with efforts made to develop the region's ecology and knowledge about its biodiversity. This is reflected in the development of tourism in the Pacaya Samiria Natural Reserve, birdwatching, cultural immersion tourism, adventure tourism, esoteric tourism and other activities on offer in the region.

One of the region's main festivities is the emblematic Fiesta de San Juan, which begins on 23 June with the river bathing of villagers to receive a blessing from San Juan, and ends on 24 June with parades and traditional dances, dedicating the day to the famous "juane", a traditional dish of rice and chicken wrapped in bijao leaves.

Loreto has a population of 883,512 inhabitants, or 3% of Peru’s total population. As such, Loreto is one of the regions with the lowest population density, with 2.4 persons per km². Loreto is one of the country’s eight regions where men outnumber women, accounting for 50.2% of the population.

Loreto’s population by age group is as follows²²³:

Table 4.7.4.1

group	children	youths	young adults	adults	older adults
AGE	0-14	15-29	30-44	45-59	60+
TOTAL	323,712	203,526	166,861	112,326	77,085

Source: National census report 2017 – INEI.

The percentage of the population aged 15 or older that has completed primary school as their highest level of education was 29.1% (163,155 inhabitants); 43.4% (243,148 inhabitants) had completed secondary school; 10.4% (58,230 inhabitants) had completed non-university tertiary studies; and, 12.2% (68,223 inhabitants) had completed university, of which 8.5% (4,203 inhabitants) had gone on to obtain a master’s or doctoral degree.

In terms of health, the Loreto region has one of the highest levels of health insurance coverage in Peru, with 85.7% of the total population covered²²⁴. The prevalence of anemia among children under the age of 36 months was 61.5%.

In terms of employment, 320,668 persons in the Loreto region are economically active, accounting for 55.4% of the working age population²²⁵; 28.8% of the population in the Loreto region lives in poverty and 27.3% lives in extreme poverty.²²⁶

²²³ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1539/libro.pdf. Accessed 11.01.2020

²²⁴ *Ibid.*

²²⁵ https://www.inei.gob.pe/media/MenuRecursivo/publicaciones_digitales/Est/Lib1600. Accessed 10.01.2020

²²⁶ https://www.mef.gob.pe/contenidos/pol_econ/documentos/mapa_pobreza_2009.pdf. Accessed 08.01.2020

CHAPTER V: ANALYSIS OF REGIONAL CULINARY TRADITIONS

This chapter includes a socio-cultural and historic analysis of selected regional culinary traditions for each of the regions.

It also includes observations that were collected during interviews with the chefs and owners of major restaurants in each region, who noted some variations from the reference recipes initially documented. (See Annex 1: Fact Sheets and Questionnaires)

5.1 Lambayeque

(i) **Arroz con pato** (“rice with duck”)

The restaurant “Rosita Inga” offers rice with duck, with some variations from the recipe under Annex 2. Ms. Bianca Vieraninga, Rosita Inga’s daughter, indicated that she does not use vinegar in this dish, and that the duck should be seasoned at least 24 hours before cooking, just as for cabrito (suckling goat). During preparation, the duck pieces are folded into the rice and should simmer for one hour instead of 10 minutes. In terms of presentation, the only variation identified was the number of red pepper strips placed over the rice: Ms. Vieraninga uses four, and adds a *piqueito* (bite-sized snack) as a side, which can be *canchita* (toasted chulpe maize), salted *jurelito* (horse mackerel) or *caballita* (mackerel).

Mr. Lizandro Castillo, the chef and owner of the restaurant “Rincón del Pato” noted that the three tablespoons of culantro should be ground, not liquefied, and the loche (squash) should be grated, not chopped. Like Ms. Vieraninga, he does not use vinegar either. He also noted that dark beer is added at the end rather than added at the same time with all of the ingredients as indicated in the reference recipe.

With regard to the story behind this dish, Antúnez notes that the Peruvian duck was domesticated by pre-Hispanic civilizations, while the kele, solojeta or joque duck was also widely found in northern Peru, where it is eaten to this day during the region’s main celebrations. Duck was called *ñuñuma* in Quechua by the Moche peoples, and was considered to be one of the finest meats during the Incan Empire.

The origins of a 19th century duck and rice dish called “pato con arroz a la chiclayana” are linked to the arrival of the Spaniards, as an attempt to recreate their beloved paella using the

ingredients they could find locally. The first recorded reference to this dish by name was made in 1860 by the Colombian poet Próspero Pereyra Gamba.

An alternative version of the origins of this dish, from the north, this culinary tradition was used as a strategy to make a man fall in love with the woman who prepared it: In preparing the dish, the woman would hide the duck's heart in the rice, and when the object of her affection would find and eat this delicacy, he was instantly smitten.

A key ingredient in this dish is a type of squash called "Loche de Lambayeque", a product which was granted Peru's sixth appellation of origin by INDECOPI in 2010²²⁷. The Lambayeque food professionals that were interviewed in the context of this project noted that this appellation of origin had helped to disseminate this product, bringing it closer to markets. The steadily increasing marketing of this product has also provided a boost to farmers.

Mr. Lizandro Castillo Salazar, the owner and chef of the restaurant "El Rincón del Pato" recounted the story of "Loche de Lambayeque" according to which this squash acquired its tear-drop shape in a lovers' tiff between the moon and the night: The moon fell in love with the night, but this love was unrequited. When moonlight is blocked by the dark night (when there is a new moon), the moon is said to cry. Hence, loche squash is a tear drop shed by the moon that could not shine its light in the night.

Value chain

Figure 5.1.1

²²⁷ This appellation was protected under decree No. 18799-2010/DSD-INDECOPI of the INDECOPI Distinctive Signs Office decree on 3 December 2010.

“ARROZ CON PATO” (RICE WITH DUCK) VALUE CHAIN



a. Ingredients

The key ingredients in the traditional dish *arroz con pato* (rice with duck) are: (i) *Loche de Lambayeque* (a squash); (ii) *ají amarillo* (yellow Peruvian chili); (iii) duck, (iv) paprika peppers; and, (v) *chicha de jora* (a fermented maize beverage).

As mentioned above, *Loche de Lambayeque* is a product with an appellation of origin, which enhanced its marketability. Among the associations that produce this type of squash is the San Benito de Callanca Association of Agricultural Producers (ASPROCAM)²²⁸ and the Regional Loche Producers’ Association²²⁹.

It should be noted that, based on the interviews conducted and information found on the Internet, we were able to flag that it would seem that Loche is being planted in other areas, specifically in the Virú Valley of La Libertad region, as part of a planting project managed by the Chavimochic Special Project (PECH)²³⁰.

²²⁸ <https://andina.pe/agencia/noticia-productores-lambayecanos-callanca-elaboraran-pasta-zapallo-loche-459393.aspx>. Accessed 28.12.2019.

²²⁹ Information from the Regional Government of Lambayeque. <https://www.regionlambayeque.gob.pe/> Accessed 27.12.2019.

²³⁰ From PECH: <http://www.chavimochic.gob.pe/noticias.php?pagina=7>. Accessed on 27.12.2019

Moreover, in 2012, the Association of Producers of Callanca in Lambayeque had announced that it would market loche squash in processed paste form²³¹. However, this initiative seems to have been unsuccessful, as no status update can be found about this to date, nor is this product found in markets or supermarkets at the regional or national levels.

Ají amarillo (yellow Peruvian chili), for its part, is a product which is native to the Lambayeque region and marketed throughout Peru as “ají escabecho” or “ají verde”, and “its ancestral use and cultivation have made it vital in Peruvian regional seasoning”²³². While precise data on the national production of this particular chili variety could not be found, data on the production of ají in general is available, and Tacna and La Libertad were identified as the main producers. In 2018, the total production of all ají varieties (with the exception of paprika) in Peru was 49,715 Mt, with exports to about 4,000, countries, including the United States, Spain, Chile, and Colombia. Processed and preserved ají is exported to various markets, chiefly the United States, Canada, Spain and Puerto Rico, with exports totalling 126,274 kg in 2019. The main ají-exporters are Gandules Inc. S.A.C., Ecosac Agrícola S.A.C. and Danper Trujillo S.A.C.²³³.

Paprika peppers are a valuable source of vitamin C. At present, Peru is one of the world’s leading paprika producers and exporters; its optimal climate and soil conditions make it possible to grow paprika year-round, giving it a competitive advantage.

The main paprika-growing areas are Arequipa (in Majes), Lima (in Barranca, Supe, Huaura and Cañete), Ica (in Chincha, Ica and Pisco), Ancash, Piura, Lambayeque, and La Libertad and Tacna. Lima accounts for 41% of total paprika production.

Peruvian paprika peppers are exported to markets such as Mexico, the United States of America, Spain and Guatemala. One of the main paprika-exporters is Agroexportadora Sol de Olmos S.A.C.

In relation to duck, although duck production is an important activity in Lambayeque since it is one of the regions of Peru with the most avid duck consumption, precise figures on duck meat sales or its main marketers could not be found since only the more general heading of “poultry”

²³¹ Processed *loche* that is turned into a paste.

²³² The Peruvian Gastronomy Association, UNALAM, Inia, USMP, (2009). Op Cit., p. 41.

²³³ <https://www.agrodataperu.com/2019/08/conservas-vegetales-pimientos-gandules-frejol-de-palo-aji-panca-aji-amarillo-peru-exportacion-2019-julio.html> Accessed 27/12/2019

appears in regional statistics. From the interviews conducted, however, it was learned that duck meat is marketed in all the region's food markets. Some markets even have dedicated days for the sale of duck meat: for example, Chiclayo's central market sells duck on Tuesdays.

Chicha de jora, the fermented corn beverage used in this culinary tradition is made in Lambayeque, more specifically, in Morrope, using yellow and alazán maize varieties. *Chicha de jora* production dates back to Mochica times. There are two *chicha*-producing associations: Cruceñita Linda and Dulce Morropanita²³⁴, which produce 500 liters of *chicha* monthly, which is then sold in markets in Lambayeque and Chiclayo, and the Asociación de Mujeres Productoras de Chicha de Jora del Centro Poblado Cruz del Medano-Morrope, which produces a *chicha* protected under the collective mark "Dulce Cruceñita". One of Morrope's best known *chichas* is made by Ms. Úrsula Ventura who learned how to make *chicha* when she was 11 years old, from her mother, and carried on this tradition until age 93, in 2016. *Chicha de jora* is also produced in various communities in Ferreñafe, including in Sialupe Huamantanga, as well as in the Monsefú district of Chiclayo province. In 2016, Candelaria brewery launched a limited edition *chicha de jora* beer to celebrate Peru's Independence Day.

This rice with duck dish is cooked over a wood fire, usually of carob wood. However, this tradition is being lost in the light of the environmental problem caused by *pollerías'* widespread use of carob wood for grilling chicken.

b. Marketing and distribution

The above ingredients can be found in nearly every food market, mainly at the Moshoqueque market, the Chiclayo Modelo market and the Ferreñafe central market. These products are distributed to food markets by producers or intermediaries, but their marketing trajectory from farm to table is not clearly traceable because of a lack of relevant data.

While there are no precise figures on this culinary tradition's impact on the development of the region or its influence in other regions, *arroz con pato* is served in nearly every gourmet restaurant in Lima, which reflects a scaling up of this tradition. This dish may have gained renown from the recognition given to Fiesta Restaurant, of Chiclyanao origin: *Arroz con pato* is its flagship dish, the distinguishing features of which are its presentation, served in the pot, and its

²³⁴ <https://www.laindustriadechiclayo.pe/noticia/1545236879-chicha-de-jora-ayuda-a-economia-en-morrope>. Accessed 11.01.2020.

rich flavor. This dish can also be found in restaurants in Lima, including Costanera 700, Mayta, Don Fernando, Pueblo Viejo, Rafael and Maido, and it is served in all of Lambayeque’s restaurants.

(ii) ***Cabrito (cabrito de leche)*** (suckling goat)

“Seco” is a stew with Arab origins. It was introduced in Peru in colonial times, when it was called “seco tajime”, and was made with mutton.

One of this main ingredients in this dish, culantro, was introduced by the Spaniards, together with the fine herbs and spices that were used as seasonings in the Middle Ages, including basil, lemon verbena, mint, sage, pepper, cinnamon, rosemary, oregano, thyme, fennel, parsley, ginger, saffron and cumin.

According to a quote by Dr. Ernst W. Middendorf at the end of the 19th century, cited by Gloria Hinostroza: “All of these stews require sauteeing or simmering in order to allow the spices to release their flavor, and are much more fragrant than they seem”, and, “in truth, it doesn’t look like much on the surface, but that could be easily remedied, if one tried”²³⁵.

Cabrito, like other typical dishes of the region, is a part of the local population’s identity, as is reflected in the northern troubadors’ song, “Yo soy ferreñafano” (“I am from Ferreñafe”), which makes a reference to this dish.

In an interview, the chef and owner of Rosita Inga restaurant, Ms. Bianca Vieraninga, noted some variations from the reference recipe (see Annex 2) in her preparation of *cabrito*. One was that she seasons and marinates the meat 24 hours before cooking, and another related to the side dish: instead of serving a side of Creole salsa (made with onions), she said that she always serves this dish with a *piqueito* (bite-sized starter) of mackerel, jurel (horse mackerel) or toyo (shark).

Value chain:

Figure 5.1.2

²³⁵ Hinostroza, G. (2018). *La Historia del Seco, Un guiso típicamente peruano* [“The history of Seco, a typical Peruvian stew”]. <https://abrecht-group.com/2018/11/01/la-historia-del-seco-un-guiso-tipicamente-peruano-2/>. Accessed noviembre 2019.

“CABRITO” (YOUNG GOAT) VALUE CHAIN



a. Ingredients

The key ingredients for making a traditional *cabrito* are: (i) Loche squash; (ii) ají amarillo (yellow Peruvian chili); (iii) the meat of suckling goat, or “extrema” (virgin) goat; and, (iv) *chicha de jora* (vinegar may be used as a substitute).

As mentioned above, *Loche de Lambayeque* is a product with an appellation of origin, which has enhanced its marketability. Among the associations that produce this type of squash is the San Benito de Callanca Association of Agricultural Producers (ASPROCAM)²³⁶.

It should be noted that, based on the interviews conducted and information found on the Internet, we were able to call attention to the fact that it would seem that Loche is being planted in other areas, specifically in the Virú Valley of La Libertad region, as part of a planting project managed by the Chavimochic Special Project (PECH)²³⁷.

²³⁶ <https://andina.pe/agencia/noticia-productores-lambayecanos-callanca-elaboraran-pasta-zapallo-loche-459393.aspx>. Accessed 28.12.2019.

²³⁷ Información obtenida del PECH. En <http://www.chavimochic.gob.pe/noticias.php?pagina=7> Accessed on 27.12.2019

Ají amarillo (yellow Peruvian chili), for its part, is a product which is native to the Lambayeque region and marketed throughout Peru as “ají escabecho” or “ají verde”, and “its ancestral use and cultivation have made it vital in Peruvian regional seasoning”²³⁸. In Lambayeque, *ají* is produced in the Eten, Monsefú, Reque and Motupe districts by small holder farmers, although there is no data on the number of *ají* producers²³⁹. It is marketed mainly in fresh form. According to the interviews conducted, these chilis sold on the Lambayeque market are from crops grown in this region as well as in the regions of La Libertad, Ancash and Lima. The preserved form of this product is exported to various markets, namely in the United States, Canada, Spain and Puerto Rico, with yellow *ají* chili exports totalling 126,274 kg in 2019. The main *ají*-exporters include Gandules Inc. S.A.C., Ecosac Agrícola S.A.C. and Danper Trujillo S.A.C.²⁴⁰.

Cabrito (young goat) is farmed in certain areas in the northern and central highland regions, including Lambayeque. In 2017, 456 Mt of baby goat were produced in this region’s three provinces²⁴¹. It was noted that the Ministry of Agriculture had set targets to increase goat meat production, which totalled 15,400 Mt in 2014, from a total goat population of 2 million located principally in the coastal area (Piura, Lambayeque, Lima and Ica) and to a lesser extent, in the highlands (including in Huancavelica and Ayacucho).²⁴² While goat meat is not widely consumed in Peru, it is linked to regional customs in areas along Peru’s northern coast, where one can find specialties such as *cabrito*.

The main type of goat meat that is eaten is Creole goat, derived from goats that were introduced by the Spaniards during the Conquest. These goats are not highly productive (mature live goats weigh 30 to 40 kg), but they are very adaptable to different environments. As these animals are graze-farmed, their production is linked to small-holder farmers, and there is no precise data on the number of goat meat producers²⁴³. Nevertheless, Indecopi issued a collective mark for young goat meat produced by the Asociación de Productores Agropecuarios y Apicultores de Cruz de Pañala – Morrope (Association of Agricultural Producers and Beekeepers of Cruz de Pañala,

²³⁸ The Peruvian Gastronomy Association, UNALAM, Inia, USMP. (2009). Op Cit. P 41.

²³⁹ It should be noted that 15-20 tons of *ají* can be produced on one hectare.

²⁴⁰ <https://www.agrodataperu.com/2019/08/conservas-vegetales-pimientos-gandules-frejol-de-palo-aji-panca-aji-amarillo-peru-exportacion-2019-julio.html> WIRELESS USE ONLY

²⁴¹ http://siea.minagri.gob.pe/siea/sites/default/files/anuario-produccion-pecuaria-2017-261118_0.pdf. Accessed 27.12.2019.

²⁴² National Plan for Livestock Development 2017 – 2027.

<https://www.minagri.gob.pe/portal/download/pdf/especiales/plan-nacional-ganadero.pdf>. Accessed 27. 12.2019.

²⁴³ <http://minagri.gob.pe/portal/40-sector-agrario/situacion-de-las-actividades-de-crianza-y-produccion/299-caprinos>. Accessed 26.02.2020.

Morrope)²⁴⁴, which is now the holder of the APAYACP collective mark and logo, and raises and sells live rams and kid goats. Other associations that could follow suit include the Asociación de Productores Agropecuarios Olmos (Association of agricultural producers of Olmos), the Asociación de Ganaderos de Leche y Cría Cruz de Chalpón de Motupe (Association of dairy farming and animal husbandry of Cruz de Chalpón de Motupe) and the Asociación Ganaderos de la ciudad de Lambayeque (Association of ranchers of Lambayeque city).

In Lima, there is the Association of Goat Producers of the Chillón River Basin (ASOGCARCH), comprising 28 goat farmers from the area who have been working with support from the Association of Support to Goat Production (PROCABRA), which mainly produces goat milk. There are also other associations in Huaral, Huacho, Cañete and Barranca.²⁴⁵

Chicha de jora, the fermented corn beverage used in this culinary tradition, is made in Lambayeque, more specifically, in Morrope, using yellow and alazán maize varieties. *Chicha de jora* production dates back to Mochica times. There are two *chicha*-producing associations: Cruceñita Linda and Dulce Morropanita²⁴⁶, which produce 500 liters of *chicha* monthly, which is then sold in markets in Lambayeque and Chiclayo, and the Asociación de Mujeres Productoras de Chicha de Jora del Centro Poblado Cruz del Medano-Morrope, which produces a *chicha* protected under the collective mark “Dulce Cruceñita”. One of Morrope’s best known *chichas* is made by Ms. Úrsula Ventura, who learned how to make *chicha* when she was 11 years old, from her mother, and carried on this tradition until age 93, in 2016. *Chicha de jora* is also produced in various communities in Ferreñafe, including in Sialupe Huamantanga, as well as in the Monsefú district of Chiclayo province. In 2016, Candelaria brewery launched a limited edition *chicha de jora* beer to celebrate Peru’s Independence Day.

Arroz con pato is cooked over a wood fire, usually of carob wood. However, this tradition is being lost in the light of the environmental problem caused by *pollerías*’ widespread use of carob wood for grilling chicken.

b. Marketing and distribution

²⁴⁴ <https://andina.pe/agencia/noticia-lambayeque-indecopi-entrega-registros-marcas-colectivas-a-asociaciones-familiares-755996.aspx>. Accessed 26.02.2020.

²⁴⁵ <http://minagri.gob.pe/portal/40-sector-agrario/situacion-de-las-actividades-de-crianza-y-produccion/299-caprinos?start=9>. Accessed 26.02.2020.

²⁴⁶ <https://www.laindustriadechiclayo.pe/noticia/1545236879-chicha-de-jora-ayuda-a-economia-en-morrope>. Accessed 11.01.2020.

The above ingredients can be found in nearly every food market, the main ones being Moshoqueque market, the Chiclayo Modelo market and the Ferreñafe central market. These products are distributed to these markets by producers or intermediaries, but their marketing path from farm to table cannot be traced clearly owing to the lack of relevant data.

Goat meat can be found at La Molina Agrarian University and Lima's main wholesale markets. Although there is no traceability as regards the *cabrito* meat arriving in Lima, it is known that in 2017, 160 tons of this type of meat arrived in Lima, where the annual per capita consumption of this meat was 0.016 kg (the national rate is 0.169 kg)²⁴⁷.

While there are no precise figures on this culinary tradition's impact on the development of the region or its influence in other regions, it is widely known that this dish was disseminated outside the region and is served at various tourist and gourmet restaurants in Lima and in other regions. *Seco de carne vacuna*, a beef stew, is offered as a variant and substitute for *cabrito* (young goat) meat, possibly because of the lack of distribution and marketing of this meat throughout Peru, and because its per capita consumption is low.

This culinary tradition is served in most restaurants in Lambayeque, including in El Cántaro, El Pacífico, El Lambayecano, El Rincón del Pato and Fiesta. In Lima, it can be found at restaurants that serve Lambayeque regional food, including Pueblo Viejo, Fiesta, Club Lambayeque, La Raya, El Ventarrón, Tradiciones Chiclayanas and Don Fernando. It can also be ordered at gourmet restaurants such as El Señorío de Sulco, Astrid & Gastón and La Gloria. The beef version of this dish can be found at restaurants such as Isolina.

Lastly, it should be noted that *cabrito* culinary tradition should be marketed more competitively. One way to improve its distribution, and hence extend its marketing reach, is to make loche squash available in paste or freeze-dried form.

5.2 Lima

(i) Cebiche

²⁴⁷ http://siea.minagri.gob.pe/siea/sites/default/files/anuario-produccion-pecuaria-2017-261118_0.pdf. Accessed 27.12.2019.

Cebiche is an emblematic dish in Peruvian gastronomy. According to the annual survey conducted by Ipsos Peru for 2018, 88% Peruvians said that this was the dish that best represented Peruvian identity.

In October 2004, the National Institute of Culture of Peru (INC), through directoral decree No. 241-2004/INC declared this dish to be part of the country's cultural heritage.

While different spellings of this dish are found in literature, for example, "ceviche", "cebiche" or "seviche", the above decree notes "seviche" as the historically correct spelling.

There are differing theories on the origin of this dish, which can also be found in other Latin American countries, with different variations. Nevertheless, Peruvian seviche has become the best-known both nationally and internationally.

One of the most cited theories on the origin of this dish in the different literature is that it originated from the Mochica, which is said to have marinated the fish in different fermented juices, including *chicha* (fermented maize).

It is said that it was later, with the arrival of the Spaniards, that this dish incorporated the use of lime and onion. According to some literature, marinating the dish in lemon or lime juice for a few seconds is a Japanese influence. In any event, every theory on the origin of cebiche cites a fusion of ancient practices, culinary techniques and the different cultures comprising Peru's *mestizaje*²⁴⁸.

According to historian, Javier Pulgar Vidal, seviche got its name from the Quechuan term "siwichi", which means fresh fish²⁴⁹.

There have been a number of variations of cebiche, ceviche or seviche over time. According to "Peruvian Traditions" by Ricardo Palma, in ancient times, this dish was made strictly and exclusively using juice from sour oranges (*naranjas agrias*), rather than from limes or lemons as is the practice today. If oranges were not available, the juice from green, unripe grapes or tartaric

²⁴⁸ <https://peru.info/es-pe/gastronomia/noticias/2/13/cebiche-a-poco-de-ser-patrimonio-de-la-humanidad>. Accessed in November 2019.

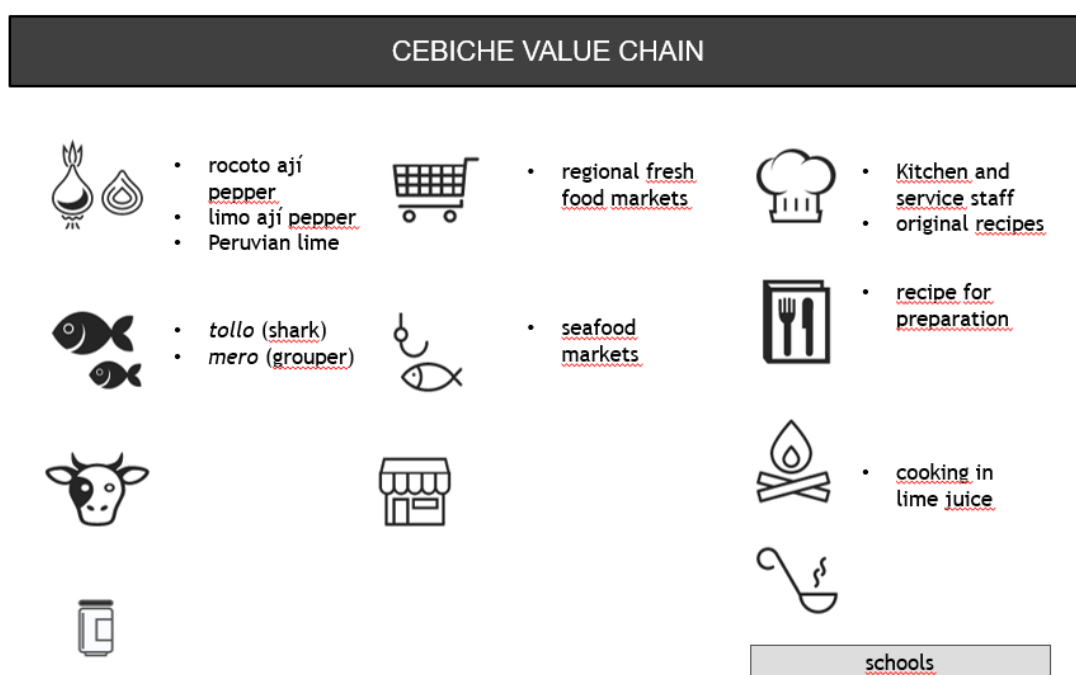
²⁴⁹ <https://pisacinn.com/el-ceviche-peruano-y-la-historia-que-lo-convirtio-en-patrimonio-cultural-de-la-nacion/?lang=es>. Accessed in November 2019.

acid dissolved in water were recommended as substitutes²⁵⁰. One of the biggest variations found with regard to this traditional dish is in its marination time: in ancient times, it was marinated for hours, whereas today, it is typically marinated for just a few minutes²⁵¹.

Peru has been celebrating its national Cebiche Day since 2008, at which time June 28th was declared as the annual Cebiche Day by ministerial decree No. 708-2008-PRODUCE.

Value chain

Figure 5.2.1



a. Ingredients

As mentioned above, cebiche is an ancient culinary tradition and signature dish that is prepared both at home and in many restaurants in Lima. The preferred fish for making cebiche at home is blue fish, which are high in Omega 3 and protein. These include bonito, mackerel, jurel (horse mackerel), tuna, sardines and Peruvian anchovies, which are abundant owing to the cold Peruvian or Humboldt Current. Restaurants prefer making cebiche with white fish such as sole, mahi-mahi, sea bass, hake, cojinova (palm ruff) or chita (Peruvian grunt fish). In the highlands,

²⁵⁰ Coloma, C. (2010). *Comida Tradicional del Perú en la obra de Ricardo Palma* ["Traditional Peruvian Food in Ricardo Palma's work"]. Lima: INC., p. 61

²⁵¹ Acurio, G. (2008). *Op. Cit.*, p. 95.

one can find cebiche made with fish from the area, such as trout and pejerrey de río (a river silverside fish). In the jungle area, cebiche is made with paiche, dorado and doncella or bagre (two types of catfish). Octopus, prawn, shrimp and other seafood can also be added to cebiche, as well as sweet potatoes, choclo and onion.

As mentioned above, cebiche is the most popular dish among tourists visiting Peru, as indicated in the Gastronomic Survey of Peru 2016, conducted by Promperú.

Another ingredient used to make cebiche is ají limo (yellow lantern chili), including its northern varieties from Lambayeque, Piura and Tumbes²⁵², and ají mochero from La Libertad²⁵³. Although no data is available on who produces these chilis, nor are these traceable, it is known that they are transported to Lima for use in cebiche, Peru's national dish. The main point of sale is the Santa Anita wholesale market²⁵⁴. Ají mochero is produced by the Ají Mochero de La Libertad Association, which initiated an appellation of origin procedure for this product in 2018²⁵⁵.

It is reported that, in 2018, approximately 9,000 families grew ají in all its varieties. In order to raise the trade profile of Peruvian ají and increase its domestic consumption, the Ministry of Agriculture and Irrigation of Peru (MINAGRI) declared the first Friday in September as the annual Peruvian Ají Day, which helped to effectively promote and boost this product's consumption²⁵⁶.

Limón (Peruvian lime) is another ingredient in cebiche. This product is grown chiefly in northern Peru, such as in Piura, which, in 2017, accounted for 54.8% of its production, followed by the administrative departments of Lambayeque (19,1%), Tumbes (11%), Loreto (4%) and Ucayali (3,3%)²⁵⁷.

The main Peruvian lime varieties include Sutil and Tahití limes. According to MINAGRI, there is a higher production volume of Sutil limes²⁵⁸. In 2018, Sutil lime production totalled 258,206 Mt,

²⁵² The Peruvian Gastronomy Association, UNALAM, Inia, USMP. (2009). *Op. Cit.*, pp. 40 - 41

²⁵³ Slow Food (2017). *Op. Cit.*, pp. 26 – 29.

²⁵⁴ While no data could be found on this product's transfers or sales volumes, the product is known to arrive at wholesale markets such as the Santa Anita market, to then be distributed to a number of the city's retail markets.

²⁵⁵ <https://andina.pe/agencia/noticia-la-libertad-gestiona-denominacion-origen-para-aji-mochero-722959.aspx>. Accessed 11.01.2020.

²⁵⁶ <https://andina.pe/agencia/noticia-dia-los-ajies-peruanos-casi-9000-familias-se-dedican-a-su-cultivo-724430.aspx>

²⁵⁷ http://agroaldia.minagri.gob.pe/biblioteca/download/pdf/tematicas/f-taxonomia_plantas/f01-cultivo/informe_limon_ago17.pdf. Accessed 12.02.2020.

²⁵⁸ http://agroaldia.minagri.gob.pe/biblioteca/download/pdf/tematicas/f-taxonomia_plantas/f01-cultivo/informe_limon_ago17.pdf. Accessed 11.01.2020.

with Piura as the leading producing region (140,067 Mt), followed by Lambayeque (42,558tm) and Tumbes (32,898tm)²⁵⁹.

There are various lime producer organizations, including the Association of Limón Producers (Piura), the Association of Matapalos lime producers (Aprolimón) (Tumbes), and the Agrarian Cooperative of Organic Producers (Apromalpi) (Piura). These have representation in the Trade Union Association of Agricultural Producers of Peru (AGAP) and other exporting trade associations. Limón is also exported, primarily from the Piura region, which exports this product to Chile, Panama, as well as other countries such as Belgium, Canada, the United States, France, the Netherlands and Germany.²⁶⁰ The main exporters include Limones Piuranos S.A., Limones Peruanos S.R.L., Agrícola Fairtrasa S.A.C., Compañía de Exportación and Negocios Generales S.A.C., International Realty Property Management S.A.C., Mi Paisana S.A.C., Agroexportaciones Machu Picchu S.R.L. and Grupo Gerónimo Trading S.R.L.. It should be noted that Peruvian lime exports (Sutil and Tahiti varieties) totalled 9,290 tons from January to 24 October 2018, which is a 40.37% increase as compared to the 6,618 tons for January through the end of 2017.

Another cebiche ingredient is the sweet potato, a tuber chiefly grown along Peru's central coast. The main sweet-potato-growing regions in 2018 were Lima (130,772 Mt), followed by Ica (45,645 Mt) and Lambayeque (34,802 Mt). According to the International Potato Center (CIP), the sweet potato is a nutritious tuber that is rich in vitamins B, C and E, and contains moderate levels of iron and zinc. It is a very important crop in countries like Japan, China and Uganda, as it helped to substitute these countries' main crops when they were damaged by pests or natural disasters²⁶¹.

It is reported that approximately 6,500 Mt of sweet potatoes sold daily at Lima's great wholesale market, chiefly the yellow and purple sweet potato varieties²⁶², but there is no data on the number of producers, nor on the product's traceability before reaching consumers.

²⁵⁹ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018.

<http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

²⁶⁰ <https://agraria.pe/noticias/piura-es-la-principal-region-productora-de-limon-en-nuestro--15765>. Accessed 11.01.2020.

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²⁶¹ The sweet potato was introduced to Japan when a typhoon destroyed its rice fields. The sweet potato also saved millions of persons from going hungry in China, when a pest swept through the country in the early 1960s, and came to the rescue in Uganda in the 1990s, when a virus devastated its cassava crops.

<https://cipotato.org/es/programas-de-investigacion/camote/datosycifrasdelcamote/>. Accessed 26.02.2020.

²⁶² <http://www.emmsa.com.pe/index.php/estadisticas/volumenes-de-ingresos>. Accessed 26.02.2020.

b. Marketing and distribution

In 2015, there were 35 thousand cebiche sales points, selling the dish for 5 to 15 soles.²⁶³ In 2016, there were approximately 13 thousand *cebicherías* (restaurants specializing in Peru's national dish) in Lima, supplied by two wholesale fish markets, the Villa María del Triunfo and Ventanilla markets in Callao, which supply restaurants, markets, hotels, public and private institutions and supermarkets. An article in "Oceánica", by Rocío López, notes that "the Villa María del Triunfo (VMT) fish market is in southeastern Lima, in neighborhoods that had a higher socio-economic level and in more urban areas (Central, East and South Lima)", while the Ventanilla fish market supplies the more popular neighborhoods of Lima and Callao, where there is more demand in bountiful, low cost marine resources".²⁶⁴

According to the supply volumes in Mt provided by Oceana Foundation, the Ventanilla wholesale fish market sells the most seafood, registering a steady growth in supply over the fifteen years under review. Although the Villa María del Triunfo fish market sells less fish, the sales gap between these two markets has narrowed over the past five years. In 2015, the VMT market's sales increased by 70 thousand Mt, with revenue totalling 800 million soles, while that figure was approximately 80 thousand Mt for the Ventanilla market, which made 400 million soles.

The VMT market, by offering a greater seafood variety, has forged close ties with the gastronomic sector. On an average day, one can find more than 60 species for sale on the VMT market, while that number is 30 or fewer at the Ventanilla market.²⁶⁵

This dish can be served a number of ways: as a simple dish of fish seasoned with lime and salt and a side of onions or peppers; or with other sides including sweet potato, cassava, zarandaja beans, roasted corn or choclo. Some restaurants offer their own signature variations of this dish, such as Fiesta's hot cebiche.

Among the most renowned cebiche chefs are Javier Wong and Pedro Solari. Javier Wong gained notoriety by injecting imagination into his cooking technique and following his intuition vis-à-vis

²⁶³ <https://larepublica.pe/sociedad/199091-armap-existen-35-mil-puntos-de-venta-de-cebiche-en-el-pais/>. Accessed 11.01.2020.

²⁶⁴ López, R. Terminales pesqueros ¿cómo se distribuyen productos marinos que llegan a Lima? ["Fish markets: How are the marine products arriving in Lima distributed?"] <https://peru.oceana.org/es/blog/terminales-pesqueros-como-se-distribuyen-los-productos-marinos-que-llegan-lima>. Accessed 11.01.2020.

²⁶⁵ Idem.

diners' taste. He is considered to be masterful in his use of sole and octopus, which are creatively chopped and the ingredients creatively mixed to yield outstanding dishes²⁶⁶. Pedro Solari, for his part, says that his cebiche uses the same ingredients as everyone else, but differs in its preparation.²⁶⁷

(ii) **Ají de Gallina** (spicy creamy chicken)

Ají de gallina has its origins in the 16th century, when the Spaniards introduced *manjar blanco* (a creamy custard) to Lima. This dish was originally sweet. According to Martin Acota, it was served in the form of a thick cream made with chicken breast (of a stewing hen, or *gallina*), rice, almonds and sugar, ingredients of Arab and Iberian origin²⁶⁸.

According to Ms. Isabel Álvarez, who is quoted in an article by Ms. Jimena Agois, two versions of *manjar blanco* were introduced in Peru: one made with *gallina* and one without, with just sugar and flour. Over time, the latter was reserved for sweets shops and the former was made with *ají* chili pepper, the ingredient which Álvarez notes gave the dish its signature Peruvian contribution.

In Spain, only the sweet version remained, as *gallina* was eliminated from the dish there, while both the sweet and savory versions can still be found in Peru.

Ají de gallina as it is known in Peru today dates back to 1839, when, according the gastronomy researcher Rodolfo Tafur Zevallos, President Agustín Gamarra issued a ruling on the sale of meat and meals at markets and tasked the police with enforcement of this ruling. During their rounds, the police noted that various inns and restaurants were serving a dish which consisted of shredded *gallina* and sautéed onion, garlic, *ají* chilis and small slices of bread, served with potatoes. The dish was later topped with hard-boiled eggs and parmesan.

²⁶⁶ <https://www.aboutspanol.com/chef-javier-wong-806751>. Accessed 11.02.2020.

²⁶⁷ <https://peru21.pe/vida/fiestas-patrias-pedro-solari-hombre-revoluciono-ceviche-amamos-perfil-89568-noticia/>. Accessed 11.02.2020.

²⁶⁸ Acosta, M. (2011) ¿Sabía que el padre del *Ají de Gallina* fue el *Manjar Blanco*? ["Did you know that *ají de gallina* has its origin in *manjar blanco*? "El Comercio". (12.03.2011). <https://archivo.elcomercio.pe/gastronomia/peruana/sabia-que-padre-aji-gallina-fue-manjar-blanco-noticia-726129>. Accessed 11.01.2020.

As to the dish's preparation and cooking, chef Flavio Solórzano from the restaurant, El Señorío de Sulco, recommends simmering two *gallina* (stewing hen) breasts for 4 to 5 hours, without letting the water come to a boil. Next, the meat is cooled in its stock, and then shredded. Chef Elena Santos Izquierdo from the restaurant El Rincón Que No Conoces, for her part, stresses that the bread used in this recipe should not be liquefied, but dipped in milk and passed through a medium-mesh strainer.²⁶⁹

Ají de gallina is a very popular family dish in Lima and a staple both at home and in restaurants that serve daily lunch specials. Although it is traditionally made with a stewing hen (*gallina*), today, it is commonly prepared with broiler chicken (*pollo*) simply because the latter is more affordable and easier to find at food markets, poultry farms, grocery stores or any other such outlets.

As mentioned above, this traditional dish originated in the Lima region. However, its popularity has extended to the rest of the country as well as internationally. This dish can easily be found in any of Peru's regions and at any type of restaurant, whether in upscale gourmet restaurants or lower-end popular restaurants serving daily lunch specials. This dish is thus featured on restaurant menus the world over. Records indicate that the use of pecans and walnuts in this dish is an ancient tradition; parmesan cheese, however, is a recent addition.

Ají de gallina is so popular and firmly anchored as a staple in Peru that it can be found in a variety of forms, including as an empanada or hojarasca (tartelet).

Value chain

Figure 5.2.2

²⁶⁹ Agois, J. (2017) El ají de gallina, historia y mucho sabor ["ají de gallina, history and lots of flavor" In the "Correo" newspaper (17/09/2017). <https://diariocorreo.pe/opinion/el-aji-de-gallina-historia-y-mucho-sabor-774144/?ref=dcr>. Accessed 11.01.2020.

“AJÍ DE GALLINA” (SPICY CREAMY CHICKEN) VALUE CHAIN



a. Ingredients

The main ingredients in *ají de gallina* are yellow ají pepper (discussed above), (i) white potato, and (ii) *gallina* (stewing hen) or *pollo* (broiler chicken).

Poultry farming, an activity primarily geared towards the production of poultry meat and eggs for market sale, plays a significant role in Peru, where it accounts for 25% of the country’s total agricultural output. In addition, Peru is the country that consumes the most poultry meat in Latin America.²⁷⁰ Stewing hens (*gallinas*) account for 2% of gross poultry production compared to 78% for broiler chicken (*pollos*)²⁷¹.

According to the Peruvian Association of Poultry Farmers (APA), Peru is the only country that produces *gallinas* for consumption. In most markets elsewhere, these older hens are kept strictly for hatching other chickens or laying eggs for sale on the market. In other countries, once hens are spent, having completing the cycle mentioned above, they are butchered and their meat is used primarily as animal feed. They are not raised for meat because that would generate a surplus in the chicken and egg supply. Nevertheless, *gallina* meat demand in Peru is so high, namely for making chicken stock, that 4% of its market consists of *gallina* imports (in frozen

²⁷⁰ <https://avicultura.info/avicultura-de-peru-continua-creciendo-este-ano-2019/>. Accessed 22.02.20]

²⁷¹ file:///C:/Users/Gilda%20Ortiz/Downloads/sector-avicola-dic2018-050219.pdf. Accessed 22.02.2020

form) from Argentina, Brazil, Chile and Uruguay. In 2018, 67,983 tons of gallina meat were consumed in Peru²⁷².

A number of *gallina* varieties can be found at the various sales points:

- *Gallina blanca* (white stewing hen)
- *Gallina colorada* (red hen)
- *Gallina criolla* (Creole hen)
- *Gallina minidobles* (mini dual-purpose hens)
- *Gallina mora* (dark hen)
- *Gallina negra* (black hen)
- *Gallina ponedora* (laying hen)

It should be noted that this dish is also made with broiler chicken (*pollo*). According to Peru's Ministry of Agriculture and Irrigation (MINAGRI), the country's chief broiler meat producing regions in 2018 were: Lima (54.3%), La Libertad (18.4%), Arequipa (10.2%) and Ica (4.4%), respectively. In addition, Peru's imported a total of 3,994 Mt of poultry meat in 2018.²⁷³ Annual per capita consumption of broiler meat was 49.5 kg at the national level, and 80.5 kg in Metropolitan, Lima. The main poultry meat producers include Redondos S.A., Avinka S.A., Técnica Avícola S.A., Santa Elena S.A., San Fernando S.A., Avícola Río Azul S.A., and Granja Rinconada del Sur S.A., some of which belong to the Peruvian Association of Poultry Farmers (APA).

In addition to the yellow ají pepper (already described in great detail above under other culinary traditions) and gallina, this recipe also calls for onions, milk, bread and other minor ingredients (see Annex 2). Any type of bread or milk will do, as these are staple household products that are easily be found at any retail outlet, including markets, supermarkets, grocery stores or gas stations.

A variety of white potatoes can be used in this recipe, mainly the canchán and yungay varieties, but also the perricholi, única, andina and serranita varieties, to a lesser extent. There is no data giving a breakdown of the different potato varieties produced at the national or regional levels, nor on the main potato producers. Nevertheless, the revenue and price report from Lima's Great

²⁷² <https://elperuano.pe/noticia-gallina-ese-caldo-tan-peruano-81532.aspx>. Accessed 22.02.2020

²⁷³ <https://www.minagri.gob.pe/portal/boletin-estadistico-mensual-de-la-produccion-y-comercializacion-avicola/sector-avicola-2018>. Accessed 22.02.2020.

A *batán* is an implement used to make this sauce. In ancient times, it was used chiefly to grind maize and other grains. It consists of two river stones, a flat one and a concave one. Its dimensions can vary, but its average dimension is 80 by 50 centimeters. To use the *batán*, one would place a handful of grains, seeds or other ingredients in the center of the flat stone, then crush them by using a rocking motion with the other stone. This task is not particularly physically demanding, and was traditionally performed by women and children²⁷⁸.

The *batán* was also used to grind ají chilis for a salsa. There are two types of sauces used in this dish: “Ilaqwana”, made with ají and salt, and “chichi llakhuana”, made with chichi, which are small fish that could be collected from between the stones and rocks of certain rivers. Today, in the Andes, there are different kinds of ají sauces for adding a little spice to tubers, choclo, chupe (chowders), or any food in general. Huancaína and ocopa are among the most popular potato dressings.²⁷⁹

This dish is said to have its origin in the Inca Empire. When the chasqui messengers traveled, they carried a pouch called an ocopa, which held ají chilis, ground peanuts and herbs²⁸⁰.

Huacatay, which is what lends this sauce its unique flavor, is an aromatic herb native to Peru and Bolivia. In Peru, it grows in the wild, although it is also cultivated in some regions along the coast and in the highlands. It is usually grown on family farms. Huacatay is harvested in the summer months for use in either fresh or dried form²⁸¹.

According to Isabel Álvarez, the base for this slow-cooked dish is onion, garlic and ají chili. It is reported that this dish traditionally included pecans and walnuts, but these are now substituted with groundnuts, which cost less.

Value chain

Figure 5.3.1

²⁷⁸ Olivas, R. (2015). *Op Cit.*, p. 86.

²⁷⁹ *Ibid*, p. 154.

²⁸⁰ <http://amoperusaboresdemitierra.blogspot.com/2018/04/ocopa-arequipena.html>. Accessed November 2019.

²⁸¹ Slow Food. (2017). *Op. Cit.*, p. 59.

OCOPA SAUCE VALUE CHAIN



a. Ingredients

The main ingredients for making the traditional ocopa dish are: (i) huacatay, (ii) ají mirasol, and (iii) potatoes. These three primary ingredients are used for making the sauce that is then served together with boiled potatoes.

As mentioned above, huacatay is an aromatic herb that grows in Peru's three regions (the coast, the highlands and the jungle), as well as in Bolivia and Ecuador, but is difficult to find elsewhere. Huacatay is commonly used in Andean cuisine. Traditionally used for its medicinal properties in ancient times, huacatay has become a staple condiment today. As mentioned, it is frequently grown on family farms, and can be found in regions including La Libertad, Cajamarca and Arequipa. It can be planted year-round and is considered to be an aromatic and medicinal herb²⁸². In Peruvian gastronomy, it is very frequently used to season typical dishes, meats, potatoes and stews. Huacatay also has health benefits including by aiding digestion and biliary function²⁸³.

Since huacatay is grown on family farms, no particular association or group could be identified as producing this aromatic herb. Fresh huacatay is sold tied up in bundles in the region's food

²⁸² <http://repositorio.inia.gob.pe/bitstream/inia/922/1/Folleto%20-%20Cultivo%20de%20Hierbas%20Aromaticas%20y%20Medicinales%20R.I..pdf>, Accessed 11.02.2020.

²⁸³ <https://larepublica.pe/buenazo/879037-beneficios-del-huacatay/>. Accessed 11.02.2020.

markets and supermarkets. Certain companies have started to market huacatay paste and huacatay ají, including Valle Fértil S.A.C. and Productos Alimentarios Tresa S.A.. This herb is also exported under the category of dried legumes and vegetables; figures on the quantity and sum of these exports is not specified.²⁸⁴

Ají mirasol is a sun-dried yellow ají chili pepper. The sun-drying gives this pepper its unique flavor and intensity, making it a light product with a long shelf-life, but without losing its spiciness.²⁸⁵ This aromatic chili is predominantly produced in the Áncash, Lima, Arequipa, Moquegua and Tacna regions, is the base for many dressings, stews and chowders, and also used to make *ají de gallina* and *picante de mariscos*²⁸⁶. The product's total drying time depends on the moisture level in the ají and the climate where it is produced, but can be approximately 10 days. Ají is generally dried on nets, in areas where there is no risk of flooding, away from dust, animals or insects. This ají can be found in unprocessed, whole or ground form, or as a processed paste.

Arequipa is Peru's third-leading ají producing region, although national figures do not specify the share of *ají mirasol* production. While the exact number of *ají mirasol* producers is unknown, the producers include Agroindustrias Glarsi S.R.L. and Peru Spices S.A.C..

Ají mirasol is exported as fruit of the genus *Capsicum*, chiefly to Spain and the United States²⁸⁷. Accordingly, in 2016, *ají mirasol* exports totalled US\$ 3.5 million dollars, and in the period from January to September 2017, Peru's yellow ají chili pepper exports totalled US\$ 2.5 million dollars, a slight drop, by 0.97%, as compared to the same period in 2016²⁸⁸. Spain and the United States are the main markets for this product.

Ocopa is generally made using white potatoes, which mainly include the canchán and yungay varieties, and, to a lesser extent, the perricholi, única, andina and serranita varieties. White potatoes have a high yield and trade value, and are highly adaptable²⁸⁹. No specific figures were available on the different potato varieties produced at the regional or national levels.

²⁸⁴ <https://agraria.pe/index.php/noticias/exportaciones-de-legumbres-y-hortalizas-secas-sumaron-us-25--17111>. Accessed 11.02.2020.

²⁸⁵ <http://perudelicias.com/aji-mirasol-beso-de-sol/>. Accessed 11.02.2020.

²⁸⁶ The Peruvian Gastronomy Association, UNALAM, Inia, USMP. (2009). *Op. Cit.*, p. 40 - 41

²⁸⁷ <http://www.siicex.gob.pe/siicex/resources/fichaproducto/221pdf2015Feb04.pdf>. Accessed 11.02.2020.

²⁸⁸ <https://www.comexperu.org.pe/articulo/el-aji-amarillo-se-abre-paso-en-las-mesas-del-mundo>. Accessed 11.02.2020.

²⁸⁹ <https://www.tuberculos.org/papa-patata/yungay/>. Accessed 12.02.2020.

There are 711,000 families producing the different varieties of potatoes, spread out over 19 regions in Peru, principally the Puno, Huánuco, Cuzco, Cajamarca, Huancavelica and Junín regions, and 90% of potato cultivation is concentrated in the highlands region, especially for native potatoes.

According to Ministry of Agriculture:

“This crop has become a marked driver of the regional and local economies in potato-producing areas, generating more than 34 million days of work in 2019. The potato is planted at an altitude of 200 m a.s.l., but native potatoes are grown at an altitude from 3,000 to 4,200 m a.s.l., where no other crops thrive.

Potatoes are highly nutritious, as they have a dry matter content of up to 35%, and are a regular source of vitamin C, with an iron content of 23 mg/100 g of fresh weight, a zinc content of 19 mg/ 100 g of fresh weight, 189% more anti-oxidants than other potatoes, 89 kilocalories, and are eaten by persons of all ages because they are easy to digest. Potato skins have an antioxidant called alpha-lipoic acid which has 50 times more antioxidant capacity than vitamin E.”²⁹⁰

According to Ministry of Agriculture and Irrigation of Peru (MINAGRI), Arequipa produced 8,852 tons of potatoes in 2018, and is the region with the highest national potato yield, since it produced a total of 329,064,418 Mt of potatoes over its nearly 9,000 of hectares for planting.²⁹¹ While MINAGRI’s official figures are not disaggregated by potato variety, Arequipa is known to grow two main varieties, Única and Canchán, which account for 60% of the cultivated area. The different valleys produce the following potato varieties:

- Tambo Valley: Cica, Peruanita, Yungay, Única and Canchán varieties.
- Majes Valley: Cica, Peruanita, Yungay, Única and Canchán varieties.
- Majes irrigation project: the Cica, Peruanita, Yungay, Única and Canchán varieties.
- Caylloma: Única, Yungay, Ojo Azul, Revolución, Cica, Immilla Negra and Huayro (native) varieties.
- Castilla: Única, Cica, Yungay, Ojo Azul, Revolución, Imilla Negra, Huayro (native) varieties.

²⁹⁰ MINAGRI (2020). <https://www.gob.pe/institucion/minagri/noticias/79181-ministerio-de-agricultura-promueve-consumo-de-papa-blanca-a-nivel-nacional>. Accessed 11.02.2020.

²⁹¹ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018 [“Agricultural production statistics yearbook 2018”]. <http://siea.minagri.gob.pe/siea/Reportajes/Agro>. Accessed 10.01.2019.

- Condesuyos: Única, Cica, Yungay, Ojo Azul, Revolución, Imilla Negra and Huayro (native) varieties.
- La Unión: Única, Cica, Yungay, Ojo Azul, Revolución, Imilla Negra and Huayro (native) varieties.²⁹²

The National Institute of Agricultural Innovation (INIA) has an experimental station in Arequipa, which preserves 2,000 of Peru's 3,000 potato varieties, and also works on enhancing potato crop yield. Consequently, in 2018, this Institute proposed replacing the Única variety with the Castilla potato, as the former had had a lower yield. This was a joint research project with the International Potato Center (CIP), the Potato Producer Association of the Majes Valley and the Majes Irrigation Project, and its aim is to enhance the yields and productivity of area farmers.²⁹³ Arequipa has the following potato-related organizations: the Association of Potato Wholesalers (ASOCOMAT), the Association of Wholesalers of Tubers, Grains and Derivatives of Arequipa, the Agricultural Association of Arequipa (SADA).

There are also other regional and national organizations that focus on the protection, conservation, production and improvement of potatoes, including the National Association of Potato Growers and Derivatives (APPAPA PERÚ), the Association of Potato Park Communities (ASOCAM) in Cuzco, the International Potato Center in Fontagro, the Native Potato Guardians' Association of Central Peru (AGUAPAN), the Center for Productive Innovation and Technological Transfer (CITE) for the potato and other Andean crops, which is managed by the Association for Sustainable Development (ADERS, Peru) and sponsored by the Ministry of Production, and the Institute of Production Technology.

b. Marketing and distribution

All the ingredients used in making this traditional dish can be found in the region's food markets, including the San Antonio food market in the Miraflores district, near Arequipa city center and where this dish can be found ready to eat; also near Arequipa city center is the San Camilo market, Arequipa's oldest market which is 140 years old. Special mention should be made to the wholesale potato market of the Arequipa Association of Wholesalers of Tubers, Grains and Derivatives, which carries products from Arequipa, but also from nearby regions²⁹⁴.

²⁹² Recuperado <https://diariocorreo.pe/edicion/arequipa/papa-tuberculo-se-siembra-en-las-8-provincias-de-arequipa-675707/>. Accessed 12.02.2020.

²⁹³ <https://elbuho.pe/2019/05/dia-de-la-papa-arequipa-es-la-region-con-mayor-rendimiento-en-este-cultivo/>. Accessed 12.02.2020.

²⁹⁴ No data could be found on how many tons of potatoes are sold daily at the "Terminal Papero" ("potato market")

The Data, Supply and Pricing System (SISAP) of Peru's Ministry of Agriculture and Irrigation (MINAGRI) provides data on the average daily wholesale prices of certain products, without specifying sales markets. Hence, there is no data on sales volumes to help estimate demand²⁹⁵, nor on the number of producers of the different ingredients.

The distribution of certain ingredients, such as huacatay, has enabled the production of other related products, such as huacatay paste, huacatay ají and ají mirasol paste. It is perhaps the easy access to these ingredients that has made this traditional dish so widespread, starting at the regional level and now extending to many other regions of Peru.

Ocopa can be found in any restaurant or in various picanterías of Arequipa. It is usually eaten as a starter, but in some restaurants, such as La Nueva Palomino, it is served as a portion large enough to feed two persons. Yanahuara district has a picantería called "Picantería La Ocopa Arequipeña", which offers ocopa as a signature dish. The dish has gained traction in recent decades, chiefly through regional restaurants in Lima and food fairs that have raised awareness about and disseminated traditional dishes such as ocopa.

(ii) Rocoto relleno (stuffed rocoto chili pepper)

This typical Arequipa regional dish is made with de-seeded rocoto chili peppers that are stuffed with ground beef and other ingredients. This dish is usually served with a potato and cheese gratin.

The word "rocoto" is from the Quechua "rocato" or "rocat-uchua". It is a type of Andean ají pepper that is highly resistant to the low temperatures found at altitudes from 1,500 to 3,000 meters above sea level. There are red, green and yellow varieties. This pepper grows in different parts of the country, and is considered to be emblematic of Arequipa. There are archeological remains indicating that this crop was grown in Áncash as far back as 7,500 años B.C.²⁹⁶.

Rocoto is emblematic of Peruvian picanterías. It was cultivated by the Incas. Over the years, it has remained closely associated with Arequipa gastronomy and local traditions. For example,

²⁹⁵ No data could be found on how the ingredients are transported to these markets.

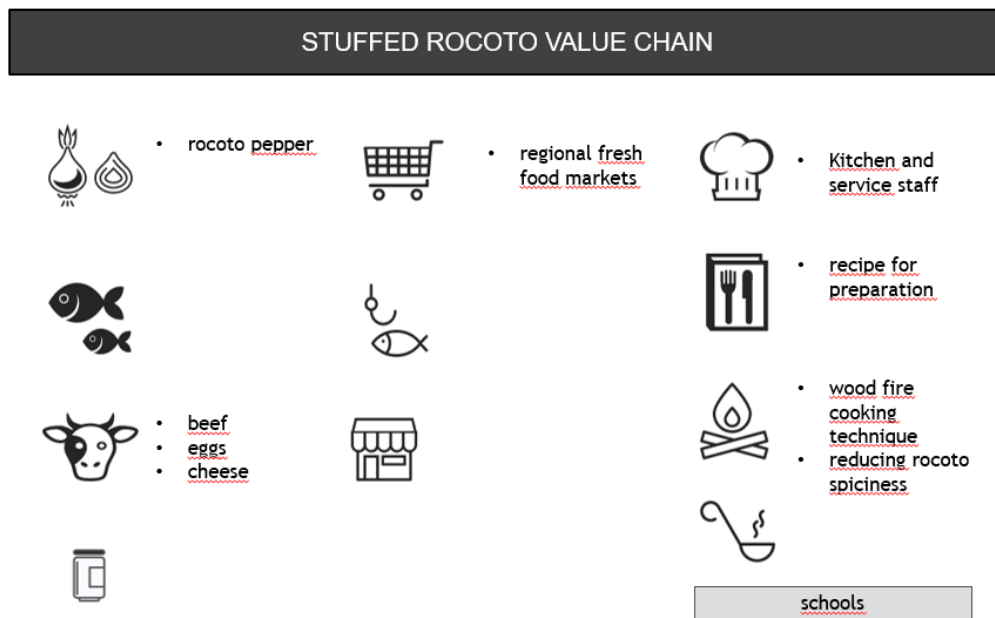
²⁹⁶ Acurio, G. (2008). Op Cit., p. 329.

Andean men would eat them raw as sign of their virility, and the bravest among them would even eat the seeds.²⁹⁷

According to Carlos Herrera, the legendary chef from Arequipa who created this dish, Manuel Masías, “cooked this dish for the devil himself”. Legend has it that the chef, whose son had died young, had to go to the depths of hell to rescue his son’s soul from Lucifer’s grip, by making a meal that would satisfy the devil²⁹⁸.

Value chain

Figure 5.3.2



a. Ingredients

The stuffed rocoto chili pepper is an emblematic traditional dish of the Arequipa region. This dish is well known in both Arequipa and Cuzco, which use the same basic recipe, but each with their own signature approach.

²⁹⁷ Slow Food. (2017). *Op. Cit.*, p. 89.

²⁹⁸ <https://peru.info/es-pe/gastronomia/noticias/2/13/conoce-la-historia-del-rocoto-relleno-peruano>. Accessed in November 2019.

The rocoto chili pepper is this recipe's key ingredient. Other major ingredients include (i) meat, (ii) eggs, and (iii) cheese. These and all the other ingredients can be found in any of the region's food markets.

The rocoto chili pepper is native to the Andes and dates back to pre-Inca times. According to some experts, it was approximately 5,000 years ago that this crop was domesticated. The rocoto is Peru's signature ají pepper and is produced in the highlands: its huerta and serrano varieties are chiefly produced in Arequipa. There is also a larger-sized rocoto which grows at the foot of the Andes. This is the one used in most stuffed rocoto dishes.

In 2018, Peru produced 41,537 Mt of rocoto chilis, of which the Pasco region alone produced 34,054 Mt. The rocoto is sold fresh or in paste form, and companies which market rocoto paste include the Wong, Alacena and Pepperes brands.

Currently, various associations have been granted collective marks for fresh rocoto and rocoto paste, including the Association of Organic Farmers of Chuquibamba (APROECH), in Arequipa. Other associations which have been granted a collective mark for distinguishing fresh rocoto include the Federación Cafetalera Microcuenca Pampa Whaley, Miraflores y Margarita (the Coffee Growers Federation of the Micro-watershed of Pampa Whaley, Miraflores and Margarita), with the mark "Pampa Whaley Coffee 1912"; the Asociación de Agricultores Emprendedores Unión Tulumayo (Asaemut) (Association of Farming Entrepreneurs of Unión Tulumayo, with the mark "Coffee Whoman"; the Asociación de Productores Comercio Justo, Mazamari (the Fair Trade Producers' Association of Mazamari) with the "Kimci" mark; the Asociación de Productores Agrícolas Río Blanco-Alto Eden (Aparbae) (Association of Río Blanco Farmers, Alto Eden), with the mark "Café Aparbae"; the Cooperativa Agroindustrial Cafetalera Ecológica Valle Río Venado – Satipo (Agroindustrial Cooperative of Organic Coffee Growers of the Venado River Valley, Satipo) (in Cace, Valle Rio Venado, Satipo), with the marks "Café Joshua" and "Cafe Jehudi", found in Junín; the Asociación de Fruticultores Ecológicos Vivero Distrital Del Valle Marcapata (Organic Fruit Growers' Association of the Marcapata Valley District Nursery), with the mark "Uchuraymi"; the Central de Productores Agropecuarios San Cristobal de Quiparacra, Pasco (Ceprosacq) (Farmers' Union of San Cristobal de Quiparacra, Pasco, with the mark "Ceprosacq Central De Productores De Quiparacra"; the Asociación Agropecuario Barrio Oxapampa I (Farmers' Association of the Oxapampa I district), with the mark "Asociación Agropecuario Barrio Oxapampa Agroboxa Quiparacra"; and the Asociación de

Productores de Multiservicios De Yanacocha, Quiparacra (Association of Multiservice Producers of Yanacocha, Quiparacra), with the mark “Apay Quiparacra Gagaran”.

Other ingredients in this traditional stuffed rocoto dish include beef, fresh cheese and eggs. In 2017, Peru’s national beef production was 188,680 Mt, with Arequipa accounting for 5,488 Mt²⁹⁹, and national egg production was 415,336 Mt, with Arequipa accounting for 11,007 Mt³⁰⁰.

While there is no precise data on the number of cheese, beef or egg producers, it was learned that collective marks have been granted to Arequipa organizations which market these products, including: the Asociación de Pequeños Agropecuarios de Casconza (Association of Small-holders of Casconza), with the mark “Asociación de Pequeños Agropecuarios Casconza Iray Orgánico”; the Asociación de Desarrollo Agrícola & Empresarial Yanapay Adae Yanapay (the Yanapay Adae Yanapay Association of Agricultural and Entrepreneurial Development), with the mark “Ecograinst”; the Cooperativa Agraria Bio-Orgánica Condesuyos (Condesuyos Bio-organic Farming Cooperative)(Coopabic), with the mark “Coopabic and Soy Orgánico”; the Asociación de Productores Ecológicos Agropecuarios del Colca (Organic Farmers’ Association of Colca) (Aspeacol), with the mark “Asociación de Productores Ecológicos Del Colca Aspeacol Caylloma Producto Orgánico”; the Asociación Agropecuaria Ecológica de Chiguata (Organic Farming Association of Chiguata), with its mark “Agropecuaria Ecológica De Chiguata Runakay Arequipa”; the Asociación de Productores Orgánicos Verde Thani (Verde Thani Organic Farmers’ Association) (Asprovet), with its mark “Asprovet”; the Asociación de Productores Agropecuarios Ecológicos De Chuquibamba (Association of Organic Farmers of Chuquibamba) (APROECH), with its “Aproech” mark; the Asociación de Productores Agropecuarios y Derivados Lácteos De Orcopampa (Dairy Farmers’ Association of Orcopampa) (Orcolac), with its mark “Orcolac”; the Asociación Centro de Acopio de Leche La Colina (La Colina Milk Collection Center Association), with its mark “Deli Colina Productos Lácteos”; the Asociación de Ganaderos Pecuarios De Coporaque San Isidro Labrador (Livestock Farming Association of Coporaque, San Isidro Labrador) (Asgapeco), with its mark “Asgapeco”; the Asociación de Fruticultores y Paltos Cosmal Colca Tapay (Cosmal Colca Fruit and Avocado Growers’ Association of Tapay) (Cosmal Colca), with its mark “Cosmal”.

b. Marketing and distribution

²⁹⁹ http://siesa.minagri.gob.pe/siesa/sites/default/files/anuario-produccion-pecuaria-2017-261118_0.pdf. Accessed 27.12.2019.

³⁰⁰ Idem.

This traditional dish is served at most of Arequipa's picanterías, which preserve the original recipe. It can also be found in other restaurants in the region, with variations depending on the chef's experience or in relation to the presentation unique to each place, whether the dish is served on its own or with a side of potato gratin. Some of the restaurants which are known for this dish include La Benita, El Montonero, Tanta, Señor Rocoto and Mirador Misti.

Over time, the marketing of this traditional dish has extended its reach to other regions of Peru, both in restaurants and at home, including in Lima, where it can be found in certain Creole restaurants and most Arequipan food restaurants, including El Rocoto, Quepay, El Rinconcito Arequipeño, Los Lonccos, Yanahuara Picantería Arequipeña, Estrellita del Sur, El Pregón, Rinconcito de Tiabaya and Los Balcones de Arequipa.

This dish's popularity, like that of other traditional dishes that cross regional borders, may be explained by the fact that all of its ingredients are easy to find. However, the preparation involved is a bit more complex than for other dishes.

5.4 Tacna

(i) ***Asado de cordero de Candarave*** (Candarave roast lamb)

This lamb's flavor is no doubt influenced by the microclimate in which it is raised. Candarave is located between the Cassavamani and Calientes volcanoes, which are surrounded by pastures that are irrigated by highly saline rivers. The animals graze on these pastures, which infuse them with their unique flavor. Candarave lamb meat has been found to be high in iodine and other minerals.³⁰¹

Value chain

Figure 5.4.1

³⁰¹ Albarracín, Y. y Mello, M. (2019). *Op. Cit.*, p. 209.

**“ASADO DE CORDERO CANDARAVEÑO” (CANDAREVE ROAST LAMB)
VALUE CHAIN**



a. Ingredients

The ingredients for making this traditional dish include Candarave lamb, which is sheep meat of English origin that is raised in the Tacna highlands, on the foothills of Yucamani volcano. The Candarave lamb grazes on greenery that grows by the river basin, such as alfalfa, and can weigh up to 120 kilograms.

This ingredient got its name from the place where it is produced, in Candarave, in the southern highlands of the Tacna region. It also known as “Cara Negra” or “Hampshire Down” (the breed name).

In 2014, by regional decree No. 033-2014-CR/GOB.REG.TACNA, the Regional Government of Tacna declared “the conservation of the Hampshire Down sheep breed in the Tacna region, also known as the ‘Candaraveño Tacna Cordero’ lamb” to be a matter of national interest. It also recognized the grilled lamb “Parrilla de Cordero Candareveño” as a typical dish of the Tacna region.³⁰²

³⁰² <https://busquedas.elperuano.pe/normaslegales/declaran-de-interes-regional-la-conservacion-de-la-raza-ovin-ordenanza-n-033-2014-crgobregtacna-1181402-12/>. Accessed 10.02.2020

The company Southern Perú has launched a program for improved farming of this sheep³⁰³. In this connection, the Regional Government of Tacna launched a strategic plan for improved sheep farming in the region, including of this particular breed. These examples reflect the growing importance of sheep production for the region's economic development, with a view to improving both the production and marketing of this product. Hence, production of this sheep has potential for the region's farming communities. The average price of this product on local markets is 18 soles per kilogram.

b. Marketing and distribution

Currently, certain stakeholders are focusing on Candarave lamb farming, including the *Asociación de Ovinos Nuevo Progreso de Candarave* (New Progress of Candarave Sheep Association), which has a collective mark for the lamb meat, and the Candarave Association of Hampshire Sheep Farmers³⁰⁴. In addition, the company La Genovesa S.A.C. markets Candarave lamb derivative products, marketing this meat in different vacuum-packed forms.³⁰⁵

Candarave lamb is served in Tacna's best restaurants, including La Glorieta, which helped to further its popularity by participating in the Mistura food fair. Chef Giacomo Bocchio from the restaurant called Manifiesto, with its signature cuisine, has also played a key role in the promotion of Candareve lamb, serving it as a hamburger.

Some years ago, this product was sold in vacuum-packed form at the Mistura food fair in Lima city at prices ranging from S/.30 to S/ 80, so that it can be prepared at home.

(ii) Patasca soup

Patasca is from the Quechua "Phatasqa", which means "open", in reference to the mote (boiled maize) that fluffs up once it is cooked. Its name is also said to come from the Quechua word "Pata", which means "pan". It is a hardy soup with a mote boiled maize and wheat base. It is a very tasty dish which includes different types of meat such as lamb, beef or pork. Potatoes and beans can be added to the wheat and maize. Over the years, this dish has been eaten for

³⁰³ <http://www.southernperu.com/ESP/adc/Pages/fichatecnica proyectoCadProd.aspx?idProyecto=19>. Accessed 11.01.2020.

³⁰⁴ <http://minagri.gob.pe/portal/38-sector-agrario/pecuaria/311-organizaciones-de-productores?start=4>. Accessed 11.01.2020.

³⁰⁵ No data could be found on this product's sales volumes.

breakfast, lunch and dinner. It is a traditional dish in various regions of Peru, particularly in central and southern Peru.

There are different variations of this dish; the Tacna version includes squash or chuño (a freeze-dried potato)³⁰⁶. In some places in the highlands, this dish can also be referred to as mote soup, mondongo soup or, simply, mondongo.

Patasca is one of the most emblematic dishes of ancient Peruvian cuisine. It lays the foundation for one of the most popular traditions such as a bartering tradition in which products were exchanged across the different ecological zones. Muleteers in particular were known to appreciate this dish because of its richness and restorative properties, which was welcome after a hard day's work.³⁰⁷

Ricardo Palma's "Peruvian Traditions" refers to this dish as "a stew for the indigenous peoples in various republics" (Palma 1903: 207). A century later, the writer and bibliographer Alberto Tauro del Pino provides a broad overview, noting that it is a dish that is "...very popular among the Andeans and served at family celebrations".

This recipe's use has spread throughout the region, from the Andes to the coast, with different regional variations in Ancash, Apurímac, Ayacucho, Cuzco, Junín, Moquegua and Tacna.

While every variation of this soup is based on cooking the mote (maize), the meat may vary from region to region, although the soup generally includes mondongo (tripe), the head and legs of lamb, beef brisket and oxtail. In Tacna, in particular, the biggest variation is the addition of *zapallo de carga* (a giant pumpkin).

Patasca is usually associated with special occasions because of its long preparation time, which makes it amenable to a community group effort, strengthening bonds among the group members. Because this dish usually takes 6 to 8 hours to make, it is usually prepared up to a day before a celebration, and its preparation traditionally involves multiple people. Some of the

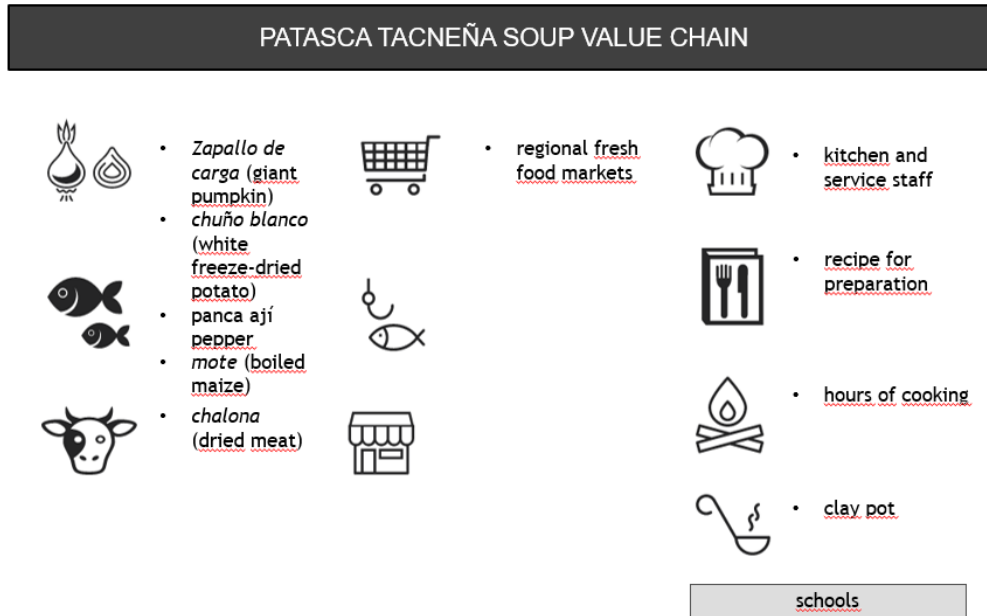
³⁰⁶ Acurio, G. (2008). *Op Cit.*, p. 29.

³⁰⁷ Albarracín, Y. y Mello, M. (2019). *Al pie del Fogón. Cocina tacneña tradicional*. Lima: Fábrica de Contenidos. P. 176.

festive events at which patasca is served include carnivals, the water celebration, Candelaria Day, the feast of the crosses and generally any religious or secular celebration³⁰⁸.

Value chain

Figure 5.4.2



a. Ingredients

The ingredients needed to make this traditional dish include: (i) *zapallo de carga* (giant pumpkin), (ii) *chuño blanco* (a freeze-dried potato), (iii) *ají panca* pepper, and (iv) *mote* (boiled maize).

The *zapallo de carga* (a giant pumpkin), also known as *zapallo blanco*, is a native product of Peruvian gastronomy and a staple ingredient in many Tacna regional dishes. This ingredient gives patasca de Tacna its signature flavor. This type of locally grown pumpkin is said to have its origin from the Quechua word “Sapallu”, which means “tongue of the gods” and the Spanish word “carga” is used, from the verb “cargar” (to load), because of the pumpkin’s flattened surface makes it easy to load for transport.

Tacna’s soil is conducive to the cultivation of this crop, which grows at an altitude below 1,500 meters, in temperate climates. This ingredient is reflective of the region’s local gastronomy and

³⁰⁸ Negro, S. (1995). El Patrimonio Inmaterial Tradicional de las sopas, chupes, lawas, espesados y aguaditos [“The intangible traditional heritage of soups, chowders, lawas, aguaditos and other stews”] <https://studylib.es/doc/8715672/el-patrimonio-inmaterial-tradicional-de-las-sopa>. Accessed in November 2019.

is used in savory dishes, such as a carbonada, as well as in desserts. This pumpkin has been cultivated since pre-Incan times and remains relevant today. It is still a daily staple for local farmers, who eat it with olives and seasoned with *ají*. It is produced practically exclusively for local consumption and is not yet marketed in Lima.³⁰⁹ In Peru, the most popular varieties of this pumpkin are the *macre* (native of the Peruvian coast), *loche* (produced chiefly on the northern coast and in the jungle) and the *carga* (native to Tacna, in southern Peru)³¹⁰ varieties.

Zapallo pumpkin is produced in the Arequipa, Ica, La Libertad, Lima, Huánuco, Ancash and Tacna regions. In 2018, production totalled 563,309 Mt, without distinction as to varieties.³¹¹ The technical name for this vegetable is *Cucurbita maxima zapallo de carga* and it is native to the Tacna region. It is produced chiefly in Tacna's Pachía and Curibaya districts, which is why it is sometimes also called by the name of its district of origin, the Tacna pumpkin.

Zapallo de carga o *zapallo blanco*, is a giant pumpkin, and the Spanish word "zapallo" seems to be from the Quechuan term "Sapallu", which means "tongue of the gods". This crop can be found in the Pachía district of Tacna province, and in the Curibaya district of Candarave province³¹². Curibaya has a cultivated area of 64 hectares, yielding up to 600 Mt of this crop annually, most of which is for local consumption³¹³.

Tunta, or *chuño blanco*, a dehydrated potato product, is another Peruvian product with origins in ancient times. It is an important source of income for farming families in Peru's different regions, especially in Puno and other areas in the high Andes with similar climate conditions that are conducive to the potato's growth³¹⁴. In the Tacna region, according to an interview with Eliana Núñez, from the Tacna Gastronomy Board, this product is grown in the Candarave and Tarata districts, then marketed in the region.

While there are no production or marketing statistics relating to tunta, data compiled in a INCOPA-CIP project estimates Peru's annual tunta production at approximately 18,000 tons;

³⁰⁹ Slow Food. (2017). Op. Cit., p. 84.

³¹⁰ <http://www.eltrinche.com/la-despensa/3775-2/>. Accessed 22.02.2020

³¹¹ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

³¹² Slow Food (2017), Op. Cit. 84.

³¹³ <https://diariocorreo.pe/edicion/tacna/produccion-de-zapallo-de-carga-es-de-mas-de-600-toneladas-al-ano-876075/>. Accessed 09.12.2020.

³¹⁴ <https://cgspace.cgiar.org/bitstream/handle/10568/66337/75524.pdf?sequence=2&isAllowed=y>. Accessed 22.02.2020

40% of which is chiefly for consumption by the small-family holders that produce it, and the rest is for sale.

Tunta has been regulated since 2007 by an Indecopi technical standard, NTP 011.400 which identifies the different names given to this product in accordance with its characteristics.

This standard defines tunta as a “food made by means of a tuber dehydration process that involves successive stages of freezing (with solar protection), immersion in running water (the river) and drying in the sun. Tunta is white, with a rough, fissured surface, typical of the tuber sprouts producing it”³¹⁵.

While there are no precise tunta production statistics, an estimated 30,000 families in Peru are estimated to produce and market this product. Tunta is a processed and dehydrated potato product that is white and very light-weight. It takes approximately 7 kilos of potatoes to produce 1 kilo of tunta.³¹⁶

Ají panca, a deep red but mild chili pepper, is another ingredient that is native to Peru. It is grown in the central coast and is used in ground form in chowders, adobo stews, marinades, peanut sauce, carapulcra stew, pachamanca and parihuela (a type of boulebaïsse).

In Peru, culinary experts consider ají chili pepper as a special ingredient that is used in most Peruvian traditional dishes. There are approximately 350 ají varieties, from the rocoto chili to the bell pepper. An estimated 9,000 small-holder farmers produce ají; with Lima accounting for 33% of Peru’s total yellow ají chili pepper production, followed by Tacna, at 23%.

These small-holder farmers, generally families, have a significant impact in this sector, accounting for 87% of the country’s total production.³¹⁷

³¹⁵ <http://www.asocam.org/sites/default/files/publicaciones/files/086d8d077f3eaa3bdc5c221b2918238d.pdf>. Accessed 22.02.2020

³¹⁶ <https://cgspace.cgiar.org/bitstream/handle/10568/66337/75524.pdf?sequence=2&isAllowed=y>. Accessed 2.02.2020

³¹⁷ <https://www.gob.pe/institucion/minagri/noticias/50645-en-el-dia-nacional-de-los-ajies-pequenos-productores-son-los-principales-exponentes>. Accessed 22.02.2020

Ají panca is regulated by an INDECOPI Peruvian technical standard NTP 209.239 (1985) which sets out particular requirements for whole or ground *ají panca*. The traditional dishes set out here call for ground *ají panca*.

b. Marketing and distribution

While there is no detailed data on the overall production of *zapallo de carga*, annual production in the Curibaya district of Candarave province is estimated at approximately 600 tons, and is sold directly by the producers themselves in the city of Tacna or through the Miguel Grau wholesale market, before being distributed to the region's different food markets³¹⁸.

Tunta, or *chuño blanco*, as mentioned above, is produced mostly on a small scale and on less than one hectare of land. Consequently, most of its production is for the producers' own consumption, and the rest is for sale by the producers themselves at local markets. For the most part, this product has not yet entered other markets nationally or internationally, and is thus not easy to find in Lima, nor in traditional dishes from regions other than where it is grown. In Tacna, for example, the tunta that is used in the culinary tradition outlined here is mainly produced locally. There are a few exceptions, however, including its insertion onto the Lima market through some producers' participation in the Mistura food fair.

Some efforts have been made to train producers in the high plateaus of Peru and Bolivia to improve their tunta production, with a view to facilitate their access in new markets. These include the Inpandes project, carried out by the the International Potato Center (CIP), the Andean Community and the European Union³¹⁹.

There were found to be two associations related to tunta production: the *Asociación de Productores Agropecuarios 05 de agosto de Santa Cruz* (Farmers' Association of the 5 de Agosto Santa Cruz district), in Tacna, which has a collective mark for its chuño, although more information about this could not be accessed. The other is the Tintay Chuño Tunta Farmers Association (in Ayacucho).

Ají panca, for its part, is marketed by producers in Peru's main food markets, and is hence an ingredient that is used in many traditional Peruvian meals. It is marketed in ground form for the

³¹⁸ <https://diariocorreo.pe/edicion/tacna/produccion-de-zapallo-de-carga-es-de-mas-de-600-toneladas-al-ano-876075/?ref=dcr>. Accessed 22.02.2020

³¹⁹ <https://cipotato.org/es/blog-es/el-cip-presento-los-resultados-del-proyecto-inpandes/>. Accessed 22.02.2020

general public. Ground *ají panca* is sold in bulk in all food markets and supermarkets and in some grocery stores. It can also be found in dried form in some cases.

Some companies process and market the various types of native *ají* chili peppers at the national level, and, in smaller quantities, at the international level, chiefly in the United States, Switzerland, Sweden and the United Arab Emirates.³²⁰

It is marketed under the following main brands³²¹:

- Tresa (Productos Alimenticios Tresa);
- Cebra (Ameral S.A.A);
- Cuatro Estaciones (Garden center Cuatro Estaciones S.A.);
- Kariño (Succar SRL);
- Sibarita (Representante Distribución and Ventas EIRL);
- Latinas (Industria Nacional de Conservas ALI).

Precise data on this traditional dish's impact at the national level could not be found, although regional consumption is substantial, and it is making its way to Lima through regional restaurants.

(iii) **Picante a la tacneña** (spicy Tacna-style stew)

This dish is an important culinary tradition in the Tacna region. There have been endless variations from the original recipe over the years, as it can be adapted to one's tastes. This dish blends flavors of afro-descendant origin, chiefly from the Congo area, with the region's Andean ingredients.

This spicy dish can be prepared with a variety of meat, such as chicken, shrimp, cuy and beef. It is usually served with marraqueta bread and a red chakra wine. It is traditionally eaten during Tacna's August celebration of Tacna's reincorporation into Peru.³²²

³²⁰https://www.biodiversityinternational.org/fileadmin/_migrated/uploads/tx_news/Las_cadenas_de_valor_de_los_aj%C3%ADes_nativos_de_Peru_1730.pdf. Accessed 22.02.2020

³²¹https://www.biodiversityinternational.org/fileadmin/_migrated/uploads/tx_news/Las_cadenas_de_valor_de_los_aj%C3%ADes_nativos_de_Peru_1730.pdf. Accessed 22.02.2020

³²² Albarracín, Y. and Mello, M. (2019). *Op. Cit.*, p. 181.

Generally speaking, a *picante* is a stew prepared with various ingredients, most notably, ají chili pepper. The regional speciality, *picante a la tacneña*, is made with *ají pacae* chili pepper, which mainly grows from Arequipa to Chile, predominantly in the Tacna region valleys.

Ají pacae and *panca ají* are used in many of Tacna's traditional dishes; they are the main ingredients in adobo tacneño stew, *patasca* and *picante*. Local farmers call this chili pepper "Inca ají".

In October 2014, Tacna's Regional Council adopted a decree declaring the third Sunday in August *Picante a la Tacneña* Day. This emblematic dish is said to have originated on Calle Arias Arague, where local restaurants serve this dish³²³.

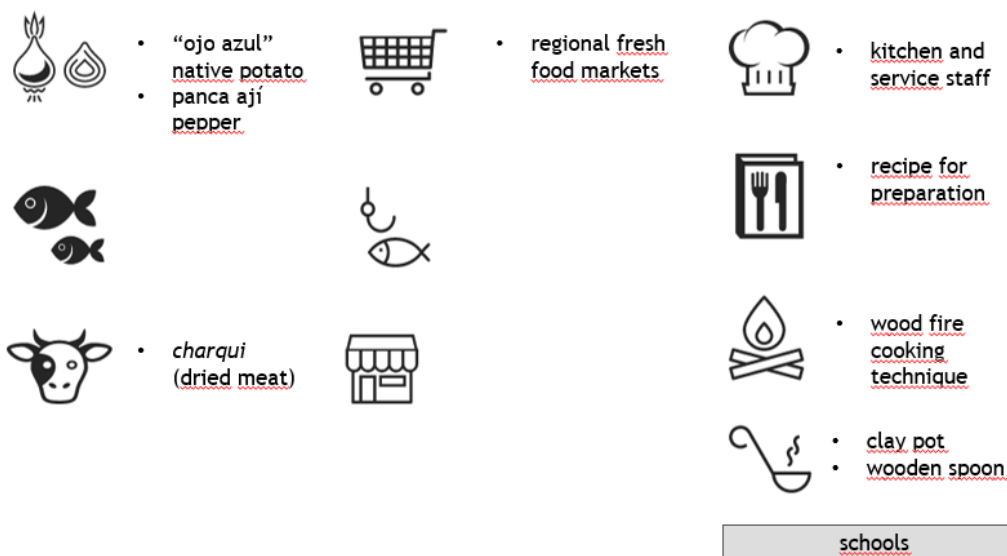
While there are various theories explaining this recipe's origin, it is ultimately believed to have originated in Sama valley, where cotton and sugarcane are produced. According to this theory, black slaves were brought to the area to harvest these crops and developed various cooking techniques and recipes using giblets. This dish was initially reserved for festive occasions such as for offerings to the land or the festival of the crosses. To this day, these ajís are cooked over a wood fire to preserve their flavor³²⁴.

Value chain

³²³ <http://ww2.regiontacna.gob.pe/grt/documentos/2011/personal/OR.024-2014.pdf>. Accessed in November 2019.

³²⁴ shorturl.at/oDNR6

“PICANTE A LA TACNEÑA” (SPICY TACNA-STYLE STEW) VALUE CHAIN



a. Ingredients

This dish’s ingredients include the blue-tinged “ojo azul” native potato which is grown in Caylloma, Condesuyos, Castilla and Unión in Arequipa³²⁵. Native potatoes are grown in small quantities and there are very few detailed statistics about these, although it is known that the different potato varieties are grown by 711,000 families distributed over 19 of the country’s regions, mainly: Puno, Huánuco, Cuzco, Cajamarca, Huancavelica and Junín. Peru’s native potatoes are grown at an altitude from 3,000 to 4,200 meters, where no other crop thrives.³²⁶ According to Peru’s Ministry of Agriculture, total production of all potato varieties taken together in Tacna was 10,344 Mt in 2018³²⁷.

The pachamanca culinary tradition refers to the native potato as well as those persons involved in its national production. In Tacna, there is a collective mark for this blue-tinged “ojo azul” potato attributed to the *Asociación de Productores Agropecuarios de Mujeres Villa Hermosa de Candarave* (the Women Farmers’ Association of Villa Hermosa, Candareve).

³²⁵ <https://diariocorreio.pe/edicion/arequipa/papa-tuberculo-se-siembra-en-las-8-provincias-de-arequipa-675707/?ref=dcr>. Accessed 11.01.2020.

³²⁶ Ministry of Agriculture and Irrigation of Peru (MINAGRI) (2020). <https://www.gob.pe/institucion/minagri/medios/291811/ministerio-de-agricultura-promueve-consumo-de-papa-blanca-a-nivel-nacional>. Accessed 11.02.2020.

³²⁷ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

With regard to the groups responsible for the production of this native potato, although no precise data could be found on particular farmers or associations specifically related to Tacna, there is a board of potato producers in Tacna's Candareve province. In addition, this tuber is promoted in the context of various international events such as the "Perú mucho gusto" food fairs or the Tacna International Fair, where, in 2016, two new potato varieties native to Ayacucho were introduced³²⁸.

Other organizations which focus on the protection and conservation of the potato include the National Association of Potato Growers and Derivatives (APPAPA PERÚ), the Association of Potato Park Communities (ASOCAM) in Cuzco, the International Potato Center in Fontagro, the Native Potato Guardians' Association of Central Peru (AGUAPAN), the Center for Productive Innovation and Technological Transfer (CITE) for the potato and other Andean crops, which is managed by the Association for Sustainable Development (ADERS, Peru) and sponsored by the Ministry of Production, and the Institute of Production Technology.

It should be noted that Peru's native potatoes have been used in the preparation of products like the chip brands, Lay's, Mr. Chips, Yauvana, Viva la Papa!, Inca's Gold and Nativas Snaks, and to make "14 Inkas" vodka.

Charqui, a dried meat that has been used since pre-Columbian times, is used in this dish. It is mostly sold in the city. This type of dried meat can be found in some food markets, or is also home-dried.

Charqui is meat that is preserved by salting and drying in the sun, with origins in the high Andes. It can be made with different kinds of meat, whether camelid, venison, beef, pork or poultry, and used in a variety of ways, including in the dishes *olluquito con charqui* stew, rice with charqui or Charquicán stew.

b. Marketing and distribution

Despite this dish's long preparation time (some say it takes two days to make), it is widely eaten throughout the Tacna region, at major, exclusive events, but also by people of all walks of life.

³²⁸ <https://rpp.pe/peru/tacna/francisco-y-sonaly-nueva-variedad-de-papas-nativas-ayacuchanas-noticia-988384?ref=rpp>. Accessed 20.03.2020.

Hence, it was declared as Tacna's flagship dish and has its own dedicated day on which it is celebrated in August, at which time various popular contests are organized, rewarding the best picante prepared over a wood fire. There are also other known variations of this dish, prepared with chicken or shrimp, for example.³²⁹

In Tacna, these dishes can be found in restaurants or picanterías including El Cacique, La Casa de la Picantería and La Glorieta de Pocolloy.

5.5 **Cuzco**

Cuzco was once inhabited by pre-Inca peoples such as the Marcavalle (1000 B.C.), the Chanapata (800 B.C.) and other peoples who developed different aspects relating to agriculture, camelid grazing, and the exchange of goods. Guaman Poma de Ayala noted that Cuzco was originally named "Aqhamama", which meant "mother of maize chicha de jora"³³⁰.

According to a text based on field research conducted by Eleana Llosa in 95 picanterías of Cuzco city's historic center³³¹ from 1989 to 1990, chicherías are places where a large segment of the population is fed and where cooks traditionally hand down their recipes to their daughters or staff, which remains true today. These places are hence vital sources for the preservation of and innovation in culinary traditions.

(i) **Cuy asado** (roast guinea pig)

Cuy (Peruvian guinea pig) was one of the rodent meats that was traditionally consumed. Antúnez notes that, "The cuy that the Spaniards encountered were as big as Castilla rabbits. Today, this breed has diminished in size and even the larger ones only weigh one to one and a half kilos". It should be noted that, in addition to being used for food, cuy is also used in rituals and for disease diagnosis³³².

³²⁹ <https://andina.pe/agencia/noticia-declaran-plato-tipico-regional-al-picante-a-tacnena-523617.aspx>. Accessed 20.03.2020.

³³⁰ Álvarez, I. (2017). *Op. Cit.*, p. 273.

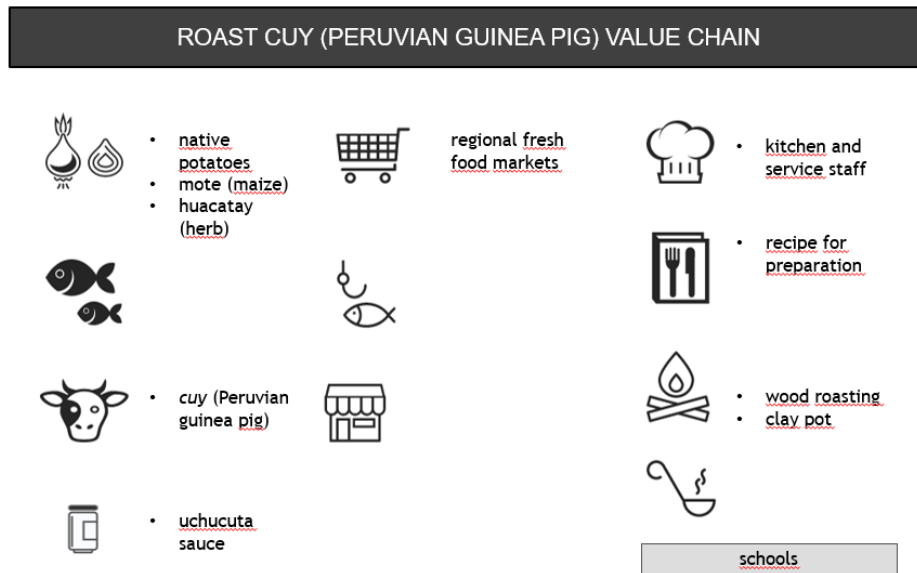
³³¹ Noted during a gastronomic tour led by WPPromPerú in 2017.

³³² Antúnez, S. (1996). *Op. Cit.*, p. 27.

Meat that was harvested in the highlands was turned into *charqui* (dehydrated meat) for later consumption³³³. This could be any type of meat, which was dried using various techniques, including sun-drying, or drying using salt or limestone.

Value chain

Figure 5.5.1



a. Ingredients

Cuy (Peruvian guinea pig) is the namesake and main ingredient of this traditional dish. While cuy’s high nutritional value makes this dish very popular, the *huacatay* herb used to season it merits special mention (more details on huacatay is outlined above, under the ocopa value chain).

Peru is currently the leading cuy meat exporter, accounting for 71.3% of the market. Peruvian cuy is exported chiefly to the United States (99.9%), and the remaining 0.1% is exported to Japan, Canada, the Republic of Korea, Italia and Aruba.

Peru’s cuy meat exports began in 1994. By 2018, its total cuy exports had reached a volume of 9,958 kg and a free on board (FOB) value of US\$ 128,000 dollars, reflecting a 3.9% increase in volume, and 6.5% increase in FOB value as compared to 1994. In the past 10 years, exports in FOB value have grown by approximately 18%.

³³³ *Ibid*, p. 25.

The main regions producing and marketing cuy in Peru are³³⁴ Cajamarca, Lambayeque and La Libertad, followed by Junín, Pasco, Huánuco, Lima, and, to a lesser extent, Arequipa, Cuzco and Apurímac. The traditional dish of cuy asado (roast guinea pig), for its part, is chiefly associated with the Cuzco region.

Cuy producers or farmers include, namely:

- The Sima Chinchero Association of Cuy Smaller Animal Farmers, which, in collaboration with the local municipality and Procompite, is promoting improved production skills.
- The Ecoandino association, in Yanaoca, which brings together approximately 30 farmers who produce and market organic cuy (added value). Their main clients are restaurants catering to tourists in the Valley.
- The Langui Center for Improved Cuy Production is a project managed by the Regional Government of Cuzco, aiming to enhance productive competitiveness in eight districts.
- The Union Chaullay Family is a family showing leadership in Chaullay, supplying cuy to large companies which market it in the region.

The Peruvian Government has various measures in place to enhance the competitiveness of cuy production and marketing in the country. For example, in 2019, it enacted supreme decree No. 401-2019-EF to exempt payment of the general sales tax (IGV) on the sale of live cuy. According to experts, this decree will help to boost live cuy production and marketing, which will in turn increase the consumption of cuy meat.³³⁵

In addition, the Programme for the Productive Development of Rural Farming (Agro Rural), the Center for Development Studies and Promotion (Desco) in Arequipa and the Business and Methodology Institute in Ayacucho have tools and mechanisms to certify the skills of cuy producers. These certifications are granted by the Government of Peru via certifying entities authorized by the National System for Educational Quality Accreditation and Certification (SINEACE).

Moreover, Ministerial Decree No. 0338-2013-MINAGRI of 13 September 2013 sets out a “National Cuy Day” to enhance the value and dissemination of cuy production, marketing and consumption.

³³⁴ No data could be found on the product’s marketing volumes nor on its transfer to food markets..

³³⁵ <https://elperuano.pe/noticia-aumentara-consumo-cuy-gracias-a-exoneracion-del-igv-88257.aspx>. Accessed 11.01.2020

b. Marketing and distribution

All the ingredients used in making this traditional dish can be found in the region's food markets³³⁶. This dish is served in picanterías and restaurants, notably, Kusikuy, el Mesón de Don Tomás and Quinta Eulalia, although it is said that the best cuy can be found in the Tipón community, which celebrates a cuy festival, and which has restaurants which cater to tourists, including El Rancho del Cuy and la Casona del Cuy.

Cuy consumption has also extended to Lima and other regions in Peru. Today, cuy is served in various restaurants in Lima, and is presented in various ways, including at El Tarwi, Las Tejas, La Matarina, Mayta, Manduca, Huancahuasi and Tradiciones de mi Tierra.

(ii) Pachamanca

Pachamanca, also known as “earthen pot”, has its origin in ancestral times. Rosario Olivas notes that “the oldest archeological remains of the pachamanca were discovered in the Telarmachay cave, in the highlands of San Pedro de Caja. This cave was inhabited as far back as 7,000 B.C. and occupied again in 4,800 B.C.”.³³⁷

The pachamanca was first used in Andean rituals to thank the earth for its bountiful harvests.

This dish evolved over time. It is known that, until the 20th century, this dish was made strictly with lamb or young goat wrapped in banana leaves. Currently, it is made with practically any type of meat, generally a mix of three kinds, from either pork, chicken, stewing hen (*gallina*), duck, lamb or cuy. It is eaten nearly throughout all of Peru. It is therefore no coincidence that it was declared a part of Peru's national cultural heritage in 2003, because it is an age-old cultural tradition.

Pachamanca plays a role in the celebration of the Virgin of Carmen, also known as the Paucartambo Festival, which takes place over eight days from 12 to 19 July.

Value chain

Figure 5.5.2

³³⁶ No data could be found on the tons of cuy sold daily by the different markets.

³³⁷ Olivas, R. (2015). *Op. Cit.*, p. 130.

PACHAMANCA VALUE CHAIN



a. Ingredients

Pachamanca is a dish prepared in the same way as in ancestral times. It was declared as part of Peru’s national cultural heritage in 2003. Although it is widely eaten throughout the country, it is mostly consumed in the Andean region. The first Sunday in February was declared “National Pachamanca Day” in 2015, since this is an age-old dish infused with major cultural significance.

Its main ingredients include: (i) native potatoes, (ii) huacatay, (iii) sweet potato, (iv) lamb meat, and, (v) chicha de jora.

As mentioned above, potatoes are an important staple of Peruvians’ food basket. Potatoes are native to Peru, which has hundreds of varieties. In addition, Cuzco is a major potato-producing region: in 2018, it produced a total of 393,611.43 Mt of potatoes, including various varieties³³⁸. Cuzco also has approximately 1,200 native potato varieties, including³³⁹: the chaska, valicha (in honor of the Andean woman by the same name), ccorinia, serranita, pallayponcho, pukalliqlla,

³³⁸ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

³³⁹ <https://andina.pe/agencia/noticia-dia-nacional-de-papa-cusco-produce-mas-1200-variedades-papa-nativa-711728.aspx>. Accessed 26.02.2020. WIPO FOR OFFICIAL USE ONLY

anteñita, leona, qeqorani and camotillo varieties. Accordingly, Peru is a leading potato exporter, exporting approximately 500 Mt of native potatoes annually³⁴⁰.

No precise information could be found on the farmers or associations responsible for Peru's native potato production. Nevertheless, in relation to potato preservation, the following are noteworthy: the agricultural engineer, Miguel Choqge, who has successfully collected 350 potato varieties in Chinchero, the Mullacas Misminay rural community, which grows potatoes on the Moray Inca platforms³⁴¹ and the Native Potato Guardians' Association of Central Peru (AGUAPAN) which brings small-holder families to the centers of origin of the potato, to work on the tubers' conservation and development through the stewardship and guardianship of collections of native potato varieties.³⁴²

Other entities which focus on the protection and conservation of the potato include the National Association of Potato Growers and Derivatives (APPAPA PERÚ), the Association of Potato Park Communities (ASOCAM) in Cuzco, the International Potato Center in Fontagro, the Native Potato Guardians' Association of Central Peru (AGUAPAN), the Center for Productive Innovation and Technological Transfer (CITE) for the potato and other Andean crops, which is managed by the Association for Sustainable Development (ADERS, Peru) and sponsored by the Ministry of Production, and the Institute of Production Technology.

It should be noted that Peru's native potato has been used to make other products, such as potato chips under the brands Lay's, Mr. Chips, Yauvana, Viva La Potato!, Inca's Gold, Nativas Snaks, as well as to make "14 Inkas" vodka.

As mentioned above under the section on ocopa, since huacatay is family-farmed, no association or group could be identified as responsible for the production of this aromatic herb.

³⁴⁰ <https://andina.pe/agencia/noticia-dia-nacional-de-papa-peru-exporta-500-toneladas-papa-nativa-al-ano-711671.aspx>. Accessed 26.02.2020.

³⁴¹ <https://agraria.pe/noticias/cusco-cosechan-papas-nativas-en-andenes-incas-10984>. Accessed 26.02.2020.

³⁴² <https://cipotato.org/es/lapapa/nace-la-asociacion-de-guardianes-de-papa-nativa-del-centro-del-peru/>. Accessed 26.02.2020.

Sweet potatoes, for their part, are mainly grown on Peru's central coast, and the nation produced 275,257.502 Mt of this crop in 2018 ³⁴³, with Cuzco's production totalling 402 Mt. Sweet potatoes are also used to accompany cebiche and chicharrones.

The sweet potato was first domesticated and cultivated in pre-Inca times; it has been found in tombs and is also depicted on pre-Columbian ceramics³⁴⁴.

Today, sweet potatoes are mainly sold fresh, and the main varieties found on the market are the yellow and purple varieties. These are also used in making potato chips or snacks under brands such as NatuChips, Cricket's and Inka Chips. Sweet potatoes are exported in fresh, refrigerated, frozen or dried form, chiefly to the United States, Canada, the Republic of Korea and Malaysia.³⁴⁵ The main sweet potato exporters include "Prima Farms SAC, with sales totalling US\$ 783,708 dollars, followed by LAS Kentias SAC (US\$ 650,687), Agrícola and Ganadería Chavín de Huántar SA (US\$ 385,935), Matfal EIRL (US\$ 209,213), Falvy de Matos Cinthya Lourdes (US\$ 103,751), Coproimpex SAC (US\$ 99,300), D Matfal Foods Company EIRL (US\$ 97,393) and Agroindustrias AIB SA (US\$ 63,456) among several others, amounting to a total value of US\$ 411,272 dollars"³⁴⁶.

Mutton or sheep meat is mainly eaten in Andean areas; the regions that produced the most such meat are Puno, Junín and Cuzco, producing 8,881 Mt, 3,300 Mt, and 3,232 Mt in 2017, respectively³⁴⁷. The sheep are farmed using a grazing system and are tended by women and children which accompany the herds. They are the most significant component of farmers' livestock, not just for their meat, but for their wool that is used in making different fabrics (to make bags, rugs, and clothing, such as ponchos). Although no data could be found on communities or families that raise sheep, sheep farming is known to be a major source of income helping to mitigate the risks inherent to farming.³⁴⁸

³⁴³ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018.

<http://siesa.minagri.gob.pe/siesa/?q=produccion-agricola>. Accessed 10.01.2019.

³⁴⁴ http://www.peruecologico.com.pe/raiz_ibatatas.htm. Accessed 26.02.2020.

³⁴⁵ <https://peru.info/es-pe/superfoods/detail/super-potato>. Accessed 26.02.2020.

<https://peru.info/en-us/superfoods/detail/super-sweet-potato>. Accessed 26.02.2020.

³⁴⁶ Source: <https://agraria.pe/>. From: <https://agapperu.org/noticias/crecieron-las-exportaciones-camote/>. Accessed 26.02.2020.

³⁴⁷ http://siesa.minagri.gob.pe/siesa/sites/default/files/anuario-produccion-pecuaria-2017-261118_0.pdf. Accessed 27.12.2019.

³⁴⁸ <http://leisa-al.org/web/index.php/statistics/volumen-21-numero-3/2032-mejorando-la-performance-de-los-ovinos-locales-la-acoc>. Accessed 26.02.2020.

The main ingredient in chicha de jora is jora flour, obtained from the controlled germination of maize grains. Chicha de jora can be consumed on its own, as a beverage, which is also commonly known as “clarito”, or as an ingredient in innumerable Peruvian dishes.

The main regions producing chicha de jora are La Libertad, Lima, San Martín, Lambayeque, Ancash, Piura, Cajamarca, and Loreto, which together account for 83.5% of national production. No data could be found on production volumes, however, nor could distribution be traced.

As is the case for other culinary traditions, as mentioned above, chicha and chicherías (places for drinking chicha) also have their own regional characteristics. Accordingly, in 2015, the Ministry of Culture adopted Vice-ministerial decree No. 157-2015-VMPCIC-MC, which declares the cultural spaces of picanterías and chicherías from Cuzco and Piura to be part of Peru’s cultural heritage. While both serve chicha as the main beverage, picanterías serve chicha as an accompaniment with food, whereas the focus of chicherías is to drink or buy chicha.

The spaces specializing in the distribution and marketing of this culinary tradition are generally houses that have been adapted for this purpose, in rural areas. They are spaces where pre-Hispanic culinary knowledge and techniques are passed down, and hence play a vital role in the consumption and dissemination of this culinary tradition. This is in reference to the sale and consumption of chicha as a beverage. Nevertheless, as mentioned above, chicha de jora is also used as an ingredient in various dishes and beverages such as the frutilladas. Hence, chicha de jora is widely distributed in most food markets, not just in the region, but countrywide, although no data has been obtained on this product’s sales volume.

Although precise information could not be found on the number of associations or producers that make chicha, it is known that the Cuzco Picanterías Association organized the Ajha Raymi, or Chicha de jora festival, which aims to raise the profile of this tradition and disseminate its consumption among both locals and visitors to the region.

It should be noted that, although chicha de jora is a product that is recognized and valued domestically, as a beverage, its popularity has yet to catch on outside of Peru. Hence, it is not found in packaged or pasteurized form in any supermarket, although the Candelaria brewery has used it as an ingredient to make a chicha de jora beer, under the name “La Patriota”.

b. Marketing and distribution

This culinary tradition's ingredients are relatively easily found in most food markets, including in Huancaro, San Blas, San Pedro and Huanchaq. Nevertheless, no data could be found in relation to particular producers of the various ingredients nor for tracing their trajectory before reaching consumers.

As mentioned above, the logistics involved in preparing pachamanca are rather complex, as this dish is cooked by placing the ingredients underground, in a space especially carved out for that purpose. Hence, although this dish in its original form is popular throughout Peru, it is mainly eaten in rustic regional or rural restaurants. The main restaurants serving this traditional dish in Cuzco include Pachapapa, Chicha, Cuzco Cuisine, El Virrey del Truco, Inka Grill, Cicciolina, Incanto and Nuna Raymi.

Nevertheless, the preparation of this traditional dish can be adapted in order to make it at home or in any restaurant by placing all the same ingredients in a pot ("a la olla") instead of in the ground. This dish, which is served with an array of ingredients, including three types of meat, beans, sweet potato and choclo, tends to be hardy, and as such, it is usually reserved for special occasions.

Pachamanca can also be found in Lima, served in rustic rural restaurants of the Santa Eulalia district, such as El Tinajón, El Paraíso Huanca or El Mirador. It can also be found in other restaurants including Mesa de Piedra, Club Huancayo, Las Terrazas de mi Pueblo and Huancahuasi.

5.6 Loreto

(i) Patarashca

The Peruvian culinary tradition, patarashca, is from the Quechua word "*patarasqa*", which means lined and wrapped, which are characteristics of the dish. The Quechuan words for dishes in the Amazon are chiefly rooted in social processes brought by immigrants from the San Martín region, where Quechua has been used for many centuries.

Each region of Peru has its own culinary techniques, and Loreto is no exception. Among Loreto's many culinary techniques is that for preparing patarashca, which involves wrapping fish in a at least two different types of leaves (Bijao leaves of the Heliconia plant, and mishqui panga) before roasting it. While many of us today likely use a similar technique at home when wrapping food

in parchment paper before roasting it in the oven, the fundamental difference is that the leaves in the technique used in Loreto infuse the wrapped food with distinctive flavor.

The restaurant owners and chefs that were interviewed in the region indicated certain variations from the recipe found under Annex 2. For example, Gabriel Garhy Nogueira Paz, the owner and chef of the restaurant, “Chef Paz”, does not use turmeric or chili pepper, the two tablespoons of white wine, cilantro, or the teaspoon of lime juice. With regard to the dish’s presentation, the reference recipe in Annex 2 includes the use of cocona chili pepper, which was not mentioned in the interview.

The chef and owner of the restaurant de “Mishquina”, Pilar Agnini, also mentioned some variations from the original recipe. With regard to ingredients, she did not use wine, turmeric, lime juice or pepper. There was no notable variation with regard to the preparation, however.

As is noted in the reference recipe (see Annex 2), patarashca can be made with different kinds of fish, including paiche (also known as arapaima), a freshwater fish which can be up to 3 meters in length in its natural environment and weigh approximately 250 kilograms.

From the interviews, paiche emerged as the region’s most representative product. Ms. Pilar Agnini said that some fish farms were certified by Sanipes and the closed seasons were observed. In addition, Nikyoli Ching, president of the Loreto Chamber of Commerce noted that the region’s most representative dishes, like patarascha, must be marketed for consumption at the artisanal level rather than commercially, which would help to preserve the species by preventing over-fishing in order to boost sales.

The paiche fish, like the black caiman or jaguar, plays a crucial role in Amazon culture, since catching them is seen as a sign of strength and virility. The concern in relation to this fish, as mentioned by Pilar and Nikyoli, is the potential overfishing of this endangered species. This issue first arose with the arrival of the Spaniards, who introduced new techniques for fishing and fish preservation (by salting), which, at the time, altered the stocks’ equilibrium.

Consequently, in recent decades, campaigns and projects have been implemented such as for the establishment of natural reserves, placing limitations on the fishing season and on fish

farming for commercial purposes, and for conducting research with a view to restoring fish stocks.³⁴⁹

Value chain

Figure 5.6.1

PATARASHCA VALUE CHAIN		
<ul style="list-style-type: none"> • rocoto pepper • sachá culantro • cassava • cocona fruit 	<ul style="list-style-type: none"> • regional fresh food markets 	<ul style="list-style-type: none"> • kitchen and service staff • recipe for preparation • Seasoning, resting and cooking technique • schools

a. Ingredients

The ingredients for this dish include: (i) rocoto chili peppers, (ii) *sachá culantro*, (iii) cassava, (iv) cocona fruit, and (v) paiche fish.

Peru has two types of rocoto chili peppers: the serrano or garden rocoto, and the central jungle rocoto, which is bigger. This recipe calls for rocoto from the jungle area (Pasco, Huánuco and Junín). Associations that have obtained collective marks for this product include: the Asociación de Agricultores Emprendedores Unión Tulumayo (the Association of Farming Entrepreneurs of Unión Tulumayo) (Asaemut), Asociación de Productores Comercio Justo, Mazamari (the Fair Trade Producers’ Association of Mazamari), Asociación de Fruticultores Ecológicos Vivero Distrital del Valle Marcapata (the Organic Fruit Growers’ Association of the Marcapata Valley District Nursery) and Asociación Agropecuario Barrio Oxapampa I (the Farmers’ Association of Oxapampa I), with production in Junín, Cuzco and Pasco. It should be noted that there are no official data on rocoto production volumes nor on its traceability which would enable strengthening this ingredient’s value chain.

³⁴⁹ Slow Food. (2017). *Op. Cit.*, p. 280 – 281.

This product is exported in fresh or paste form to the United States, Italy, Spain and other markets. Exact export volumes could not be determined since the rocoto falls under the general category of peppers.

Sacha culantro is an aromatic herb that is used in various traditional dishes in the jungle area and which is known and used regionally. It originates from the western Amazon and is grown throughout the tropical Americas. In Peru, it is widely distributed in Loreto and Ucayali (Atalaya).³⁵⁰ Sacha culantro is known to have healing properties³⁵¹. No official data could be obtained on producers, production volume or traceability of this product.

Cassava is another ingredient in patarashca. It is found in different regions, with Loreto as the top producing region, totalling 430,227 tons in 2018³⁵². The Cajamarca, Amazonas, Ucayali, Junín and San Martín regions also produce cassava. This product is also made into a flour. Although no data could be found on cassava sales volumes or producers in Loreto, according to De Vida³⁵³, there are more than 130 producers being trained in improving techniques and best practices for growing cassava and making cassava flour³⁵⁴.

In the Junín region, collective marks have been granted to associations that market non-processed cassava: the Federación Cafetalera Microcuenca Pampa Whaley, Miraflores and Margarita (the Coffee Growers Federation of the Micro-watershed of Pampa Whaley, Miraflores and Margarita), the Asociación de Agricultores Emprendedores Unión Tulumayo (the Association of Farming Entrepreneurs of Unión Tulumayo) (Asaemut) and the Asociación de Productores Comercio Justo, Mazamari (Asociación de Productores Comercio Justo, Mazamari) (the Fair Trade Producers' Association of Mazamari). Cassava is mainly exported to Chile, the United States and Spain³⁵⁵. It should be noted that there are also informal or non-organized cassava producers, which makes it difficult to assess production volume.

³⁵⁰https://www.minagri.gob.pe/portal/download/pdf/sectoragrario/agricola/lineasdecultivosemergentes/SACHA_CULANTRO.pdf. Accessed 11.01.2020.

³⁵¹ <http://www.iiap.org.pe/Upload/Publicacion/CDinvestigacion/IIAP/IIAP2/CapitulolIII-39.htm>. Accessed 12.02.2020.

³⁵² MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

³⁵³ Peru's National Commission for Development and Life without Drugs (DEVIDA) is an implementing public body under the Presidency of the Council of Ministers. It is tasked with developing and implementing the National Drug Control Strategy and representing Peru as a partner in any international anti-drug cooperation fund.

³⁵⁴ <https://www.devida.gob.pe/-/loreto-mas-de-130-productores-de-farina-participaron-en-dia-de-campo>. Accessed 12.02.2020.

³⁵⁵ <https://www.agrodataperu.com/2019/11/yuca-peru-exportacion-2019-octubre.html>. Accessed 11.01.2020.

Another ingredient is the cocona fruit, also known as “the tomato of the Amazon”, which grows in the jungle area and is produced mainly in the Loreto, San Martín, Ucayali and Amazonas regions. This fruit is combined with ají peppers and aromatic herbs to make cocona ají. In indigenous communities, this fruit is deemed to have medicinal properties, since it is a source of vitamins B, B5 and C and minerals (iron, calcium and phosphorus)³⁵⁶. Thanks to the growing popularity of restaurants serving Amazon cuisine in Lima, and promotional efforts by Mistura, there is greater awareness about cocona ají today. In 2018, national cocona production was 9,522 Mt, with 4,667 Mt produced in Loreto³⁵⁷. Nevertheless, no official data could be obtained on either the number of cocona producers or its traceability.

Paiche is a fish that is endemic to the Peruvian and Brazilian Amazon. In Peru, it is found in the Pacaya Samiria National Reserve as well as in rivers of the Loreto region. It is among the largest freshwater fish as it can measure up to 3 meters in length and weigh 250 kilograms. In recent decades, paiche fish farming projects and promotional campaigns have been implemented in order to help restore its stocks³⁵⁸. Between 2016, at which time paiche production stood at 142 tons, and 2018, paiche fish stocks were restored by 200% thanks to joint efforts between communities and the Ministry of Production³⁵⁹. In addition, in 2018, 712 paiche farming permits were granted in 11 of Peru’s regions; most of these permits are for the harvesting of paiche and other Amazon species; the aim is also to establish potential aquaculture centers for boosting this type of fish farming. The Loreto region produces the lion’s share of paiche, producing approximately 65% of the national total, followed by Ucayali, which produces 18%, in frozen form for export, as well as to meet local demand for Amazonian cuisine.

There is currently one association with a collective mark for paiche: the mark, "Arapaima Gigas", held by the Asociación de Criadores de Paiche de la Amazonía Peruana (the Association of Paiche Farmers of the Peruvian Amazon). There are other associations that farm and market this fish, such as the Association of Paiche Producers of Peru (ProPaiche), which is comprised of six companies that promote sustainable paiche farming³⁶⁰, and other organizations such as the

³⁵⁶ Slow Food. (2017). *Op. Cit.*, p. 250 – 251.

³⁵⁷ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

³⁵⁸ *Ibid*, pp. 280 – 281. WIPO FOR OFFICIAL USE ONLY

³⁵⁹ <https://andina.pe/agencia/noticia-poblacion-del-paiche-silvestre-aumento-2000-ultimos-ocho-anos-723512.aspx>. Accessed 11.01.2020.

³⁶⁰ <http://www.mispecies.com/nav/actualidad/noticias/noticia-detalle/Nace-la-Asociacion-de-Productores-de-Paiche-de-Per.-Un-buen-comienzo-para-la-salvuarda-de-la-especie/#.XiWqhINKhQI>. Accessed 11.01.2020.

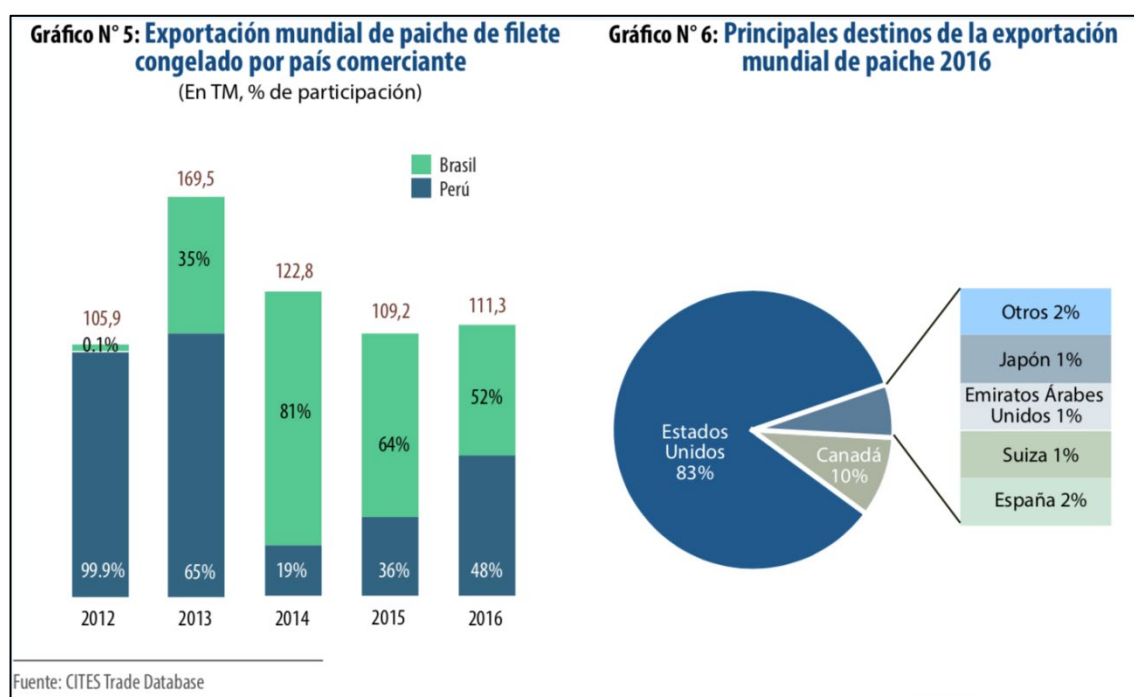
organized group called the Manco Cápac Community of the Yanayacu Pucate basin³⁶¹ and the Community Organization of Small-Scale Fishers and Fish Processors, OSPPA Arahua Fish³⁶².

Paiche is exported to the United States, Ecuador and the Republic of Korea. The main exporters are Sercosta, Corporación de Ingeniería de Refrigeración and Productora Andina de Congelados.

b. Marketing and distribution

According to Peru’s July 2018 fishing digest, in the period from 2012-2016, international demand in paiche meat remained above 100,000 tons, with a record demand of 169,500 tons in 2013. Brazil has become the leading paiche exporter. However, in 2016, Peru accounted for 48% of the export volume, owing to the growing demand for this fish by the United States and Canada. The United States is the main destination for paiche products from both Brazil and Peru.³⁶³

Figure 5.6.2



Among the chefs who have helped to increase this product’s value is Pedro Miguel Schiaffino, who created the NGO Despensa Amazónica. Pedro Miguel is a chef and researcher of Amazonian cuisine, who, through his restaurant, Amaz, is promoting and disseminating Amazonian art and

³⁶¹ <https://www.sernanp.gob.pe/paiche>. Accessed 11.01.2020.

³⁶² <https://www.itp.gob.pe/https-www-itp-gob-pe-wp-admin-post-phppost5047actionedit/>. Accessed 11.01.2020.

³⁶³ Ministry of Production – Directorate of Economic Studies. (July 2018). Fishing gazette. www.produce.gob.pe. Accessed 12.02.2020.

culture. Pedro Miguel has helped to not only showcase Amazonian products, but also to improve knowledge about them and their use. In 2019, he was presented with the American Express Icon Award in the context of Latin America's 50 Best Restaurants for that year³⁶⁴.

(ii) **Tacacho con Cecina** (mashed plantain with dried meat)

“Cecina” refers to dried, smoked meat, which is traditionally prepared by communities in the Peruvian jungle. In the days before refrigeration, this technique of drying and smoking meat was used to prevent it from spoiling. Cecina is used in a variety of typical local gastronomy dishes, and is usually fried, grilled or used in vegetable soups or stews. “Tacacho con cecina” is a street food that can be sampled from market and street vendors³⁶⁵.

In an interview conducted on 8 October 2019, Pilar Agnini, the chef and owner of the restaurant, Mishquina, shared her *tacacho con cecina* recipe and highlighted a few variations from the reference recipe: For one, she does not add chicharrón (crackling pork) to the dish, since that would make it very fatty. In terms of presentation, she indicated that the dish should be served with chorizo, two tacacho patties and a portion of cecina, a detail which is not mentioned in the reference recipe under Annex 2.

Value chain

Figure 5.6.3

³⁶⁴ <https://elcomercio.pe/gastronomia/chefs/latin-america-s-50-best-chef-peruano-pedro-miguel-schiaffino-gana-premio-icon-noticia-675241-noticia/>. Accessed 12.02.2020

³⁶⁵ Slow Food. (2017). Op. Cit., p. 254.

**"TACACHO CON CECINA" (MASHED PLANTAIN WITH DRIED MEAT)
VALUE CHAIN**



a. Ingredients

Achiote, more commonly known as annatto in English, is a main ingredient in this traditional dish. It grows from Mexico to Brazil, including Peru, which produces from 6 to 7 million tons of achiote annually, of which approximately 90% is for export.

Annatto's popularity stems from its use as a natural colorant in various foods such as margarine, butter, ice cream, meats, baked goods, cheeses, yogurts, pastas and noodles and snacks, as well as in cosmetics such as lipstick, sunscreen and creams.

Achiote (annatto) has significant national and international market potential, especially as an added-value product (as a dye). Currently, it is exported as a powder dye and is a product with great potential and demand in the global food and cosmetic industry. In 2018, its export volumes reached 459 Mt³⁶⁶.

The high international demand in achiote is essentially due to its bixin and norbixin content: bixin is one of the few natural pigments to be authorized for use in food by the World Health Organization.

³⁶⁶ http://www.siicex.gob.pe/siicex/portal5ES.asp?_page_=194.17100#anclafecha. Accessed 26.02.2020.

Peru is the world's second largest annatto seed producer, after Brazil. One way to improve annatto seed productivity could be through the modernization of its production. In this regard, various projects to improve seed production are being managed by public entities in cooperation with private companies. It should be noted that Brazil has enhanced its competitiveness in this area, which has in turn boosted its annatto productivity and quality.

Annatto production in Peru was 6,988 Mt in 2018, with production in Loreto at only 79 Mt³⁶⁷. Annatto can also be found in the Pasco, Cuzco, Ucayali, Ayacucho and Junín regions³⁶⁸. In Junín, efforts have been made to obtain collective marks from associations that produce and market annatto, including: the Asociación de Productores Indígenas Pareto-Inchatingari (the Association of Indigenous Producers of Pareto-Inchatingari) (APROIPAI) in La Merced; the Cooperativa Agroindustrial Cafetalera Valle Ipoki Pui Pui Pichanaki (the Agroindustrial Coffee Growing Cooperative of Ipoki Pui Pui Pichanaki Valley) (CAC-VALLE IPOKI PUI PUI PKI); the Cooperativa Agroindustrial Cafetalera Unión Naciente 28 de Julio Pichanaki (the Unión Naciente Agroindustrial Coffee Growing Cooperative in 28 Julio, Pichanaki) (CAC-UNION NACIENTE-PKI), the Asociación de Productores Agropecuarios Mapa Mashin-Alto Perene (the Association of Agricultural Producers of Mapa Mashin-Alto Perene) (APAMA); the Asociación de Productores Agropecuarios Alto San Juan (Association of Agricultural Producers of Alto San Juan); the Asociación de Caficultores Agroecológicos de la Esperanza - San Ramon (Association of Organic Coffee Growers of la Esperanza, San Ramon); the Federación Cafetalera Microcuenca Pampa Whaley, Miraflores and Margarita (the Coffee Growers Federation of the Micro-watershed of Pampa Whaley, Miraflores and Margarita); the Asociación de Agricultores Emprendedores Unión Tulumayo (Association of Farming Entrepreneurs of Unión Tulumayo) (Asaemut); Asociación de Productores Agrícolas Río Blanco-Alto Edén (APARBAE); the Asociación de Productores Comercio Justo, Mazamari (the Fair Trade Producers' Association of Mazamari); and, the Cooperativa Agroindustrial Cafetalera Ecológica Valle Río Venado - Satipo (Agroindustrial Cooperative of Organic Coffee Growers of the Venado River Valley, Satipo) (CACE - VALLE RIO VENADO - SATIPO).

³⁶⁷ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018.
<http://siea.minagri.gob.pe/siea/?q=produccion-agricola>. Accessed 10.01.2019.

³⁶⁸ <http://proyectosperuanos.com/achiote/>. Accessed 11.01.2020.

The main companies exporting annatto colouring materials of vegetable origin are: Montana S.A., Biocon del Perú S.A.C., Aicacolor S.A.C, Imbarex S.A. and Productos Naturales de Exportación S.A. (PRONEX S.A.)³⁶⁹.

Another important ingredient for making tacacho de cecina is pig meat or pork. National pig meat production was 157,741 Mt in 2017. Peru's per capita pork consumption increased from 3.5 kg in 2008 to 8 kg in 2018, reflecting a growth rate of 230% in that ten-year period, and this rate is expected to reach 10 kg per capita in 2021.³⁷⁰

In 2017, Loreto's pigmeat production was 2,381 Mt³⁷¹. In Loreto, one can find rural pig farming, allowing the animals to roam freely and eat roots, vegetables and food and crop waste fed to them by the small holder, as well as intensive and technified farming systems.³⁷² Loreto has ten pig farming facilities in the San Juan Bautista district, all of which have health approval to operate (*Autorización Sanitaria de Funcionamiento (ASF)*)³⁷³. In addition, the Asociación de Criadores de Paiche de la Amazonía Peruana (the Association of Paiche Farmers of the Peruvian Amazon) (ACRIPAP) has a collective mark "Arapaima gigas", which includes a distinction for smoked pork for use as hamburger meat; cecinas (dried, smoked meat); sausages, regional chorizo from the jungle area among other products under class 29 of the Nice Classification.

While it is known that small-holder farmers are the ones meeting market demand in the Loreto region, the number of pig meat producers could not be determined.

b. Marketing and distribution

The ingredients for this culinary tradition can be found in most of the the Loreto region's food markets, including Belén market. Outside the region, tacacho con cecina is served in restaurants specializing in Amazonian cuisine, such as El Aguajal, La Choza de la Anaconda, El Bijao and El Pichito.

³⁶⁹ <http://www.siicex.gob.pe/siicex/>. Accessed 11.01.2020.

³⁷⁰ Zurita, M. (2019.06.13) ¿Por qué comemos más carne de cerdo?["Why are we eating more pork?"] Lima: El Comercio. <https://elcomercio.pe/economia/dia-1/comemos-consumo-carne-cerdo-noticia-ecpm-644992-noticia/>. Accessed 26.02.2020.

³⁷¹ http://siesa.minagri.gob.pe/siesa/sites/default/files/anuario-produccion-pecuaria-2017-261118_0.pdf. Accessed 27.12.2019.

³⁷² <https://www.minagri.gob.pe/portal/40-sector-agrario/situacion-de-las-actividades-de-crianza-y-producci/302-porcinos?start=9>. Accessed 26.02.2020.

³⁷³ <https://www.senasa.gob.pe/senasacontigo/loreto-senasa-realiza-operativo-en-granja-clandestina-de-porcinos/>. Accessed 26.02.2020.

Tacacho con cecina can be found in nearly all of the Loreto region's restaurants, as well as in markets and food carts (food vendors). The region's main restaurants include Fitzcarraldo, Al Frío y al Fuego, Amazon Bistro, Huasai Restaurant, El Mijao, La Gran Maloca, and Restaurante Blanquita. The distinctive tacacho con cecina served at Restaurante Blanquita, in particular, is in high demand. This traditional food can also be found at Belén market.

(iii) Juane

Juane is a typical dish of the Peruvian jungle region, and is linked to the feast of San Juan (St. John the Baptist), a religious holiday that was first introduced by the Spaniards in the times of the vice-royalty and is celebrated through masses and ceremonies held in the river, to bless the river waters.

This dish is said to reflect syncretism as it symbolizes the head of St. John, which helped to popularize this saint's biblical passage. It also merges together native ingredients with ingredients that have adapted to Peru's environment. Moreover, juane is known to have originated as a food for travelers, since its design enables it to be stored for long periods without spoiling.

Juane, or rumu juane, has its origins in the city of Moyobamba, in the San Martín region. It was originally made with cassava, and, was later made with rice and chicken.

Other stories recount that juane's origins are from the expedition of immigrants from the coast and highlands, arriving in Moyobamba in search of farming land, and bringing their culinary traditions with them:

*"Locals would eat wild jungle animals and birds, and one of their typical dishes was 'Rumuapi', which was a kind of thick, seasoned stew with meat. Immigrants from the coast introduced the tamal, but seasoned it, and added raw, seasoned cassava and huirá bijao leaves, and from this fusion, the famous juane was born."*³⁷⁴

The most popular type of juane in Peru is made with rice, chicken pieces, black olives and a boiled egg, which are wrapped in a bijao leaf and boiled.

³⁷⁴ <https://blogs.deperu.com/cocina-peruana/el-origen-del-juane/>. Accessed 20.03.2020.

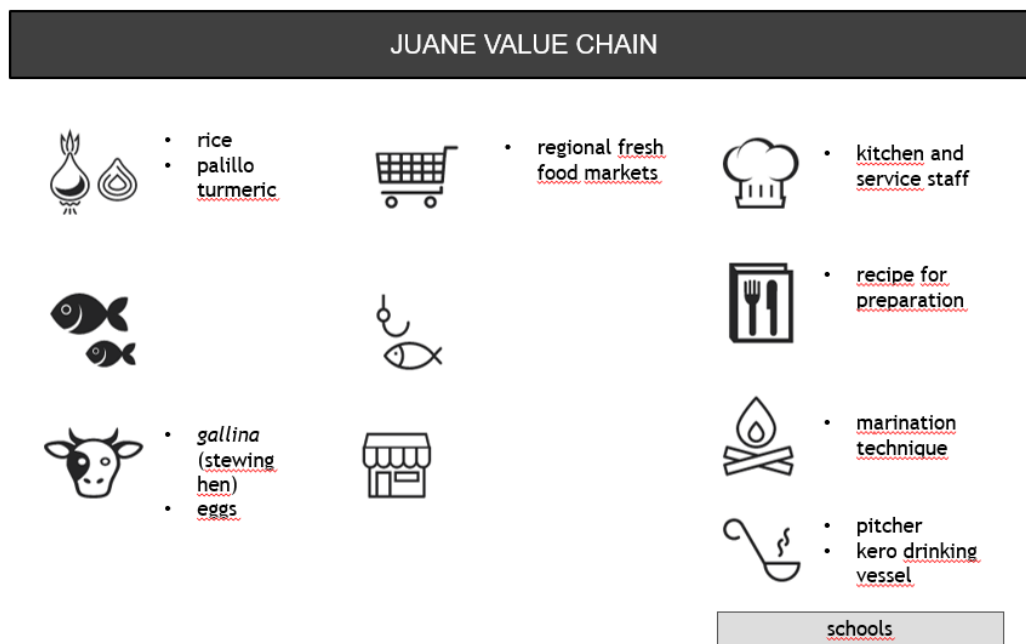
This food has variants: For example, Moyobamba cassava juanes do not include rice, but have fish, and elsewhere, they are made with rice and a piece of chicken. There is also the avispa (wasp) juane, the cassava juane, the juane especial, the chonta juane, the sara juane and the nina juane.

Depending on local customs, juanes can be served with a side of tacacho, cassava, boiled plantain and a glass of chicha de jora (made from maize) or chicha de higo (made from wheat).

As mentioned, this food is wrapped in bijao leaves, a very common food preparation technique used in Peru’s jungle region cuisine which facilitates its subsequent cooking and preservation.

Value chain

Figure 5.6.4



c. Ingredients

The ingredients needed to make juanes are: (i) rice, (ii) palillo (a turmeric-like spice) or saffron and (iii) *gallina* (stewing chicken) and eggs.

Rice, an essential ingredient for making juanes, is considered to be a staple food in Peru and is an important nutritional component in regional cuisines. It is the main ingredient in many

traditional dishes such as *arroz con con pollo* (rice with chicken), *arroz con pato* (rice with duck), *arroz con mariscos* (rice with seafood), or served as an accompaniment with stews, casseroles, seco, ají de gallina or sudados (steam-cooked dishes).

This input, which originates from Southeast Asia, is grown in different regions of Peru, such as the “arroz flor” grown in Lambayeque. In 2018, Peru’s national paddy rice production was 3,557,900 Mt, with the main producing regions being San Martín (797,767 Mt), Piura (513,515 Mt), Lambayeque (481,921 Mt) and Amazonas (454,266 Mt). Loreto produced 107,807 Mt³⁷⁵.

In Peru, there are more producers of rice and potatoes than of any other crop, and rice and potato crops also cover the largest cultivated area: in 2018, the cultivated area for potatoes was 334,384 ha, and 442,768 ha for rice, with the latter accounting for 6% of the agricultural contribution to GDP in Peru.

There are currently 100,000 rice producers in Peru, few of which are large-scale producers. Rice is a labor-intensive crop, and, as such, it constitutes a main economic activity in administrative departments such as San Martín, where 70% of the economically active population works in this sector.³⁷⁶ The rice production chain includes the milling sector, for the processing of paddy rice. There were 431 mills in 2018, most of which are found in Lambayeque (74), Piura (73) and Arequipa (61)³⁷⁷.

The main organizations linked to rice production are the National Committee of Rice Producers (CNPA), now known as the Peruvian Association of Rice Producers (APEAR), as well as some regional rice producers’ committees and the Peruvian Rice Millers’ Association (APEMA).

Rice is marketed via the predominant food markets and supermarkets, whether in bulk or sold under a brand name, including Costello, Paisana, Hoja Redonda and Valle Norte. In addition, Indecopi has granted collective marks to associations and cooperatives. These include the mark “APROECO COOPERATIVA AGRARIA ‘APROECO’” to the Cooperativa de Servicios Múltiples (APROECO) in the San Martín region; the mark “TIMBON REAL” to the Asociación de Productores de Arroz de Tambo Real and Anexos de la Region Ancash (the Association of Rice Producers of

³⁷⁵ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018.

<http://siesa.minagri.gob.pe/siesa/?q=produccion-agricola>. Accessed 10.01.2019.

³⁷⁶ <http://minagri.gob.pe/portal/26-sector-agrario/arroz>. Accessed 20.03.2020.

³⁷⁷ http://siesa.minagri.gob.pe/siesa/sites/default/files/informe-csye-0111-arroz-280818_0.pdf. Accessed 20.03.2020.

Tambo Real and Ancash region annexes); and the mark “NICMAR” to the Asociación de Productores Cafetaleros Agroecológicos Perene-Pichanaqui (the Perene-Pichanaqui Association of Organic Coffee Producers (ASCAPP) in the San Martín region. Peru also exports its rice, chiefly to Colombia. In 2019, Peru’s rice exports stood at 36,962,333 kg, with the main export companies being Agroexport de la Selva E.I.R.L., Importadora Misti S.A.C. and Exporivan Internacional S.A.C.³⁷⁸

Gallinas (stewing hens) and eggs are also important ingredients for making juane. These hens are generally farmed in the region, and used in other major dishes such as *inchicapi de gallina*, *apichado* and *nina juane*. The hens that are farmed in the area are used foremost in soups or *mazamorra* (a maize-based dessert porridge)³⁷⁹.

No figures could be found on regional production levels of *gallina*, specifically. However, Loreto produces 23,704 tons of poultry meat, which includes *gallina*, and 4,896 tons of eggs. In addition, various public initiatives are under way to bolster the farming of this animal, as an alternative means of economic development for local families. These initiatives include a project for improved Creole *gallina* farming, managed by the Maynas municipality in 2014, which will benefit the Nanay River Libertad Community. There is also a Ministry of Agriculture and Irrigation project to improve support services for the production of improved Creole *gallinas*, as part of its special project in Datem del Marañón, Alto Amazonas, Loreto and Condorcanqui provinces. The aim is to help 25 farming communities in the Urarinas district of Loreto province, through improved meat and egg food quality for beneficiary families and to empower women through the creation of groups of business women for managing surplus production.³⁸⁰

Other ingredients include *palillo* or saffron. In this regard, the Ministry of Women and Social Development notes that:

“Farm-grown regional herbs, spices, fruits and vegetables include: palillo (used to give juane its yellow hue), achote (annatto, another food coloring), siuca culantro, sacha-ajo (wild garlic), different kinds of peppers (hot and sweet), guisador (turmeric), cocona (fruit),

³⁷⁸ <https://www.agrodataperu.com/2020/01/arroz-peru-exportacion-2019-diciembre.html>. Accessed 20.03.2020.

³⁷⁹ <https://www.mimp.gob.pe/webs/mimp/sispod/pdf/63.pdf>. Accessed 20.03.2020.

³⁸⁰ <https://andina.pe/agencia/noticia-loreto-comunidades-urarinas-mejoraran-su-nutricion-proyectos-productivos-773855.aspx>. Accessed 20.03.2020

*tomatoes and onions from the region, chiclayo verdura (a kind of cowpea), ki6n (ginger) and otros.*³⁸¹

In Peru, turmeric is known as “palillo”³⁸² and is cultivated in the administrative departments of Huánuco, San Martín, Amazonas, Junín, Ayacucho and Cuzco³⁸³. Palillo is mainly used as a seasoning, or a yellow food dye for rice, but is also taken for its health benefits. Although no figures could be obtained on palillo production, INDECOPI has granted collective marks for identifying palillo, including the marks “CAFÉ JOSHUA” and “CAFÉ JEHUDI” to the Cooperativa Agroindustrial Cafetalera Ecológica Valle Río Venado – Satipo (Agroindustrial Cooperative of Organic Coffee Growers of the Venado River Valley, Satipo) (in Caca, Valle Río Venado, Satipo); the mark “ASTRIKA COFFEE” to the Asociación de Productores Monte Rey (the Monte Rey Producers’ Association); the marks “ACVIPP COFFEE COOPERATIVA AGROINDUSTRIAL CAFETALERA” and “VIPP COFFEE COOPERATIVA AGROINDUSTRIAL CAFETALERA” to the Cooperativa Agroindustrial Cafetalera Valle Ipoki Pui Pui Pichanaki (the Agroindustrial Coffee Growing Cooperative of Ipoki Pui Pui Pichanaki Valley) (Caca-Valle Ipoki Pui Pui Pki), all of which correspond to Junín, La Libertad.

Palillo is also exported to countries such as the Netherlands, Argentina, Mexico, Colombia, the Dominican Republic, Chile, Canada, Spain, Belgium and Venezuela. In 2019, turmeric exports were valued at US\$ 1.5 million dollars, according to the Exporters Association (ADEX).

d. Marketing and distribution

This dish is eaten on the feast of San Juan, but is also enjoyed throughout the year, and has regional variations. Its ingredients can be found in most of the region’s food markets, including Belén market. Outside of Loreto, it can be found in restaurants specializing in Amazonian cuisine such as El Aguajal, La Choza de la Anaconda, El Bijao and El Pichito.

<https://www.mimp.gob.pe/webs/mimp/sispod/pdf/63.pdf>

³⁸² <http://curcumaweb.com/otras-especies/curcuma-o-palillo-es-lo-mismo/>. Accessed 20.03.2020.

³⁸³ https://alicia.concytec.gob.pe/vufind/Record/UUNI_1fb59ff5bdafbf024b2be81f2d2bbc3f/Description#tabnav. Accessed 20.03.2020.

This traditional dish can be found in nearly any of the region's restaurants, as well as in markets and food stands. The region's main restaurants include Fitzcarraldo, Al Frío y al Fuego, Amazon Bistro, Huasai Restaurant, El Mijao and La Gran Maloca.

CHAPTER VI: ROUND TABLE

The scoping study was presented at the "Roundtable of the WIPO Project on Gastronomic Tourism and Intellectual Property" which was organized by INDECOPI and gathered representatives from the world of gastronomy, including chefs, academics and researchers.

At this roundtable, the findings of the scoping study were presented, outlining the following:

1. Framework: The study's objectives, timeline, methodology and characteristics.
2. Scope: The selection process and criteria in relation to each of the six regions that were included in this study.
3. Value chains: Description of the value chain underpinning some of the culinary traditions identified for each region.
4. Relevant findings and recommendations.

The findings that were identified while carrying out this study, and that had a direct impact on its implementation include:

- (i) Need for systematized data: There was a lack of systematization of data on the gastronomy and related sectors, such as agriculture and aquaculture, which hindered the traceability of inputs from farm to table. In this regard, it should be noted that the most recent farming census dates back to 2012, which means current data is merely partial and only includes overall figures. Nevertheless, there is a law on transparency that should facilitate access to data. At the regional level, access to data is limited, perhaps because this data has not been processed or structured.
- (ii) Need for nutritional education: There was a lack of general knowledge about the nutritional value of Peru's foods and/or products, which could potentially hinder the maintenance of good health. Peruvians have only limited knowledge about this. Hence, in order to preserve the culinary traditions that have been developed mostly at home, so far, there is a need to develop knowledge about the Peruvian ingredients and products used in Peruvian cuisine, and about these cultural

traditions themselves, in schools, as part of Peruvians' cultural education about their country's heritage.

- (iii) The need for academic research on Peruvian gastronomy, with a view to injecting innovation into the sector more fluidly and iteratively. It should be noted that although some innovations have been made to Peru's gastronomy, these are concentrated in Lima, because it is Peru's capital city, which is also the country's most populated and economically important city. Nevertheless, regional gastronomic hubs need to be developed in order to catalyze added-value products and reduce the involvement of intermediaries from farm to the end-consumer's table. This would help to reaffirm the value of Peruvian products and ensure fair compensation for producers.
- (iv) The need for a public policy on Peruvian cuisine that could help to turn the above three findings into opportunities for developing and strengthening Peruvian gastronomy.

After the presentation was made, six culinary traditions from each of the regions were selected for the next phase of the project: *cabrito*, *ají de gallina*, *ocopa*, *picante a la tacneña*, *cuy* and *juane*³⁸⁴.

In addition, a request was made to also include onion, garlic and chili peppers, since these are culinary staples used in seasonings, sauces and pastes to prepare various dishes across every region of Peru.

6.1 Onion

The onion is a herbaceous plant native to Central Asia, with varieties that can be divided by color: white, red and yellow.

According to Peruvian chef Gastón Acurio, the red onion is one of the ingredients that is most commonly used in Peruvian cuisine, because of its strong flavor. It is used to prepare seasonings as the base for various dishes, and is a key ingredient in cebiche, escabeche (a marinated dish)

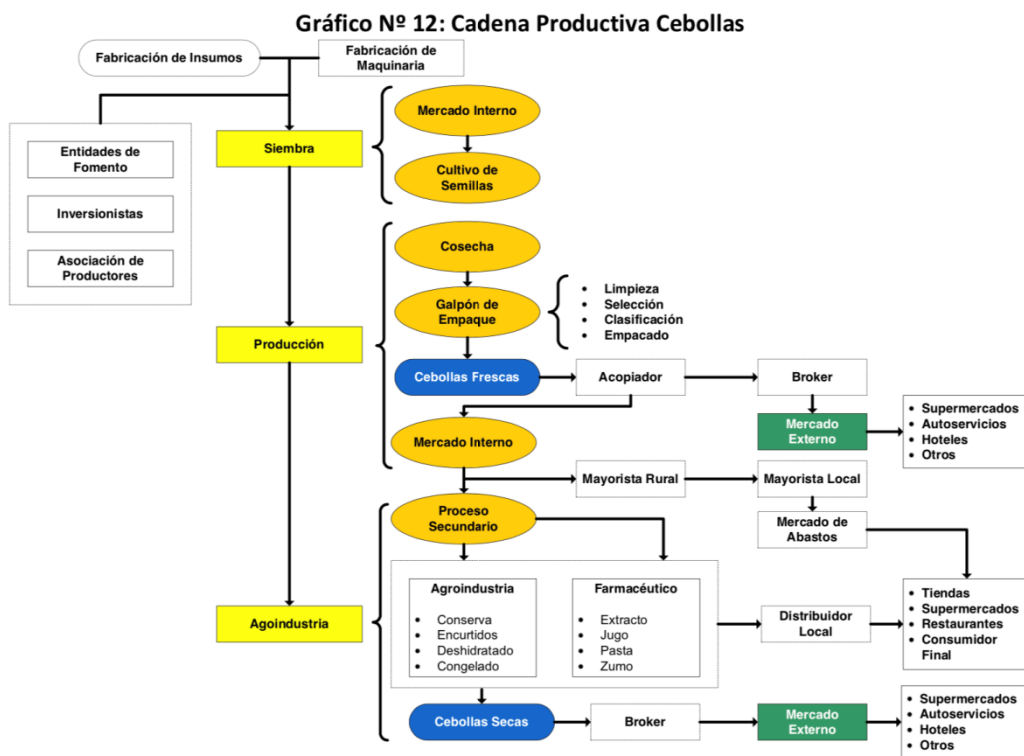
³⁸⁴ The culinary traditions referring to *picante a la tacneña* and *juane* have been included in this scoping study.

and lomo saltado (a beef stir-fry). Red onions are grown in the Lima, Ica, Junín, Ancash and Piura regions, but Arequipa red onions are known to be the most flavorful ³⁸⁵.

According to the Ministry of Agriculture, in 2018, 643,835 Mt of onions were produced, mainly in Arequipa (402,059 Mt), Ica (122,733 Mt) and Lambayeque (24,495 Mt).³⁸⁶

Onions are packaged in resistant mesh, polyethylene or jute bags, for easy handling, transportation and distribution. The onion production chain involves three major activities: sowing, production and the agro-industry. This chain involves various stakeholders, including both State entities and private service providers and ingredient suppliers, and producers' associations. The figure below illustrates the onion production chain, according to the Ministry of Agriculture:³⁸⁷

Figure 6.1.1



³⁸⁵ Acurio, G. (2008). *Idem*, p. 107.

³⁸⁶ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018.

<http://siea.minagri.gob.pe/siea/?q=produccion-agricola>

³⁸⁷ http://agroaldia.minagri.gob.pe/biblioteca/download/pdf/agroeconomia/agroeconomia_cebolla.pdf. Accessed 20.03.2020.

Although the above graphic shows the production chain, it does not indicate the number of producers, intermediaries or entities involved. However, the Ministry of Agriculture's AGROIDEAS program is identified as funding productive initiatives in this context.

According to Peru's Ministry of Foreign Trade and Tourism, onions are brought to the country's main wholesale and retail food markets for subsequent distribution and marketing. It also notes that, "with regard to the marketing of this product – essentially the Arequipa red onion – producers transfer their products to regional or provincial collection centers for consolidation of this produce, which is sold to large dealers or exported directly to neighboring countries such as Ecuador, Colombia and Chile."³⁸⁸ The main regional collection centers include the Chao (La Libertad), Colpa-Huancayo (Junín), Supe (Lima), Ica (Ica), and Chivay and La Joya (Arequipa) centers. "The main companies that are supplied through this channel include Agrícola 3A S.A.C., Agrícola Challapampa S. A. C. and Agrícola LAN S.A. [...] Onion processing facilities are found mainly in Huaral, Arequipa and Lima (in districts on the outskirts of Lima, such as Ate and Lurín).³⁸⁹

In this context, Indecopi was found to have granted the collective marks "APROECH" and "APROECH CHUQUIBAMBA" to the Asociación de Productores Agropecuarios Ecológicos de Chuquibamba (Association of Organic Farmers of Chuquibamba) (APROECH), for products such as onions in powdered, fresh or processed form, and the mark "ASOC. AGRO. VALLE NUEVO" to the fresh onions produced by Asociación Agropecuaria Valle 2000.

While the bulk of Peru's onion production is for local consumption, its main export markets are the United States, Spain and Colombia³⁹⁰. The main exporters include Mentor Service Trade S.A.C., Miranda Internacional S.A.C., Agrilor S.A.C., KeyPeru S.A. and Novoliz S.A..

6.2 Garlic

³⁸⁸ https://www.mincetur.gob.pe/wp-content/uploads/documentos/comercio_exterior/facilitacion_comercio_exterior/P_Cebolla.pdf. Accessed 20.03.2020.

³⁸⁹ *Ibidem*.

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³⁹⁰ http://www.siicex.gob.pe/siicex/portal5ES.asp?_page_=172.17100&_portletid_=sfichaproductoinit&scriptdo=cc_fp_init&pproducto=223&pnomproducto=Cebolla. Accessed 20.03.2020.

Garlic is a herbaceous plant native to Central Asia that consists of bulbs divided into cloves. It has a powerful aroma and strong taste. In Peru, the dominant onion varieties are the purple garlic from the Arequipa and Cajamarca highlands, the Massone white garlic from the Lima and Arequipa coast, and the purple napurí garlic. Like the onion, garlic is also widely used for seasoning Peru's regional cuisine.

Peru's national garlic production in 2018 was 104,574 Mt, with the main garlic-producing regions being Arequipa (78,513 Mt), Lima (10,359 Mt), Cajamarca (5,089 Mt) and Junín (4,538 Mt)³⁹¹.

Garlic is planted and harvested year-round, covering national consumption directly as well as its use in industry. Surplus garlic is exported³⁹².

Indecopi was found to have granted collective marks for garlic in processed, fresh, freeze-dried, frozen, roasted or paste form for culinary use to entities, including the marks "APROECH" and "APROECH CHUQUIBAMBA" to the Asociación de Productores Agropecuarios Ecológicos de Chuquibamba (Association of Organic Farmers of Chuquibamba) (APROECH), and the marks "ASOCIACIÓN CONSERVACIONISTA DE PRODUCTORES DE CHIGUATA - AREQUIPA – PERU", "AGROPECUARIA ECOLÓGICA DE CHIGUATA RUNAKAY AREQUIPA" and "AGROPECUARIA ECOLÓGICA DE CHIQUATA QHAPAX AREQUIPA" to the Asociación Conservacionista Agropecuaria de Chiguata (Conservationist Farming Association of Chiguata).

In 2018, the main Peruvian garlic export markets were Mexico, Ecuador, the United States and Brazil, and the main exporters were COPROIMPEX S.A.C. and Agro L J Corporation S.A.C.³⁹³

6.3 Ají (chili peppers)

A number of paleobotanists agree that ají (chili peppers) are a fruit native to the Andean and jungle areas of ancient Peru (an area which includes the Lake Titicaca basin of present-day Peru and Bolivia), where river currents and migratory birds facilitated its spread, enabling it to win over the rest of South and Central America and the rest of the world. The oldest archeological traces of ají date back to 8,000 B.C. in Guitarrero cave (in Yungay province, Ancash).

³⁹¹ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018.

<http://siea.minagri.gob.pe/siea/?q=produccion-agricola>

³⁹² <https://www.minagri.gob.pe/portal/download/pdf/herramientas/boletines/ajo.pdf>. Accessed 20.03.2020.

³⁹³

http://www.siicex.gob.pe/siicex/portal5ES.asp?_page_=172.17100&_portletid_=sfichaproductoinit&scriptdo=cc_fp_init&pproducto=225&pnomproducto=Ajo. Accessed 20.03.2020.

Ají was also found in remains at the Huaca Prieta archeological site in Chicama Valley, in La Libertad (2,500 B.C.), and in the sunken farms in Guañape, belonging to the Salinar civilization in Virú Valley (500 -100 B.C.), demonstrating that ají was a very important element in ancient Peruvians’ diet. It was presented as an offering to the gods (in Lambayeque and Mochica cultures), was found in burial mantles (in the Paraca culture), was consumed and was part of funeral rituals³⁹⁴ and was considered as a deity in the legend about the Ayar brothers, whereby, “in the founding of the Inca Empire, Ayar Uchu ends up being turned to stone”³⁹⁵. It was later introduced into colonial cooking, its use gaining popularity in the Old World. Ají remains important today, as evidenced through Ministerial decree No. 060-2018 of the Ministry of Agriculture and Irrigation, which declares the first Friday in September as Peruvian Ají Day, with a view to promoting local, regional and national knowledge about ají chilis and their benefits, diversity, and use in gastronomy³⁹⁶.

The most commonly consumed ají in Peru are the panca, yellow, mirasol, rocoto, mochero, limo, arnaucho, pipí de mono, sweet, and charapita ají chilis. These vary in color, flavor and spiciness. Ají is consumed whole or ground, in fresh, dried or pickled form, and is “the staple of Peruvian cuisine” spicing up seasonings and sauces, conferring its distinctive character and flavor to it³⁹⁷. Some ají chilis were discussed in detail throughout this study. Although ají is grown in every region of Peru, it is especially prominent in certain regions, defining the local gastronomy. The following table shows the areas where different ají chilis are found:

Table 6.3.1

Type	Characteristics	Location	Culinary use
amarillo (“yellow”)	Orange, pod-shaped, aromatic.	Along the entire coast from Tumbes to Tacna.	Ají de gallina (a creamy chicken dish), causa limeña (a mashed potato paddy), cauca, arroz con pollo (rice with chicken), arroz con pato (rice with duck).
panca	Deep red, typically sun-dried, mild.	Central coast.	Chupe (chowder), adobo stew, escabeche (a marinated dish),

³⁹⁴ The Peruvian Gastronomy Association, UNALAM, Inia, USMP(2009). *Idem*. P. 15 - 18.

³⁹⁵ *Ibidem*, p. 18.

³⁹⁶ <https://www.minagri.gob.pe/portal/762-notas-de-prensa/notas-de-prensa-2019/24695-gastronomia-peruana-diversifica-oferta-agroexportadora-de-ajis-y-sus-variantes>. Accessed 20,03.2020.

³⁹⁷ Acurio, G. (2008). *Idem*, p. 24 – 27.

			carapulcra (a stew) and pachamanca.
rocoto de monte	Large, red, fleshy, juicy.	Central jungle area.	Rocoto relleno (stuffed rocoto)
arnaicho	Small, very spicy; yellow, red, white or purple.	Barranca, Huacho, Supe and Casma.	Cebiche.
charapita	Small, yellow, very hot.	Throughout the jungle area, predominantly in San Martín.	Patarashca, patacones, tacacho, juane.
rocoto serrano	Medium-sized, very hot. Shaped like a bell pepper. Red, yellow or orange.	Throughout the highlands, predominantly in Arequipa.	Solterito, escribano, adobo, chupe, zarza, almendrado, ocopa.
mochero	Native of Moche Valley; citric aroma; yellow or green	La Libertad	Cebiche a la trujillana, cangrejo reventado (crab dish).
limo	Medium-sized, rather spicy and aromatic; yellow, green, red or lilac.	Lambayeque, Piura and Tumbes.	Cebiche, tiradito.
cerezo	Small, round and red when ripe; mild.	Lambayeque.	Espesado (stew), sudado (sauté), apatadito, chinguirito, causa ferreñafana.
mirasol	Yellow and sun-dried on the ground. Aromatic, intense flavor.	Ancash, Lima, Arequipa, Moquegua, Tacna.	Seasonings and stews, tamales.
pipí de mono	Small and very hot, with intense flavor.	Native of the mountains, but adapted to the coastal area.	In sauces and for pickling.

Prepared by the authors, based on graphics by the UNALM vegetable program.³⁹⁸

In 2018, total national ají production (not including the rocoto) amounted to 49,751 Mt, with the main producing regions of Tacna (11,476 Mt), Lima, including Metropolitan Lima (16,173 Mt), and la Libertad (8,019 Mt). National production of rocoto chili, in the same year, reached 41,537 Mt, with Pasco as the main producing area, totalling 34,054 Mt, followed by Junín (2,887 Mt) and Puno (1,466 Mt)³⁹⁹.

³⁹⁸ The Peruvian Gastronomy Association, UNALAM, Inia, USMP. (2009). *Idem*. p. 40 - 41.

³⁹⁹ MINAGRI (2018). Statistical Yearbook of Agricultural Production 2018. <http://siea.minagri.gob.pe/siea/?q=produccion-agricola>

Although ají is a major product in Peru, the associations responsible for its production could not be identified, although, the 2012 agricultural census estimated that there were 9,000 small-scale ají growers⁴⁰⁰. In addition, Indecopi was found to have granted collective marks to associations, including the mark “AJÍ MOCHERO DON SABINO” to the Asociación Renacimiento Campiñero (Campiñero revival association) and the mark “KIMCI” to the Asociación de Productores Comercio Justo, Mazamari (Fair Trade Producers’ Association of Mazamari).

Peruvian ají is also exported, chiefly to Spain. The main exporters are Danper Trujillo S.A.C., Viru S.A., Ecosac Agrícola S.A.C., Green Peru S.A., Agroindustrias AIB S.A. and Gandules Inc. S.A.C.. It should be noted that ají offerings have diversified, with new varieties and presentations (in fresh, packaged or frozen form) available⁴⁰¹.

In conclusion, onion, garlic and ají peppers are staple ingredients in seasonings, sauces and pastes used in numerous Peruvian culinary traditions. Peruvian seasoning, as described by chef Gastón Acurio, is “made from combining onions, garlic and peppers, infused in oil over low heat until forming a colorful paste”⁴⁰². In this respect, these ingredients, which are the foundation for the flavor of numerous Peruvian dishes, are cross-cutting ingredients that merit mention in this study.

⁴⁰⁰ <https://www.gob.pe/institucion/minagri/noticias/50645-en-el-dia-nacional-de-los-ajies-pequenos-productores-son-los-principales-exponentes>. Accessed 20.03.2020.

⁴⁰¹ <https://www.minagri.gob.pe/portal/762-notas-de-prensa/notas-de-prensa-2019/24695-gastronomia-peruana-diversifica-oferta-agroexportadora-de-ajies-y-sus-variantes>. Accessed 20.03.2020.

⁴⁰² Acurio, G. (2008). *Idem*, p. 19.

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ACRONYMS

AO: Appellation of origin

BCR: Banco Central de Reserva del Perú (Central Reserve Bank of Peru)

FAO: United Nations Food and Agriculture Organization

GDP: Gross Domestic Product

IMARPE: Peruvian Marine Institute

INDECOPI: National Institute for the Defense of Competition and the Protection Intellectual Property of Peru (Instituto Nacional de Defensa de la Competencia y de la Protección de la Propiedad Intelectual)

INEI: National Institute of Statistics and Information of Peru

INIA: National Institute of Agricultural Innovation of Peru

MEF: Ministry of the Economy and Finance of Peru

MIDIS: Ministry of Development and Social Inclusion of Peru

MINAGRI: Ministry of Agriculture and Irrigation of Peru

MINCETUR: Ministry of Foreign Trade and Tourism of Peru

OAS: Organization of American States

PRODUCE: Ministry of Production of Peru

PTE: Perfil del turista extranjero (international tourist profile)

PVN: Perfil del vacacionista nacional (national vacationer profile)

SANIPES: National Fish Health Service of Peru

SIICEX: Integrated Foreign Trade Information System

SINEACE: National System for Educational Quality Accreditation and Certification

TK: Traditional knowledge

UNWTO: World Tourism Organization

USMP: Universidad San Martín de Porres (in Lima, Peru)

WIPO: World Intellectual Property Organization