DEFINING RURAL

Identification, characterization, and typologies in the Basque Country.

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INTRODUCTION

The agricultural policies have occupied European policies for years, but, given the systematic depopulation and *degrowth* of rural areas, there is an increasing interest in Europe regarding this subject: several programmes and recommendations oriented towards territorial cohesion and development, envisioning territory as a whole.

Given the changes occurred in the last decades regarding global systemic crisis, climate change, and resource depletion, and facing the change of paradigm towards sustainability, the present work is aligned to the growing interest on rural areas established from European and national institutions.

The present work aims to define rural establishing a methodology to identify and characterize these areas. In order to do so, it takes the Basque Country as case study, as it is an example of predominantly urban region with a cultural identity linked to traditional rural areas.

Introduction

Since the global crisis that began in 2007 there have been several major changes in the perception of the global market economy. This crisis involved not only economic problems, but it also showed some drawbacks of a globalized world.

Together with the economic crisis, and shortly after, the world population reached 7 billion, urban population surpassed rural population, and climate change became a hot topic. This brought back ideas such as sustainability, which originated in the 70s, and energy efficiency, trying to soothe a public opinion in a growing world in terms of population and resource demands.

Sustainability became one of the most heard concepts on that time as the solution for the crisis, and all former concepts became “green”: green policies, green industries, green jobs, and green economy. Sustainability and energy efficiency became the solution for a growing demand and became the new paradigm. As for the climate change, mitigation and adaptation policies and actions were researched and, in some cases, were put into action.

Europe suffered this crisis in different steps. Whereas northern central countries held up, southern countries suffered greatly. An effort was made regarding policies for more affected countries to overcome their social and economic internal crisis. But the message regarding the economic functioning remained: economic growth.

Contrary to this trend, a new concept aroused: *degrowth*. Denied at the beginning, and treated as anti-system, nowadays it is considered not only a solution, but a fact, especially in many European rural areas. Degrowth is a political, economic and social movement that responds to limits-to-

growth dilemma. It argues that overconsumption is the reason for environmental issues and social inequalities. It is opposed to sustainable development (as based in the development ideas of capitalist growth) as it considers it an oxymoron, but not necessarily to sustainability. It was originated with the Limits of Growth by the Club of Rome think tank.

Degrowth has emerged over the las 10 years, this “bomb” word has been used to open in-depth debates on whether infinite growth in a finite world is desirable or even possible (http://nemnovekedes.net/?p=127). It seems though that there is a growing concern on *degrowth* (or *decroissance* in French) by an increasing degrowth of great European rural areas. It is at the very beginning because of the difficulty of applying effective policies, given the power of attraction of urban cores, and the contemporary tendency of the late-capitalism.

Globalization has also played part on this change, as it also has the shift in the traditional urban market dynamic. Though there are some movements towards recovering those economic and cultural dynamics (revaluing contact among urban and rural inhabitants, and also recovering those public spaces), global trends on agricultural goods are powerful and shape the general production and consuming trends. Rural areas have experienced an evolution in Europe, as more and more products come from abroad, and also from more specialized production areas and regions. This is translated in centralized agricultural markets, and the loss of producer-consumer contact. Traditional farming may seem to have disappeared, and non-urban areas seem to have transitioned to “territories-in-between” (Alexander Wandl et al. 2014).

Europe is a predominantly urban region, and it is the only continent expected to decrease its population by 2050. By 2010 over 50% of world´s population was urban (http://www.worldometers.info/world-population/#table-historical), and cities became the focus of energy efficiency and sustainability programs and policies. This is also due to the

fact that they represent an important part on the emissions and energy consumption. Cities only cover 2% of the earth's surface but consume 78% of world´s energy, and produce more that 60% of carbon dioxide and other greenhouse gas emissions (https://unhabitat.org/urban-themes/climate-change/).

There has been a growing concern for the sustainability of cities and their energy efficiency for the last ten years, positioning their conversion into green cities as a great part of the solution to climate change and resource depletion. There have also been policies and plans (such as RURBAN in Europe) to foment the relation urban-rural, in order to increase competitiveness of regions.

In line with ETS´ first objective, Rees and Wackernagel (Rees and Wackernagel 1996) agree that "no urban area or region can achieve sustainability on its own", being a prerequisite the sustainable use of the global hinterland.

At a national level the Spanish Sustainability Observatory (OSE) did recognize that "the quality of life in urban areas passes through the sustainability of the countryside", being the rural residents the key variable of the sustainability, as they are responsible for maintaining the functional processes of these areas. Regarding to this, the depopulation becomes the mayor risk of these areas, which also means that the inversion on services and facilities is not profitable, diminishing even more the quality of life of the rural inhabitants.(OSE 2009)

Territory is the base where all human activities take place, being also source of material, mineral and energy resources. Man has utilised territory resources through history but it was not until XX century that he gained conscience of their limits. This limit conscience was especially known from the Hubbert´s peak theory, in the middle of the century, but it

was not until the fuel crisis in 1973 that economic and social stakeholders were aware of the limitations of materials and energy.

Traditionally, cities were where people grouped so that an increase in relations among people and goods implied a growing complexity, and hence, of resilience. This resilience is what makes cities more appealing, as it allows a greater number of interactions and outcomes.

In times when man was scarce in number, cities were closed in themselves and protected from the exterior: nature and foreigners. Peasants lived outside walls, and worked the land. Their products were taken to city markets to be sold.

Together with the industrial and technological development, man has dominated the natural environment, being able to unlink himself from the natural cycles in which he used to live. The more he dominated technology, the bigger the world´s population. This increase of population was added to the migrations from countryside to cities, so the latter had to grow in order to accommodate all former and new inhabitants.

The increasing occupation of territory produced by the overcoming of city-walls, together with the generalisation of private transportation, resulted in the development of territory zoning by activities. This was a global trend, not necessarily linked to an increase in population.

Nowadays there is a new typology regarding territory occupation: territories-in-between (Alexander Wandl et al. 2014). It is considered as non-urban nor-rural settlement type. This has occurred in a migration of densities and uses from urban to more rural, but still keeping urban characteristics.

Technological development and globalisation (regarding not only building systems, but culture in general) have caused those growths in cities to look very similar almost in any part of the world. Plus the independence

from natural cycles, man has no longer conscience of the territory in which he settles, losing territorial, and thus, cultural, identity.

One factor that has influenced the change in conscience of territory has been the assumption of territory as soil. Once the patrimonial and cultural values of territory are lost, it is only seen as soil on which to build residential or industrial constructions, or in a lesser scale, as productive soil. This assimilation of territory as soil has provoked great planning and ecological disasters that are very difficult to correct, and even more to recover ecologically speaking.

Territory is limited and scarce, and population density keeps on increasing, so territory becomes a "privileged space that suffers a great pressure" (Allende Landa 2006). Territory planning is, thus, of great importance to achieve a correct territory management on its multiple aspects, setting an order on the human activities that take place on it. Territory planning is the "reflex of economic, social, cultural and ecological policies of all societies". As reflex of different types of policies, territory planning has a multidisciplinary approach, or transdisciplinary, and it is imperative that it overcomes sectorial approaches to achieve an efficient and realistic planning of space.

The growing interest in regional policies and in re-establishing linkages between urban and rural areas is due not only to economic reasons, but most importantly, to cultural and identity aspects. Globalization is responsible for the most part, together with the great migrations occurring in the last decades.

Given the growing attention drawn to cities due to the increase of their population, it seemed necessary to assess what happens to the rest of the areas, traditionally designed as rural, mainly by opposition.

Despite the general assumptions on rural areas, like being remote, depressed, isolated, etc., they have formed part of the cultural heritage,

representing the popular identity by anonymous construction types, and territory management and transformation. These aspects are often underestimated, and this is why checking whether rural areas in predominantly urban regions with strong cultural identity such as the Basque Country (van Houtum and Lagendijk 2001) do still exist and are still rural was proposed as one of the main objectives of this work.

It seems clear that due to the fact that there is little literature on rural areas´ planning, it is necessary more research oriented towards this subject. Sustainability can be, taking into consideration not only environmentally but from a survival point of view: the survival of a way of living, intrinsically attached to culture and identity.

There is a growing interest in rural areas as they provide services that give added value such as: proximity goods and agricultural products, maintenance of culture, revalorization of regional culture and identity, provide access to nature (for leisure and access to natural areas), provide ecosystem services (and it is being considered to get paid for this service), and rural inhabitants are considered to manage territory and shape landscape.

All in all, rural areas provide goods and services that no other areas can, and more research is needed so that they can be planned and managed in a sustainable manner: maintaining their character and providing for their inhabitants the quality of life needed for them not to abandon them.

In this sense, the present work aligns not only with the European and national interests regarding regional cohesion and development, but also with the personal interest of the author, given the particularities of such areas and their importance for the future generations.

Aim, scope and objectives

After all the considerations regarding rural areas and the present situation, there are several questions that arise: how can be rural areas identified? What characteristics do they have, and how to identify successful rural areas? How to obtain guidelines to apply to rural areas in order to improve their quality of life maintaining their character? Are there any particular typologies of these areas?

There is also a transversal question: is all rural disperse, isolated, non-grouped and remote? This connects to the characterization of rural areas, which is one of the objectives of this work.

Given the diversity of culture, climates and places around the globe, it seems clear that there cannot be one characterization of rural. Place seems to be the most influential regarding the characteristics of rural areas, but place is more than location. Similar rural areas seem to be due to two main conditions: climate and culture.

The scope of the work is limited to the Basque Country Autonomous Community, as an example of mainly urban region densely populated containing rural areas that shape the cultural identity image. Nevertheless, this work aims to approach the subject so that the results and methods proposed can be applied to other areas of Europe and Spain.

Objectives

The main aim of this work is to establish a methodology to identify and define rural areas. As the definition will vary among regions, it seems more appropriate to elaborate a method to identify and characterize rural

areas applicable to any given territory. So the objective is to elaborate a methodology of identification and characterization of rural areas.

The secondary objectives are derived from the main one:

- Establishing a cross-disciplinary methodology to find rural areas based on different indicators. This is translated into using indicators available from public statistics, cartography and maps, and utilise them by using a GIS application to identify rural areas within a given territory.
- Establishing a method to characterize a given area and extract the main typologies and their characteristics. It seems mandatory to develop this particular objective by applying the method to a real case study.
- Obtaining typologies of the case study area, so that it can be characterized. This is important in order to be able to apply the characteristics of the typologies of a successful area to another, aiming to improve the latter.
- Applying the methods developed to the Basque Country Autonomous Community, as an example of a European predominantly urban region.
- Updating the current view of the Basque Country Autonomous Community´s regarding its territorial composition, especially related to the importance of the rural areas.

Thesis Structure

This work is divided into three main chapters: the introduction and state of the art; the identification of rural areas from a cross-disciplinary point of view; and the characterization and elaboration of typologies given in the case study. At the beginning there is an introduction section and in the end of the work general and specific conclusions are obtained, as well as future research lines.

The state of the art studies the evolution of the rural term and definition in planning. It also makes a review of the current situation of legislation, programs, and plans regarding rural areas at international, European, national and autonomous levels. It assesses the extent and implications of the plans, programmes and laws regarding rural areas, and concludes that there is a need for more research on these areas, because of their growing importance for cities and regions.

The second chapter proposes a methodology of identification of rural areas, by creating a Relative Rurality Map, based in several indicators of different nature. This chapter selects several indicators used by other authors regarding characteristics of rural areas, and creates a methodology for identifying these areas in any territory. The results show the application of this method to the particular case of the Basque Country Autonomous Community.

The third chapter proposes another methodology of analysis of smaller scale successful rural areas in order to obtain general guidelines that can serve other areas of similar characteristics. This chapter analyses cadastral parcels combined with simplified uses, and elaborates eight typologies. These typologies are then crossed to accessibility and grouping analysis-based maps, and obtain a characterization of each one of them.

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STATE OF THE ART

This chapter frames the present situation of rural areas by reviewing two main concepts: sustainability and the consideration of rural through several international institutions, European programmes and recommendations, as well as national and autonomic programmes and plans.

In order to get a more detailed view on rural areas, this chapter also reviews the evolution of the consideration of rural areas through legislation. At European level it reviews plans and programmes, and at a national and autonomic levesl it reviews the evolution of rural classification of land and their considerations throughout different land laws and others.

It concludes that there has been an evolution in the consideration of rural areas, and confirms a growing interest shown by adminstrations and governments. This chapter shows the need to establish a method of identification of these areas, in order to gain knowledge on them and be able to manage them more appropriately.

State of the art

This chapter aims to establish the base from which the work started, and also sets the conceptual frame for its development.

In order to do so, two concepts have been studied: the sustainability concept and the rural concept. As this work focuses on rural areas it has also studied the evolution of the rural term and land classification on legislation from European recommendations to Basque laws.

After analysing the considerations on rural areas of different laws, programmes, organizations, and so forth, a discussion is generated on the current situation of these areas.

This way, it has been established the starting point for further work, together with the scopes used on the following chapters regarding rural areas and their terminology.

Objectives of the chapter

The aim of this chapter is to set the starting point for further work, regarding sustainability and planning rural areas. Although this work is focused on rural areas within predominantly urban regions, meaning non-isolated rural areas, legal planning has not made any distinction whatsoever. Hence, for the purpose of the state of the art, no distinctions have been made on this issue.

The main objective of this chapter, then, is to set the base that allows understanding the current situation of rural areas, regarding concepts, general understanding of territory, and evolution of planning and laws.

The secondary objectives of this chapter are: understanding sustainability focused on territory management, and the evolution of planning rural areas, as both are on the base of future development of the methodology proposed. In order to do so, several international, European, national and autonomous documents have been analysed, looking for a consented definition on the rural concept.

As the main objective of this whole work is to obtain planning guidelines from the sustainability perspective to apply to rural areas located in predominantly urban regions, three secondary objectives are derived:

Study the relationship between sustainability and territory: What is it, and how it is applied to this work.

Review the rural concept: study different definitions, evolution of the concept and current situation.

Study how planning has treated rural areas: review different planning levels and administrations and their evolution regarding planning rural areas; how has sustainability influenced guidelines, and the current situation on this particular matter.

Sustainability concept

The sustainable concept was first acknowledged linked to development as a way to ensure future´s generations´ fulfilment of necessities while we satisfy our own in present time (Meadows 1972). The definition also assumed that the consumption of resources (all kinds of) was so high that it would compromise the ability of future generations to live at the same level of comfort. This was established in the 70´s, but nowadays is, yet, much more evident.

Nowadays the concept of sustainability is applied to almost anything, from plans, to production techniques or new job opportunities. It has become a necessary “word” or concept for new, modern, concerned and responsible corporations, policies and planners. It has overcome the link to development that originally had, and become a concept desirable to apply to any policy proposed.

As for the territory, it has long been identified as rural or natural, but nowadays it is considered to be the canvas where all human activities take place and, therefore, it reflects all human policies.

Regarding sustainability and territory, the World Commission on Environment and Development said that the Territory Management is the “ideal tool to achieve sustainable development” (Brundtland 1987), although in many occasions it seems to be the result of sectorial policies non-integrally-planned, or with sustainable criteria.

After the global crisis of 2008, we find ourselves in a transforming moment which has shown the weaknesses of the European model. In this regard, the European Strategy 2020 was created, so that structural weaknesses could be redirected, and therefore, Europe could get out of the global crisis strengthened.

The European Strategy 2020 is a ten years strategy intended to reactivate the European economy after the global crisis. The main objective of the EU strategy is to achieve a smart, sustainable and integrative economy, so that high levels of employment, productivity, and cohesion are achieved. This strategy is set as a “vision of the market economy for Europe in the 21st century” (European Commission 1999).

Three priorities stand out in the European Strategy 2020:

- Smart growth, in which economy is based on knowledge and innovation.

- Sustainable growth, where a more efficient use of resources creates a greener and more competitive economy.

- Integrative growth, which aims to achieve more social and territorial cohesion by promoting a high employment economy.

As addressed before, territory planning reflects the economic, social, cultural and ecological policies, and, thus, all the things referred to strategic policies that influence the planning. In this respect, the 2020 European Strategy highlights the efficient use of resources and orienting the economy towards a reduction of carbon emissions, and increasing the use of renewable energy sources, and promoting the energy efficiency. It also highlights the social and territorial cohesion as a main objective, and creates the European Territorial Agenda, which is addressed later.

The 2020 European Strategy highlights the need to adopt drastic measures to solve problems such as climate change and resource limitations. The progressive increase of the world´s population creates an increasing pressure on resources and environment, and it also means economic challenges as we depend mainly on fossil fuels. This is why

the European Union proposes a strategy for all its territory on climate and energy.

In the initiative for innovation, territory stands out from research, development and innovation point of view. Others are: energy security, transportation, climate change, and environment friendly productive methods.

Taking into account the importance of territory management, the European Territorial Agenda was also created. European Territorial Agenda is the main instrument to orient territorial policy of the European Union, born from an intergovernmental agreement, with the backup of the Region Committee regarding territorial cohesion.

The European Territorial Agenda (ETA 2020) highlights the need of empowering territorial cohesion in all its recommendations, adapting policy to every particular place, emphasizing each region´s particularities, as a way of potentiating social and territorial cohesion (European Commission 2007).

It is defined a strategy to achieve a smart, sustainable, and inclusive growth, and refers that it can only be achieved if territorial dimension of the strategy is taken into consideration, since each region´s opportunities vary. Furthermore, it suggests that to reach a sustainable territorial development it is necessary to have a coordinated, integrative approach.

Meanwhile, the European Territorial Strategy has three main objectives: to develop an urban polycentric system and a new urban-rural association, to ensure the parity of accessing to infrastructures and knowledge, and the sustainable development and protection of natural and cultural heritage (European Commission 2010).

In 2011 it was elaborated, “Towards an Inclusive, Smart and Sustainable Europe of Diverse Regions”, with territorial cohesion as a common objective in all recommendations. It is highlighted the need to adapt the policies to place, highlighting the particularities of every region, as a potential for social and territorial cohesion.

The main objective is to promote strategic orientations for territory development, highlighting the territorial dimension regarding different policies at all government levels, and making sure that the 2020 European Strategy is implemented according to the principles of territorial cohesion.

Among the priorities of the territorial development of the EU are:

-promoting a polycentric and balanced territorial development

-promoting an integrative development of cities and rural regions, through a multidisciplinary and integrative approach, so that the creation of nets and the cooperation could contribute to the smart development of city-regions at different scales. In this regard, the urban-rural interdependence should be recognized by integrated governance and a planning base on an alliance.

In order to achieve all this methodological support and territory knowledge are necessary and comprehension to inform the decision making process at a European level. It is also necessary a horizontal and vertical coordination among different actors and decision makers and sectorial policies.

For this work, as the case studies are located in the Basque Country Autonomous Community, Spain, both national and autonomous organisms are reviewed regarding sustainability and territory.

At a national level the Sustainability Observatory in Spain was created on 2005, to stimulate the social change towards sustainability. At a regional level in the Basque Autonomous Community there is the IHOBE, a public society created to support the Department of Environment, Territory Planning, Agriculture and Fisheries of the Basque Country Government in the development of environmental policies and the spreading of the culture of environmental sustainability.

The Observatory for Sustainability in Spain (OSE) was an independent organism whose mission was to stimulate social change towards sustainability by giving the best information possible, putting it on society´s, stakeholders´ and public´s participators´ service.[1]

It mainly aims to give an objective methodology to evaluate in an integrative manner the sustainable development processes. It elaborates the Annual Reports of Sustainability in Spain based on indicators, in order to evaluate the sustainability on its environmental, economic, social, territorial, institutional, global and cultural dimensions.

On the last report on sustainability on 2011 it is reported that there had been a change on the Spanish model, but it does not orient it towards eco-efficiency or sustainability. It highlights the change on economic, demographic, working conditions, at global and European levels, and especially at a national level.

At a national level a change on the model has been experienced: formerly the territory was based on a completely out of control urban expansion, a clear pre-eminency of road transportation of people and goods, high levels of construction of transport infrastructures, and a sun-

[1] This observatory is no longer functioning, as the Government shut it down on May 2015, but foreseeing its closure it was parallel launched in 2014 the Sustainability Observatory, which aims to continue its work and keep on being a reference in sustainability matters.

and-beach touristic model that had ecological impacts. As a consequence, there were high intensive patterns in terms of matter, energy and carbon, which made us less competitive among our surrounding countries. This former model presented high levels of employment, based mainly on non-sustainable principles, and lacked innovation, eco-efficiency, and competitiveness.

The change on the development model is taking place right now, although not oriented towards sustainability. The levels of growth are being lower than before (the systemic crisis) and the construction sector is no longer the engine of economy. Plus, there is a socio-demographic change that tends to decrease due to a change on immigration/emigration models.

In 2009´s report “Urban and Local Sustainability Spanish strategy” (Ministerio de Agricultura Pesca Alimentación y Medio Ambiente 2009) of the Spanish Government, the general principles for local and urban sustainability are set, and it highlights: “the public policies related to regulation, management, occupation, transformation and land use have as a common goal to use that resource according to the general interest and the principle of sustainable development, without prejudice to the specific purposes that Laws label them”. This is in line with the European recommendations on sustainability and policies.

IHOBE is a public society whose main task is to support the Department of Environment, Territorial Planning, Agriculture and Fisheries of the Basque Government. Its original labour was to promote environmental infrastructures, and nowadays it has become a necessary tool for applying environmental policies.

The objective for 2012 was to present itself to stakeholders as a collaborator and assessor in environmental issues to achieve the goals of the Department of the Basque Government.

It works from different perspectives such as: Soils, climate change, waste, sustainable production and consumption, municipality and local sustainability, eco-efficient industry, biodiversity, environmental knowledge, responsible administration and sustainable construction.

It is interesting to mention that the Land Law of the Basque Government of 2006 (Departamento de PLanificación y Medio Ambiente and Gobierno Vasco 2006) defines in article 13 the sustainability development principle used for the law.

In this law, urban public function ensures the rational and sustainable use of natural resources and defines a territorial model that propitiates consumption and production processes that favour sustainable and durable character of social and economic development; induces integration of proper environmental requirements adequate for people´s development in public policies and private activities to keep the intergenerational transmission of the collective heritage (urban and natural, healthy and balanced); sustainable development allows enjoyment of nature and landscape as well as cultural, archaeological, historical and architectural heritage.

Sustainable development orienting criteria assumed by urban development are: environmental sustainability so that the consumption of hydric and energetic renewable resources do not overcome the ecosystems´ capacity to renew them, and the reposition rhythm of consumption of non-renewable resources do not overcome the substitution rhythm of durable renewable resources (urban planning foment the use and exploitation of renewable energy, energy efficiency,

minimization of residues production and savings of natural resources in urban systems).

Assessment

It seems clear that at a European level sustainability is considered necessary at a policy level in order to address the actual global situation, and it applies to every policy type. In general, it can be appreciated that the programmes and plans are very ambitious on their objectives, but, perhaps, undefined. Nonetheless, it is important that the European Union is taking into consideration these aspects, but their competences do not allow their application.

At a national level, it can be appreciated that cut-outs affected the Sustainability Observatory, and, although laws still mentioned sustainability as the way to go, reports confirmed that sustainability became a secondary objective when compared to employment and consumption. It is natural though, the main concern to be employment and economic recovery, but it may not seem responsible to avoid the sustainable scope, as it affects today´s and tomorrow´s generations.

On the other hand, official reports such as the “Urban and Local Sustainability Spanish strategy” demonstrate that the ulterior intentions on sustainability among all policies still stay on.

At autonomic level, the Basque Government seems to promote sustainability through a specific organ, the IHOBE, and it applies particularly to economic activities and industries, traditionally very active and economically important in the Basque Country. It is interesting, though, that the Land Law for the Basque Country defines the sustainable development principle.

It may seem common that regarding territory, as it is a local governments competence, not to define any guidelines to achieve a more sustainable territory. It will be studied later on whether in legislation the idea of achieving a more sustainable territory is more developed.

Defining rural

The definition of rural according to the Royal Academy of Spanish Language is “that belongs or relates to countryside living or its labours”, but it also used to mean uncultivated or even “hick”, having a clear negative connotation until 2016. It used imply a second class connotation citizenship until recent times, and precisely that resulted in neglected areas, as they were not valued.

In qualitative terms, one of the most accepted definitions of rural is as opposed to urban. This most certainly used to be so when cities were compact and fortified, as agricultural space used to be outside towns. But the territory conquer has resulted in a gradation of settlements of mixed characteristics where rural (and natural) has evolved. This city-countryside interactions are called in many different ways: city-region hinterland, peri-urban areas, “ex urbs”, urban fringe, conurbation, etc. which results in a confusion of terms (Hoggart 2005).

The term “rural” can also be described in a qualitative manner as a number of relationships that do not take place in cities, closeness with neighbours, etc. but for the purpose of this work, I will focus on the spatial point of view.

In quantitative terms the population density is the most utilized indicator to identify rural areas. However, the administrative or territorial boundaries to which they are applied differ depending on the institution.

Thus, the OCDE (Organization for Economic Co-operation and Development) considers municipalities as rural if their population density is under 150 inhabitants per square kilometre (OECD 2011).

It also classifies regions according to the percentage of people living in rural municipalities (or boroughs) as:

- Predominantly Rural Region: Over 50% of inhabitants living in rural municipalities
- Intermediate Region: 15% to 50% of the population living in rural municipalities
- Urban Region: Under 15% of inhabitants living in rural municipalities.

On the other hand, in the EU, Eurostat (Local Administrative Units and Directorate General Regional Policy, Directorate General for Agriculture and Rural Development 2016), uses the Urbanization Degree to differ zones, although it does not identify low density with rural:

- Densely populated areas: More than 500 inhabitants per square kilometre, and minimum 50,000 inhabitants
- Intermediate areas: Local entities that not belonging to densely populated areas have a density over 100 inhabitants per square kilometre, and under 50,000 inhabitants
- Thinly populated areas: Under 100 inhabitants per square kilometre, and under 50,000 inhabitants.

In Spain, the National Institute of Statistics (INE) classifies the municipalities depending on the number of inhabitants, and classifies them as:

- Rural municipality: Under 10,000 inhabitant
- Rural area: Local entities under 2,000 inhabitants
- Intermediate area: Local entities between 2,000 and 9,999 inhabitants
- Urban municipality: Over 10,000 inhabitants

On the other hand, the Law for Sustainable Development of the Countryside 45/2007 (Jefatura del Estado 2007) establishes the following definitions (Jefatura del Estado 2007):

- Countryside: Geographical space formed by the aggregation of municipalities or local entities defined by the competent Authorities

with a population under 30,000 inhabitants and a population density under 100 inhabitants per square kilometre.

- Rural area: Scope of the measures derived from the Sustainable Rural Development Programs, established by the competent Autonomous Communities.
- Small rural municipality: Under 5,000 inhabitants, integrated in Countryside.

For the LEADER European program for the development of rural economies through endogenous potential, the Department of Environment and Territory Policy established through the association Itsasmendikoi a Rurality Map (fig.1):

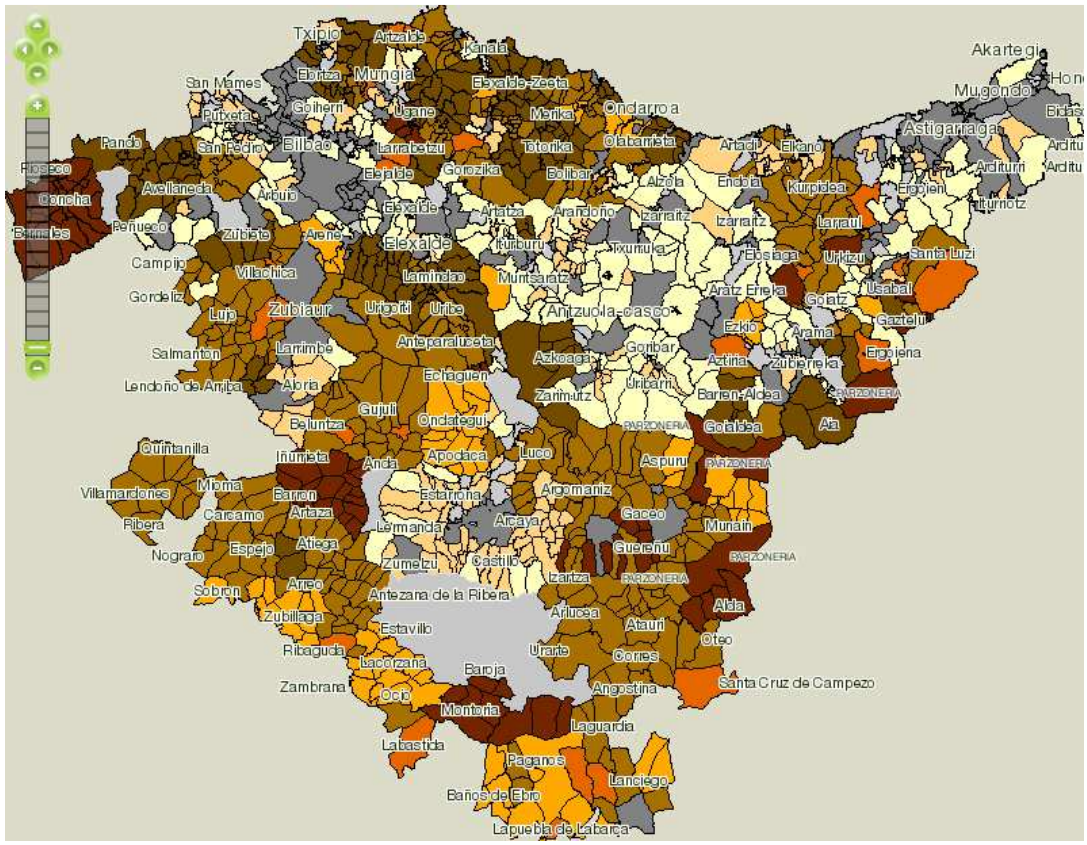

Figure 1. This map shows rural and urban areas (dark grey).

It has been used a smaller statistical unit that municipality, which is the population entity, officialised in the Eustat (Statistical Agency of the Basque Country).[2]

This classification is based primarily on economic terms such as the Agrarian Gross Added Value (A-GAV), Gross Added Value per capita (GAVpc) related to the average of the Basque Country Autonomous Community. It also takes into account their number of inhabitants and land uses[3]:

- G1-depressed very agrarian (A-GAV≥20%; GAVpc≤80% of BCAC average)
- G2-depressed agrarian (A-GAV≥20%; GAVpc≥80% of BCAC average)
- G3- Average agrarian <300 (A-GAV≥2%; GAVpc 80-200 of BCAC aver. ; ≤300 inhabitants)
- G4- Average agrarian >300 (A-GAV≥2%; GAVpc 80-200 of BCAC aver. ; ≥300 inhabitants)
- G5-Agrarian non-depressed (A-GAV≥2%; GAVpc ≥200 of BCAC aver.)
- G6-Non-agrarian with agrarian land (A-GAV≤2%; ≥30% agrarian land use; ≤17% artificial land use)
- G7-Only rural (A-GAV≤2%; ≤30% agrarian land use; ≤17% artificial land use)

[2]A singular population entity is any part of the municipality clearly differentiated from the municipal term that is known by a specific denomination that identifies it without doubt,

[3] BCAC aver. : Basque Country Autonomous Community average

Discussion

It has been seen that regions, areas, and municipalities can be classified as rural or low density, depending on the chosen methodology. This lack of consensus on the quantitative definition of population density can be extrapolated to other indicators, as the particularities of territory hinder the sharing of objective applicable criteria.

In order to understand the situation of rural areas and the interaction with urban zones, it is necessary to identify which are their characteristics and determine their functioning. The lack of qualitative and quantitative definition hinders the identification and classification of rural areas, which is necessary to know the interaction flows with urban zones, and the territory evolution at a regional level. This is mainly due to the fact that the rural characteristics depend much on the place, including climate and orography factors, cultural and heritage conditionings, natural and ecological characteristics, and development policy factors, among others.

Legal planning perspective

In this point it will be studied the evolution of the planning discipline regarding rural areas. Planning has evolved according to its competences, and, in the case of Spain, there are several administrative levels that have competences in planning. Apart from reviewing the planning of rural areas, it is also shown the growing influence of the sustainable criteria in planning Therefore, a review on the evolution of planning rural areas will be made, in order to establish the present situation.

Planning as discipline is a very broad subject to review, so for the purpose of this work, the review is limited to planning rural areas, giving special detail to the considerations of legislation for rural areas.

Europe

At a European level the recommendations on rural areas are mainly focused on economic development of rural areas. They are mainly economic regulations for funds, financial management tools etc. These regulations do not affect directly on the planning process in Spain, as planning competences are national, autonomic, and mostly local.

National level

The Spanish Government has competence regarding general laws that regulate further laws developed by the Autonomous Communities on land issues. However, it cannot determine specifically the territory planning, as that is Autonomous Communities´ competence. Nonetheless, as law is a reflection of social conventions and norms, it is relevant to this work to make a light review on the evolution of rural areas in legislation.

At a national level, the first law regarding planning was approved in 1956 (Jefatura General del Estado 1956), and there is no reference to rural areas nor rural core. It appears rural environment and its preservation. Among the planning objectives are landscape protection, transport infrastructure, and preserving rural environment.

Along the law, there is no further reference to rural environment, but regarding soil it appears the “rustic soil” or “rustic land”.

It classifies as rustic soils those in towns without management plan and not urban, and, among them, those that have more than 20% of their surface outside the built perimeter of town.

Buildings proper to agricultural use would be included in a Plan developed by the Ministry of Agriculture, while the rest of buildings had general volume limitations (except for buildings proper to agricultural use, and equipment and endowments located in rural environment).

In rustic soils, for agricultural and forest use, uses, farms, and buildings proper to agricultural use would be determined by Planning established by the Ministry of Agriculture. Building typology is also limited in rustic soil to avoid typical buildings of urban areas such as apartment blocks.

The use of soils devoted to conservation or defence is limited to agricultural/farming, or forest.

It takes into account the perception of landscape, although only from main roads or trails, but limited only to the vision of it, to contemplate the “natural beauties” (referring to buildings that could hinder the view).

In the next Land Law published in 1976 (Ministerio de Vivienda-Gobierno de España 1976) the rural environment appears as one of the situations to manage through special plans , together with artistic sets, landscape

protection, and interior reform. The objective of these special plans was to improve urban and rural environment.

When taxing the land, it takes into account its classification, limitations and exploitations established by planning in order to protect landscape.

Regarding open landscape, it is similar to the former Law, but it considers not only visual landscape perceived from roads etc., but it also considers open and natural landscape, built elements or historic sets, as well as roads and scenic drives, regarding buildings that hinder the view.

Rural environment is taken in two possible cases: a) as non-programmed developable land; b) as non-developable land. In both cases, the buildings allowed, as well as equipment and endowments, are regulated by the Ministry of Agriculture.

In the Law of 1990 (Jefatura del Estado 1990), non-developable land appears equivalent to rural, and it is possible to establish special protection areas that forbid uses that transform its nature or destiny.

It is also understood that there are other legislations that regulate the uses of non-developable land: agricultural, forest, livestock, hunting, etc. This legislation also regulates the authorised buildings, warrantying the preservation of land from urban development.

As in the former law, it is possible to add through expropriation non-developable land to municipal patrimony land, as long as they are not under a special protection regime. Once they belong to the municipal patrimony land they can be classified as developable.

In 1997 there is a significant change in the Land Law(Jefatura General del Estado 1997): non-developable land appears only to cancel it. In this law there is no reference to rural, as it is assimilated as non-developable land. Hence, all territory, except those areas that have a special protection, is developable with no distinction.

In the 1998´s modification of the Law of 1997, there is no reference to rural, just the word “rustic” as for “rustic tenant”, having no relation to population nuclei or settlement. There are other references such as agrarian, livestock, forest and hunting, and to the rational exploitation of natural resources (Jefatura General del Estado 1998).

The explanation for the suppression of the non-developable land is that in order to increase the land offer to reduce its market value, the land that has no historic, environmental, cultural, landscape interest, or agrarian, livestock, forest, etc. value, or it has been proved its inadequacy for developing, it would be developable. This way, the offer of developable land would be increased, and its price would come down.

The priority in this Law is the private initiative in the creation of cities, as long as it adapts to the image approved on general planning. This is why it disposes of the programming for urbanization actions of former laws.

It is recognized as urban land the one that has the supplies proper of a consolidated nucleus, and that has also been a product of a transformation foreseen in planning and urbanization works have been done.

The only non-developable land is protected land for the following reasons: landscape, historic, environmental, science, agrarian, forest, hunting, rational resources exploitation, or natural risks. All non-urban and non-protected land is considered developable according to this law.

Land uses in non-developable land are limited, and “except for specific acts of public interest” uses non-related to the nature of land or contrary to planning legislation (or agrarian, forest or similar) are prohibited.

The Land Law of 2007 and 2008 (Jefatura General del Estado 2007) and (Jefatura General del Estado 2008) intends to establish rationality for land management, just after the beginning of the global crisis, that in Spain, had a clear real estate component.

It is recognized in this law that up to that time “big urbanistic institutions” were in charge of classifying land into urban, developable and rural, being the two latter second class classifications. The execution of urban plans was assimilated to systematic urbanization.

This is why, and also referring to the 1978 Constitution, it defends that competences should contribute to a loyal rational use of natural and cultural resources, particularly to territory, land, urban and architectural heritage, as they are base, object and scenery necessary for life quality. It also highlights that the Autonomous Communities have the competences in territory planning, and that the Estate should avoid conditioning it.

It also refers to the classification of land being responsible for the inflation of land values, “incorporating expectations of revalue” much before the execution of urbanistic operations, so it contributed to speculation against which “we should fight” as a constitutional imperative.

It makes a review of the former Land Laws, such as identifying property with the right of private initiative to develop. On top of that, urbanism was centred on creating new city, necessary on one hand, but leaving unattended sustainable requirements as well as regenerating existing city and settlements.

Taking into account that land is a natural resource, “scarce and non-renewable”, it is highlighted the environmental value of rural land.

Relating urban regime of land, this law distinguishes between situation and activity, and estate and process. Situation is between urban and rural, and it regulates the regime of urbanistic acts of transforming land (the ones that generate surpluses).

It also remembers that in the 1954 law of mandatory expropriations, which said that they should not take into account the direct surpluses generated by plans or projects responsible for the expropriation. In other land laws it was valued depending on its classification (taking into account its destiny, not its real situation). To avoid this, it unlinks valuing from classification, having to asses (value) what it is, and not what it can be.

In rural land comparative method is discarded, as the conditions that ensured its objectivity no longer take place, and also to eliminate speculation. This is why the method of income capitalization, taking into account localization criteria is introduced.

The intentions of the Law seem firm as summarized above. The following paragraphs study the articles of the law to identify the executive application of those intentions.

On article 2 it establishes that the purpose of all policies regarding land should be the common interest and should be set according to the sustainable criteria. This is why the rational use of resources has to be made according to economic, employment, social cohesion, security and health requirements, and environment protection, all by several actions such as: conserving and improving nature, flora and fauna; protecting cultural heritage and landscape; protecting rural environment, and preserving the values of land; and by an efficient occupation of urban

soil. These considerations will adapt to the territorial model of the Autonomous Communities, which are competent in territory planning.

In article 9 it refers to duties and loads for land property, but for the purpose of this work the following paragraphs will refer only to rural land.

When building on “free” –unbuilt- land the duty is to preserve its plant mass in order to avoid erosion, fire, and flood, for the sake of public health and security, and common interest. Among these common interests there are environmental, preventing soil contamination, and improper emissions on other goods. It is also owners´ duty to maintain the settlement and function of derived services and activities developed on that land.

The owner of land not included in a developing process must: pay and execute the necessary works to keep plant mass and soil as legislation requires, or to restore such estate; satisfy demanded patrimonial benefits to legitimate non-related to primary exploitation land uses; pay and execute when proceed infrastructures of installation, building, or construction connections to general service grids to give them to the competent administration.

All these duties look for the preservation of the values of rural land, but also for the correct development of that land according to planning.

The basic land situations are regulated by article 12 and it divides land into three categories: urban, developable, and non-developable/rural. The latter is defined as that (land) preserved from urban and territory planning, including: a) those included in nature or cultural heritage protection legislation, attending to ecological, agrarian, livestock, forest, and landscape values, as well as those with natural or technological

risks; b) Land being urbanized: until the urbanization process is complete[4].

Regarding the use of rural land (article 13), it will be used according to its nature: agrarian, livestock, forest, hunting, or any other linked to the rational use of natural resources, but it also could be legitimated social or public interest.

Once the land has been included in some urbanization process, only the following acts will be permitted: a) exceptionally, provisional works and uses that should cease when administration decides, with no right to compensation; b) urbanization works when requirements are met, as well as simultaneous construction or building works, whenever possible.

The use of any land under some protection regime will be limited by the protection of its values (environmental, cultural, historic, archaeological, scientific and landscape).

In article 15, it is established the obligation of environmental and sustainability assessments, so that urban and territory planning tools are subjected to the assessment of plans and programmes, as well as to the environmental impact assessment of the projects that require so, being mandatory also to present an environmental assessment report with a natural risks map.

In the public consultation process it is also mandatory hydrological, coasts and roads and infrastructures competent administrations´ reports. Pus, in urban acts an economic sustainability report has to be made, weighting impact on public finances.

[4] urbanized land: the one that has been effectively integrated on the service and endowments grid proper of population nuclei

Apart from the Land Laws that regulate the Planning practice, and are the frame for all Autonomic Land Laws and plans, there are other laws that affect the rural areas such as the Mounts Law, and the Law for the Sustainable Development of the Rural Environment.

The Mounts Law manages the mounts, taking by mount all forest mass. They have a special regulation because there have traditionally been a lot of public forests, but also because “forests are part of the sustainable development”, quoting United Nations assembly on special session in 1997.

The current Mounts Law (10/2006) is a modification of the 2003 Mounts Law (43/2003). For the present work both are reviewed at the same time, as the modifications apply mainly to management and to detail some of the points on the law of 2003.

To begin with, it says that planning, preservation, and sustainable development of all kinds of forests are fundamental for social and economic development, environmental and life-sustaining systems protection on the planet (Jefatura General del Estado 2003). There is no doubt that forests of all kinds are primordial not only to the sustainable development but also for life itself. Their functions are many: from biodiversity to risk management, cultural heritage and landscape, etc.

The law is written to reorient preservation, improvement and exploitation of forest spaces. Its principles are sustainable forest management: multi-functionality, integrating forest planning in territory planning, territory cohesion and subsidiarity; foment forest productions and rural development; preserving forest biodiversity; integrating forest policy in international environmental policies´ objectives; cooperation among administrations; and the obligated participation of all social and economic stakeholders interested on the decision making on forest environment.

The main purpose of this law is to warranty the conservation and protection of mounts, promoting its restoration, improvement and sustainability, based on collective solidarity and social cohesion.

The concept of mount is defined in article 5 as “all land that grow trees, shrubs or herbaceous shrubs, spontaneous or from plantation, that have or could have environmental, protective, productive, cultural landscape or recreational functions”.

All Spanish mounts are considered a mix of agrarian, pasture and wild use (agro-silvo-pastoral), regarding characteristics and forest exploitation. The owners of mounts (forests) are responsible for their technical and material management.

This law forbids the change on use due to fire. This is a very conflictive point, as several laws on mounts and natural parks have gone back and forth on this particular issue. It is interesting that it forbids the change of use, as the 1998´s land law allowed (by supressing non-developable land class, the change of classification –from protected to developable- due to the loss of protection after fire).

Regarding the mounts included in special protection areas, it is established that they are regulated by its specific legislation.

The principles of this law are set in article 3 and are the following: sustainable management of mounts; multi-functionality (environmental, economic and social); forest planning within urban planning; promoting forest productions and associated economic sectors; employment creation and rural environment development; integrating Spanish forest policy into international objectives of environmental protection; precaution to natural risks; and climate change adaptation. The two latter principles were added by the 2006 law.

The social function of mounts is highlighted in article 4 and they are also considered providers of environmental services.

According to this law, sustainable forest management is the organization, administration and use of mounts that allow to maintain its biodiversity, productivity, vitality, potentiality and regeneration capacity to attend now and in the future the ecological, economic and social relevant functions at a local, national and global scale, without producing damage to other ecosystems (article 6).

As for the forest use in urban planning (article 39) the law established that when urban planning tools affect the cataloguing of mounts a favourable report from the competent administration will be required (mandatory if the mounts are catalogued or protected).

The Law for Sustainable Development of Rural Environment 45/2007 (Jefatura del Estado 2007) recognizes the importance of rural environment, as it is 90% of the Spanish territory, with 20% of its population (35 if peri-urban areas are taken into consideration), and on it are located all of the natural resources as well as a significant part of the cultural heritage. The new tendencies on economic activity and housing also give this environment a greater relevance than the one acknowledged in our recent history.

In this new historic context, post-industrial and global society, new challenges and opportunities have arisen for the rural environment. This is why economic, social and environmental objectives are set: “The future of the rural environment needs a sustainable development model”:

It seeks the improvement of the socio-economic situation of the population living in rural areas, particularly young and women, and it takes into account territory planning criteria and directions.

It defines different typologies and priority areas, and actions and measures are multi-sectorial and environmental, as the rural environment is becoming economically more diversified.

It establishes programming and cooperating tools, especially a Sustainable Rural Development Program, promoting private initiative.

It aims for a high quality in rural environments, preventing from deterioration of natural heritage, landscape and biodiversity, facilitating its recovery through the integrated territory planning (article 2).

It defines different concepts related to rural areas in article 3:

- Rural environment: geographic space formed by the aggregation of municipalities or smaller local entities under 30.000 inhabitants, and under 100 inhabitants per square kilometre.
- Rural area: area of application of measures derived from the Sustainable Rural Development Programme regulated by this law, of under province scope, limited and qualified by the competent Autonomous Community.
- Small rural municipality: under 5000 inhabitants and integrated in a rural environment.

It highlights supporting territorial agriculture among the general actions when aiming for sustainable rural development.

Regarding environmental planning article 19 considers specifically acts on maintaining and protecting landscapes of interest for rural environment and mountain areas. It includes initiatives for the knowledge, protection and sustainable use of geological, mining and biological heritage as scientific, cultural and touristic resource.

Autonomous communities are competent to include management measures for qualified and limited rural areas included in the Natura Net

2000 (Red Natura 2000), and it also proposes to create a National Agriculture and Livestock environmental Quality Plan regarding residues.

The measures proposed for a sustainable rural development are established in chapter IV, and the ones regarding the adaptation to the needs of urbanism and housing are set on article 33.

- Make compatible urban development with environmental maintenance, limiting urban development to water availability and to previous territory planning, especially for those municipalities within the Natura Net 2000 and also to small rural municipalities.
- Facilitate access to housing to inhabitants of the rural environment, adapting the public protection regimens to the singularities of the environment.
- Foment reusing existing housing, rehabilitating housing and buildings, preserving rural traditional architecture, and aid to rehabilitate and recover and to maintain rural architectural heritage.
- Discourage disperse urbanism, particularly on rural peri-urban areas.

Euskadi

The Basque Country Autonomous Community has competences to develop laws and plans regarding territory planning. It elaborates structural plans, both sectorial and multi-sectorial, the latter dividing the territory into the so called functional areas.

The law 4/1990 of Territory Management of the Basque Country (Gobierno Vasco 1990) regulates only the territory management guidelines, sectorial plans, and partial territory plans. For the purpose of reviewing the rural concept in legislation, this law has no interest, as it

does not appear the term rural, or rustic, and it does not regulate the land classifications either.

The Basque land law 2/2006 of Land and Urbanism of the Basque Country (Departamento de PLanificación y Medio Ambiente and Gobierno Vasco 2006) is the first Basque land law that classifies land and has a especial consideration for rural areas.

In the general intentions of the law, it addresses the consumption of soil due to a disperse model non-assumable in the Basque Country mainly because of its orography. In order to try to avoid it, a minimum buildability and occupation standards are proposed.

This law has a particular consideration towards rural areas, as it mentions the concern about the maintenance of the quality of those areas. In this regard, it shows the value of these areas in the Basque traditional identity.

It is interesting to mention that the Land Law of 2006 (Departamento de Planificación y Medio Ambiente and Gobierno Vasco 2006) makes the effort to explain in article 3 the sustainable development principle used in this law, as mentioned above.

Structural planning is responsible for the guidelines regarding environmental protection, nature preservation, landscape and natural and artificial elements´ defence, especially those regarding cultural heritage.

Detailed ordination plans order historic and artistic enclosures, and their determinations for preservation, and, if needed, for rehabilitation of buildings with cultural and architectural interest. They also refer to landscape and natural environment protection and improvement, and the determination of the rural nuclei in non-developable land of the municipality. They also order urban and rural environment preservation and improvement.

The last modification on the Land Law of the Basque Country was made in 2008 (Departamento de Vivienda y Asuntos Sociales, Gobierno Vasco 2008) and it affects land classification after the National Law 8/2007 (Jefatura General del Estado 2007), adapting the former autonomic law to the new national standards.

The land laws consider three types on land: urban, developable, and non-developable, and defines three types of the latter: Protected (for reasons such as agrarian, forest/livestock, exploitation of natural resources, historic or cultural values, defence of flora and fauna, or ecological balance); common non-developable land (preserved from urban development); and rural nucleus on non-developable land.

In article 4 (Departamento de PLanificación y Medio Ambiente and Gobierno Vasco 2006) it establishes the uses and allowed activities in non-developable land: they have to be devoted to agrarian, livestock, forest, and hunting, or to any other use linked to the rational use of natural resources. As for new buildings non-developable land, and residential use linked to agrarian/livestock exploitation the article 31 explains that only allowed new residential buildings when linked to agrarian or livestock exploitation and used as usual residence by owner and manager of exploitation. Also exploitation must meet requirements for economic viability, minimum of 50% income from agrarian activity. Maintenance of residential use always linked to agrarian activity for at least 25 years. If these requirements are not met the building will become “out of management”.

The first two types are banned from building new constructions devoted to housing non-related to agrarian exploitations, but buildings supportive of public works and public or social interest constructions can be built.

The third type of non-developable land is called rural nucleus non-developable land. It has a special regime, regulated in article 29 of the 2006 law.

Rural nucleus is a group between six and twenty five caseríos/baserris[5] (traditional farmhouses) around a public space, which agglutinates them and gives them character.

Planning cannot generate an increase in the building area nor in the number of buildings over 50% of the area formerly built. The total number of buildings, considering existing and new, has to be fewer than 25 (not considering horizontal divisions of existing houses).

In this land class planning cannot define new endowments, free spaces or new roads, allowing only regularization of limits and former alignments. Also, the global area of a rural nucleus can be classified as urban land or as rural nucleus in non-developable land. The law of 2008 obliges to change classification if the nuclei have completed their development.

In non-developable land structural urban planning is responsible for delimiting rural nuclei establishing its planning criteria through special planning. It establishes uses and buildings allowed and forbidden for each category, as well as endowments and public infrastructures needed, and delimits, when proceeds, land reservoirs for public patrimony (Departamento de Vivienda y Asuntos Sociales and Gobierno Vasco 2008).

When general planning does not have a detailed ordination of rural nuclei, the Council would develop a Especial Plan which would determine: land related to buildings; developable (buildable) lands –that

[5] This construction type has its own regulation that is addressed later on.

must have access from existing public roads-; the building volume and maximum stories (under two), expressing the separation between buildings from adjoining properties; and allowed, compatible and forbidden uses.

According to the modifications of the law of 2008 the former legislation is applicable to rural nuclei in non-developable land. When non-development rural nuclei had completed their development according to 5/1998 law, they could still have the same classification as long as they do not have new developments, in which case they should be reclassified as urban or developable depending on law 2/2006, according to the development model established in planning. Non-developable rural nuclei that had not completed its development according to law 5/1998, could only complete it according to the Law 2/2006.

Article 6 of the 2008 law regulates the rural nucleus land classification as urban. The rural nucleus surface can be classified as urban in the general planning, if agrees to the territory planning, and to law.

Article 7 established the method for making the inventory of rural nuclei. Province Governments (Diputaciones Forales) should elaborate the inventories of rural nuclei that are in their territories, and urban planning cannot foresee rural nuclei if they are not considered as such on these inventories. Municipal Councils will delimitate the areas belonging to rural nuclei on their structural planning, according to territory planning criteria. Municipal planning will determine the rest of considerations for rural nuclei on the General Urban Plan or on Special Plan developed for that purpose.

In order to classify an area as rural nucleus it must have some “caseríos” or “baserris”, which are the traditional Basque farmhouse. The Land law of 2008 (Departamento de Vivienda y Asuntos Sociales, Gobierno Vasco 2008) defines the term “caserío” as isolated buildings with predominantly

residential use that have at least an existing household according to the Property Registry, and have the first occupancy license before 1950.

In article 30 it is regulated the ability to reconstruct them, being only allowed for their reconstruction those that have a recognizable building structure as "*caserío*". It must be recognized at least the roof ridge height, and a general building plant that allows recognizing its original volume. The reconstruction must respect the original volume, and rehabilitating non-residential buildings in non-developable land is not allowed.

On the 7th transitory disposition it establishes that traditional farmhouses and rural nuclei classifications will be maintained for those that had obtained that classification prior to this law, this is, according to 5/1998 law.

Apart from the Land Laws of the Basque Country, the Basque Government has recently published the Landscape Decree (Departamento de Medio Ambiente y Política Territorial 2013), aiming for an integrated management of landscapes.

This law reflects the same interests as the European Landscape Convention, and it assumes landscape as any part of territory as perceived by population, being a result of natural and/or human factors. It also recognises its importance from different perspectives such as cultural, environmental, and social and economic. It is an important part of the natural and cultural European heritage that contributes to the wellbeing of population and European identity. Thus, it is an essential part of territory, and a key piece on its planning.

Among the objectives of the Autonomous Community of the Basque Country regarding landscape are the maintenance, improvement and

restoration of landscapes in rural environment; the harmonic articulation of landscapes, paying special attention to the most accessible landscapes, such as urban-rural contact points; valuing traditional cultural roads and trails as exceptional points of accessibility and enjoyment of landscapes.

The management of landscapes of interest is made through Landscapes Catalogues, and must have among their content, the identification of landscapes of special interest with the following criteria: singularity, fragility or representability as menaced or uncommon landscape; for its deterioration, special attention to urban periphery, riversides, urban-rural transitions or industrial borders; very visible areas for population; for contributing to the identity of the functional areas; and for their aesthetic and perceptive aspects.

They must also identify the uses and activities that have influenced the most to the actual conformation of landscapes, as well as the localization of main roads and places from which landscape is perceived. They also delimit landscape units, which are coherent landscape areas on which a special protection, management, or landscape planning regime can be set on.

Analysis and assessment

As for European legislation, there are not Land laws or Valuation Laws because there is not administrative competence regarding territory planning. The European Union makes sectorial programmes and multi-sectorial recommendations that lift the rural issue up to first level, together with sustainability, energy-efficiency, and territorial cohesion and so on. But, as mentioned above, EU cannot make legislation on planning

issues. It is interesting, though, that the cohesion, sustainability, and rural-urban relationships are common concerns for the future years.

The Spanish legislation, on the other hand, has competences to make national laws. As a general review on “the rural”, it can be said that an intention to reconsider these areas regarding its importance for the whole territory´s development seems clear.

The first Spanish land law takes rural areas as economic areas to be managed by the Ministry of Agriculture, leaving land uses and buildings allowed to be determined by this same ministry. The perception of landscape (related or not to rural areas) is only taken from the distance, as a desirable image from main roads. The next land law (1976) is very similar in almost every aspect of the rural land, except for opening the landscape connotation to whole landscapes, with historic and cultural interest

In 1997 there is a big change in the land laws, as it eliminates the non-developable land class. From the intentions of the law it can be understood the interest of eliminating this class, but the consequences related to real estate speculation, empty houses, and the generalized crisis of the building and construction sector, (one of the engines of the Spanish economy up to that time) were much greater that foreseen. It is fair to say that not only this law was responsible for that situation, but it clearly allowed it.

Years later this Law had also serious consequences on territory as it allowed unlinked constructions from consolidated urban areas, cooperating to the so called “real-estate bubble”, as it also allowed to value the land depending on what could be done on it.

For rural areas this law allowed to increase the value of land, but most usually, allowed the development of whole urbanizations, resorts, golfs, etc. unlinked from pre-existing towns or settlements.

For mounts (an important part of rural environments) it permitted the change of classification after fire, as its protection was lost, becoming developable land.

In the land laws of 2007 and 2008 there is a clear intention to include a sustainable scope into the planning discipline, and particularly on rural land, it is more detailed the regulations and preservation reasons. The interests for preservation of uses are not only environmental, but also landscape, cultural and heritage, and technological value, as well as natural risks.

The last Mounts Law reflects a more adapted vision of sustainability regarding the management of mounts, which would be very desirable in other laws. It reflects a sectorial interest of introducing sustainable principles in the management of mounts, and therefore, of the territory. In this law the rural use appears implicitly as most of the mounts in the Spanish geography are a mix of pastures, forest and agriculture.

The Law for the Sustainable Development of Rural Environment has good intentions and the determinations regarding urbanism and housing are interesting, but since territory planning competences are autonomic and local, it just establishes a general, broad frame to develop further territory and local plans.

Regarding the Basque Autonomous Community's Land Laws, it seems that there is an interest for including the sustainable principles into urbanism. This is so not only because of the national and European recommendations, but also for the systemic crisis and actual situation.

Society has also changed, taking more into consideration things such as sustainability.

Apart from the intentions, one of the most different things of the Basque law is the consideration of rural nucleus on non-developable land. According to the 2/2006 Law, the land of rural nuclei can be classified as non-developable rural nucleus, or as urban or non-developable in case it no longer meets the requirements to consider it rural nucleus in non-developable land. Hence, it has been possible to increase the number of housings on rural nuclei in non-developable land, without cessions or surpluses. This is a problem when that land changes its classification to developable or urban land, as cessions, new parcelling and buildings and the distribution of benefits and loads come into force.

From 1998 (Jefatura General del Estado 1998) Law to 2/2006 (Departamento de Planificación y Medio Ambiente and Gobierno Vasco 2006) the consideration of rural nucleus has changed: the maximum number of farmhouses has changed from 30 to 25. Nonetheless, the 105/2008 Decree (Departamento de Vivienda y Asuntos Sociales and Gobierno Vasco 2008) has not been applied for the inventory of rural nuclei, so the number of declared rural nuclei by municipalities, as well as their divisions and, therefore, their growth in number and of allowed buildings, have resulted in the buildable limits loosing relevance.

This situation has allowed the low density households number to increase, as in rural nuclei in non-developable land agrarian activity linked to residential use is not mandatory. Plus, the number of households has increased so much in rural nuclei that Councils have tried to give them services and endowments equivalent to those of urban land, when they are located in non-developable land, so they have not gone through re-parcelling and got cessions nor surpluses, so the

municipality pays the integral costs of those services (Ainz Ibarrondo et al. 2011).

Apart from that, municipalities have competence to define if an area is rural nucleus or not, so they can declare new rural nuclei along with their need for housing.

In this regard, it is interesting the data of the Eustat (Statistical Agency of the Basque Country Autonomous Community) that gives insight on the area for each land classification type (figures 2 and 3):

Eustat

Suelo no urbanizable por tipo y territorio. C.A. de Euskadi. (Ha.). 2012

	C.A. de Euskadi	Araba/Álava	Bizkaia	Gipuzkoa
Total suelo no urbanizable	**659.708**	**283.584**	**197.347**	**178.777**
Especial Protección	153.808	66.865	41.704	45.240
Mejora Ambiental	16.657	4.881	5.316	6.460
Forestal	211.550	96.411	57.097	58.042
Agroganadera y Campiña	195.584	85.280	69.342	40.961
Pastos Montanos	7.054	5.098	359	1.598
Protección de Aguas Superficiales	35.611	18.684	10.898	6.030
Sin Vocación de Uso Definitivo	34.823	5.601	9.447	19.775
Actividades Extractivas	1.668	465	690	513
Núcleos Rurales	2.954	300	2.495	159

Fuente: Departamento de Medio Ambiente, Planificación Territorial, Agricultura y Pesca del Gobierno Vasco. Udalplan.

Figure 2. Non-developable land by type and territory in hectares (2012).

Eustat

Suelo residencial por tipo y territorio. C.A. de Euskadi. (Ha.). 2012

	C. A. de Euskadi	Araba/Álava	Bizkaia	Gipuzkoa
Total suelo residencial	**20.121**	**6.144**	**8.839**	**5.138**
- Urbano consolidado	13.240	4.076	5.478	3.686
- Urbano no consolidado	1.806	319	981	506
- Urbanizable	5.075	1.749	2.380	946
No urbanizable(Núcleos rurales)$_{(1)}$	2.954	300	2.495	159

(1) El suelo residencial no urbanizable se corresponde con los núcleos rurales y queda excluido de la suma total de suelo residencial

Fuente: Departamento de Medio Ambiente, Planificación Territorial, Agricultura y Pesca del Gobierno Vasco. Udalplan.

Figure 3. Residential land by type and territory in hectares (2012).

The comparison on the three historic territories (provinces) regarding the rural nucleus non-developable land is very interesting: Alava 300 Ha, Bizkaia 2495 Ha, y Gipuzkoa 159 Ha. It is curious taking into account that Bizkaia is the most populated area and the most urbanized also. It is also interesting that the rural nuclei in non-developable land are not taken into consideration for global residential land.

The Landscape Decree of the Basque Country shows a concern on rural areas as they are an important part of landscape, not only for cultural values, but also for being the main access to nature from urban areas, and hence, they must be catalogued and managed differently.

Conclusion and starting point

As a conclusion of this chapter it can be said that sustainability is a key principle in the forthcoming policies, as it is reflected in European, Spanish and autonomic policies. There has been a clear evolution in the concern for environment and resources, and nowadays, after the global crisis, sustainability has become not only necessary but also an opportunity to develop new ways of doing (employments, policies, relations, etc.).

The change in the global opinion has turned into some responsible way of being, thinking not only in today´s necessities but also in the future´s. This responsibility has extended to the former neglected areas, such as the rural areas. Landscape is taken as a whole, as territory, and its values are multiple: visual, cultural heritage, natural, technological, and so forth.

After reviewing the considerations regarding the main concepts for this work, it can be assumed that the term rural is a diffuse term that has to do with population density, buildings density, population dedication to agriculture, cattle, forest or hunting, and the gross added value of those activities to the gross added global value of an area. There is no general definition because it depends much on the place, and its circumstances.

Planning has evolved regarding rural areas, from not considering them at all, to give them importance as preservation areas for landscape, cultural, and access to nature reasons.

From Europe the next logical step seems to make rural areas equivalent in importance to urban. Although it seems unnecessary because urban areas are far more populated than rural and they are responsible for a much greater part of emissions and resource and energy consumption, rural areas are the key to balance the territory global emissions and

consumptions. Plus, the consumption of proximity goods and energy that will be imposed in the forthcoming years makes rural areas within predominantly urban regions a key role in the sustainability of a region.

It has been proved that there is no clear definition or method to identify rural areas, nor there is a boundary.

For further work, sustainability will be understood as the ability to maintain the activities, uses, and characteristics of an area keeping the reposition rate of goods and energy, and of absorption of waste and emissions viable without compromising next futures generations ability to live up to the same comfort.

For this work, rural areas within predominantly urban regions are taken, because it is a common case along Europe. It is also conflictive as those rural spaces compete with interests such as urban expansion. They are also complex as they provide environmental services, access to natural areas, are part of the culture and heritage of the area, etc. apart from their traditional uses of agriculture, livestock, forest or hunting uses.

As established in chapter 1, the core objective of this work is to obtain planning guidelines that could be applied to rural areas within predominantly urban regions for a better planning oriented towards more successful areas. To do so, it is necessary to address an identification methodology for rural areas that allows identifying them whatever the scenario. This is why the methodology proposed in this work is divided into two steps: first the identification methodology; second, obtaining the planning factors for successful rural areas.

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IDENTIFICATION

This chapter proposes a methodology to identify the rural areas based on a relative index, created by average of indicators of differen nature.

The indicators used are given by autonomous government and are public data available at different official sites. The nature of indicators is statistics (employment, gross added value by economic sector, population, etc.), municipal data regarding surfaces and housing, and land coverings.

This part of the work is divided into four main parts: the conceptual framework that gives support to the methodology, the materials used, the method itself, and the application to the Basque Country case, shown in the Results section.

It concludes that the methodology proposed has served the purpose established, and the results show that the Basque Country, even having three times the national average population density, still has large rural areas of different intensity.

Identification

In this chapter it is described the methodology followed to identify the rural areas within predominantly urban regions. Due to the lack of consensus on the threshold values for the urban-rural distinction, it has been imperative to establish a method that enables the identification of rural areas in any territorial space. The main objective of this chapter is to explain the methodology proposed to identify the rural areas within predominantly urban regions and apply it to the Basque Country case.

A new methodology to identify rural areas is proposed, which uses multi-factor variables as it aims to cover a broad understanding of rural space nowadays. In this methodology several indicators have been chosen that are commonly used to define rural areas. They have been translated to a common scale, so they could be operated with, in order to obtain a map of the relative rurality of the territory.

This chapter establishes the conceptual framework for the development of the methodology of identification, and describes the main variables used as well as the justification of the chosen method.

The methods part explains the variables used, as well as their sources. Then details the method followed to obtain the relative rurality map.

Finally, the results for the Basque Country are presented, as well as the discussion and conclusions obtained.

Objectives

The main objective of this chapter is to establish a way of constructing an urban-rural gradient applicable to any region, using statistical and geographical data.

In order to do so, instead of proposing an absolute criterion, it establishes an auto-comparative method that uses a region´s own values as a reference.

As secondary objectives are the following:

- Establishing the main conceptual framework as the base for the development of the methodology
- Identifying the main variables that define rural areas in a broad sense.
- Identifying the main data source for the different variables chosen.
- Establishing general criteria for the relationship of each variable towards rural character.
- Establishing a relative rurality index applicable to any region.

Conceptual framework

As it has been seen in chapter 2, the rural concept is diffuse. Thus, identifying rural areas becomes a difficult task that relies pretty much on the place being analysed.

Legislation and plans and programmes do not agree on the rural definition, but there are several works on the subject that bring some insight. The general consensus is that it is necessary a holistic/multidisciplinary approach to identify rural areas because of their diversity, being necessary to consider several variables of different type.

The following works have been selected as they aim to identify rural areas based on multiple variables such as land coverings, population, economic indicators, etc.

A global methodology for identifying rural areas across Europe was made as part of the strategic research program funded by the Dutch Ministry of Agriculture “Sustainable spatial development of ecosystems, landscapes, seas and regions” (van Eupen et al. 2012). This work utilises two main indicators for identifying rural areas across Europe.

The first indicator is Economic density at 1km^2 level, defined as the income generated per square kilometre. This indicator integrates the economic power and population density. To achieve this data they give each land cover from the Corine Land Cover Project a population density. Economic data is at NUTS3[6] level, whereas population data was constructed per square kilometre, taking the comune (LAU2[7]) limits.

[6] NUTS3 is the equivalent to Provinces in the case of Spain.

[7] LAU2 are local administrative units, equivalent to Municipalities in the case of Spain.

Multiplying income per cápita by density per square kilometre, the economic density per square kilometre is obtained.

The second variable is the climate type, as it is across all Europe. The result is a typology for rural areas across Europe, based mainly on climate and economic power.

This method overcomes the administrative boundaries by overlaying statistical data and georeferenced data. This method assumes, though, that rural areas have a lower income and are thinly populated. It also assmues the same population density for all land coverings across Europe, so the particularities of every region are not taken into consideration.

The work of Waldorf (Waldorf 2006) establishing a relative rurality index, sheds some light on overcoming the urban rural classification threshold, as it seeks the relative rurality as a punctuation on a scale. However, it is based on the County limits (for all Counties in the US), and creates an index based on four indicators: population size, population density, percentage of urban residents, and distance to the closest metropolitan area. It then transforms each indicator to a common scale, and creates the relative rurality index by average of non-weighted values re-scaling them from 0 to 1.

This work has the advantage of overcoming the dichotomy between urban and rural areas by establishing a rurality scale, but it is still limited to administrative boundaries such as the County. It is also based on the indicator of urban residents and the distance to the closest metropolitan areas assuming that rurality is remote and does not exist in urban-grouped settlements.

As it has been acknowledged, there are three key points to identify rural areas: First, it is imperative to use several indicators of different kind; second, it seems necessary to overcome the administrative boundaries; and, third, overcome the duality of rural/urban (although in the following chapter rural areas are delimited, for the purpose of further study).

The present work addresses these problems by using several indicators of different nature, and using them georeferenced, in order to overcome the administrative boundaries. This way, by translating each indicator to a common scale, a multivariable approach is used so that different aspects of rurality are taken into consideration.

The main strength is to overcome administrative boundaries and the use of variables of different type. However, the problems are the availability of data, and the scale of that data.

Materials: Indicators and data

Although a rural area is not usually defined by municipal boundaries, cartographic and statistic indicators are usually referred to these administrative limits. The smallest unit which offers the cartographic and statistical needed data, at least at a population level, is the local population entity (LPE). In order to obtain a closer understanding of the territory, indicators related to LPEs are used whenever possible; if not, indicators related to the smallest statistical boundaries (such as LAU2, municipality) are chosen.

Indicators

Due to the cross-disciplinary orientation of this work, the indicators selected for the identification of rural areas are from different type, and can be divided into three main categories: economic, density and land coverings.

As it has been seen in chapter two, population density is a commonly used indicator to establish the difference between urban and rural areas. However, it has also been studied that population density alone is not enough to classify a territory as urban or rural (Pizzoli and Gong 2007). This same study concludes that other variables such as agriculture and economic specialization (agricultural land or agricultural employment), land cover and spatial dimensions are also important when establishing a differentiation between urban and rural, and suggests a multidimensional approach.

The economic aspect of the primary sector can be studied from two points of view: from the population employed on the agro-fisheries sector, and from the Gross Added Value (GAV) of the agro-fisheries sector compared to the total GAV of the municipality (both in percentage). In the case of Pizzoli and Gong (2007), either of them was used, as they

worked on two case studies (China and Italy), and data availability made them use both indistinctively.

These indicators are related to the main economic activity of an area, both by the percentage of people employed in the agro-fisheries sector, and the percentage of the Gross Added Value of that sector to the total of that area.

For this work, both indicators are used, as any of them is indicative of rural activity. It is also important to highlight that agricultural sector is diverse depending on the type of exploitation, and these two particular indicators do not necessarily have a direct proportionality.

From the urban planning point of view, density (of dwellings) has been an important factor to take into account, especially since the sustainability issues emerged. Its thresholds to determine whether an area is rural or urban also vary between different settlements (Bramley and Power 2009).

The study on Europe´s rural typologies mentioned in the former section (van Eupen et al. 2012) uses the land coverings as an indicator for rurality overcoming the administrative boundaries.

Thus, the indicators chosen to develop the methodology of identification of rural areas are: the Corine Land Cover inventory of land, the population over 16 employed on the agro-fisheries sector (%), the Gross Added Value of the agro-fisheries sector compared to the total GAV of the municipality (%), the population density at local population entities (LPE) level, and the dwellings density of the municipality (LAU2 level).

Data

There is some data to be collected in order to obtain the indicators mentioned above. As the case study for the identification of rural areas is the Basque Country Autonomous Community, the main data sources have been the Eustat, the cartographic database, and the Udalmap application, all three of the Basque Country Government.

Most of this data is related to administrative boundaries, and assumes the functioning of a municipality as its average values. This is not the real case, of course, but in order not to alter the real values, they have been used as officially given.

Land coverings

As mentioned above, for the land coverings it has been used the Corine Land Cover Project (cartography of 2005).

The source for this data is the Geoeuskadi portal, from the Basque Government, which offers this data as well as the Forest Inventory. There are two reasons for choosing the land coverings over the forest inventory (also given).

The land coverings are given on a scale of 1/100,000, and the forest inventory is on a scale of 1/10,000. For the purpose of the identification, it was enough the land coverings scale. However, for further classification works the forest inventory is used, as the scale of the maps given is more detailed.

Another reason for using land coverings and not forest inventory is that there is no need for much detail on the species, but the general coverings of the territory.

The maps used for this part is the update from 2006, and can be found on the next url:

http://www.geo.euskadi.eus/corine-land-cover-2006-pais-vasco/s69-geodir/es/

This map divides the territory into areas of the same land covering. Each land covering can be related to rurality based on the principal land cover classes.

This indicator does not follow any statistical or political boundary, so it offers a different approach to the territory, crossing administrative boundaries.

The nomenclature of the Corine land cover classes can be found on the next url of the European Environmental Agency:

http://www.eea.europa.eu/publications/COR0-part2

Population over 16 employed on the agro fisheries sector

The population over 16 years old devoted to the agriculture and fisheries sector (PAFS) by percentage is obtained directly from the Udalmap application of the Basque Country, based on data from Eustat, and according to its methodological record it is calculated as follows:

$$\frac{\text{Population over 16 employed in AFS}}{\text{Total employed population}} \text{ x } 100$$

This indicator is calculated taking into account the results of the Population and Housing Census from Eustat. Hence, it must be taken into consideration that: the employed population is integrated by those people that the week prior to completing the questionnaires of the census were in one of the following situations: i) Working in a paid occupation or

job and at least worked an hour; ii) Working (not paid) in a company of a relative with whom he/she lives with and at least worked an hour.

They were also considered employed those that could be included in the previous classes but were absent the week prior to the questioning for holiday reasons, sickness, working conflict, bad weather or technical incident. The main activity of the establishment, company, or economic unit in which an employed person develops his/hers main occupation during the previous week to the moment of filling the questionnaires included in the A, B and C National Activities Classification (CNAE-93).

Gross Added Value of the agro-fisheries sector

It is defined as the percentage of GAV of the AFS regarding the total municipal GAV. This value is obtained directly from the Udalmap application, and represents the “new value created in the production process during the considered period”. It is calculated as follows:

$$\frac{\text{GAV of the AFS}}{\text{Total GAV}} \text{x} 100$$

The Gross Added Value corresponds to the difference between the production factory outlet prices and the intermediate inputs. Therefore, it is equivalent to the sum of the Gross Operating Surpluses and the Taxes linked to production, excluding the Operating Subsidies. When added the Value Added Tax (VAT) levied on products and import linked taxes to the Gross Added Value at factory outlet process for the total economy, the Gross Domestic Product at market prices is obtained.

Population density

The population density is selected as it is the most commonly used indicator to determine whether an area is rural or not, as it was detailed in chapter 2.

In order to obtain the population density the following data has been considered:

- Area (km2): obtained from the maps from the cartographic database of the Basque Government. This data can be downloaded free from the Geoeuskadi webpage, the Spatial Data Infrastructure (http://www.geo.euskadi.eus/).

- Total population by local population entity (LPE), obtained from the Eustat data source.

This indicator is obtained for every local population entity, a smaller statistical division only available for population number and distribution.

Hence, the population density is obtained as follows:

$$(\text{Total population by LPE}/\text{Area of the LPE})$$

This calculation is made directly on the maps, as Geographical Information Systems (GIS) allow working vector data together with figures. For this calculation it has been used the Quantum GIS 2.18.6 free software. Then, the numerical data is exported into an excel document.

Dwellings per hectare of residential land

The density of dwellings per hectare is an indicator usually utilised in planning, and it reflects the typology (in general terms) of a determined

area. This is why this indicator is only referred to residential land, so that the global surface of the municipality does not interfere in the measurement.

The following data has been considered to obtain the density of dwellings per hectare in residential land:

- Number of dwellings on residential land: It is a municipal data from Eustat, where all dwellings are taken into consideration, including the existing, those that are being executing, and those that are licensed for developing.

- Residential land area (Ha): It is a municipal data from Eustat, where the urban, developable and undevelopable land is considered.

This indicator is obtained for each municipality, as there is no smaller statistical information on the number of dwellings in residential land in neither each LPE, nor the residential land area for every LPE. The calculations were made in Excel.

Comments

The indicators chosen for this methodology are not valid on their own to define rural areas. This is why a combination of all of them has been chosen to identify rural areas.

However, there are drawbacks for every indicator.

Population employed in the agro fisheries sector does not have to work in the same municipality as measured, and it is not detailed whether they work in agriculture, livestock and forestry, or in fisheries.

Gross Added Value of agro fisheries sector does not take into account the subsidies of any kind. There is a problem with the GAV (gross added value) as its definition says it doesn't take into account any subsidies so the percentage of the primary sector to the gross added value of the municipality is much less that the perceived by the families/workers of the primary sector.

Another drawback is that these two indicators are only available for the whole municipality, so no statistics can be applied to population entities or another smaller limit. This could be misleading as in bigger municipalities there can be several local entities of different rurality, and should be taken into consideration in order to apply these indicators to the whole surface of the Basque Autonomous Community.

Although population density is more detailed (data is per Local Population Entities) it is a misleading variable, as it depends too much on the entity size (its total area).

Dwellings per hectare in residential land should be a good indicator but the territory is diverse regarding settlement typology of rural areas. Hence, it cannot be chosen globally or in absolute terms as indicator of rural areas. For the Basque Country Autonomous Community, being a rather small region, there are considerable differences between traditional settlements regarding their dwelling density.

Although the land coverings based on the Corine Land Cover Project is a good indicator of land coverings, it does not necessarily address the actual use of neither land nor exploitation. Countryside can be merely maintained only for visual landscape purposes, underutilising its capacity for the AFS as it happens in some cases in the Basque Country Autonomous Community (Alberdi Collantes 2005).

Methods

This method aims to obtain a relative rurality index, so the comparisons for the transformations of the variables are chosen among the cases given for study. This means that the results of the methodology are not global, as they do not aim to establish a universal threshold for rural values. On the contrary, it aims to identify the “more rural” spaces in a given territory. This is the reason why it can be applied to other regions, predominantly urban or not.

This method is based on transforming each indicator into a common index, so that the variables can be added up and obtained an average. For this purpose, a multivariate approach is established, using indicators of different type, so different aspects of rurality are considered. In order to do so, several transformations of the indicators had to be made.

After each indicator is transformed into the scale, they can be operated and added. The resulting index is a scale of “rurality”, and it is based on a suitability scale. Values 0 and 100 are chosen as totally urban and totally rural respectively. The overlay is made obtaining a global suitability scale for the “rurality” in the Basque Country Autonomous Community.

The method is summarized in Figure 4.

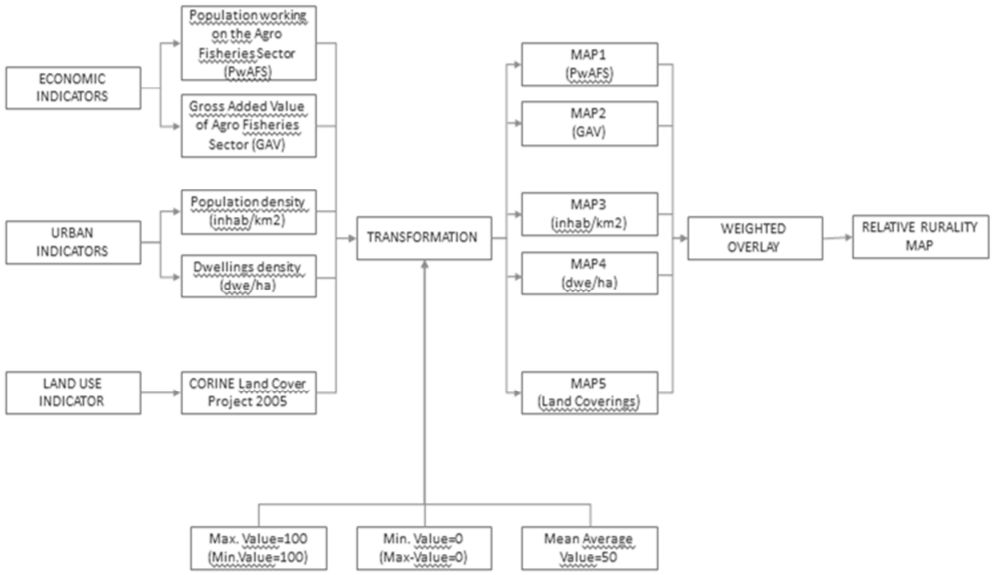

Figure 4

Assumptions

Before detailing the method itself, it is necessary to define the basic assumptions that have been made for developing the identification methodology.

First, regarding the indicators available, it is necessary to highlight which are directly related to rurality, which inversely and how land coverings fit into the scale.

The economic indicators –population employed in the agro-fisheries sector, and gross added value of the agro-fisheries sector- are directly related to rurality. This means that the higher the indicator, the more rural the area. Thus, when translating the indicator values to the common scale or index, lower values will be fixed so that the minimum values will be transformed into the minimum on the scale (zero), and the maximum values to the maximum on the scale (100).

The density related indicators –population density and dwellings density- are inversely related to rurality. This means that the higher the population

density, the less rural an area is (and the same for dwellings density). Hence, the minimum values of these indicators are transformed into the maximum values on the scale (100), whereas the maximum values of these indicators are transformed into the minimum values on the scale (zero). This implies that rural areas are less dense compared to urban, both in population terms and in number of dwellings per hectare.

The land covering indicator functions differently. The scale numbers are based on the description of the European Agency of the land cover classes. This description divides the land coverings into five main categories: artificial surfaces, agricultural areas, forests and semi-natural areas, wetlands, and water bodies (European Environmental Agency 2005). The next section will detail the scores given to each land cover class.

Second, regarding the relative characteristic of this index, it is necessary to address that the transformations of the numerical indicators into the common scale has been made according to average values. This means that the average values of all the cases for each indicator is taken as point of reference to set the middle of the scale (50). The rest of the values at both sides of the scale have followed the same logic, so that the average of the values under the average of the total distribution is taken as the middle score under the midpoint of the scale (25). This same happens for the values over the average of the total values, so that it becomes the midpoint of the values over 50 (75). The rule is to transform the average values of the indicator into the middle values of the scale. These transformations are detailed in the following sections.

Third, regarding the overlay of the indicators, an analytic hierarchy process was studied (Saaty 1987), but given that there is no literature on assessing these indicators establishing which ones influence more on rurality or which ones are more important compared to each other, a mean average of the values after the transformation was set to add up all the variables to the final scale.

Procedure

This section describes the procedure followed to transform each numerical indicator into the scale proposed.

As it has been addressed in the former section, the numerical indicators will follow a rule in order to be transformed into the scale. Once they all have been transformed into a common scale, they are overlaid in order to obtain the final rurality map.

The rule established places the mean average of all existing values as the centre of the rurality scale, meaning that that average value sets the middle point that divides the “more rural” areas from the “more urban” ones. That middle value on the rurality scale is its median (as well as its mean average).

The first thing to establish is the rule to transform the quantitative indicators into the rurality scale. As it has been addressed before, this rule is based on transforming each mean of the distribution into the median on the scale. Than mean average number, divides the distribution in two, so the mean averages of each halves are found. The same is done for the scale, so the median/mean values of the scale are also found. Then the numbers are associated as dependant variables, and so the function that relates them has to be found.

After several points of the transformation have been fixed, Excel is used to obtain the regression equation that makes the rule happen (showing the trendline). There are six different types of trendline to work with in Excel, so the coefficient of determination (R^2) [8] is used to adjust the best function for each variable.

This R^2 value represents coefficient of determination that indicates the proportion of the variance in the dependent variable that is predictable from the independent variable. In this case, the independent variable are the different indicators (for each transformation), and the dependant variable the scale.

There are several regression equations to try for each indicator, and by trying the different trendlines available in Excel, the best fitted equation is chosen for the transformation; thus, the one that has the coefficient of correlation (R^2) closer to 1.

There are three types of indicators depending on their nature: percentage based (economic), density based and qualitative (land coverings). The two first types have been transformed into a suitability scale using the same method, although nit the same transformation functions. The latter type has a different approach that will be explained separately.

The economic indicators are percentage based, being the lower percentage equivalent to the lower rurality of the area. This is so for both

[8] The coefficient of correlation is a key output of regression analysis. The coefficient of determination is the square of the correlation (R) between predicted “y” scores and actual “y” scores. It gives an idea of how many data points fall within the results of the line formed by the regression equation. The higher the coefficient, the higher percentage of points the line passes through when the data points and line are plotted. A higher coefficient is an indicator of a better goodness of fit for the observations. An R^2 of 1 means the dependent variable can be predicted without error from the independent variable. An R^2 between 0 and 1 indicates the extent to which the dependent variable is predictable.

indicators: the Gross Added Value of the primary sector and for the population over 16 employed in that same sector.

The density indicators (density of dwellings per hectare in residential land, and density of inhabitants per square kilometre) work differently. These densities are inversely proportional to the rural quality of an area, so the minimum and maximum are fixed to the maximum and minimum respectively on the rurality scale.

For the density of dwellings per hectare of residential land a similar process to that of the population density has been followed.

The maximum values obtained from statistics correspond to 100 on the suitability scale, and the higher values to near 0.

The land coverings are a qualitative indicator, so the transformation of each class has been addressed by giving to each land covering a punctuation of the rurality scale, based on the document by the European Environmental Agency that explains the Corine Land Cover Project (European Environmental Agency 2005).

After transforming each indicator´s values into the scale, the rurality index has to be created. To do so, the transformed variables have to be added up.

In order to combine these indicators several operations could have been made. At first, it was considered the Analytic Hierarchy Process (Saaty 1987) to weight and sum up the different indicators. This process aims to weight the variables depending on their relative importance regarding the variable desired (rurality in this case).

The Analytic Hierarchy Process (AHP) creates a matrix that compares each indicator to the others, and by comparing them one to one and establishing the importance of each one regarding rurality, several values

are obtained. Finally, the relative importance of each of the indicators can be obtained as a number to weight (multiply) the variables for the overlay process.

However, due to the lack of consensus and literature on the importance of variables to determine the rural character of an area, the addition of the variables was made unweighted. Hence, all the variables, once transformed into the suitability scale, were overlaid based on the average of their punctuations, in order to obtain a global scale.

The transformed variables have common units; in this case, all of them are put in an index form. However, they are applicable to different areas of the territory.

As addressed on previous sections, some indicators are limited to municipal boundaries, such as population employed on the primary sector, the gross added value, and dwellings density; others are related to smaller statistical units such as local population entities (population density); and land coverings do not follow any administrative boundary. Hence, the overlay of the variables had to be made on a Geographical Information System (GIS). For this part of the work the Quantum GIS free software was used.

The overlay is made on GIS by overlaying the five maps of the five different variables. In order to be able to do so, the vector maps were transformed into raster images based on the rurality scaled values with cells of 1x1 km. Then, with five different raster images that do not follow any vector limit, the overlay is made calculating the mean average of the five raster data for each cell, creating the relative rurality map.

Results: Basque Country case

This section applies the methodology of identification of rural areas to the Basque Country case. This area has been chosen as it is an example of a predominantly urban region, with a global density of inhabitants three times the Spanish, but at the same time, with a generalised identification to the regional rural areas, exemplified on the traditional farmlands or “baserris”.

Thus, those rural areas must still exist, although with characteristics of a more urbanized area, such as better accessibility. However, rural areas are suffering from depopulation and decay on its traditional uses, such as agriculture and cattle, in favour for forest exploitations and low density housing.

This change on rural traditional uses could imply a change on the identity. The landscape legislation of the Basque Country values these characteristics that give character and allows the identification to territory, expressed as certain landscape.

Contrary to the depopulation tendency, there has been a come back to the countryside from young people, not only from the residential point of view, but also to employ themselves in the agrarian sector. This movement is promoting associations of producers, cooperatives etc. to try to promote the local growth of goods and

Transforming the indicators to the common scale

The first step after obtaining all five indicators is to transform them into a common scale. As established in the Methods section, this transformation is based on fixing the upper and lower limits of the given indicator as maximum or minimum depending on the indicator characteristics, and then, by applying a regression analysis, obtaining the better suited transformation equation.

Economic indicators

The economic indicators are percentage based, so the maximum possible value is 100. This is not the case though, but it is different considering a limited indicator from unlimited ones.

For the economic indicators the minimum values are fixed to zero, and the maximum values are fixed to 100 for the rurality scale.

The economic indicators will be treated separately in order to achieve the transforming function.

Population over 16 employed on the agro-fisheries sector.

The original values obtained from Eustat can be consulted in Annex 1.

To better visualize this indicator the values have been ordered from low to high (Figure 5).

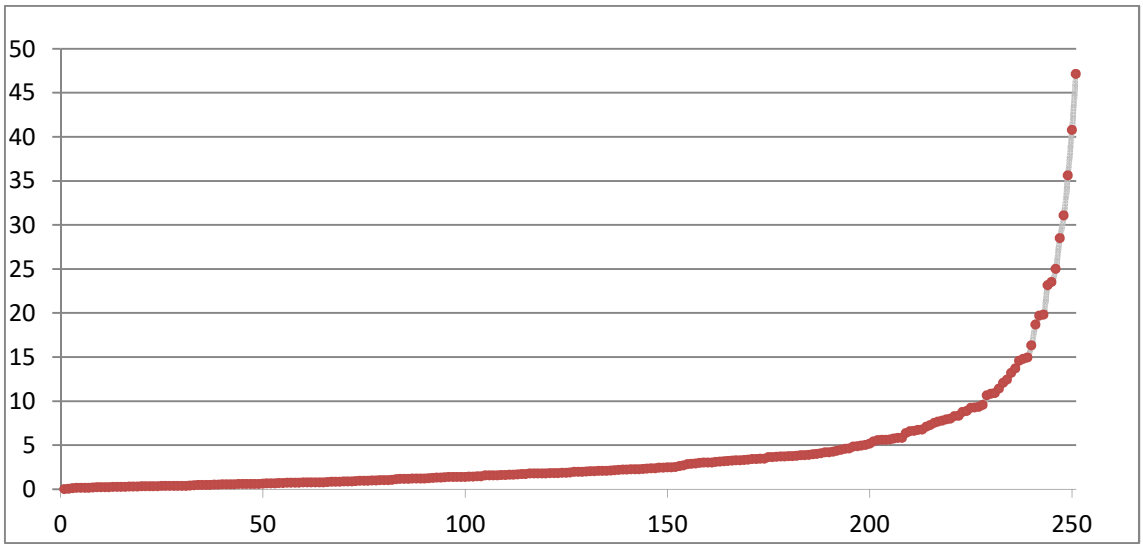

Figure 5: The X axis represents each municipality case, and the Y axis represents its value (%).

It can be appreciated that most of the values for the population employed on the agro-fisheries sector is very low (fewer than 5%). Figure 6 represents the five values that are fixed to calculate the regression equation. The first three values are the minimum, maximum and average of the existing values. The lower average is calculated as AVERAGE.IF function in Excel, being the condition for the values taken into calculation to be under the Average value. The upper average is calculated the same way, being the condition to be over the Average.

Min	0
Max	47,14
Average	4,064422311
Lower average	1,541016043
Upper average	11,4375

Figure 6: Fixed values for the transformation function into the rurality scale.

This way, five values are obtained from 251 total values. For more accuracy, four more values are calculated: the average values of the distributions in between (Fig.7).

	Real values	Scale values
Maximum	47,14	100
Upper upper ave	22,37052632	87,5
Upper average	11,4375	75
Upper lower ave	6,821333333	62,5
Average	4,064422311	50
Lower upper ave	2,577590361	37,5
Lower average	1,541016043	25
Lower lower ave	0,71375	12,5
Minimum	0	0

Figure 7. Average values of the distribution

The figure relating all values is Figure 8:

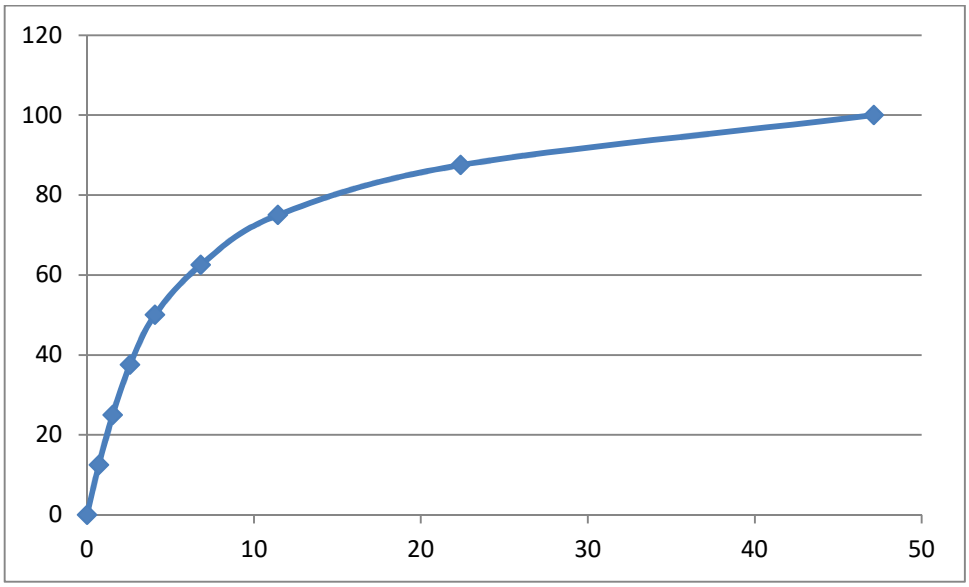

Figure 8. Distribution following results on Fig.7.

The following step is to calculate the equation that relates all the values, so the trendline based on regression equations is represented. There are several trendlines available in Excel, so one for each type has been generated. The coefficient of determination for the goodness of the fit will

tell which equation best describes the relationship among the given values.

The first type of trendline is linear, represented in Figure 9.

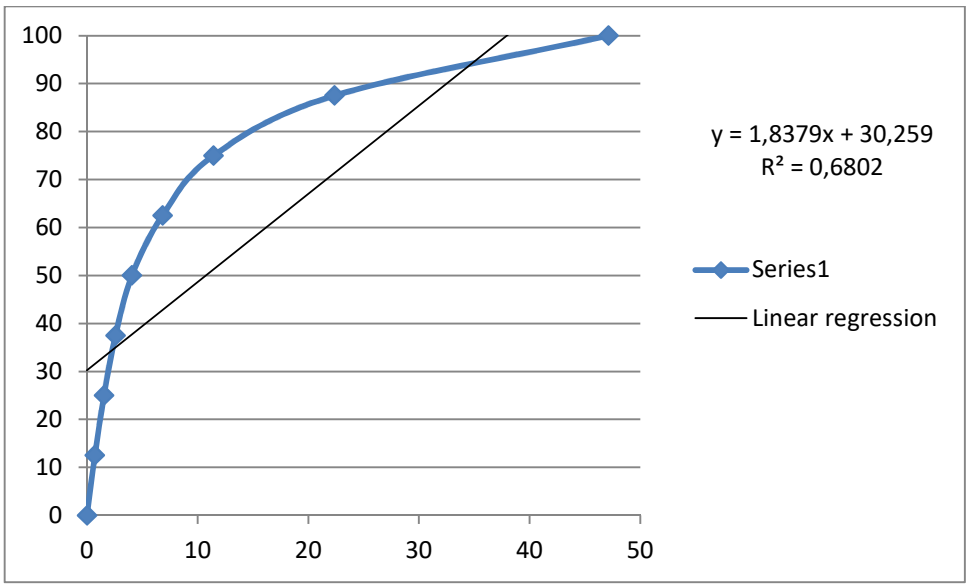

Figure 9. Linear trendline

It can be appreciated that the coefficient of determination is not very high, and it can be also appreciated on the figure.

For the next regression equation a modification on the data has to be made in order to get the logarithmic regression equation. To the values of 0, it has been added +0,001 in order not to obtain errors. Figure 10 shows the logarithmic regression equation.

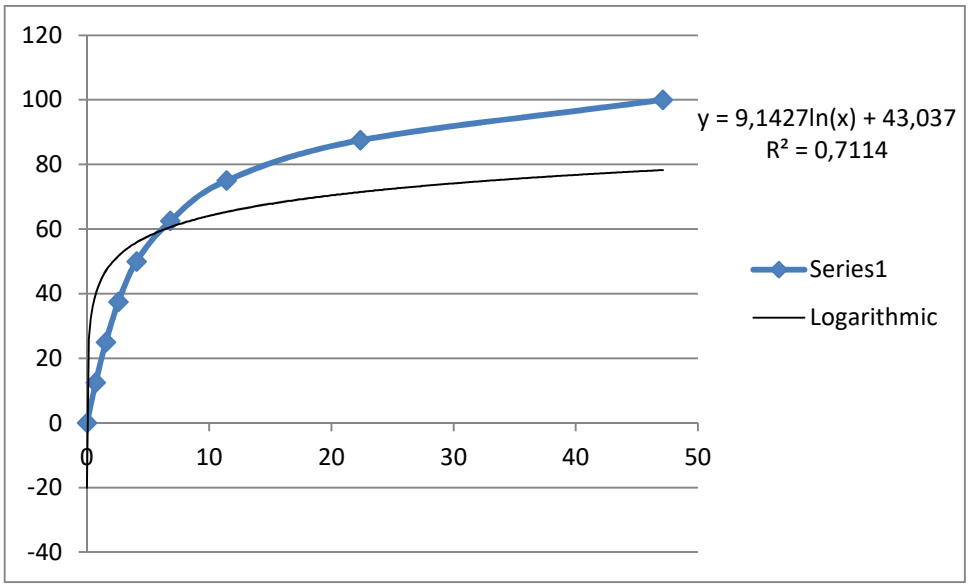

Figure 10. Logarithmic regression equation.

The logarithmic regression improves the fit but it is still far from the given values.

Figure 11 shows the regression equation for a polynomic regression equation. The degree of the polynomial function is variable, so several trials have been made (Fig. 11, Fig. 12, Fig. 13, Fig. 14, and Fig. 15).

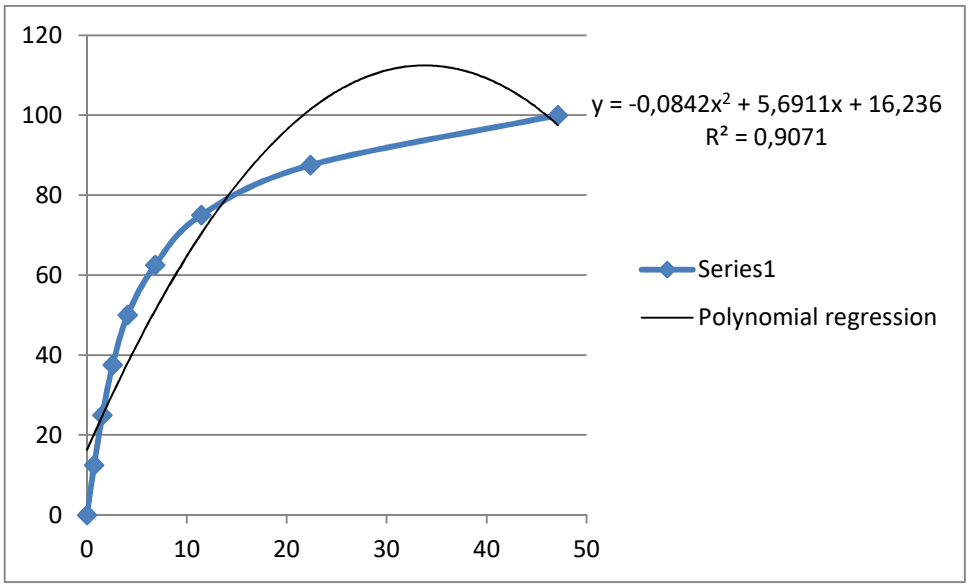

Figure 11: the polynomial regression equation degree 2.

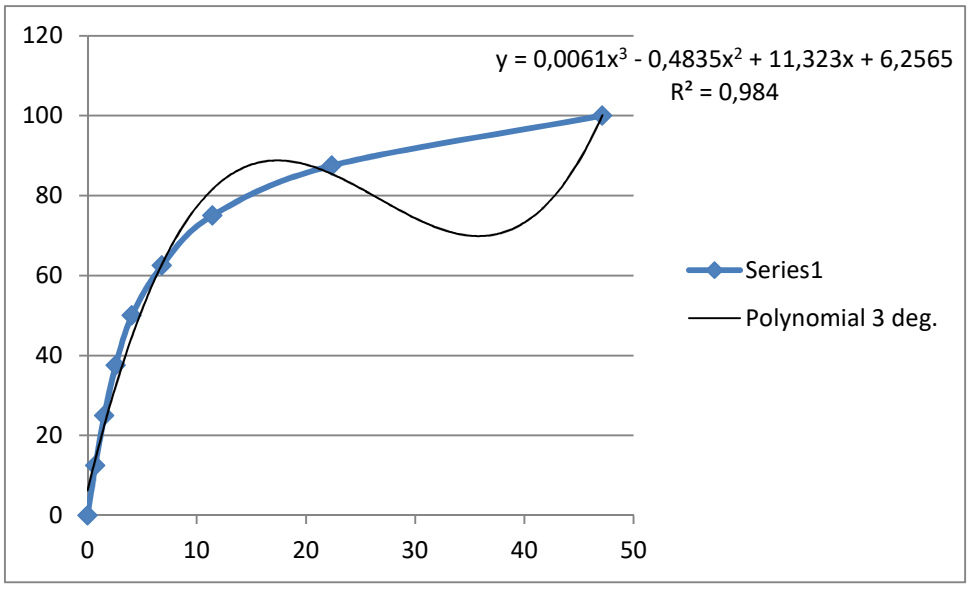

Figure 12 :the polynomial regression equation degree 3.

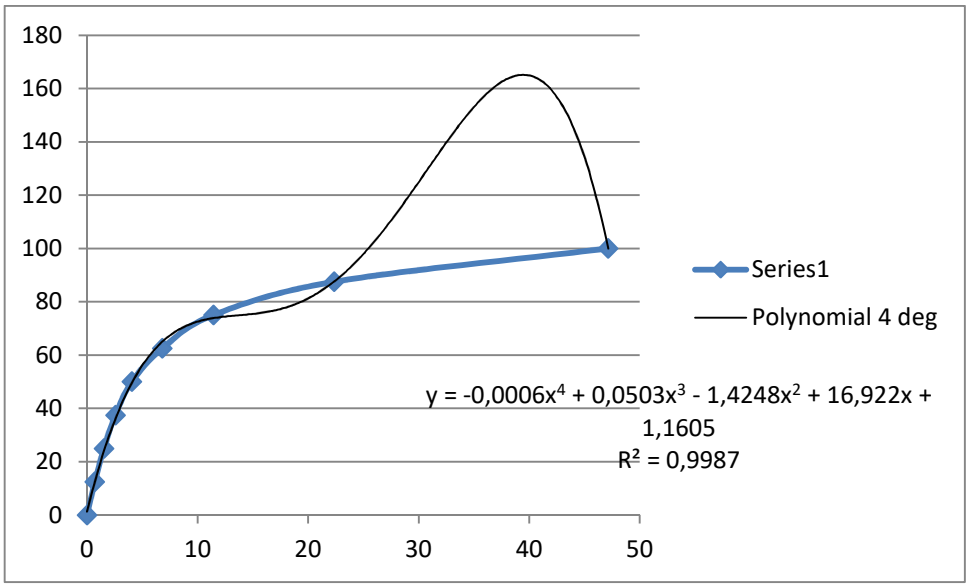

Figure 13: the polynomial regression equation degree 4.

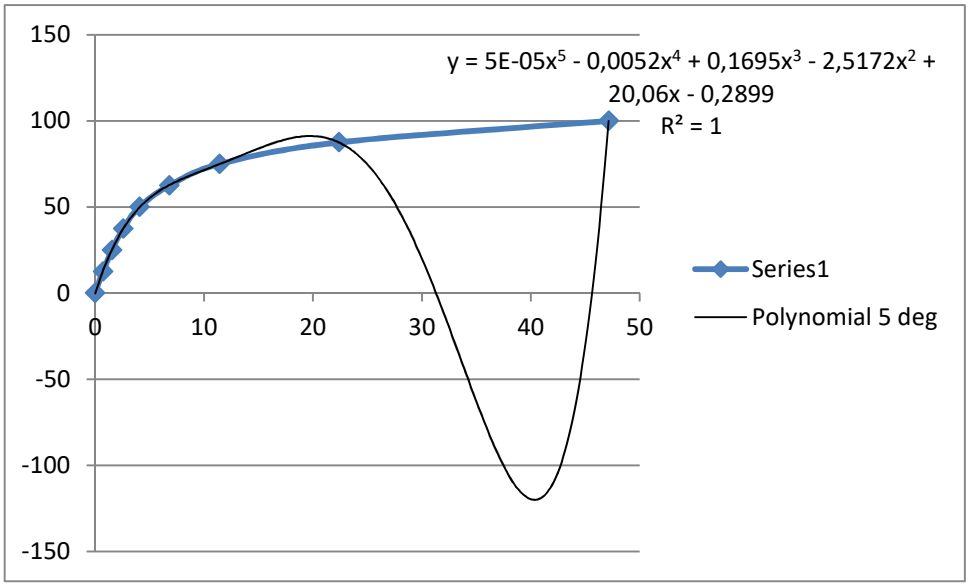

Figure 14: the polynomial regression equation degree 5.

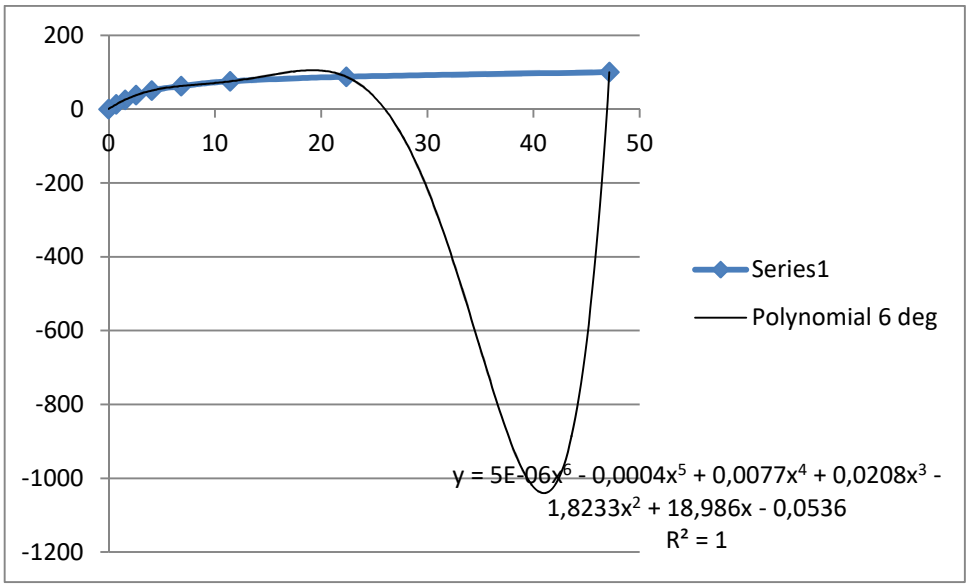

Figure 15: the polynomial regression equation degree 6.

It can be appreciated then from Figure 13 to Figure 15 the coefficient of determination is R^2=0,99 or R^2=1. This means that for the given points (and only for the given points) the fit of the regression is perfect, so that the function allows obtaining all the points given. However, as the aim of obtaining this function is to apply it to the rest of the real values of the indicator, it can be appreciated in the figures that it is not the case, as the last “bump” does not follow the wanted figure (Figure 8).

Figure 16 shows the potential regression equation, and although the fit is rather good (R^2=0,93), it shows the same problem than the polynomial regression models.

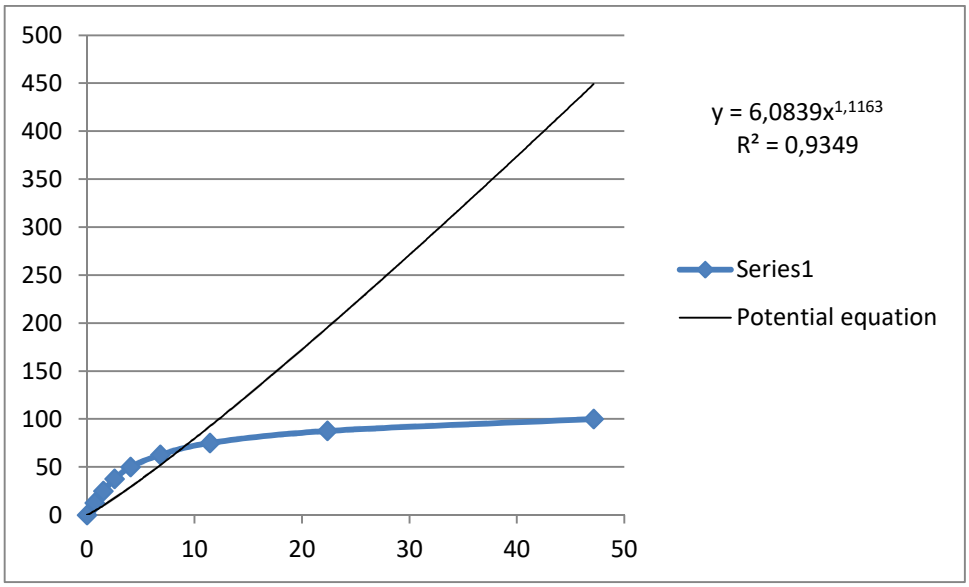

Figure 16

It does not seem possible to find a regression equation that matches all the given points and follows the line given on Figure 8. Switching axis and applying the same procedure, though, a match can be obtained (Figure 17):

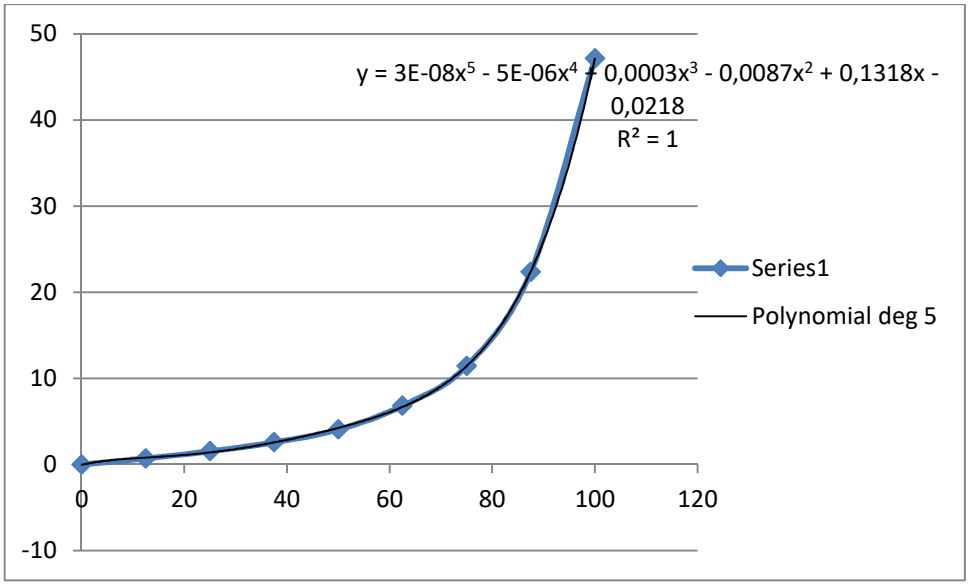

Figure 17. Given points and regression equation switching axis.

It is a perfect match, $R^2=1$, and follows the line created in Figure 8. However, the purpose of this method is to find an equation that allows

calculating the values for the scale given a rule. In order to do so, the equation should be inverted, which is not possible.

So for the population employed in the agro-fisheries sector, it is necessary to make a linear interpolation for the numbers between the given fixed points.

The interpolation is made based on the fixed values on Figures 8 and 9. The linear interpolation equation is as follows:

$$y = y_0 + (x - x_0)\frac{y_1 - y_0}{x_1 - x_0}$$

Being (x_0,y_0) and (x_1,y_1) the points of the interval between which the searched point (x,y) is.

In order to calculate so, some previous calculations had to be made, to calculate x_0,y_0, x_1 and y_1 for all values. Once those calculations were made, it was possible to interpolate the numbers. Figure 18 shows where all values lay.

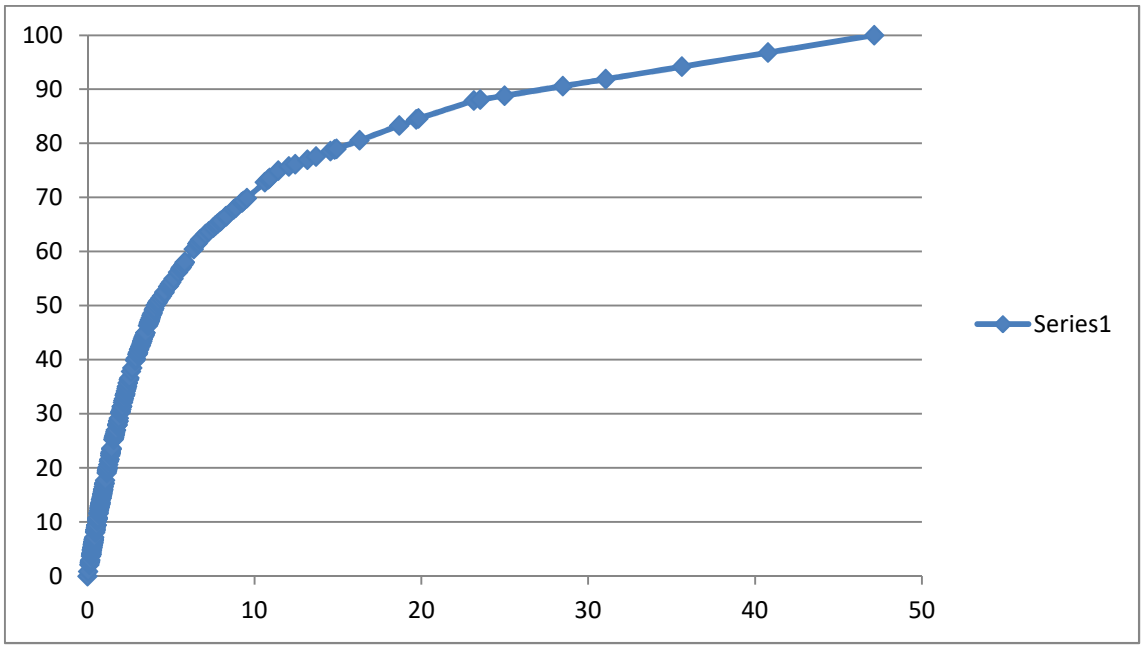

Figure 18. Resulting figure of linear interpolations

For the population devoted to the agro-fisheries sector, the values on the scale can be consulted on annex 1.

Gross Added Value of the agro-fisheries sector

The original values of this indicator obtained from Eustat can be found in Annex 1.

To ease the visualization of this indicator the values have been ordered in Figure19.

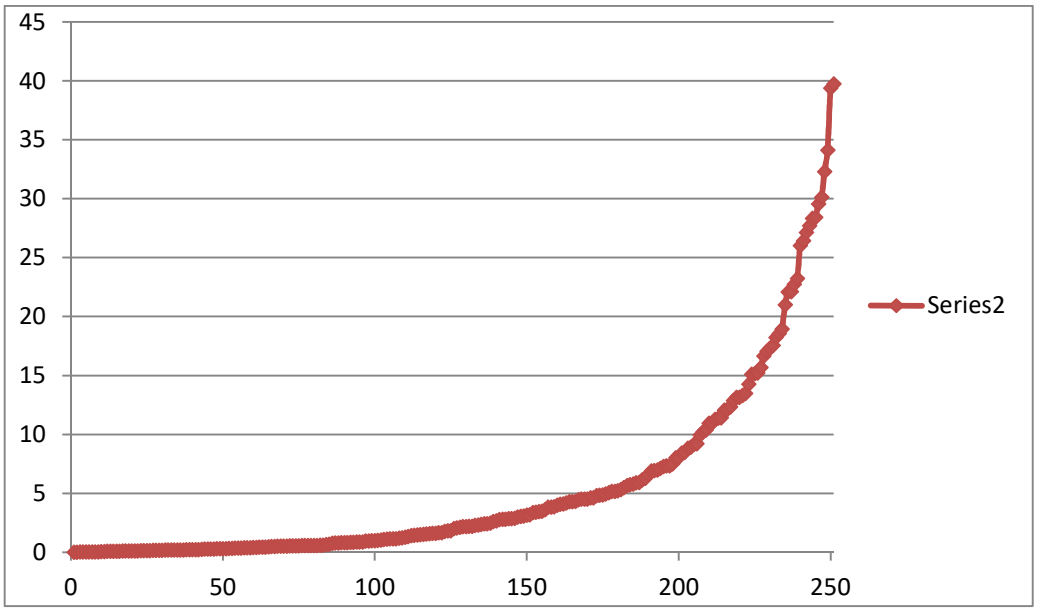

Figure 19. Gross Added Values of the agro-fisheries sector.

It can be appreciated that most of the values are very low (around 5%). To calculate the regression equation nine values are fixed: minimum, maximum and average of the existing values, and the averages of all in between values. The fixed values are represented in Figure 20.

	Real values	Scale values
Min	0,00	0
lowe lower	0,48	12,5
Lower average	1,48	25
upper lower	3,03	37,5
Average	5,26	50
lower upper	8,64	62,5
Upper average	14,86	75
upper upper	23,79	87,5
Max	39,73	100

Figure 20. Real values and scale values for GAV

This way, nine values are obtained from 251 total values. On the next figure (Fig. 21) all nine fixed values are ordered from low to high, to ease the visualization of data and finding the regression equation.

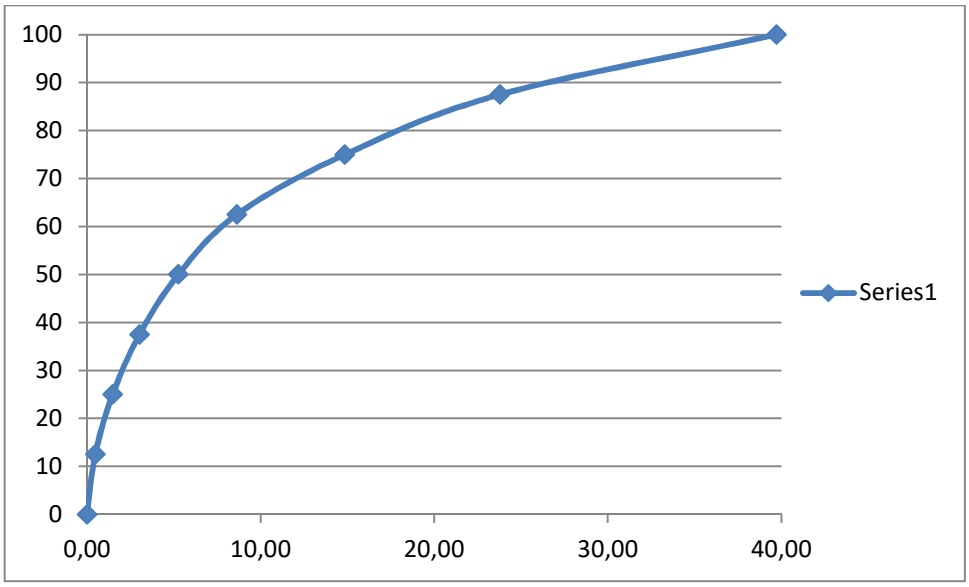

Figure 21. Values rodered for GAV

Using the same method and logic as for the former indicator (population employed on the agro-fisheries sector over 16), several trials have been made in order to find the best fit for the regression equation.

The following step is to calculate the equation that relates all the values, so the trendline based on regression equations is represented. There are several trendlines available in Excel, so one for each type has been generated. The coefficient of determination for the goodness of the fit will tell which equation best describes the relationship among the given values.

The best fitted regression equation is represented in Figure 22. It shows a good fit as the coefficient of determination is R^2=0,9993, but the trendline shows that it does not follow the former´s figure line.

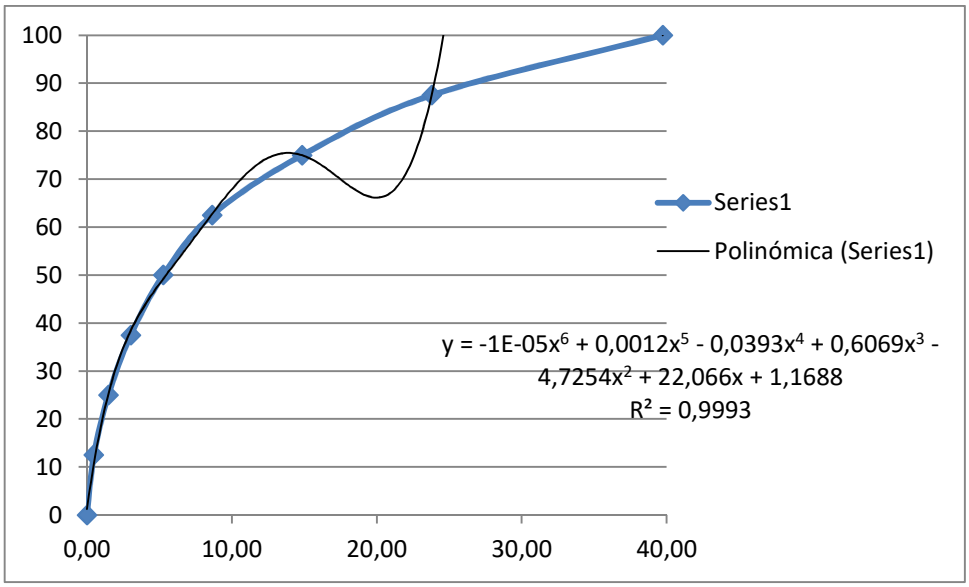

Figure 22. Best regression equation

Thus, it is necessary to make a linear interpolation between the fixed given values of the indicator. He same method as for the population employed in the agro-fisheries sector is employed, following the same equation:

$$y = y_0 + (x - x_0)\frac{y_1 - y_0}{x_1 - x_0}$$

Being (x_0,y_0) and (x_1,y_1) the points of the interval between which the searched point (x,y) is.

As in the previous case, some previous calculations had to be made, to calculate x_0,y_0, x_1 and y_1 for all values. Once those calculations were made, it was possible to interpolate the numbers. Figure 23 shows where all values lay. It can be appreciated that the values follow the line established by the fixed values in Figure 21 with no bumps or inflections.

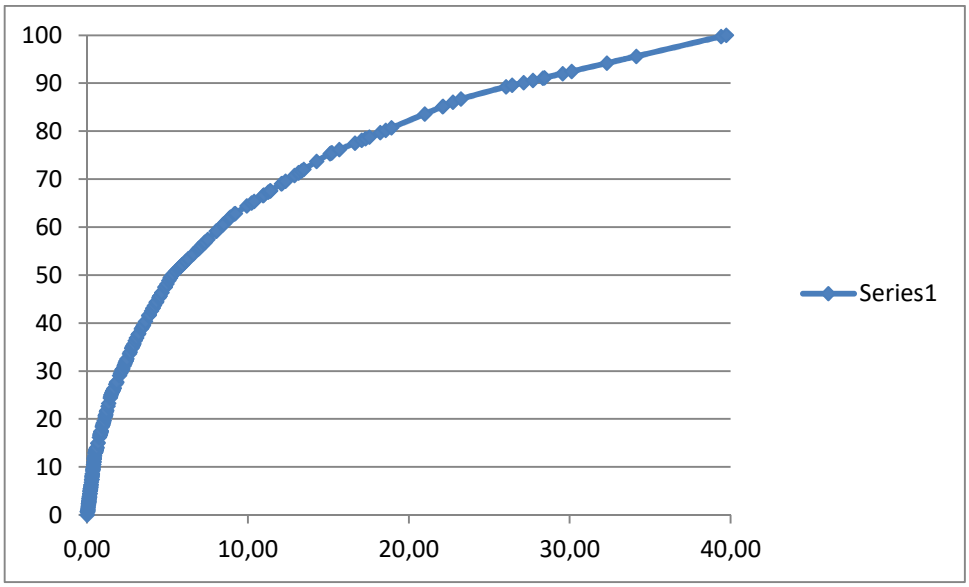

Figure 23. Linear interpolation

The results on the scale for each value of the gross added value of the agro-fisheries sector can be consulted in annex 1.

Density of dwellings in residential land

The density of dwellings (dwellings per hectare of residential land) is an indicator that can be found on Eustat. The original values can be found on Annex 1. To ease the visualization of this indicator the values have been ordered in Figure 24.

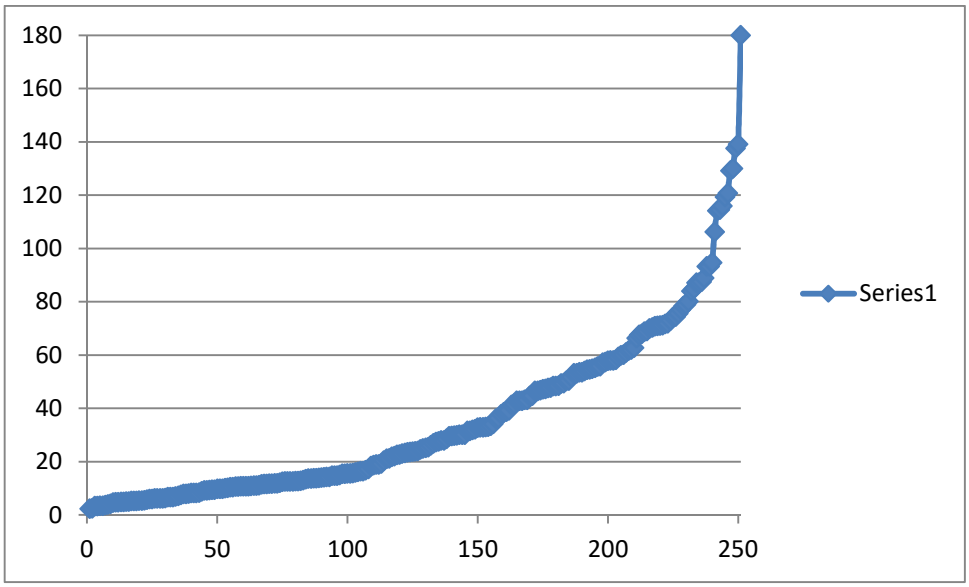

Figure 24. Ordered values for density of dwellings in residential land.

It can be appreciated that most of the values are around 35%. To calculate the regression equation nine values are fixed: minimum, maximum and average of the existing values, and the averages of all in between values. The fixed values are represented in Figure 25.

	Real values	Scale values
Min	2,40	0
Lower lower ave	9,11	12,5
Lower average	14,96	25
Upper lower	24,40	37,5
Average	34,95	50
Lower upper ave	50,23	62,5
Upper average	67,44	75
Upper upper ave	91,53	87,5
Max	179,96	100

Figure 25.

With these nine values the regression equation is obtained. The chosen regression equation is has a good fit (R^2=0,99), has the lower degree (x^3 in this case), and follows the trend for the nine values (Fig. 26).

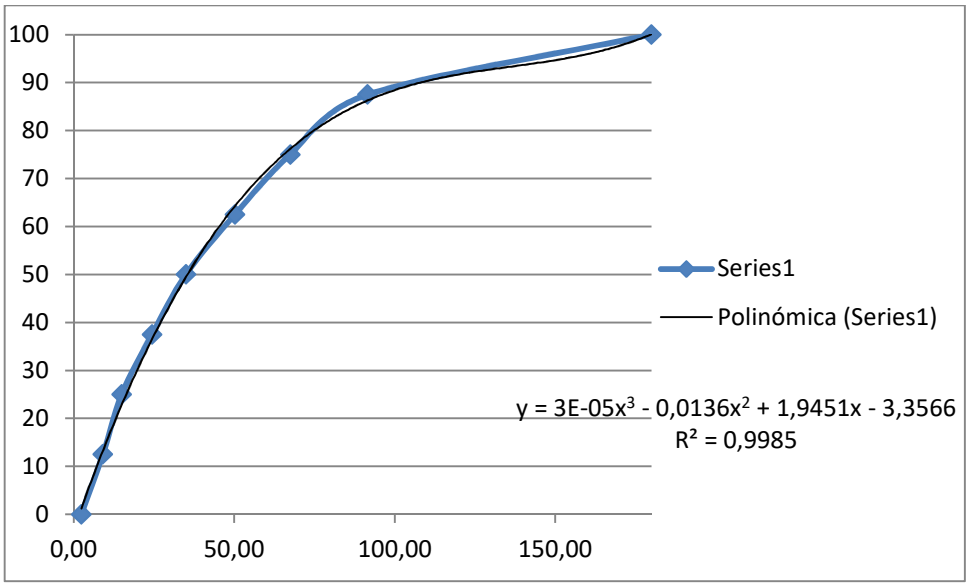

Figure 26. Polynomic regression equation

So that equation is used to calculate the values on the scale, and the result is shown graphically on Figure 27.

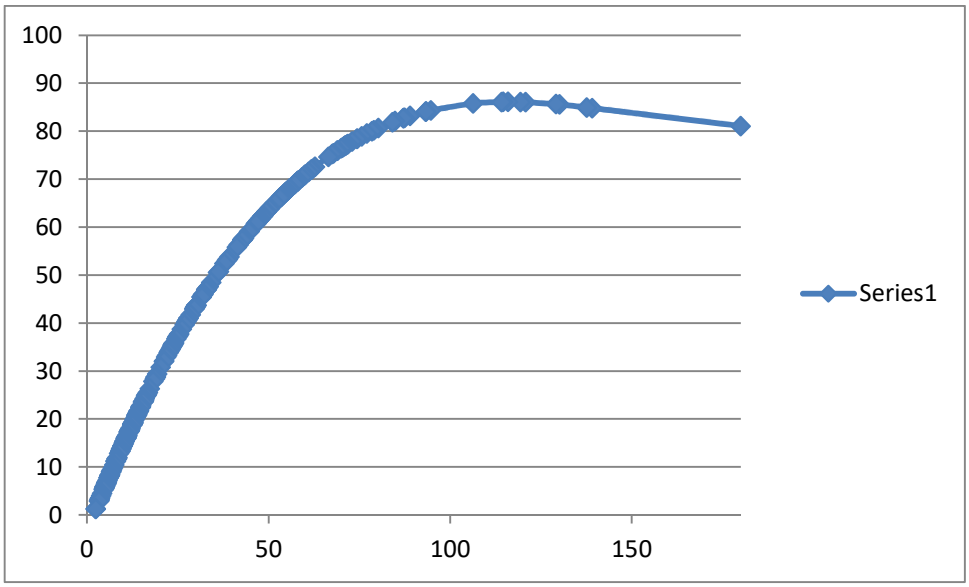

Figure 27. Application of regression equation

The figure shows a decrease on the values of the scale from value 90 and on, so for the purpose of this work, this transformation has to be made, again, by interpolation of the 9 given values on Figure 25.

The linear interpolation follows the same equation as for the former indicators:

$$y = y_0 + (x - x_0)\frac{y_1 - y_0}{x_1 - x_0}$$

Being (x_0,y_0) and (x_1,y_1) the points of the interval between which the searched point (x,y) is.

As in the previous cases, some previous calculations had to be made, to calculate x_0,y_0, x_1 and y_1 for all values. Figure 28 shows the values ordered from lower to higher for the results of the interpolation. The numerical results can be found on Annex 1.

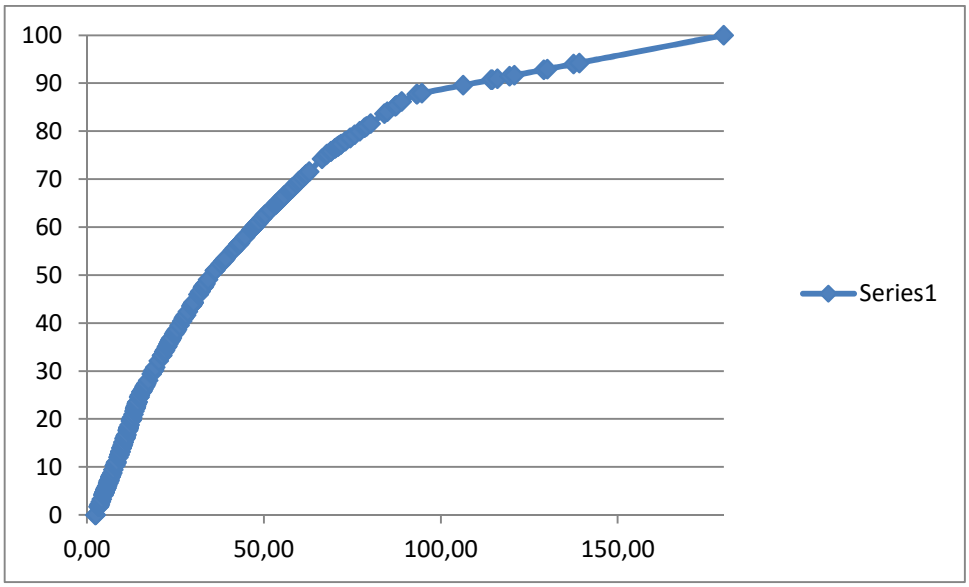

Figure 28. Linear interpolation of values

Population density per Local Population Entity (inhabitants per km^2)

The population density at LPE level is an indicator that has to be calculated. Eustat gives the population values for local population entities at NUTS3 level (provinces). The cartographic database of the Basque Country Government gives the cartographic data through Geoeuskadi platform. The map containing the Local Population Entities has each entity as an independent polygon, and has data associated to it on its table of contents among which there ir the area of each polygon.

So the area, total population and population density per Local Population Entity can be found on Annex 1. To summarize it, Figure 29 shows the results ordered from lower to higher values.

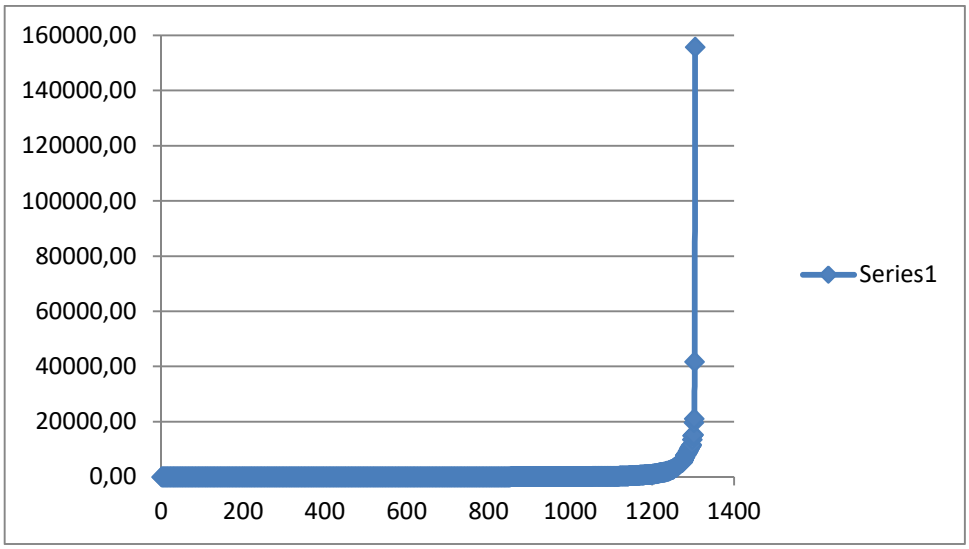

Figure 29. Population density per LPE

It can be appreciated that the top values are very high, such as Artaza, in the municipality of Iurreta, with a global density of 155671 inhabitants per square kilometre. This is so because that municipality is under one square kilometre, and probably, there are many people censed in it.

As with former indicators, nine values are obtained and fixed (Fig. 30).

	Real values	Scale values
Min	0,00	0
Lowe lower ave	17,31	12,5
Lower average	57,98	25
Upper lower ave	173,46	37,5
Average	597,33	50
Lower upper ave	1880,95	62,5
Upper average	5154,31	75
Upper upper ave	15166,97	87,5
Max	155671,65	100

Figure 30. Fixed real and scale values for population density by LPE.

The resulting chart of the nine fixed values is shown in Figure 31:

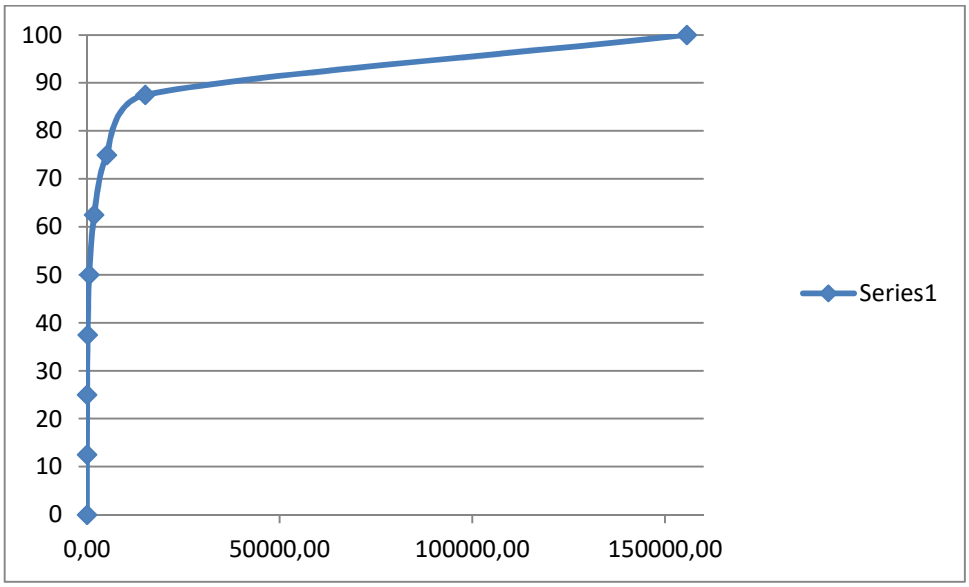

Figure 31.

The regression equation that best fits the given points is shown in Figure 32. It can be appreciated that although it has a rather good coefficient of determination (R2=0,92), the resulting line does not follow Figure 31.

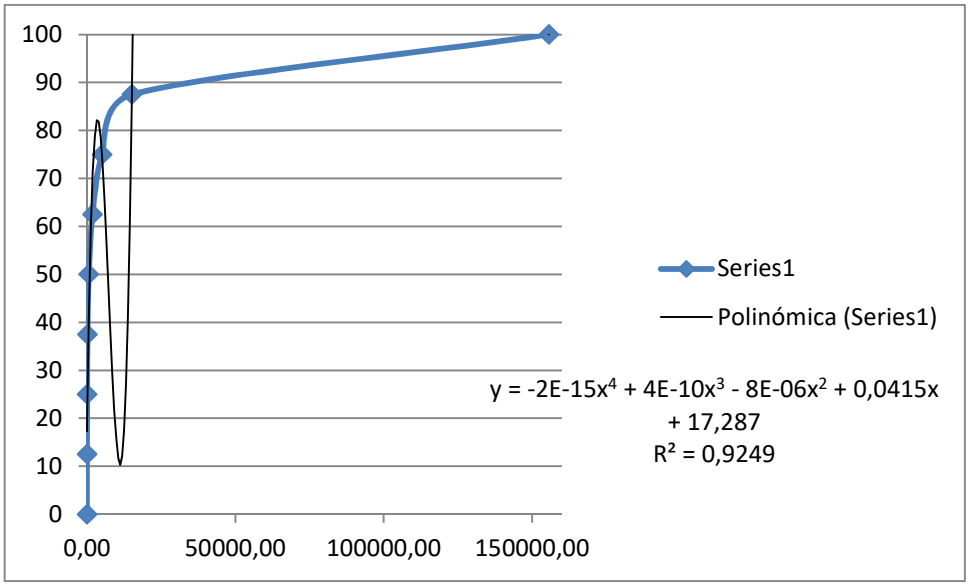

Figure 32. Polynomic regression equation

So, for this indicator also a linear interpolation has to be calculated between the given fixed values. As in the former indicators, several values have to be calculated first, in order to follow the equation:

$$y = y_0 + (x - x_0)\frac{y_1 - y_0}{x_1 - x_0}$$

Being (x_0,y_0) and (x_1,y_1) the points of the interval between which the searched point (x,y) is.

The result of the interpolation can be consulted in Annex 1, and the ordered values are represented in Figure 33.

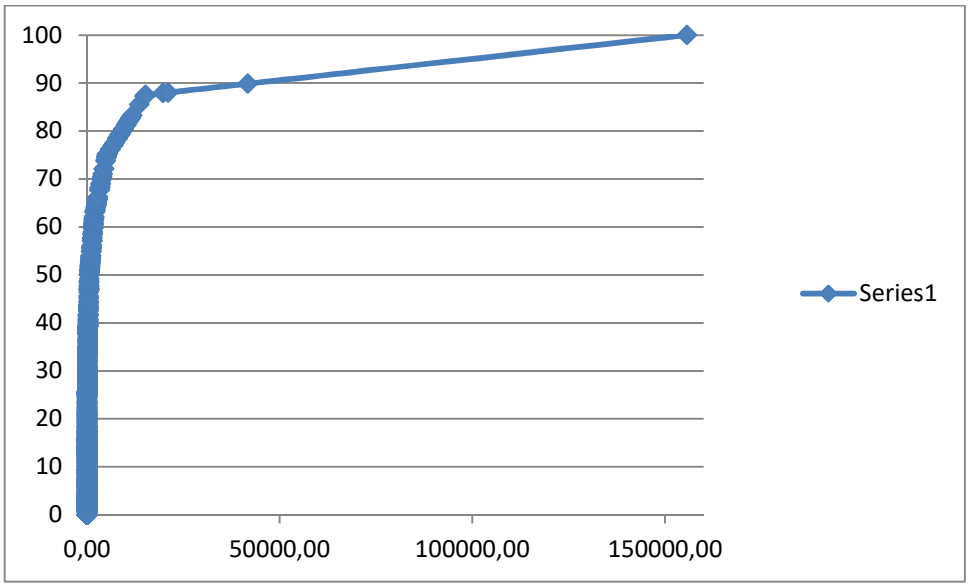

Figure 33. Linear interpolated values for population density by LPE.

Land Coverings

As addressed in previous section (Methods, procedure) land coverings are treated differently. They are map based, so the covering of the map creates different classes. These classes are defined and described by the European Environmental Agency (European Environmental Agency

2005). The following chart (Table 1) shows the codes and land cover classes and the values assigned to the rurality scale:

CODE	Description	SCALE
111	Continuous urban fabric	20
112	Discontinuous urban fabric	30
121	Industrial or commercial units	10
122	Road and rail networks and associated land	10
123	Port areas	10
124	Airports	10
131	Mineral extraction sites	50
132	Dump sites	50
133	Construction sites	30
141	Green urban areas	30
142	Sport and leisure facilities	30
211	Non-irrigated arable land	90
212	Permanently irrigated land	90
221	Vineyards	90
222	Fruit trees and berry plantations	90
223	Olive grooves	90
231	Pastures	90
242	Complex cultivation patterns	90
243	Land principally occupied by agriculture, with significant areas of natural vegetation	90
311	Broad-leaved forest	90
312	Coniferous forest	90
313	Mixed forest	90
321	Natural grassland	80
322	Moors and heathland	80
323	Sclerophyllous vegetation	80
324	Transitional woodland/shrub	80
331	Beaches, dunes, sands	0
332	Bare rock	90
333	Sparsely vegetated areas	80
411	Inland marshes	50
421	Peatbogs	50
423	Intertidal flats	0
511	Water courses	0

512	Water bodies	0
522	Estuaries	0
523	Sea and ocean	0

Table 1. Land coverings and scale values.

In this table the land cover classes are only those that are given in the Basque Country Autonomous Community.

The resulting figure for the land coverings is shown in Figure 34:

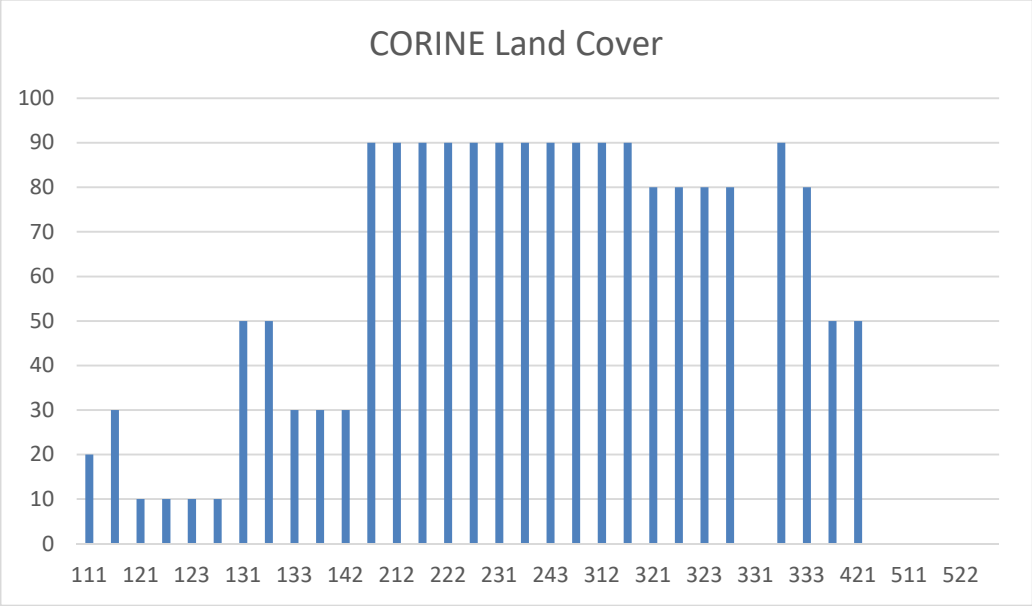

Figure 34. Land coverings and value on the scale by code

The score of 100 is not given to any coverings; the 0 is given to areas where rural activities cannot take place, such as oceans and seas. All classes belonging to the second epigraph are considered rural as they are related to agriculture, as well as some classes of the third epigraph related to forest and pastures.

Overlaying the indicators to create a common rurality map

When all indicators are transformed to the common scale it is time for the overlay.

The overlay is made using the QGIS software, as it allows working with both maps and georeferenced data. In order to do so, each indicator has to be linked to its corresponding map.

Municipality related indicators (population employed on the agro-fisheries sector, gross added value of the agro-fisheries sector, and density of dwellings per hectare of residential land) are linked to the municipality map. Population density by Local Population Entity is linked to the population entity map. The Corine Land Cover already provides the information in shape format so there is no need to create a new map of coverings.

The following figures (Figures 35 to 39) show the indicators transformed into the scale and translated to map. The darker tones reflect higher values on the scale.

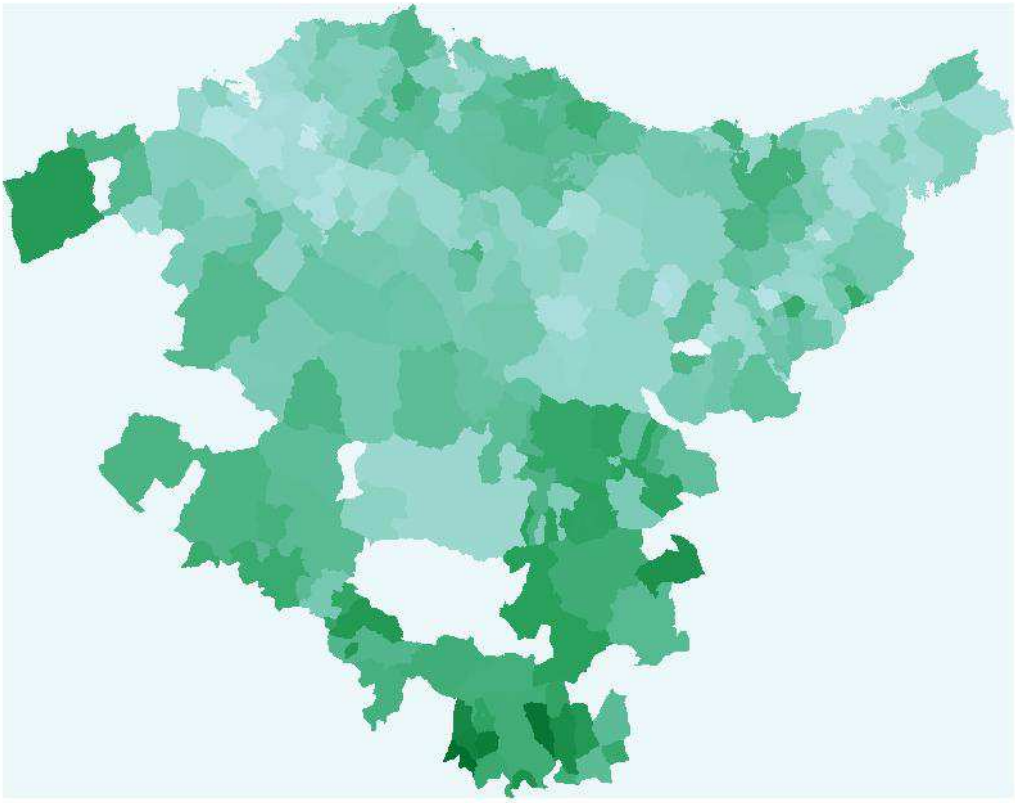

Figure 35. Population over 16 employed on the agro-fisheries sector transformed into scale.

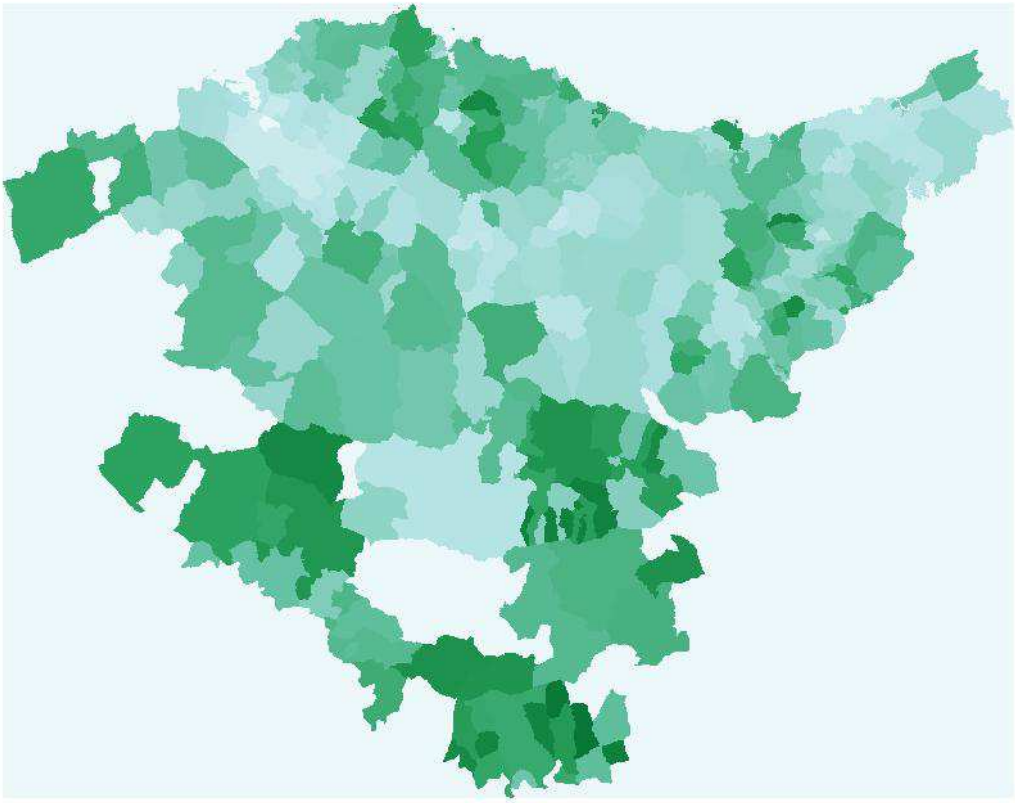

Figure 36. Gross Added Value of the agro-fisheries sector transformed into scale

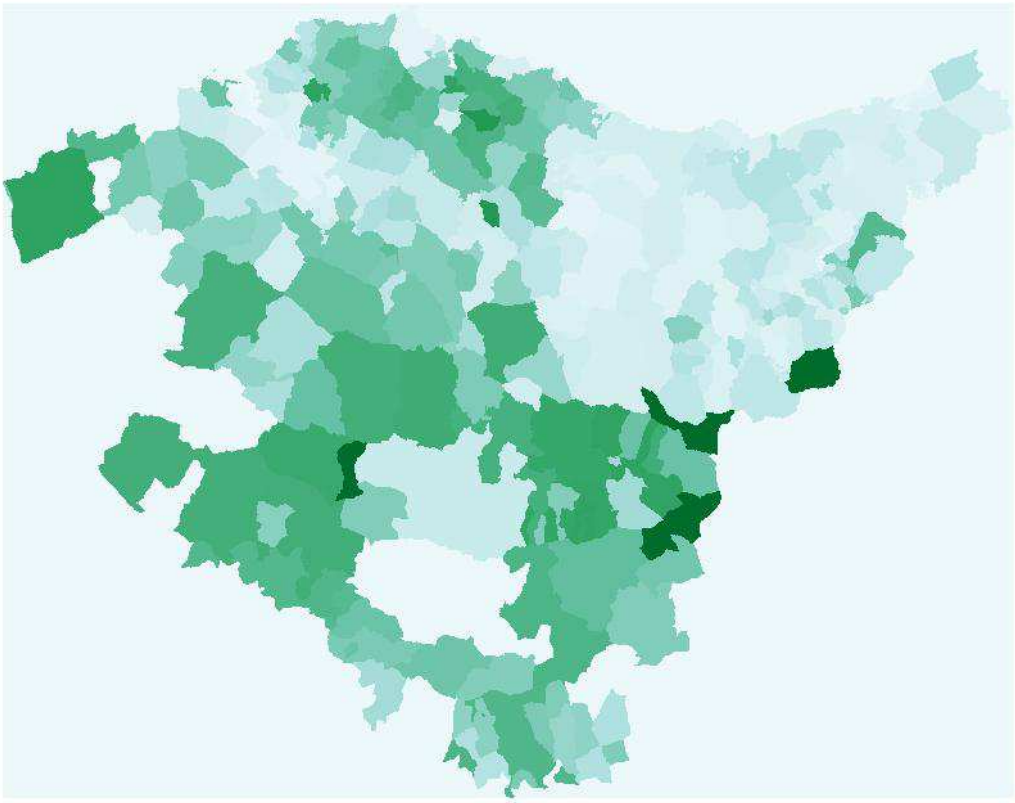

Figure 37. Dwellings density on residential land in dwellings per hectare transformed into scale

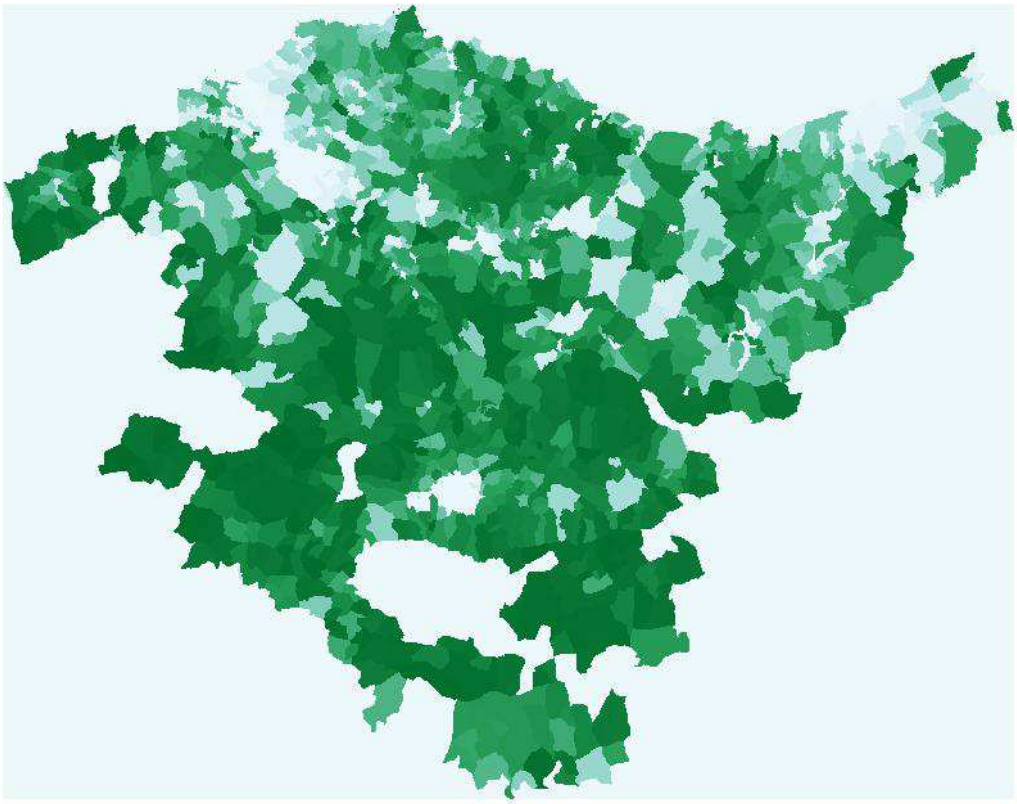

Figure 38. Population density by Local Population Entity (inhabitants per square kilometre) transformed into scale

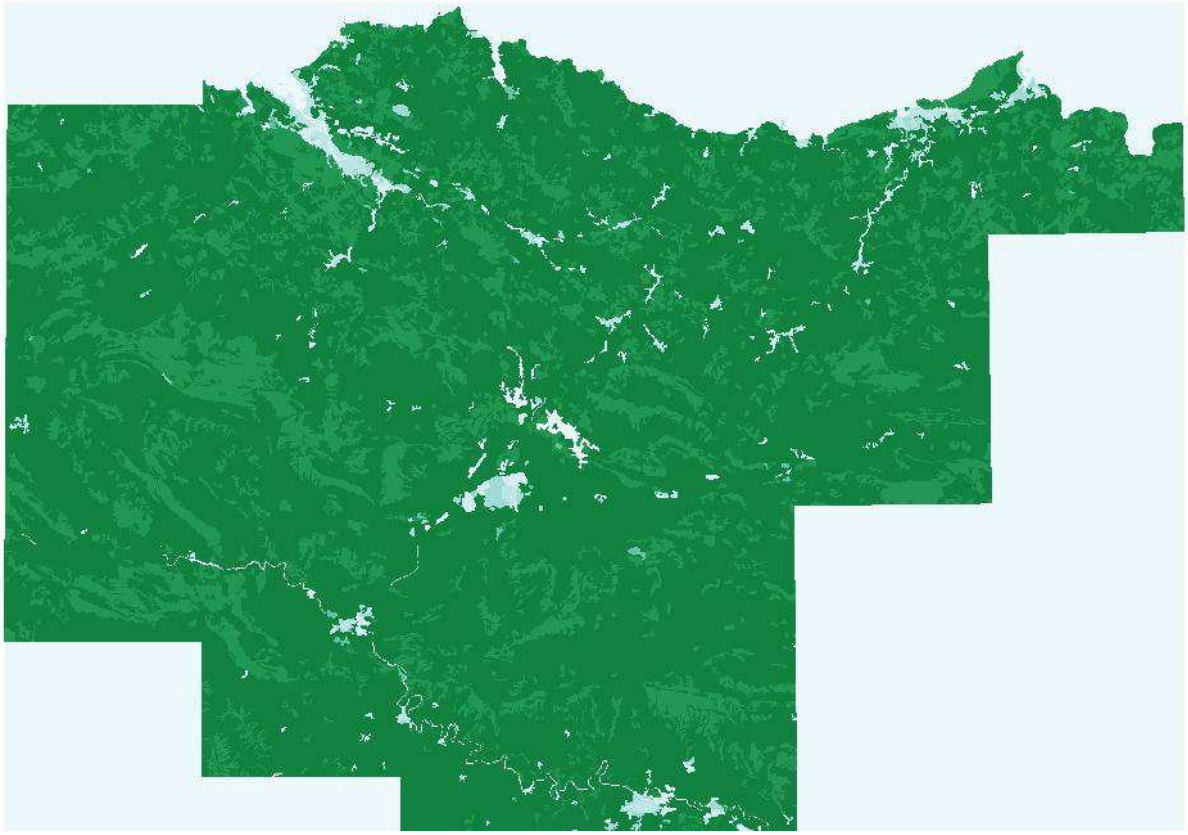

Figure 39. Land coverings by Corine Land Cover Project transformed into scale

All five indicators are transformed into a common scale and into a raster layout. Then each cell is summed up and divided by five to obtain the average value on the scale. This way, every indicator has the same weight on the relative rurality index.

Considering each indicator separately great differences can be appreciated regarding what each indicator considers more rural. While land coverings consider almost all territory with a high degree of rurality, economic indicators show the contrary.

It is also remarkable that the scale at which each indicator is taken varies greatly, and differences arise, as in the case of the population density and dwellings density. It is interesting to consider that Gipuzkoa has a

higher density of dwellings in residential land than the other two provinces. However, regarding population density and economic factors it is more similar to Bizkaia.

The average of all indicators shows the Relative Rurality Map for the Basque Country, shown in Figure 40.

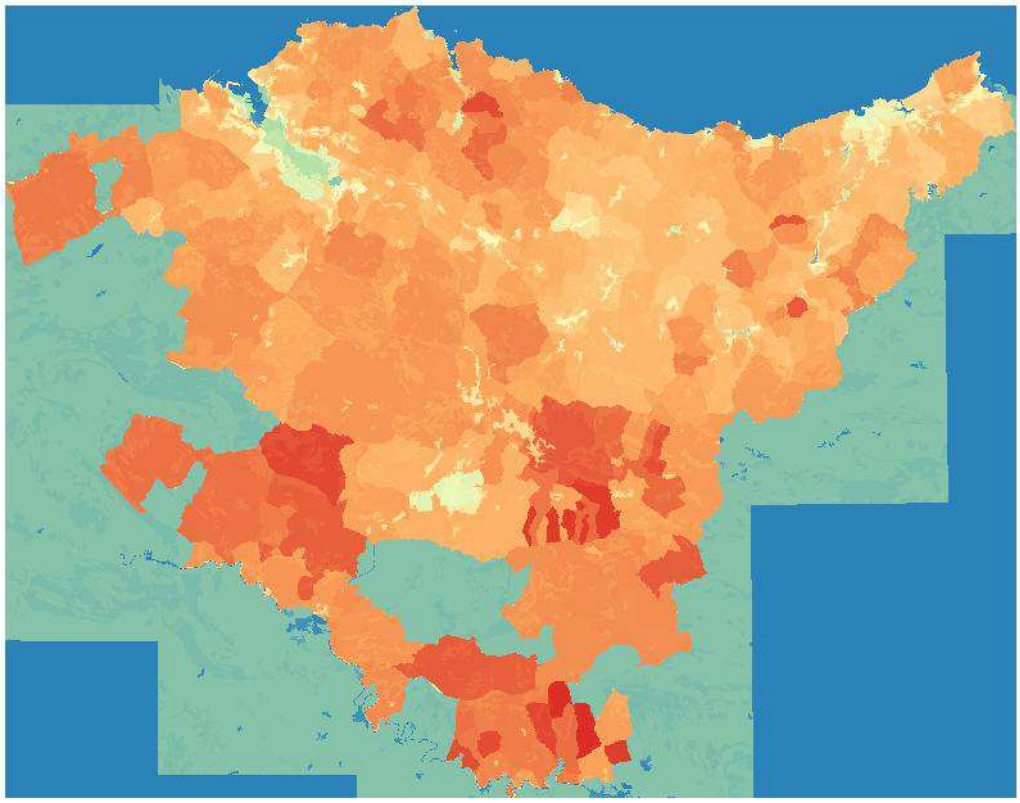

Figure 40. Relative Rurality Map for the Basque Country.

This map provides very interesting information of the Basque Country´s territorial disposition, such as the great differences among the Atlantic Provinces (Bizkaia and Gipuzkoa) and Araba. Not only are they different because of their rurality, but also for their climate, which has not been taken into consideration for this analysis.

It is also interesting that the more urban areas around the three capitals extend through the main communication infrastructures, the so called Basque Y.

Conclusions of the chapter

This chapter has shown a methodology to identify rural areas within a territory. It is a relative method, which provides a relative rurality map that allows including different indicators and indicator types.

The procedure proposed to obtain the common scale has been the most critical point of the methodology. It has used the same method of obtaining the translation into the scale that Waldorf proposed for the relative rurality index for the US Counties (Waldorf 2006).

However, it has shown some difficulties to find the regression equation that transforms the values to the scale so that linear interpolations had to be made in order to obtain those values.

The GIS part showed some problems too. Apart from some LPE that were not considered on the maps provided by Eustat and Geoeuskadi (as they are communal forest areas shared among different municipalities), there were problems with the nomenclature. Different sources used different spellings for the names of the municipalities and population entities, so that the linking process gave errors, as same vectors were not recognised because they are not spelled the same.

To solve the problem, it was necessary to give a number to every municipality and LPE, so there were no mistakes and no names were doubled.

The conclusion regarding rural areas of the Basque Country is that it is a reality that rural areas are a great part of the territory. Although they have more weight on Araba, there are areas on Bizkaia and Gipuzkoa that still have a rural character. However, it is remarkable that being the image of the traditional farmhouse of the Atlantic Basque Country the most extended cultural idea for this territory, this area has a lower value on the relative rurality scale.

It seems rather clear revising the indicators separately that Araba has a higher relative rurality because of the economic indicators mainly, especially from the population employed on the agro-fisheries sector. It may seem that population density has also its relevance but it is very similar than the density given in Bizkaia and Gipuzkoa.

Although there are some drawbacks to this methodology, as addressed before, it has proven to be an adaptable and practical method to identify rural areas within a given territory. It adapts to the indicators provided, and transforms them into a common scale to identify the relative rural degree of an area.

The identification of these areas is very valuable from very different points of view: on one hand, it can help identify areas to develop agricultural plans and regulate subsides, such as the Common Agricultural Policy; on the other it helps identify areas of interest to develop territorial plans and strategies.

The resulting map can be the canvas to keep on with the analysis of the territory, and other operations can be added. It can also be updated as the statistical data updates itself. It also has a one square kilometre cell homogeneity, so it can be considered accurate from a territorial point of view, as well as from a planning point of view.

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CHARACTERIZATION AND TYPOLOGIES

This chapter details the methodology proposed to analyse a case study rural area considered successful, in order to obtain general consideration applicable to similar areas.

It has four main sections: objectives of the chapter, previous considerations; materials and methods; and results.

The area is made of seven municipalities of Gipuzkoa, and by applying the methodology proposed, it elaborates eight typologies based on cadastral parcels and simplified uses. Then, it characterizes the accessibility and grouping of each typology, obtaining great insight of the area.

It concludes that the application of the proposed method to the case study area shows the typologies and their characteristics so that the visualization of the results is easily made. The studied area is mainly rural, with a predominance of productive unbuilt parcels combined with traditional farmhouse display. Other typologies are present in lesser degree.

Characterization

The former chapter has addressed several studies that establish a method to identify rural areas in a relative manner. This part of the work, tough, is focused on one particular area and aims to obtain general guidelines that can serve as reference for other areas with similar characteristics.

This chapter explains the methodology followed in order to obtain the characterization of typologies present in a rural area considered successful, so that general guidelines can be extracted oriented towards an application to other similar zones. In order to do so, this methodology is divided into three phases: selection, classification, and characterization.

This part of the work emerges from the aim of understanding the functioning of successful rural areas within predominantly urban regions such as the Basque Country. It is based on the relative rurality map obtained in the former chapter, and from it, obtains the municipalities considered rural, and from them selects an area that can be considered successful based on the Gross Domestic Product per capita.

Then, it classifies the existing parcels into typologies, in order to obtain basic settlement classes or types. Then it characterizes them by analysing their accessibility and grouping of the buildings, so that a characterization of each type can be established.

From this method, it is expected to obtain general guidelines applicable to rural areas within predominantly urban regions from the same climate (Atlantic) and for the same region (for cultural homogeneity). The same analysis can be made for other climates or regions, but due to the time limit, these works had to be reduced to one area.

Objectives

The objective of this chapter is to obtain a characterization of typologies given in the selected rural area, in order to obtain successful rural areas. To do so, it has been studied a rural area considered successful located in the Atlantic climate of the Basque Country. The guidelines are obtained after analysing the general structural characteristics and physical distribution of territory of the selected areas.

The method proposed is based on the analysis of the buildings distribution, accessibility through the road net, and combination of land and building main uses. It is aimed that this analysis reflects the main combination of characteristics given for the climate type of the selected area.

As secondary objectives and as previous steps to obtain the planning guidelines are:

- Analysing the built and unbuilt environment oriented towards obtaining typologies based on the relation between built and unbuilt parcels.
- Obtaining the main characteristics of the area through different analysis using GIS tools.
- Creating a summary for each typology where accessibility and grouping characteristics of each type are analysed.

Previous considerations

As addressed in the former chapter, predominantly urban regions can have rural areas within. Those areas can have similar characteristics among them or not, depending much on climate, as the cultural differences are much dependant on climate too, even inside the same region.

The characteristics of the rural areas vary greatly depending on their climate, topography, and cultural heritage. Taking into account that this work is limited to the boundaries of the Basque Country, it could be assume that the latter is common in both case studies. The types of settlements though, are different and adapted to climate and topography.

The Basque Country is a very diverse territory, of about 7268 square kilometres, and it evolves from Atlantic to Mediterranean environment, going from an intricate mountainous relief, passing through beech and oak trees, to the Mediterranean area (Ruiz de Urrestarazu and Galdós Urrutia 2008).

There are two watersheds, Atlantic (Gulf of Biscay) and Mediterranean, divided by an east-west mountain chain. The watershed change is made in a very small lineal distance. There is also great environmental and landscape diversity in a small territory.

One of its main characteristics is the lack of land for many uses and activities due to the mountainous character. This territory´s unity is not due to geographic reasons, but due to the historic and cultural evolution (Ruiz de Urrestarazu and Galdós Urrutia 2008).

For the climate discrepancies and the present work, the Basque Country has three main different climatic zones. The Basque Country Government (Department of Employment and Social Policies) establishes as guide for Official Housing Protection

(http://www.euskadi.eus/contenidos/informacion/guia_edificios_vpo/es_guia/adjuntos/es/ed3_loc.html) three main climatic zones (Figure 41).

Figure 41. Three main climate areas in the Basque Country

The main climatic zones are Atlantic in the north, transition climate in the middle, and Mediterranean continental in the south. These three main climatic areas are very similar to the main watersheds of the Basque Country (Figure 42).

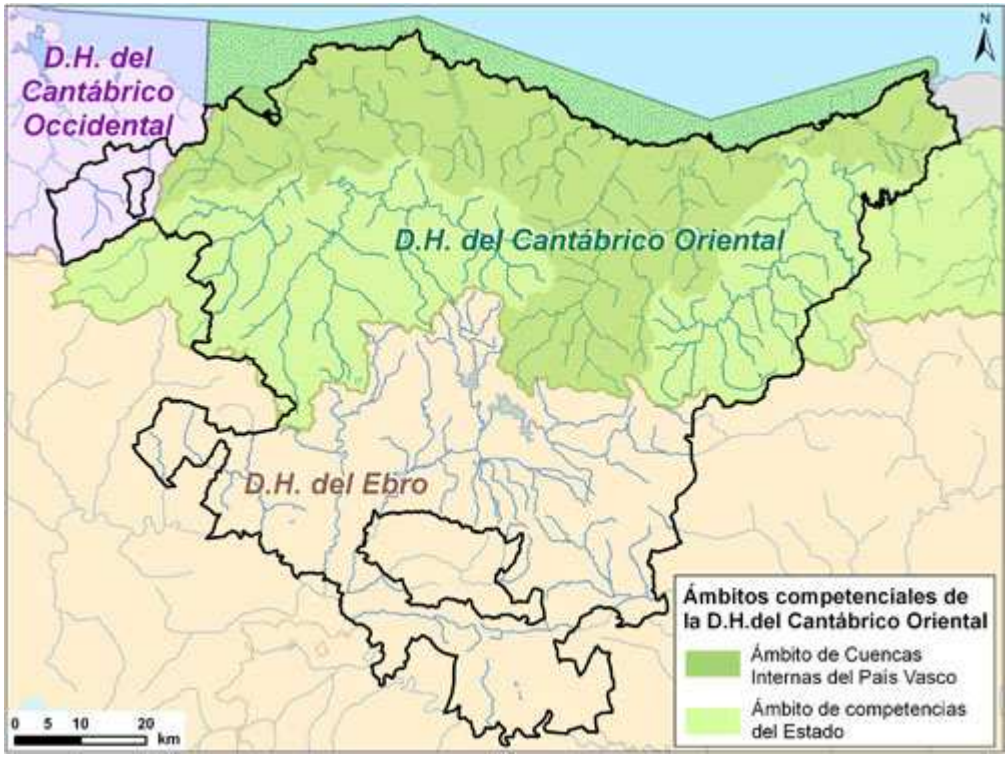


Figure 42. Watersheds for the Basque Country (Basque Water Agency: http://www.uragentzia.euskadi.eus/ambitos-de-planificacion-hidrologica-capv/u81-000331/es/)

As for climate and topography, the Basque case has two main areas: the Cantabrian slope, and the Mediterranean slope. As addressed before, these are divided by the main mountainous area in the Basque country that goes east-west. This division not only separates the waters, but it also divides climatically the area, and separates two different topographies.

In order to simplify the areas for this work, and as the principal mountainous line (east-west) divides the watersheds and defines climate, two main climatic areas have been chosen, Atlantic watershed and Mediterranean watershed.

These two areas have been taken separately to choose the case study for this part of the work. Due to time and resources limitations, the

Atlantic area has been chosen as the type of area to select the case study.

For the selection of successful areas that can serve as an example for other areas, an economic indicator has been chosen: the Gross Domestic Product per capita. It is true that it alone does not imply successfulness of an area, but in order to discover more accurate indicators equivalent to sustainable area a very deep analysis would have to be made, and it would not have shown more accurately areas that work well for this purpose.

It is clear that GDP per capita it alone does not measure the successfulness of an area. However, there is no indicator that can measure a sustainable development or social welfare by themselves, so an economic indicator has been chosen. It has been chosen per capita so that more populated areas do not have advantage over low populated ones.

As it has been addressed in the first chapter of this work, sustainability is taken not only in an environmental perspective, but from the liveability point of view. This implies that when looking for sustainable areas, we seek for areas that can maintain their characteristics and uses through time (rural characteristics) and people can and want to continue to inhabit those areas. This is why an economic indicator such as the GDP per capita has been chosen, so that it can be addressed how “developed” an area is, even when it is considered rural.

Another factor for selecting the case study area was the availability of data. It was necessary to obtain the cadastral parcels of each municipality, both, urban parcels and rustic parcels. So the Historic Territory of Gipuzkoa was the only one that offered that information freely through the website of the Departments of Finance of the Provincial Council (http://www4.gipuzkoa.net/Catastro/index.htm).

Materials and data

The base map from which this part of the work is selected and analysed is the relative rurality map obtained in chapter 3. This map does not have administrative boundaries, as it was developed to overcome that limitation.

Nonetheless, this part of the work begins by selecting an area, so administrative boundaries have been reintroduced for this purpose, as it is explained on the next section (*Methods*). So the selection of the municipalities analysed in detail from this chapter are obtained from the results of the rurality map obtained in chapter 3 plus an indicator.

For the relative rurality map it has been utilised the resulting map for the Basque Country developed in Chapter 3 (where data and indicators used to obtain it can also be consulted).

This part of the work is mainly analytical, although there are some indicators that come into play.

The base map for the selection of the case study is the relative rurality map obtained in chapter 3. This map has been modified as detailed in the following section (*Methods*).

For the selection of the case study area the Gross Domestic Product per capita has been used. It has been addressed in the "*Previous considerations"* section that this indicator is considered as a way to identify more successful areas over others. The Gross Domestic Product per capita for each municipality is an indicator obtained from Eustat (the statistical database of the Basque Country Government).

The settlement type is another important element of the methodology proposed in the present chapter, as it is obtained from the study of the areas chosen. These types are based on the uses of both buildings and land parcels of the area.

The accessibility analysis is used to assess the remoteness of rural areas (Nuissl et al. 2012). This indicator is obtained from analysing every point of the map as an origin point and establishing a cost grid map based on the road infrastructure map of the Basque Country.

The grouping map is an indicator for the closeness of other buildings related to each one of the existing ones. It is created based on an algorithm (Kernel density) that analyses the number of buildings within a given radius from each origin point (each building). This indicator not only gives insight of the closeness of each area, but it also aids to establish the grouping characteristics of a typology.

Data

The data source is based on public administrative data, obtained from the official administrations´ websites and their internet applications.

The relative rurality map is obtained as explained in chapter 3. For the selection of the case study for this chapter, the Gross Domestic Product per capita has been introduced, and this data is obtained from the Udalmap application, and can also be downloaded from the Eustat webpage.

The GDP per capita is calculated as follows:

$$\frac{GDP\ of\ the\ municipality}{Total\ population}$$

There are different definitions of the GDP per capita, but it can be summarised as the final result of the productive activities of the resident productive units. It is calculated every 5 years, and the data used for this work is gathered in 2012.

The cadastre parcels have been obtained from the Department of Finance of the Provincial Council of Gipuzkoa. The shapefiles are downloaded directly so they can be introduced into a GIS application. This information is public and has been downloaded for each municipality of the case study area.

The land coverings are obtained from the Corine Land Cover Project, and are the same files as for chapter 3. It was considered to use the forest inventory as its scale was more accurate, but for the purpose of this work it was not necessary that much detail on the species, as it is explained in the following section.

For accessibility the road infrastructure maps have been obtained from the Geoeuskadi application, depending on the Basque Country Government. This map gives in shapefile all roads of the Basque Country so it can be directly introduced into GIS application.

For the grouping analysis the same cadastral parcels were used (only the building parcels) given by the Government of the Historic Territory of Gipuzkoa.

Comments

The main comments on data are basically the same as for the former chapter. They are mainly limited to municipality (such as the Gross Domestic Product per capita), so that boundary is reflected somehow in the map.

This issue was not much of a problem for the selection of the case study area, as it only served as guideline for choosing the area. The case study area could have been limited in any other ways and the rest of the method would have been applied in the same manner.

The cadastre parcels are a very useful data as they come in shapefile, .dwg, and other formats, and they come divided into three layers: rustic parcels (land), urban parcels (buildings) and points (one point per building). This data at the moment of the work development was only available for the Province of Gipuzkoa, so the other two provinces were excluded as case study areas.

Methods

The aim of this method is to establish a methodology to find general guidelines to apply to rural areas with similar characteristics. It is limited to general considerations, because in order to establish more detailed planning guidelines, each municipality had to be studied much more thoroughly, which exceeds the limitations of this work. The scope of the method is basically operative, so it can be applied to any area.

In order to find general planning guidelines for a determined rural area (with similar characteristics, both cultural, climate, settlement type, etc.) it has been developed an analysis method that allows to characterize each typology given in that area, so that those characteristics (common with similar cultural heritage, climate, and thus, settlement types) can be regulated by planning in a successful manner. This is why a successful area within one rural type has been chosen as case study area.

There are three steps in this method: firstly a successful area has to be determined within a rural type; secondly, the settlements types have to be established; thirdly, those types have to be characterized.

After the characterization is made, general considerations for planning similar rural areas are extracted.

Assumptions

The first assumption has already been commented before, and it is setting the Gross Domestic Product per capita as indicator for successful areas. Traditionally GDP has been an indicator for development at different scales (Felice 2016), but more recently there are several

authors that are more inclined to consider other indicators as development measures (Radovanović and Lior 2017).

However, this GDP per capita has been chosen for its simplicity. It is a municipal indicator and overcomes the population number. It does not enter any other stage of the method but for the selection part. So the basic assumption regarding the GDP per capita is that it shows more developed or successful areas than others.

For creating the settlement types a lot of simplification had to be made. All land coverings and uses had to be transformed into more manageable types, so coverings were translated into uses by simplifying it towards productive or non-productive. This dichotomy applied to the cadastral parcels creates eight basic types. These types are a simplification, and of course, for some cases the typology is rather broad. These cases were not more detailed because the different possibilities within those typologies were not considered of importance for the purpose of this work. This point is more detailed on the further section.

When classifying land, productive land refers to agricultural, for pasture or cattle, forest or industrial land of any kind. Non-productive land can be natural or simply space in more urban spaces. For buildings, productive buildings refer to industrial buildings, agricultural related buildings (such as barns) and commercial isolated buildings. Non-productive buildings are mostly residential, but they also can be for public services and endowments.

Procedure

It has been addressed before that this method has three parts: selection of a successful area, establishing typologies, and characterisation of typologies.

For the purpose of selecting the case study area, it has been taken the relative rurality map as base. That map has no administrative boundaries whatsoever, so in order to simplify the process, it was established that the limit of municipality and local population entities were reintroduced, so that the map would represent the relative rurality by grouped administrative entities. This way, it would be easier to apply the GDP per capita in the selection process.

Taking the relative rurality map and the municipality map, it was established that municipalities with over 50% of their surface with a relative rurality index on the top quartile (over 60 from 0 to 100, being the top value for the Basque Country 79). This way, it is achieved a map of rural areas, formed by municipalities.

For the purpose of selecting an area to analyse more in detail, it was established the GDP per capita as indicator of development or “success”. So the map of the rural areas of the Basque Country is overlaid by the GDP per capita per municipality, so the best area can be chosen for further analysis.

Once the case study area is selected, a settlement typology has to be established. In order to do so, the land coverings and the cadastral parcels were crossed. As it has been previously said, the land coverings are obtained from the Corine Land Cover Project, and all cover classes are simplified. The criterion is based on the determinations explained by the European Environmental Agency for the land coverings (European Environmental Agency 2005).

For the establishment of typologies of settlements cadastral parcels have been used. The typologies are based on the combination of urban and rustic parcels. This combination refers only to the parcel being productive or not, and the combination between urban (buildings) and rustic (land) parcels. This has been so because the land coverings (and even uses) are too many, so the classes had to be simplified for the purpose of this work.

There are eight typologies of settlements, based on the relationship between land parcels and building parcels and their uses/coverings (Fig.43):

		LAND		
		ø	Productive	Non-productive
BUILDING	ø	X	1	2
	Productive	3	5	6
	Non-productive	4	7	8

Figure 43

Types 1 and 2 are only made of land. Type 1 is productive land, meaning agricultural, devoted to cattle, forest, hunting, or extraction of natural resources of any kind. Type 2 is non-productive land, meaning natural land, gardens, public spaces, both vegetated and non-vegetated.

Types 3 and 4 refer to buildings that are not located onto another land parcel. Type 3 is productive buildings such as industrial or commercial. Type 4 is non-productive, mainly residential or related uses such as endowments, public buildings (public services), suggesting an urban settlement.

Types 5, 6, 7 and 8 are combination of buildings onto bigger parcels of land. Type 5 is defined as productive building onto productive land, suggesting industrialised agricultural exploitations. Type 6 is defined as productive building onto non-productive land, suggesting isolated industrial or commercial sites not fully developed. Type 7 is non-productive building onto productive land, suggesting the traditional farmhouse where the residence is located in the centre of the property (usually with different types of exploitation, assimilated here all into the productive land category). Type 8 is non-productive building onto non-productive land, suggesting low density housing.

When there are no building parcels and no land parcels it is usually a public space such as roads and streets (X in the table).

To translate this types into the maps it is necessary to firstly simplify all land cover classes in Excel, and then link the table to the table of contents of the shape file for land coverings.

The typologies are obtained in three different maps separately according to the colours in Figure 3.

First, a map is created that contains only building parcels that are not onto land parcels. Then, a second map is obtained of all land parcels that do not have buildings onto them. After that, a third map is obtained with the rest of the parcels.

Each one of that map is overlaid with the simplified coverings map, in order to obtain the eight settlement typologies.

After the typologies are made, it has to be checked that all of them exist. It may occur that some of them do not happen for that area.

In order to characterize each typology, two main different analyses have been made to the case study area: accessibility and grouping.

The accessibility study based on roads is of common use when analysing territory. There are several works using this method (Juliao 1999), and it is based on the road infrastructure map given by the Basque Country Government through the Geoeuskadi webpage. The aim for analysing accessibility and apply it to each typology is to assess it based on reality.

The main objective of the accessibility analysis is to obtain a map that shows a colour scale that represent the different accessibility of the area based on the existing road infrastructure. In order to do so, and due to the fact that an already created complete net of roads and paths was not available, a resistance map (cost grid) was created.

The accessibility analysis is based on the road infrastructure map given by the Basque Country Government SDI (Spatial Data Infrastructure) through their web application Geoeuskadi. This map is a shape file that has all roads (highways, freeways, national roads, secondary roads, streets, and even non-paved trails) each class on a layer. These layers are a form of spline or polyline, but do not have widths associated or anything but for their location and length.

A cost grid map is proposed, in order to find the time travel from every origin point to the points of interest, so it was necessary to establish destination points, or points of interest to where measure the travel time from every origin point. The points of interest were the capital of the Province, and the head cities of the nearest functional areas.

For the cost grid map each road class was given an average speed. This speed is based on the maximum speed allowed for each road class. The percentages are based on the work of R.P.Juliao (Juliao 1999). The areas that do not have a road line are given a speed of 5 km per hour, as

it is considered a walking speed. All speeds are applied a coefficient, as the maximum speed of every road type is nor realistic. This coefficient is also based on Juliao´s work (Juliao 1999).

After the speeds are given, another attribute is added to the attribute table, which transforms the speed (once the coefficient is applied), into travel time by metre. Then the grid to transform the vector data into raster is made of 25x25 m, based on the travel time by metre.

As origin points, three layers are created, one for the capital city´s centre point, another for the intermediate cities centre point (these cities are the main city of the functional area), and the access points to the highways.

Three maps are created through the cost grid, one for each destination. Each map contains the cost distance from each cell of the map to the destination point (the closest in case there is more than one).

However, there was a problem with highways, as on the map they virtually crossed other roads that did not connect in reality, as the access points to them where not in the data and so there were problems with the analysis because it considered that it was possible to go in and out of the highways at any point. This was only a problem to calculate the point of the Capital city as the rest of the cities were easily accessible through smaller roads. Thus, the process had to be divided into steps.

First, the points of interest were analysed without the highway roads (excluding them from the map), this is, going to the points of interest only by national roads and smaller roads.

Then, the access points to highways were added by creating a point layer, and another analysis was made divided again into steps: firstly, it was created a cost map from each origin to the nearest highway access point; then, a spatial allocation had to be made for all origins to each node; on the other hand, it was calculated the time travel from every

access point of the highway to the Capital city; then, it was reclassified into time; and finally, the reclassified (based on time) map and the cost map from each origin were summed up, so it was obtained the time travel from every origin point to the Capital by highway.

In order to get the best option (getting to the Capital by highway or by smaller roads), a Local Cell Statistics were performed between the two options to get to the Capital, obtaining the less time travel for each cell.

To get the global accessibility map the time travel to the Capital was given twice the value to calculate the mean of all values, as it is understood that the Capital city provides services that cannot be given by smaller cities of the functional areas.

This way it is obtained an accessibility map for all the case study area, and this accessibility is divided for better showing into five categories (1 to 5) based in the mean value and the standard deviation (stdv):

- Value 1 under (Mean -2*stdv)

- Value 2 between (Mean -2*stdv) and (Mean-stdv)

- Value 3 (Mean-stdv) to (Mean + stdv)

- Value 4 (Mean + stdv) to (Mean + 2*stdv)

- Value 5 over (Mean + 2*stdv)

The grouping of buildings is based on cadastral parcels and it gives insight on the way in which different typologies are grouped. It seemed natural that more urban residential areas were grouped whereas farmhouses were isolated, but this analysis was made to support (or not) those assumptions. This way, each typology was characterised

according to the grouping characteristic based on what really happens and not based in what should happen.

For the grouping analysis only the building parcels were considered. The data collected offered a layer in the maps given that represents each building by a dot layer. His dot is used as reference for the position of every building of the case study area.

For this map it has been made a heatmap based on the point layer of each building origin (the urban parcel in the cadastre data).

The operation in ArcGis is the Kernel Density[9], with a radius of 500m, and a 25x25 grid. The results are expressed in square kilometres.

Once the kernel analysis is done, it has to be reclassified to get the three classes: Grouped (more than 1 dwelling per hectare), Dispersed (between 1 and 0,2 dwellings per hectare), and Isolated (under 0,2 dwellings per hectare).

[9] The Kernel Density creates a density map based on a point vector layer. The size for the raster cells has to be established as well as the radius to calculate the density. For each raster cell, all values for the kernel surfaces on the centre of the raster cell are overlaid.

Results

This section applies the characterization methodology explained in this chapter to a particular area of the Basque Country Autonomous Community. In order to choose a suitable area, several changes were made to the Relative Rurality Map obtained in Chapter 3.

The selected area is formed by seven municipalities that have a rather high relative rurality as it will be detailed in the following paragraphs. It is an example of an area of the Basque Atlantic climatic zone, and hence, the settlement types are representative of that zone.

Therefore, it has been established a settlement typology based on land and building uses. Those uses have been simplified into productive or non-productive to reduce the number of resulting typologies. This method established eight basic typologies, and once they are localized, several statistics are made for each type, so a more detailed understanding of the territory is achieved.

This work has been made mainly in Quantum GIS, and the Accessibility and Grouping analysis in ArcGis.[10]

[10] The license for ArcGis was given by the Universidade Nova de Lisboa during the stay there from March 2015 to June 2015.

Selecting the case study area

As it has been addressed before, this selection is based on the relative Rurality Map obtained in the former chapter (Fig. 44). This map represents the Basque Country Autonomous Community in terms of rurality from a transdisciplinary point of view. It considers economic, population, employment, density of housing and land coverings. It overcomes administrative boundaries, and can be updated as new statistical data is created.

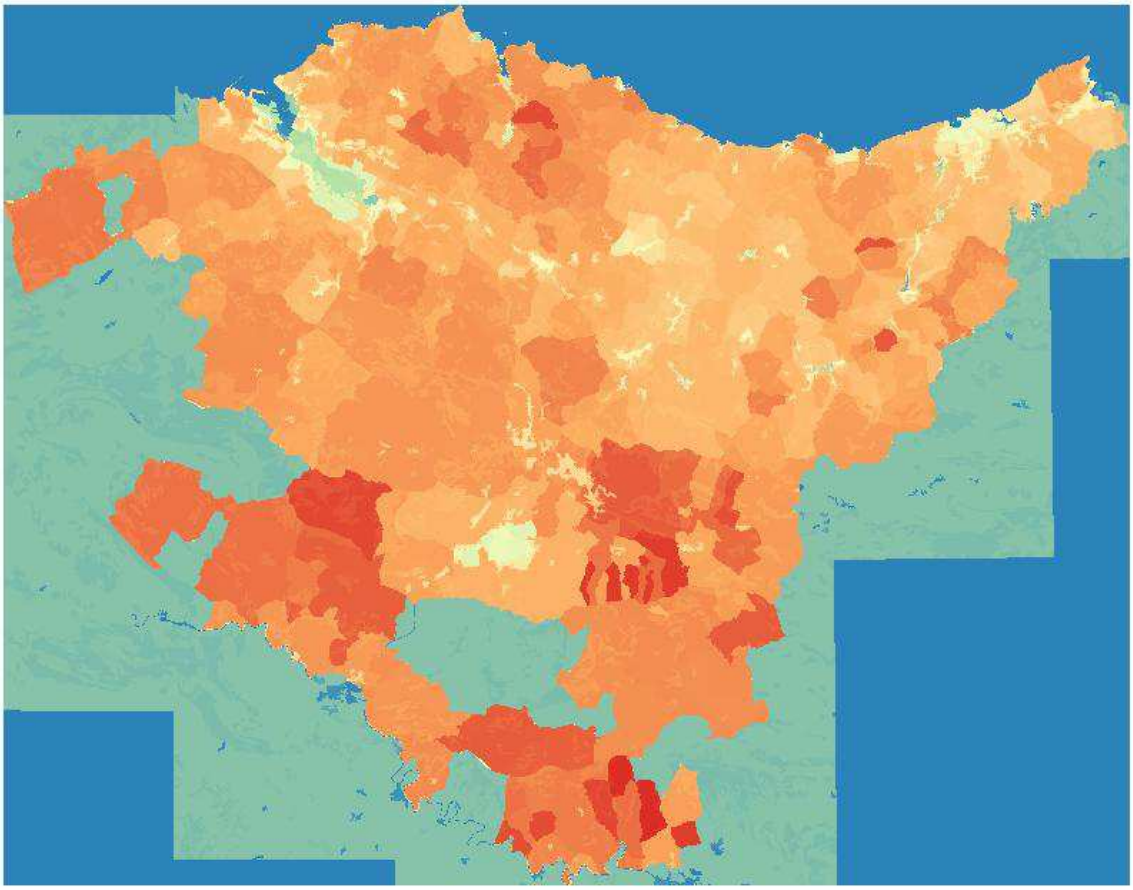


Figure 44. Relative Rurality Map. The darker orange areas represent higher relative rurality and *vice versa*.

From this map, it is necessary to select s smaller area for the case study. It has to be an area that lies on the same climatic area, and of high relative rurality.

It has been addressed in the “Previous considerations” (Fig.41) the basic climatic areas of the Basque Country, they are also very similar to the main watersheds.

The Relative Rurality Map is transformed in order to obtain areas considered rural. These areas must be municipalities with a relative rurality scale number on the top quartile of the scale. This is achieved by selecting the municipalities with more that 50% of their surface with a relative rurality on the top quartile.

To do this, there are two steps: Firstly, the RRM (Relative Rurality Map) has to be transformed into a map that only shows areas with a relative rurality on the top quartile of the scale (Fig.45).

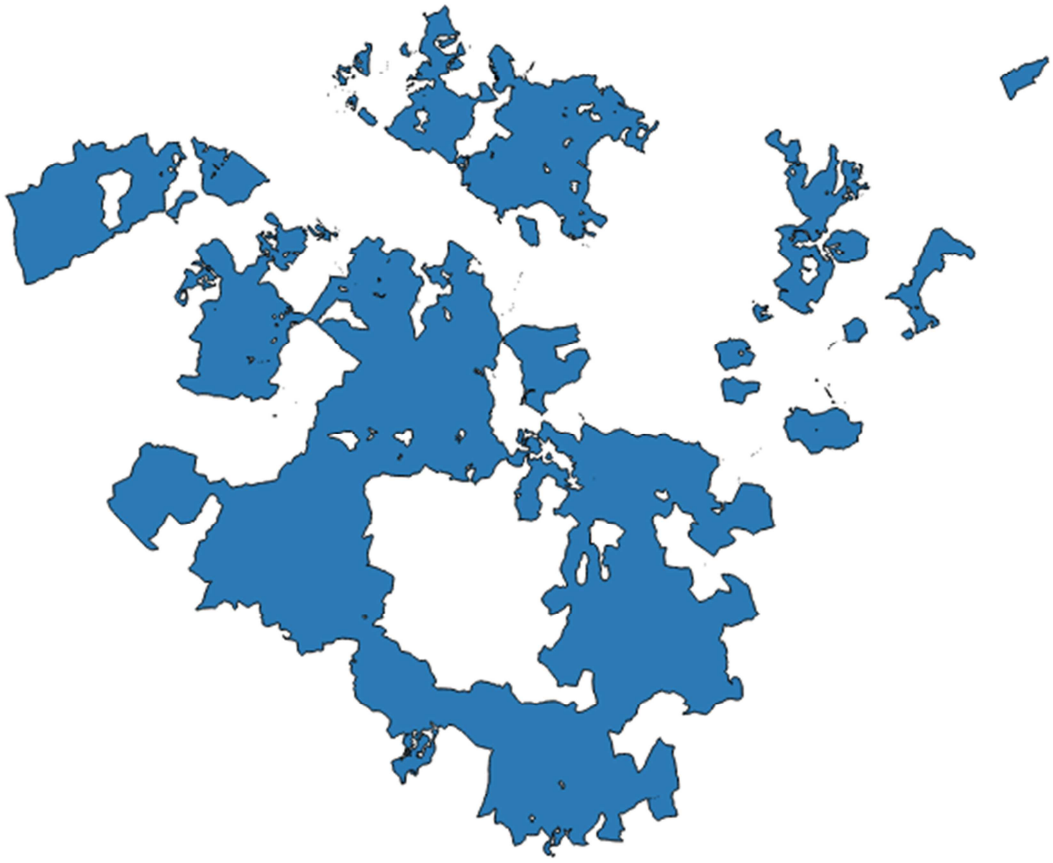


Figure 45. Areas of the Basque Country on the top quartile of the Relative Rurality Scale.

Secondly, those areas are contrasted with the municipalities map, and they are selected only those that forms more that 50% of the surface of each municipality. The resulting map represents the municipalities that could be chosen as case study areas for this part of the work, as they follow the rules established (over 50% of their surface on the top quartile of the Relative Rurality Scale). These municipalities can be checked in Figure 46.

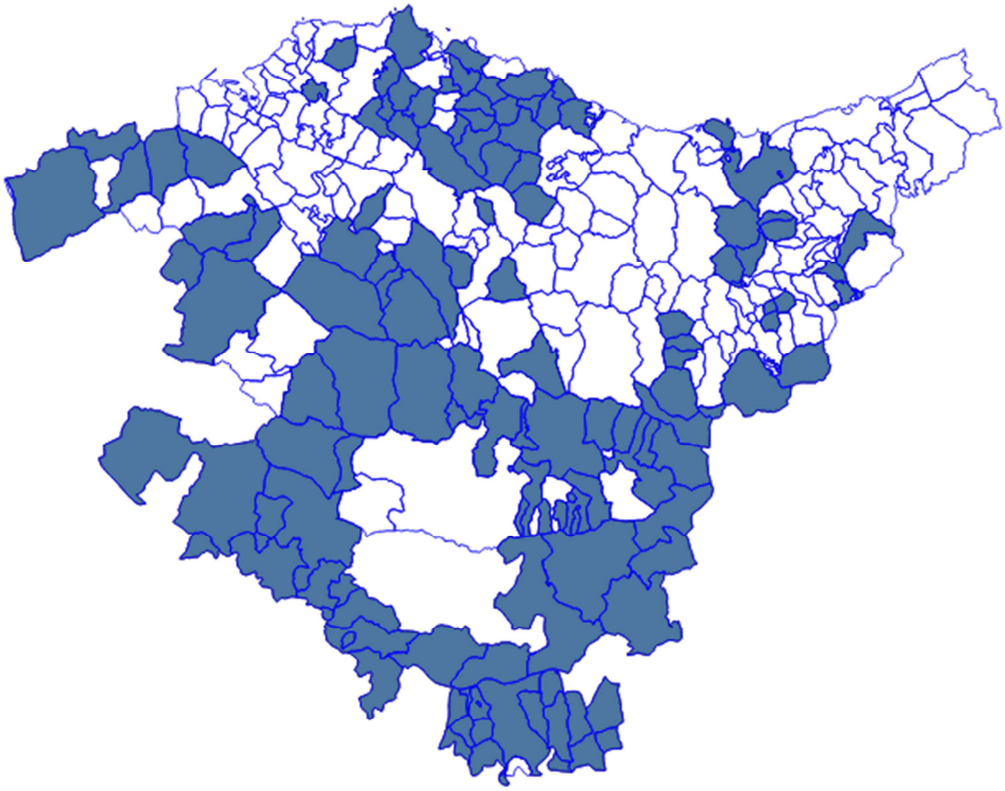


Figure 46. Municipalities with over 50% of their surface on the top quartile of the Relative Rurality Scale.

The areas shown in Figure 46 contain the full extension of municipalities that meet the rules established. The next step in order to select the area is related to the Gross Domestic Product per capita and the availability of data.

As it has been explained in the "*Methods: Assumptions*", the GDP per capita is takes as a measure of development. This indicator is obtained from the Eustat webpage, and it is a table that can be consulted in Annex II.

The municipalities map is linked to the GDP per capita by municipality, and visualised for the whole Basque Country (Figure 47). This link is made by linking the Eustat code of each municipality (also postcode). This way the data from the tables can be linked to the attribute table data of the vector layer of the municipalities.

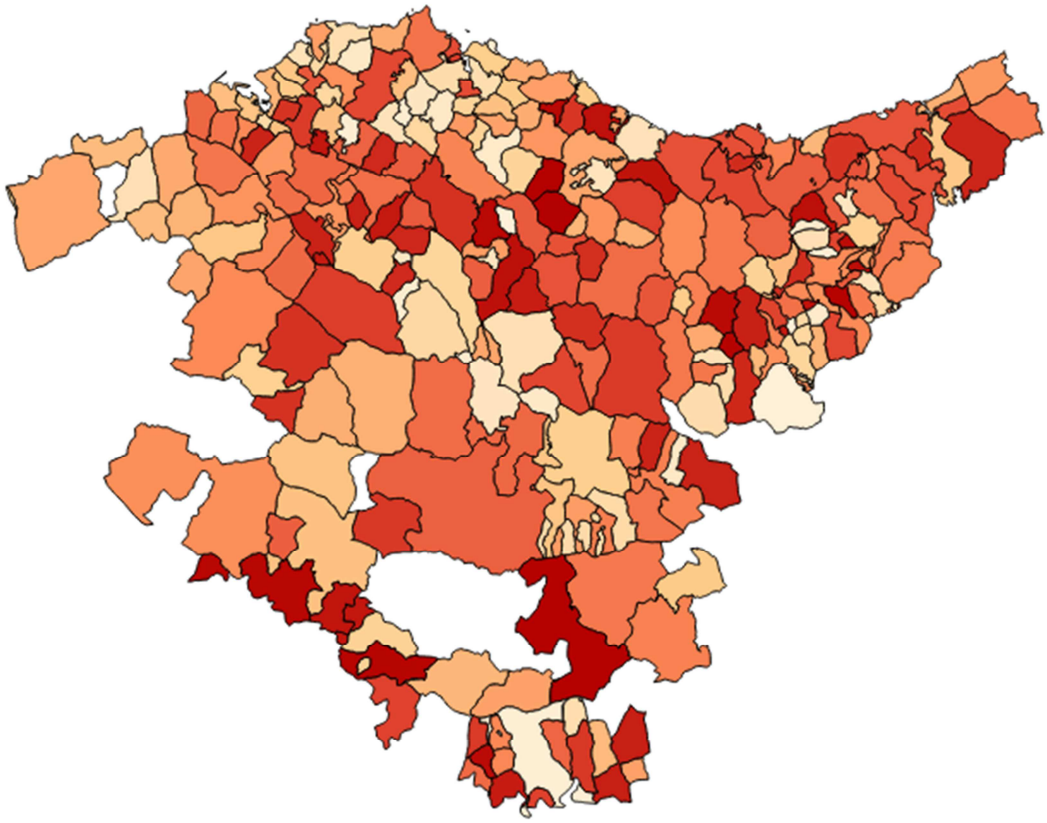


Figure 47. GDP per capita for the Municipalities of the Basque Country.

This map (Fig.47) has to be crossed to the map containing only the municipalities that have over 50% of their surface on the top quartile of the Relative Rurality Scale. The result can be checked in Figure 48.

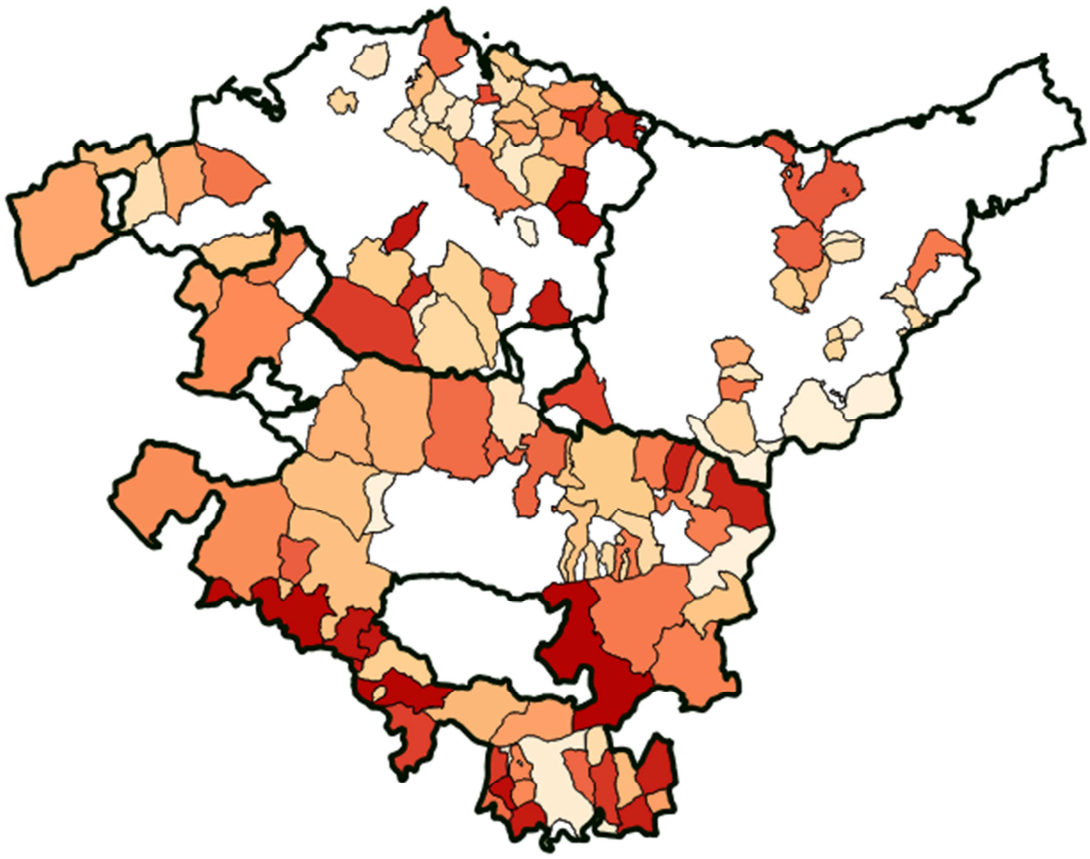


Figure 48. GDP per capita of considered municipalities (warmer colours higher GDP per capita)

Taking into account the data availability, it was established that the Historic Territory of Gipuzkoa was best suited to select the case study area from as it offered the cadastral parcels and information for free access at the moment of the study. Figure 49 shows the GDP per capita of the municipalities of Gipuzkoa suitable for this study.

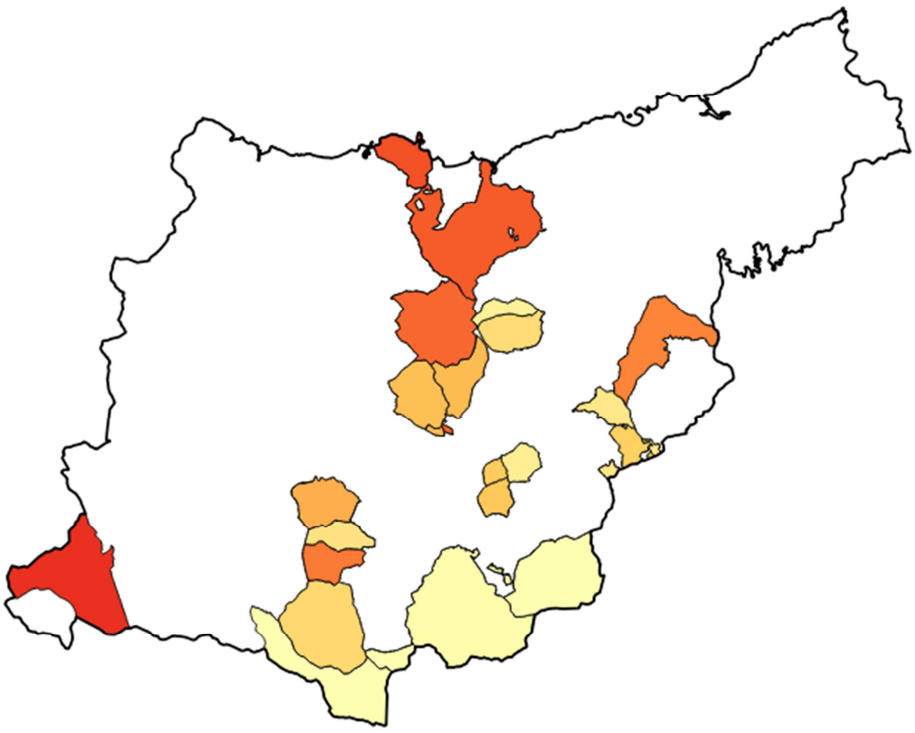


Figure 49. GDP per capita of considered municipalities of Gipuzkoa.

It can be appreciated in Figure 49 the municipalities of Gipuzkoa that have over 50% of their surface on the top quartile of the Relative Rurality scale, and it can be appreciated the differences on their GDP per capita. In order to select an area that can serve the purpose of this chapter, it has been decided that the north area suits best the requirements for the case study area, this is, a generally higher GDP per capita in a continuous area.

Thus, the chosen municipalities are the following: Getaria, Aia, Errezil, Larraul, Alkiza, Bidania-Goiatz, and Beizama. The location of each one of them can be consulted on Figure 50.

Figure 50. Selected municipalities for the case study area.

These limits of the municipalities act as boundaries for all analysis for this part of the work.

Among the municipalities selected there is Getaria, which has a rather high scale of population employed in the agro-fisheries sector. This is not only due to the agricultural sector but mainly because of its fishing industry and tradition. Getaria has an urban core linked to the port area, but it also has a more rural area, lately related to the production of *txakoli* (local white wine).

In the following analysis it will be shown how despite the fishing influence and the urban character of the urban core of this municipality, there is a rural area worth analysing.

The case of Aia is more similar to the rest of the area as it is an interior municipality. It has a Natural Park of “Peñas de Aia”, which is important in terms of access to nature and cultural heritage of the surroundings.

The rest of the municipalities lie towards the south, and tend to have in the lowest parts of their valleys industrial areas, as the rest of the Historic Territory. Further analysis will show more detailed characteristics of these areas.

Classification: Typologies

The case study area is an example of the Basque Atlantic rural area and in order to gain knowledge on the function and characteristics, a classification in typologies has been established.

These typologies are based on a combination of uses of cadastral parcels, this is, they are generated from combining land parcel with their uses and buildings parcels and their uses.

In order to simplify the resulting number of typologies, the uses have been reduced to productive and non-productive. The uses are taken form the Corine Land Cover map, used for chapter 3. The simplification of uses is made as follows (Table 2):

CODE	Description	Productive/ Non-productive
111	Continuous urban fabric	Non-productive
112	Discontinuous urban fabric	Non-productive
121	Industrial or commercial units	Productive
122	Road and rail networks and associated land	Productive
123	Port areas	Productive
124	Airports	Productive
131	Mineral extraction sites	Productive
132	Dump sites	Productive
133	Construction sites	Productive
141	Green urban areas	Non-productive
142	Sport and leisure facilities	Non-productive
211	Non-irrigated arable land	Productive
212	Permanently irrigated land	Productive
221	Vineyards	Productive
222	Fruit trees and berry plantations	Productive
223	Olive grooves	Productive
231	Pastures	Productive
242	Complex cultivation patterns	Productive

2

243	Land principally occupied by agriculture, with significant areas of natural vegetation	Productive
311	Broad-leaved forest	Productive
312	Coniferous forest	Productive
313	Mixed forest	Productive
321	Natural grassland	Productive
322	Moors and heathland	Productive
323	Sclerophyllous vegetation	Productive
324	Transitional woodland/shrub	Productive
331	Beaches, dunes, sands	Non-productive
332	Bare rock	Non-productive
333	Sparsely vegetated areas	Non-productive
411	Inland marshes	Non-productive
421	Peatbogs	Non-productive
423	Intertidal flats	Non-productive
511	Water courses	Non-productive
512	Water bodies	Non-productive
522	Estuaries	Non-productive
523	Sea and ocean	Non-productive

Table 2. Simplification of uses

The resulting map of applying this simplification of the Corine Land Coverings map to the case study area can be checked in Figure 51.

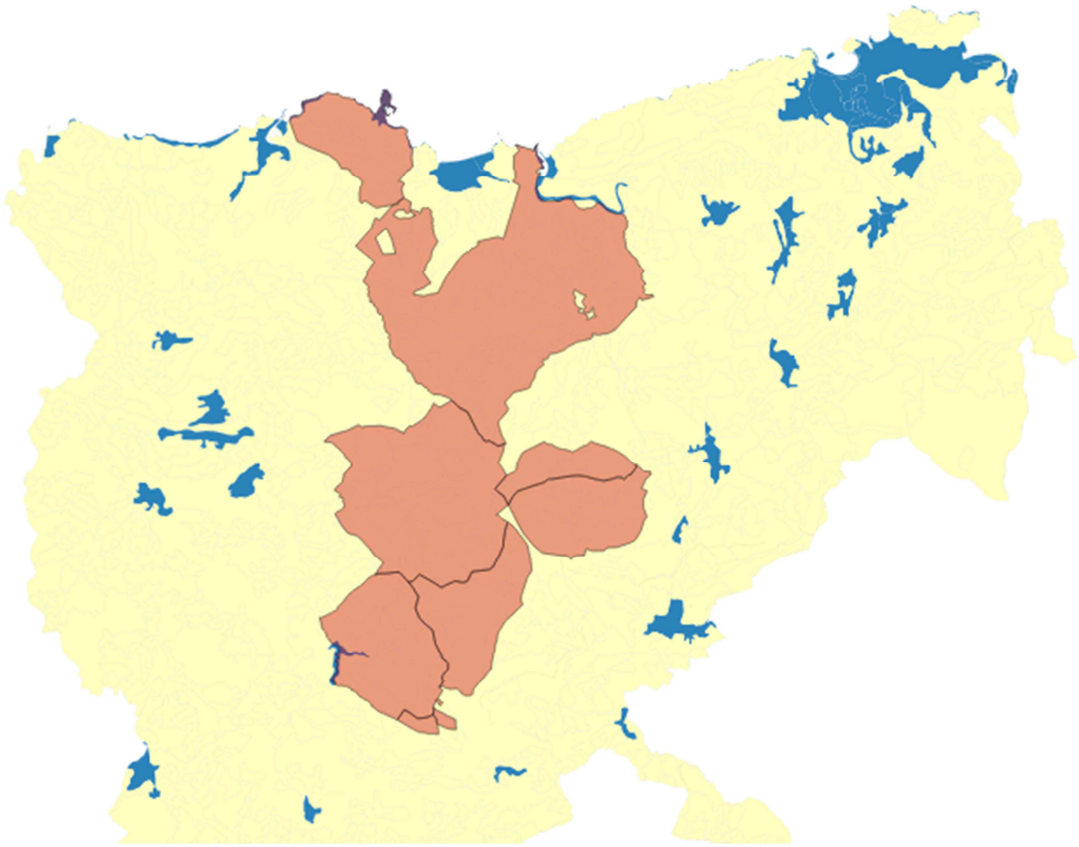


Figure 51. Simplified Corine Land Cover map:blue is non-productive areas and light yellow is productive. The orange colour is the limit to the case study area.

It can be appreciated in Figure 51 that the land coverings offered by the Corine Land Cover Project has not enough resolution to allow the elaboration of typologies. In the case study area there are very few non-productive areas, so for example non-productive buildings surrounded by agricultural land do not appear due to resolution and scale.

Hence, for the simplification of uses it has to be chosen a more accurate map of uses or land coverings, such as the Forest inventory, that has a scale of 1/25000 (opposed to 1/100000 of the Corine Land Cover Project).

2

The Forest Inventory map has a slightly different legend of uses or coverings. This is why another simplification table had to be done (Table 3).

IFN3 CODE	Description	Productive/ Non-Productive
11	Bosque[11]	Non-productive
12	Bosque de Plantación	Productive
14	Bosque de Galería	Non-productive
21	Arbustedo	Productive
23	Matorral con pastizal	Productive
31	Herbáceas con pastizal	Productive
41	Playas, dunas arenales	Non-productive
44	Roquedos	Non-productive
511	Zonas pantanosas	Non-productive
512	Turberas	Non-productive
513	Salinas	Non-productive
521	Marismas	Non-productive
611	Cursos de agua	Non-productive
6121	Lagunas	Non-productive
6122	Pantano, embalse	Non-productive
622	Estuarios	Non-productive
623	Mares	Non-productive
71	Cultivos	Productive
73	Prados	Productive
74	Prados con setos	Productive
75	Mosaico de cultivos	Productive
811	Urbano contínuo	Non-productive
812	Urbano discontínuo	Non-productive
82	Primario	Productive
83	Industrial	Productive

[11] There was a doubt regarding this type. The Corine Land Cover does not have an equivalent. It had the broad-leaved forest, not considering if it was planted or not. In order to detect more natural areas, the general “Bosque” has been simplified into non-productive.

In the same manner, “Bosque de galleria” has been considered non-productive, as it accompanies a water course, a clearly non-productive use, plus this type is considered of great value from a biodiversity and landscape point of view.

84	Terciario	Productive
85	Equipamiento dotacional	Non-productive
861	Transportes	Productive
862	Energía	Productive
863	Suministros de agua	Productive
864	Telecomunicaciones	Productive
865	Residuos	Productive
87	Otras superficies artificiales	Productive

Table 3. Forest inventory legend (Spanish, not given in english)

The resulting map of the simplification of the forest inventory can be consulted on Figure 12:

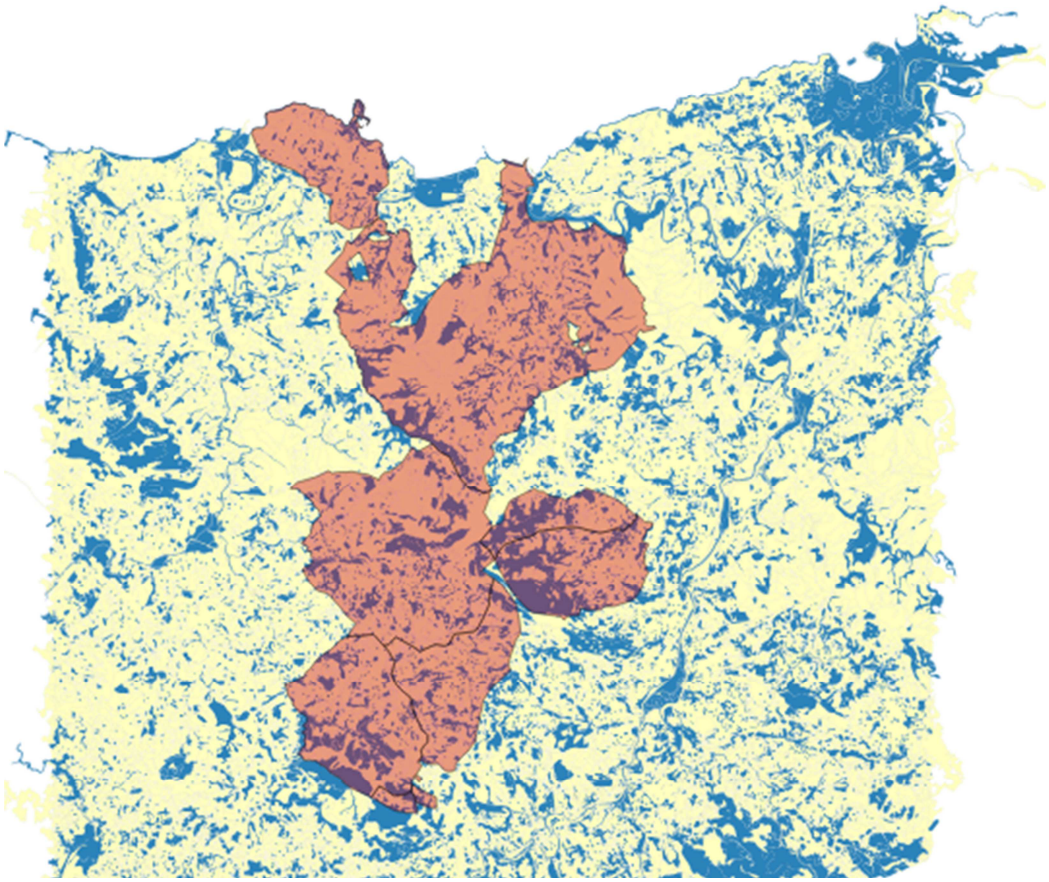


Figure 12. Forest inventory simplified. Blue areas are non-productive areas; light yellow are productive areas; orange limits the case study area.

2

The resulting map simplified of the forest inventory shows more non-productive areas, so it fits better the needs of scale and definition for this part of the work.

Once the uses are simplified the cadastral parcels have to be divided to form the basic types. There are three main cases that can occur with the mix of uses and parcel types (Table 4):

		LAND		
		ø	Productive	Non-productive
BUILDING	ø	X	1	2
	Productive	3	5	6
	Non-productive	4	7	8

Table 4

The first map, M1, (orange cells) shows all building parcels that do not lie on rustic parcels. The typologies given by this map are T1 and T2.

The second map, M2 (blue cells) shows the land parcels that do not have any building on them. The typologies are T3 and T4.

The third map, M3 (green cells) shows the combination of building and land parcels that go with one another, giving four different types (T5, T6, T7 and T8).

These classes can be summarised as follows (Table 5):

Typology	Building	Land
T1	0	Productive
T2	0	Non-productive
T3	Productive	0
T4	Non-productive	0
T5	Productive	Non-productive
T6	Productive	Non-productive
T7	Non-productive	Productive
T8	Non-productive	Productive

Table 5

To achieve the different combinations of parcels in order to apply uses to them there are several operations that have to be made with the buildings and rustic parcels layers.

First, transform the building parcels layer into points, which result as points located in the centroid of the polygons. Then operate with the rustic parcels (counting the number of points per polygon) so that a new layer is obtained similar to the polygon (rustic parcels) layer but with a new attribute: number of points per parcel (one polygon per parcel).

From that layer it can be easily separated the parcels that contain any building and the ones that do not. This way it is obtained a layer that contains all rustic parcels that do not have a building (this layer –M1- contains all Typologies T1 and T2).

To separate the building parcel layer that are not located on rustic parcels, the operation “clip” is performed between the rustic parcel layer and the building parcel layer, so the difference are the parcels that do not lie on rustic parcels (the clipper operation creates a new layer M2). This map (M2) contains the typologies T3 and T4.

2

The rest of the building parcels and rustic parcels form the M3 referred in Figure 3 are the typologies T5, T6, T7 and T8. To get a layer per typology it is necessary to cross these two layers (building parcels layer that lie on rustic parcels, and rustic parcels layer that contain buildings) to the simplified forest inventory layer.

Layers M1 and M2 are crossed to the simplified forest inventory layer and four new layers are obtained: one per typology (T1, T2, T3 and T4).

To create the rest of the typologies there are several steps:

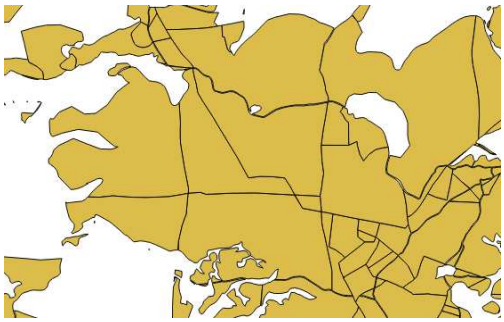
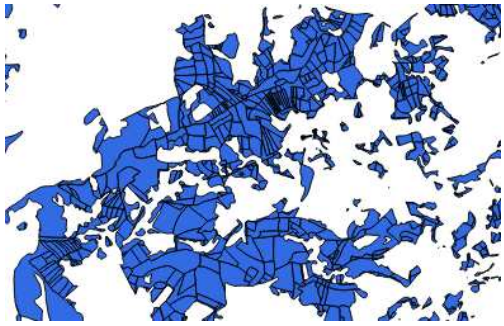
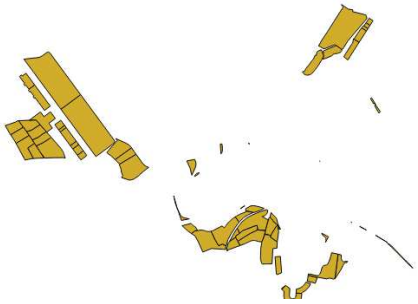
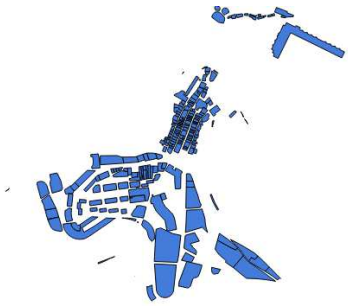
First, separate the building parcels of M3 by simplified uses by crossing the building parcels of M3 to the simplified forest inventory layer. Two layers are obtained, containing only the building parcels with their uses attached and shown in the attribute table. Then for each use a new point layer is created, by obtaining the centroid of each of the polygons.

Second, the rustic parcels of M3 are crossed to the simplified forest inventory, and two layers are obtained, containing the rustic parcels but separated by use.

Third, each of the rustic parcels of M3 layer is crossed to each of the point layer representing the buildings for M3. Four results are obtained: typologies T5, T6, T7 and T8.[12]

The following chart (Fig. 52) gives an example of each one of the typologies:

[12] A problem is detected for M3 typologies: there are land parcels that contain more than one building of different use. This cases are assimilated in Typology T7, similar to the traditional farmhouse where sometimes there are more than one building of different use.
These parcels were extracted as T7A, and the rest of the analysis to create typologyes was done as explained. Then the T7B and T7A were added in one layer to create typology T7.

	**T1** Land: Buildings:	 Productive NO
	**T2** Land: Buildings:	 Non-productive NO
	**T3** Land: Buildings:	 NO Productive
	**T4** Land: Buildings:	 NO Non-productive

2

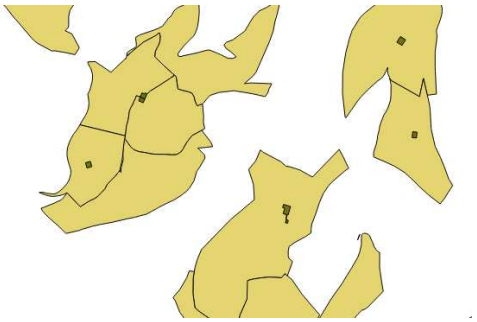
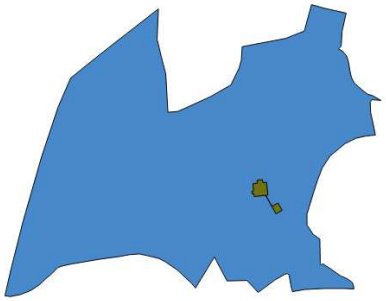
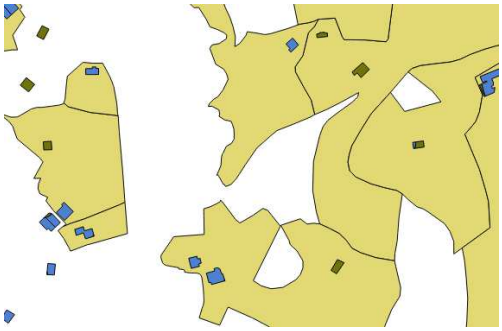
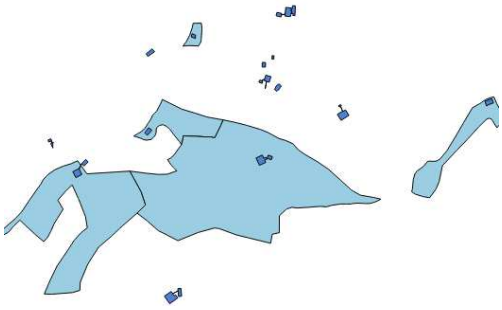
	**T5** Land: Buildings:	 Productive Productive
	**T6** Land: Buildings:	 Non-productive Productive
	**T7** Land: Buildings:	 Productive Non-productive/ Mix
	**T8** Land: Buildings:	 Non-productive Non-productive

Figure 52. Typologies and examples

Characterization

Once the typologies are created, they are characterized in terms or grouping and accessibility. The analysis is made for the total area, so that it gives insight of the area as a whole.

Grouping

The grouping analysis is the easiest one, as it analysis only the points of the urban parcels through a so called “Heatmap”.

Hence, the first step it to transform all urban parcels (the parcels containing all buildings, independently of their use) into points, creating a new point layer.

Then, through ArcGIS toolbox, a kernel distance algorithm is applied. For the analysis it is mandatory to establish a radius at which calculate the influence of each point. The larger the radius the smoother the results and vice versa, showing in the latter finer details and point density.

Several trials were made, in order to check the detail/smoothness of the results, as the scale of the map is bigger than the municipality. To simplify the results, three main grouping results were searched: grouped, disperse, and isolated.

The size of raster cells for the results map was established in 25x25m, meaning that each raster cell would represent that real size. The final radius selected for the results was 500m, meaning that the radius of influence of each point would be 500 m.

The resulting map for this analysis is shown in Figure 53.

2

After the heatmap is generated, it is reclassified for better understanding and characterization of typologies. After the reclassification the raster layer was transformed to vector, with polygon limited areas (Figure 15).

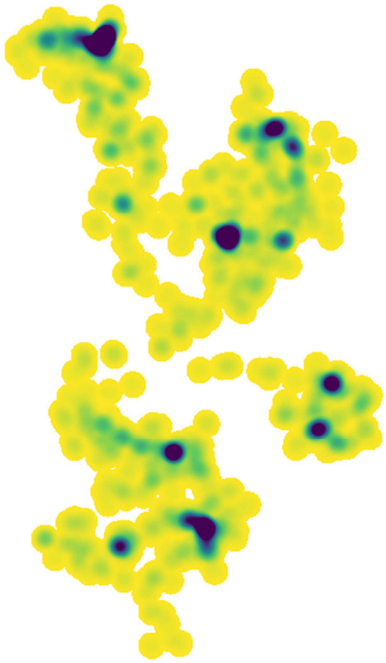


Figure 53. Heatmap representing the blue zones more dense areas.

Figure 54. Heatmap reclassified. Blue areas represent grouped building areas, orange areas represent dispersed settlement areas, and yellow areas represent isolated areas.

Accessibility

The accessibility map is created from the road infrastructure map given by the Basque Country Government. This map is a layer that has every road of the territory with several attributes, one of them being the type of road.

There is a direct way of obtaining an accessibility map if the infrastructure net is available. However, that net does not have trails and non-paved

roads that are rather common in rural and mountain areas. This is why achieving the accessibility map had to be done by creating a cost grid.

A cost grid is a raster file that has as attribute a cost per cell. The size of the cell can be established, and the costs are also given.

In this particular case the cost is time: the time of passing through each cell. This time is calculated based on the road infrastructure vector map, and for each class an average speed is assumed. This data is introduced by the field calculator into the attribute table of the layer.

Average speed is calculated by applying a reduction coefficient to the maximum allowed speed for each road type. The maximums and average speeds can be consulted in Table 6. The final cost is calculated per cell (the cell size is selected when creating the raster image).

ROAD TYPE	MAX SPEED (km/h)	COEFFICIENT	AVERAGE SPEED (km/h)	COST per cell (Minutes)
Autopistas, autovías y vías de doble calzada	120	0,9	108	0,014
Camino	30	0,75	22,5	0,067
Camino oculto	30	0,75	22,5	0,067
Carreteras principales	90	0,75	67,5	0,022
Carreteras principales ocultas	90	0,75	67,5	0,022
Carril bici	0	0,75	0	
Conexiones urbanas a vías principales	50	0,75	37,5	0,04
Conexiones urbanas a vías principales	50	0,75	37,5	0,04
Otras conexiones urbanas	50	0,75	37,5	0,04
Otras vías revestidas	30	0,75	22,5	0,067
Senda	30	0,75	22,5	0,067

Table 6. It shows the main variables to calculate the cost grid. The coefficients are taken from the work of R.P.Juliao (Juliao 1999).

Once the road infrastructure layer has in its attributes the average speed per road type it is rasterized. The cell size values are 25metres. The value for the cells that do not contain any road is 5 km/h, which is walking speed. Then the cost is linked to every cell and the raster is created.

After each cell has the “cost” attached to each cell, a cost analysis is performed.

As addressed in the previous section, the road infrastructure map is not a net, which means that the connections between roads are not made. This means for the analysis proposed here, that the accesses to the highways are not located, and that every line that crosses in the map is considered a real option for traveling, so that if a secondary road crosses under the highway, the cost analysis will consider a least resistant path to “enter” the highway at that point, when in reality it is not possible.

In order to solve this problem, a new point layer was created having all the highway access points and the main towns for the functional areas the municipalities belong to (Tolosa and Zarautz) and the capital city Donostia-San Sebastian (Fig.55).

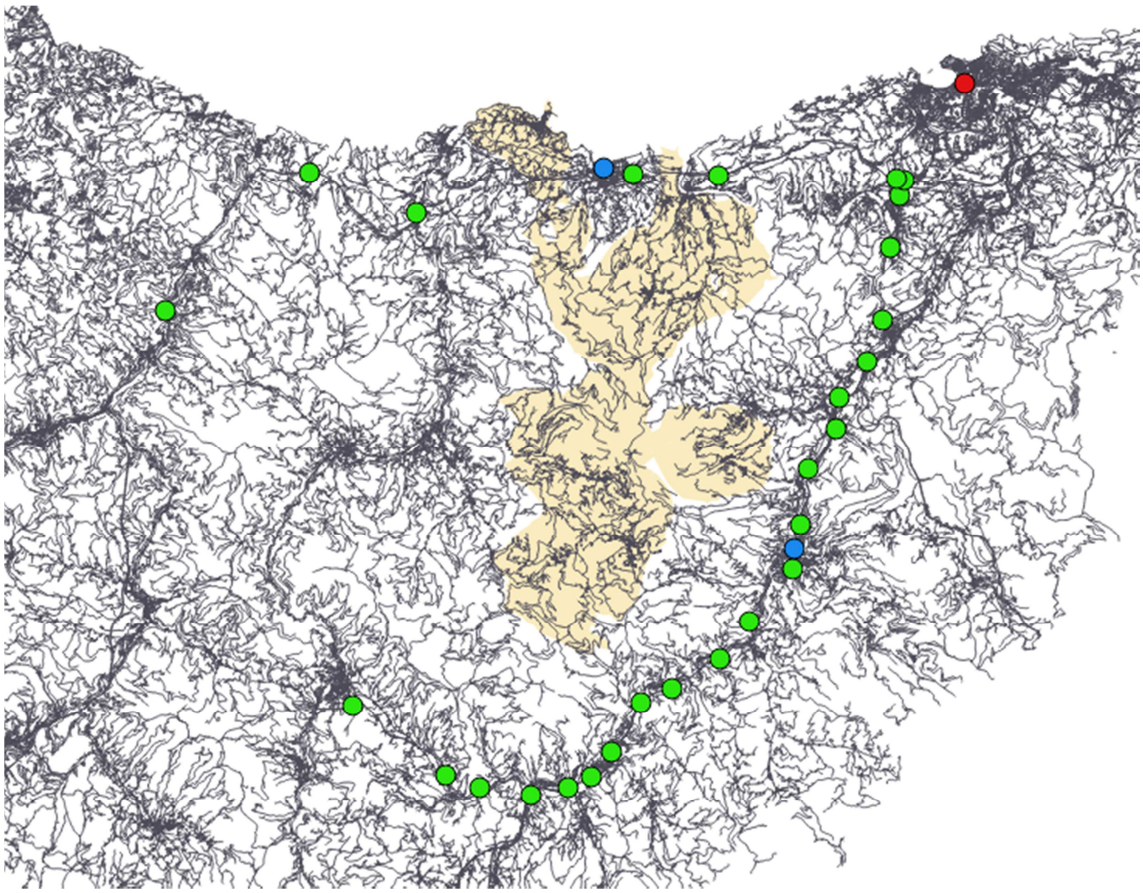


Figure 55. This map represent the road net, the case study area (light yellow), the highway access points (green dots), Zarautz and Tolosa (blue dots) and Donostia-San Sebastian (red dot).

Then the analysis is separated into two parts: On one hand, the analysis from every origin point to the functional areas´ main towns (Zarautz and Tolosa) represented in Figure 56; on the other hand, the analysis to get to Donostia-San Sebastian, which is achieved in two steps.

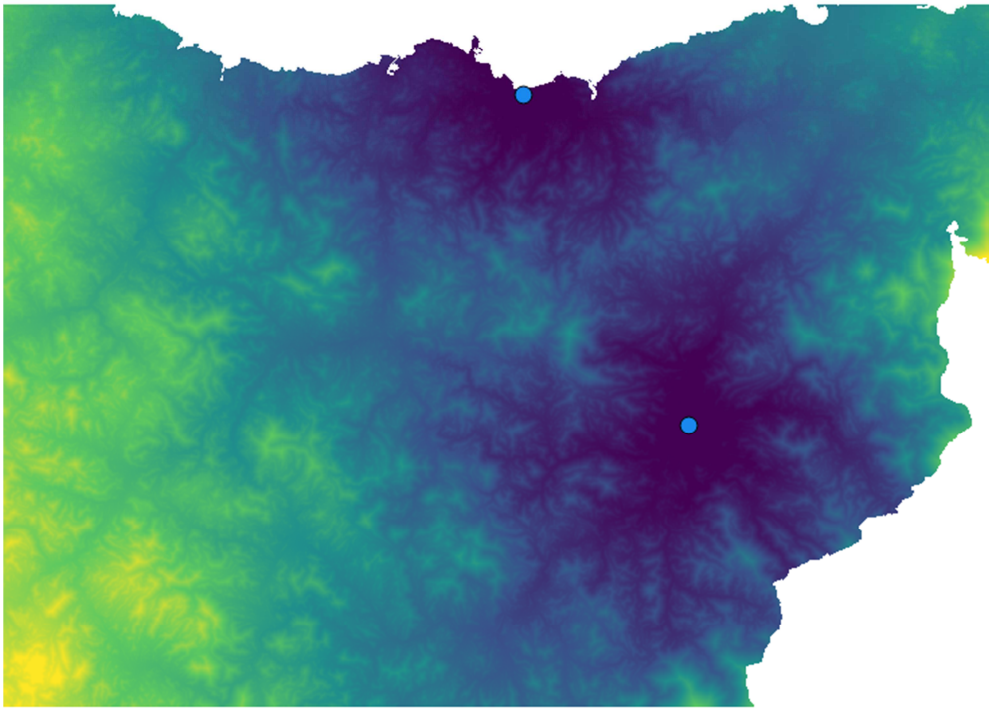


Figure 56. Cost analysis from every origin point to Zarautz and Tolosa (blue dots). Darker colours represent least cost, so more accessible.

.

First, for the cost analysis to get to Donostia-San Sebastian, the analysis is made not taking into account the highways, having as origin points every cell and as destination point Donostia-San Sebastian (Fig.57).

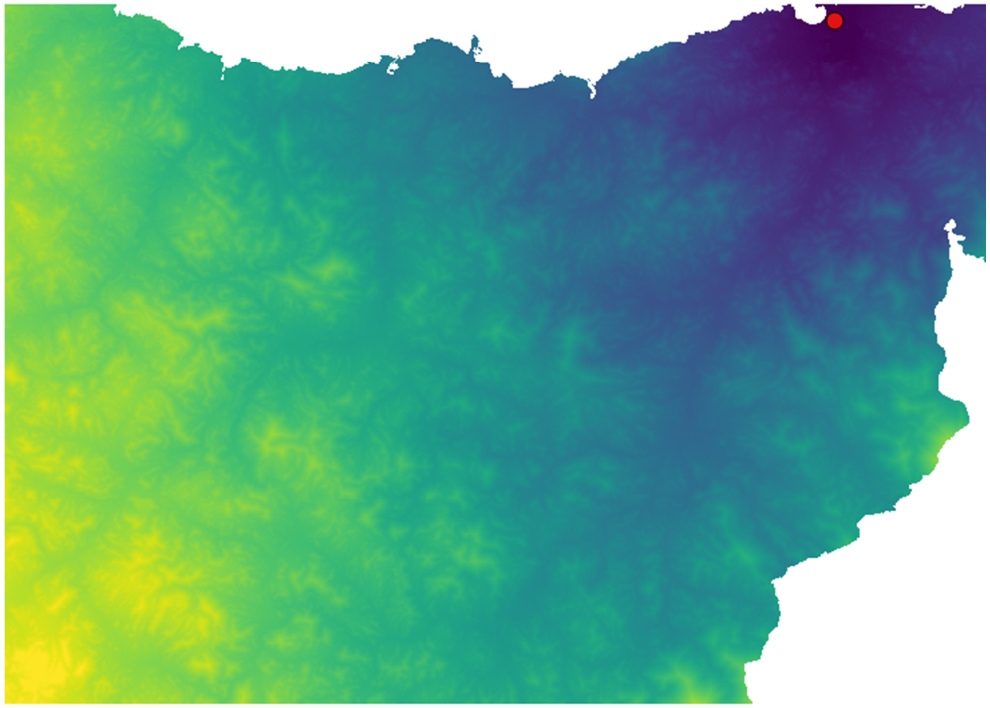


Figure 57. Cost analysis from every origin point to Donostia-San Sebastian except highways

Then, another cost analysis is performed from every cell to the nearest highway access points (Fig.58).

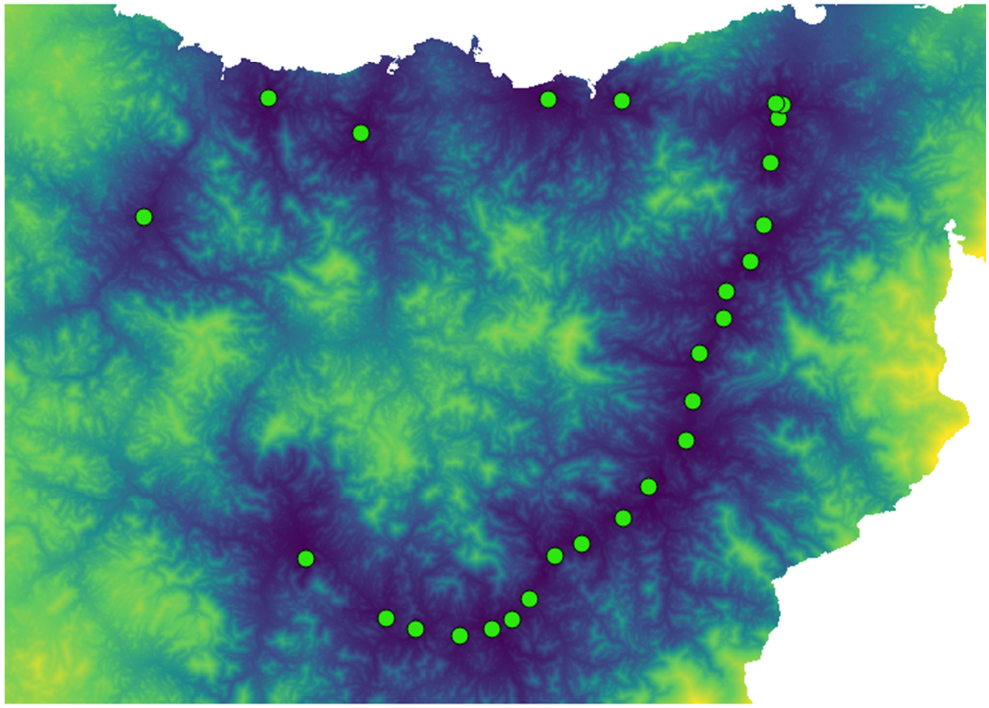


Figure 58. Cost analysis from every origin point to the access points to highways.

Thirdly, another cost analysis is performed from the highway access points to Donostia-San Sebastian. This results in a line map, as highways are not considered reachable but from their access points. Thus, the analysis only considers as origin points the highway access points, and then calculated the cost to get to Donostia-San Sebastian. Then the cost from every origin to the highway access points is added to the cost from every access point to Donostia-San Sebastian obtaining the cost analysis from every origin point to Donostia-San Sebastian through highways (Fig.59).

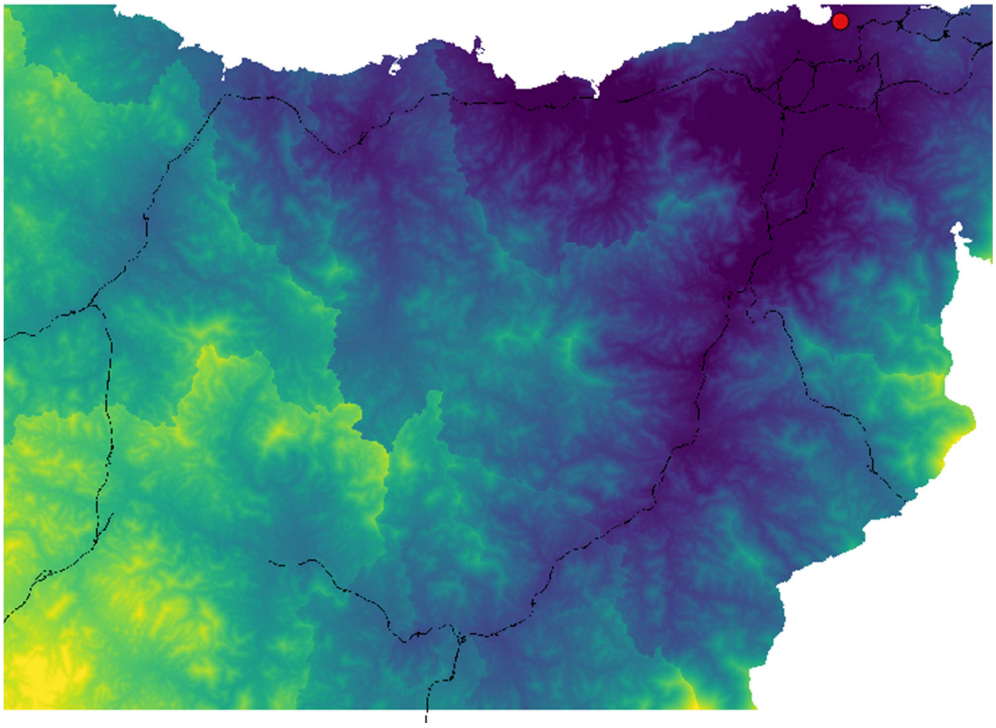


Figure 59. The lines represent the cost from the highways access points to Donostia-San Sebastian. The background (coloured) represents the total cost from every access point to Donostia-San Sebastian through highways.

To achieve the cost map to get to Donostia-San Sebastian there are two alternatives to select from: on one hand the cost analysis from every origin point to Donostia-San Sebastian through secondary roads; on the other hand, the cost analysis from every origin cell to Donostia-San Sebastian through highways.

For the selection of alternatives, it is established that for each cell it selects the least (minimum) cost, so that the best alternative (in terms of travel time) is chosen for each of the cells of the map. The total map for accessibility to Donostia-San Sebastian is shown in Figure 60.

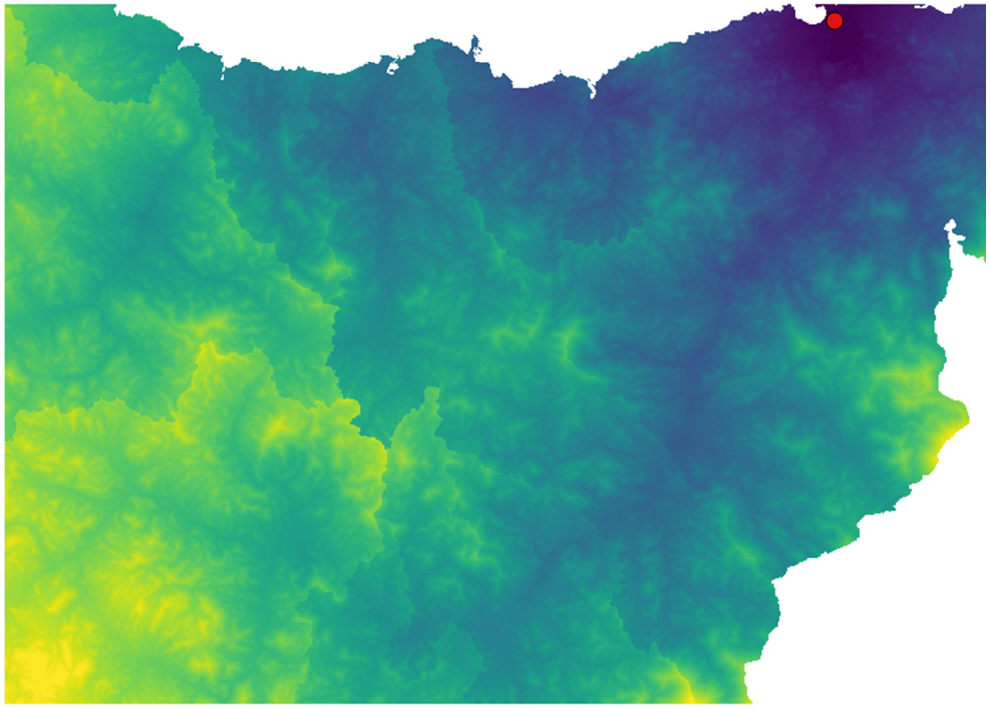


Figure 60. This map shows the best accessibility for each point to get to Donostia-San Sebastian

To get the global accessibility map the three maps are added up through Raster calculator, overweighing the accessibility map to the capital city (Donostia-San Sebastian) and multiplying it by 2 (Figure 61).

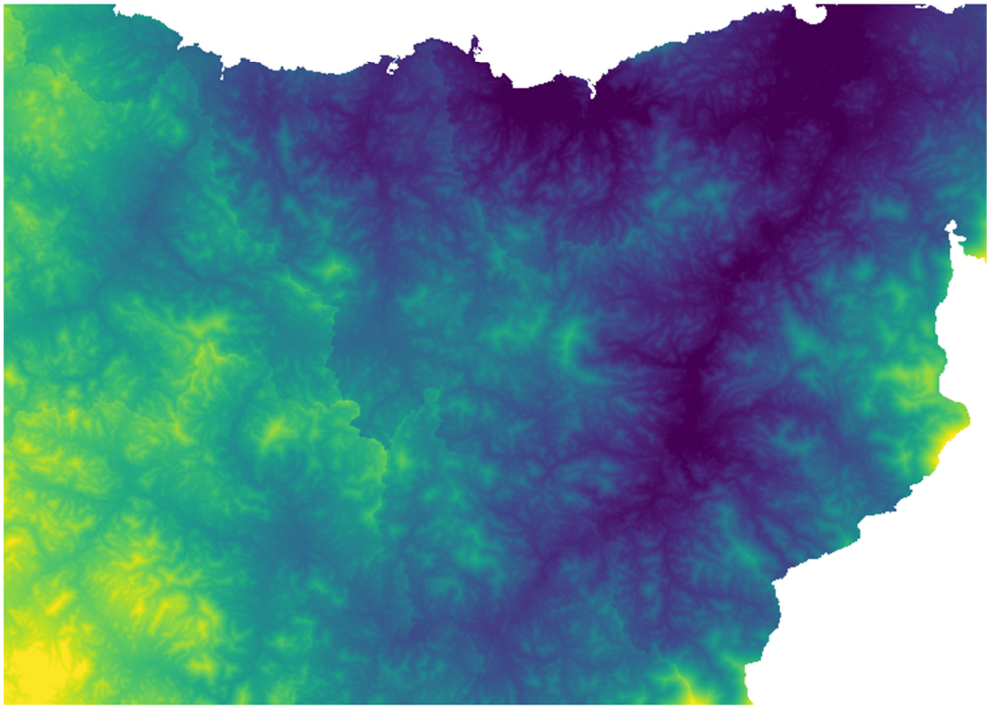


Figure 61. Total cost map from every origin to the points of interest.

Then a reclassify is made for the case study area, in order to get the five different accessibility types (Figure 62).

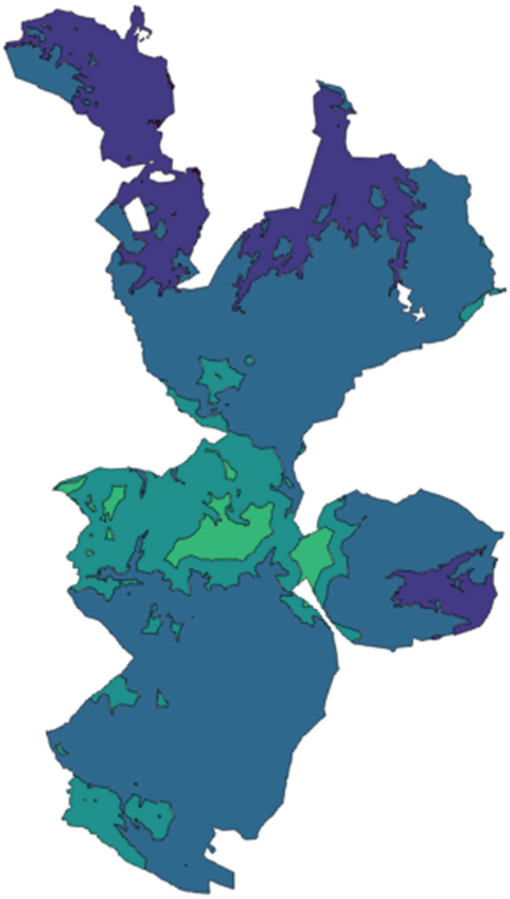


Figure 62. Accessibility for the case study area reclassified into 5 classes.

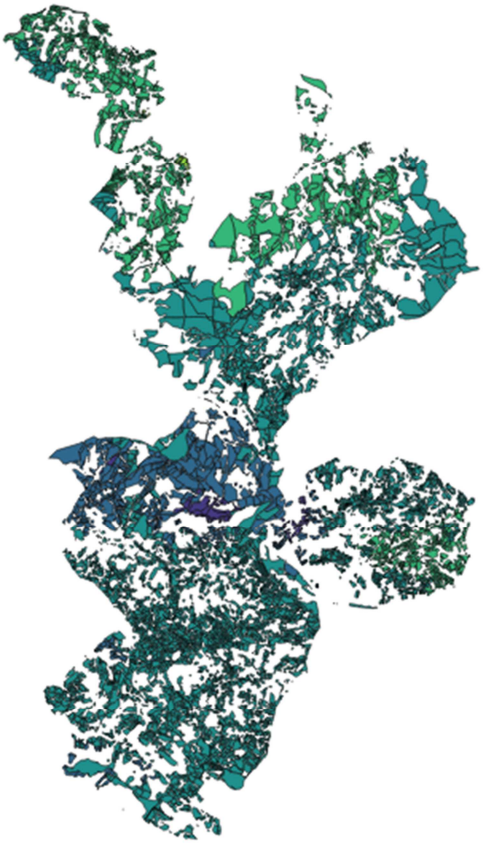
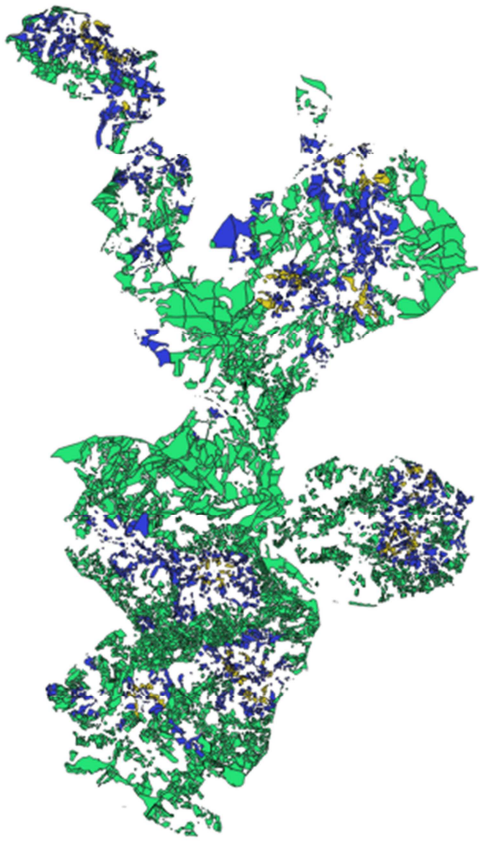
Final results of characterization

Once the typologies are obtained and the grouping and accessibility maps, each typology can be characterized. Basic statistics measures are obtained for each typology, in order to achieve a better understanding of these typologies in this particular climatic zone and region.

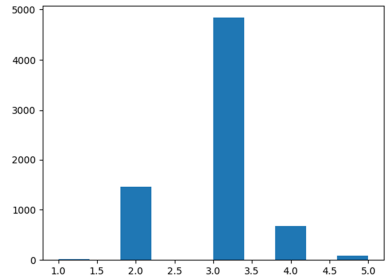
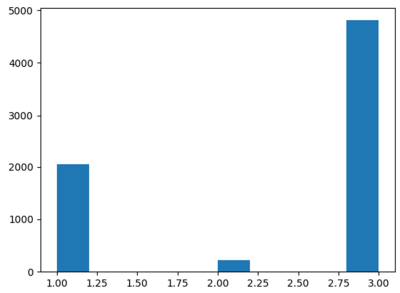
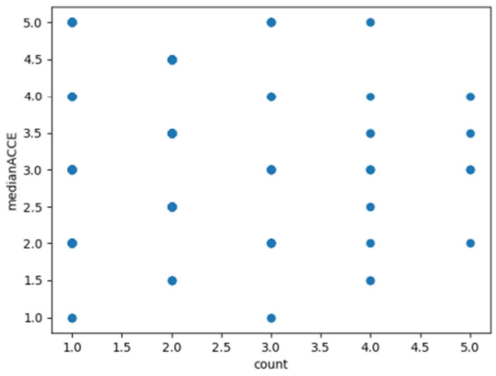
For better visualization of the characteristics, a chart has been created containing the typologies, maps and basic statistics for each characteristic.

T1

This typology is formed by rustic non-occupied cadastral parcels which main use is productive. These parcels are distributed as shown on Accessibility and Grouping maps

Accessibility Map	Grouping Map
	
Darker colours (dark blue) show less accessible parcels, whereas lighter green colour show more accessible parcels.	This map represents the grouping areas where the non-occupied productive parcels are located. It is not representative of this typology as T1 does not have buildings. However, blue and yellow parcels represent non-occupied productive parcels located in grouped (1) and disperse (2) areas. Green parcels represent isolated buildings areas.

2

<table>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).
It shows that most T1 parcels are type 3 for accessibility. For non-occupied productive parcels there are no type 1 accessibility or type 5.</td><td>This histogram represents the grouping distribution of T1 parcels.
It shows that most of the non-occupied productive parcels lie on the type 3 grouping type (isolated) although there are no buildings linked to this typology.
However, this shows that even for unbuilt parcels the surroundings of most of them are very low built environment.</td></tr>
<tr><td></td><td></td></tr>
<tr><td> 
</td><td>In this case the Dispersion table for accessibility and grouping does not show any correlation between types of accessibility and grouping.</td></tr>
</table>

It can be summarized that T1 parcels are unbuilt productive parcels that represent a major part of the total surface of the case study area.

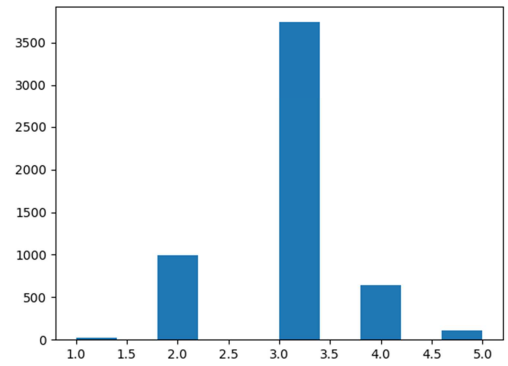
These parcels are very different in terms of accessibility, as the histogram shows, being the most given accessibility value 3. This might be coherent with productive parcels that need access for transporting the product.

In terms of grouping, it has been already addressed that they cannot be classified as isolated or grouped as there are no buildings. However, it is interesting to note that most of T1 parcels are in grouping 3 areas, for isolated buildings. This seems logical as it is a rural area and it needs large areas for production, especially for plantation forest.

T2

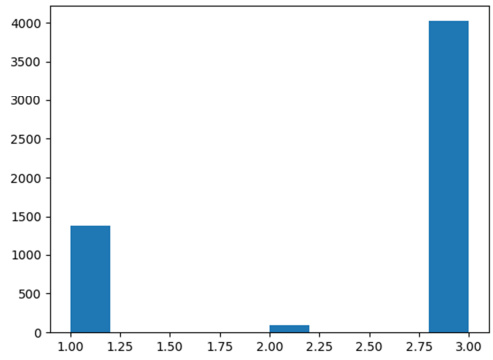
This typology is formed by rustic non-occupied cadastral parcels which main use is non-productive. These parcels are distributed as shown on Accessibility and Grouping maps

Accessibility Map	Grouping Map
	
Darker colours (dark blue) show less accessible parcels, whereas lighter green colour show more accessible parcels.	This map represents the grouping areas where the non-occupied non-productive parcels are located. It is not representative of this typology as T2 does not have buildings. However, blue and purple parcels represent non-occupied non-productive parcels located in grouped (1) and disperse (2) areas. Green parcels represent isolated buildings areas.



This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).

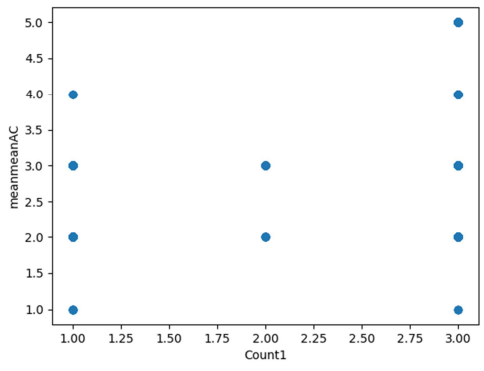
It shows that most T2 parcels are type 3 for accessibility. For non-occupied non-productive parcels there are no type 1 accessibility and very few for type 5.



This histogram represents the grouping distribution of T2 parcels.

It shows that most of the non-occupied non-productive parcels lie on the type 3 grouping type (isolated) although there are no buildings linked to this typology.

However, this shows that even for unbuilt parcels the surroundings of most of them are very low built environment.



The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows a connection between parcels being considered located in grouped areas with poor accessibility (4), and also in isolated considered areas with very poor accessibility (5).

It can be summarized that T2 parcels are unbuilt non-productive parcels of smaller total surface than T1.

These parcels have different accessibility characteristics, as the histogram shows, but the most given accessibility value are 3. These parcels are considered non-productive, and among them there are natural areas of rocks

2

and broad-leaves forests. This is interesting in terms of access to nature and environmental services that these areas can give to the surroundings as it would mean that this particular area has a rather good access to nature quality.

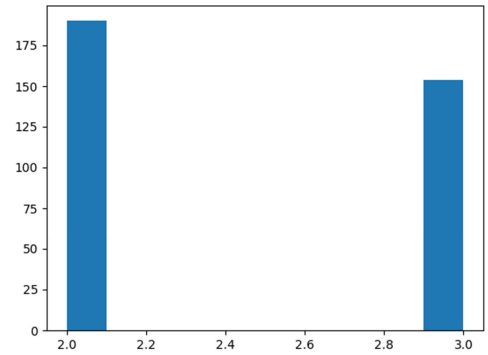
In terms of grouping, it has been already addressed that they cannot be classified as isolated or grouped as there are no buildings. However, it is interesting to note that most of T2 parcels are in grouping 3 areas, for isolated buildings. It is assumed that natural areas would fall into this category, so it looks as if natural areas would be surrounded by isolated built environment, which would increase the experience of nature.

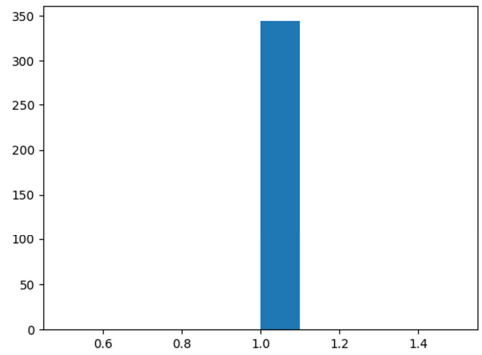
T3

This typology is formed by urban cadastral parcels (buildings) which main use is productive. These parcels are distributed as shown on Accessibility and Grouping maps

Accessibility Map	Grouping Map
	
Darker colours (dark purple) show more accessible parcels, whereas lighter blue colour show less accessible parcels. The grey area is to locate the rest of the municipalities´ areas as this map has smaller surface for showing.	This map represents the grouping areas where the urban productive parcels are located. All parcels belong to grouping type 1 (grouped).

2





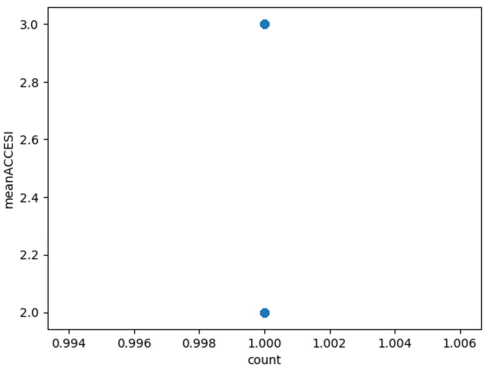
This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).

It shows that T3 parcels are divided almost equally between type 2 and 3 for accessibility.

For productive buildings there are no types 1, 4 or 5 in accessibility.

This histogram represents the grouping distribution of T3 parcels.

It shows that most all the productive buildings are located in grouped areas (grouping type 1).



The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows that all parcels are grouping type 1, and are divided between accessibility types 2 and 3.

It can be summarized that T3 parcels are formed by productive buildings that represent a small surface compared to the total surface of the area.

These parcels have very similar accessibility, either good or medium (2 or 3) as shows the histogram, being more predominant type 2, good accessibility. These parcels are considered productive, probably formed by industrial or tertiary

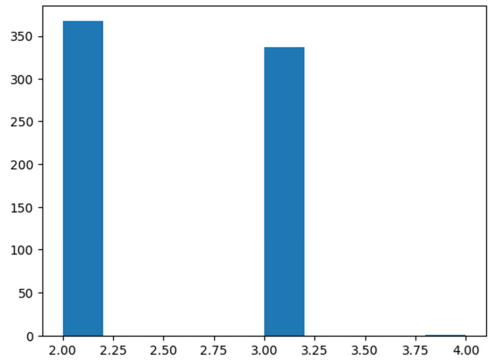
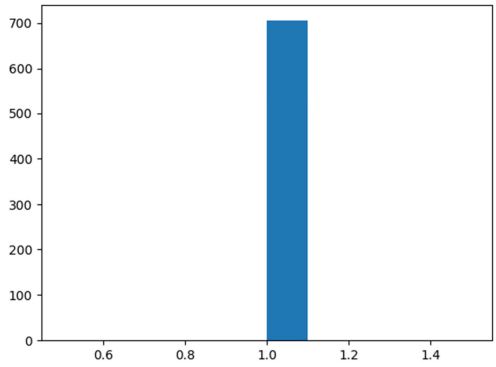
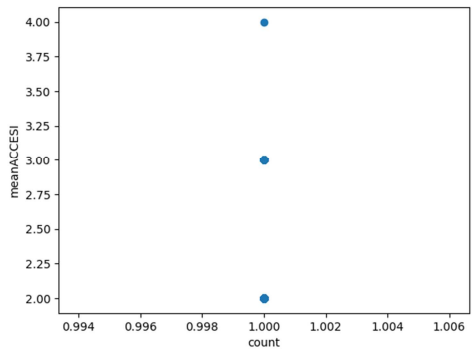
sector buildings. This shows that these types of buildings have rather good accessibility, which is necessary in terms of distribution of goods and access to public and workers.

In terms of grouping, they are all in grouping type 1 (grouped) which means that productive buildings non-associated to land do not exist in dispersed or isolated building environments in this case study area. This also means that productive buildings are somehow united to other buildings, mainly to other productive buildings as it can be appreciated in the maps above.

T4

This typology is formed by urban cadastral parcels (buildings) which main use is non-productive. These parcels are distributed as shown on Accessibility and Grouping maps.

Accessibility Map	Grouping Map
	
Darker colours (dark purple) show more accessible parcels, whereas lighter blue colour show less accessible parcels.	This map represents the grouping areas where the non-productive building parcels are located. All parcels have the same colour as they all have the same grouping type (1).

<table>
<tr><td> 
</td><td> 
</td></tr>
<tr><td>This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).
It shows that most T4 parcels are types 2 and 3 for accessibility. For non-productive building parcels there are no types 1 or 5 and very few are type 4.</td><td>This histogram represents the grouping distribution of T4 parcels.
It shows that all non-productive building parcels are in grouped areas (Grouping type 1).</td></tr>
<tr><td></td><td></td></tr>
<tr><td> 
</td><td>The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows a connection between parcels being considered located in grouped areas with good (2), medium (3) and poor (4) accessibility.</td></tr>
</table>

It can be summarized that T4 parcels are built non-productive parcels of small total surface compared to the global surface of the case study area.

These parcels have different accessibility characteristics, as the histogram shows, but the most given accessibility values are 2 and 3, being good and medium accessibility characteristics. These parcels are considered non-productive, and most certainly their main uses are residential as well as public

2

and private equipment and endowments. This shows that grouped residential areas (small boroughs or neighbourhoods) have a rather good accessibility, at least to the points of interest considered for this analysis.

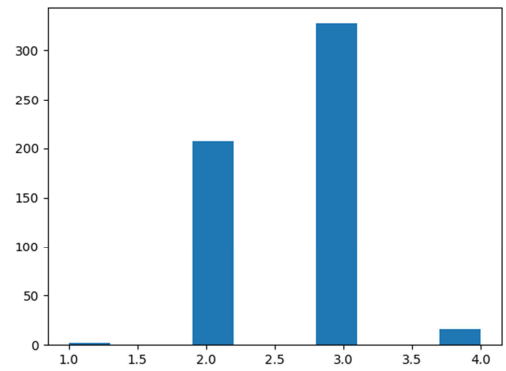
In terms of grouping, all parcels fall within the characteristic of grouped area (grouping type1). It seems logical that residential (and related) buildings with no associated land are located forming clusters, and in this particular case, they also have a rather good accessibility.

T5

This typology is formed by productive rustic parcels that have productive urban parcels (buildings). These parcels are distributed as shown on Accessibility and Grouping maps

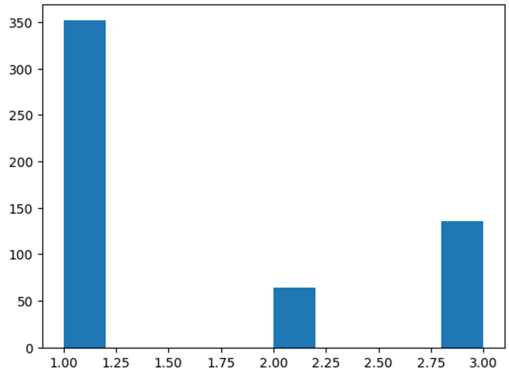
Accessibility Map	Grouping Map
	
Darker colours (dark blue) show less accessible parcels, whereas lighter blue colour show more accessible parcels.	This map represents the grouping areas where the T5 parcels are located. The lighter colours represent isolated areas, the darker colours are grouped areas, and the intermediate colour parcels are disperse areas.

2



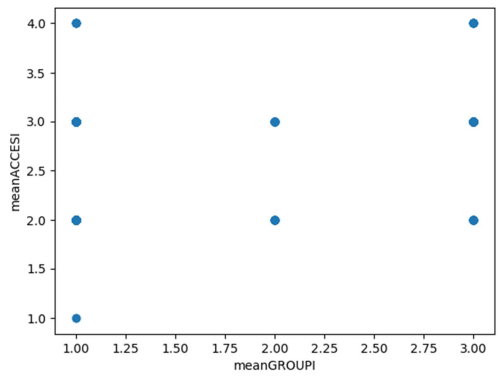
This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).

It shows that T5 parcels are predominantly types 2 and 3 for accessibility (good and medium accessibility respectively), with also fewer cases of types 4 (poor) and 1 (very good accessibility).



This histogram represents the grouping distribution of T5 parcels.

It shows that there are T5 parcels on each grouping category, being the grouped areas higher.



The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows that:

For grouped parcels there are cases for every accessibility case but for type 5 (very poor).

For parcels on dispersed areas the accessibility is good and medium.

For isolated T5 parcels accessibility is on middle values, from good (2) to poor (4).

It can be summarized that T5 parcels are formed by productive buildings that lie on productive land parcels.

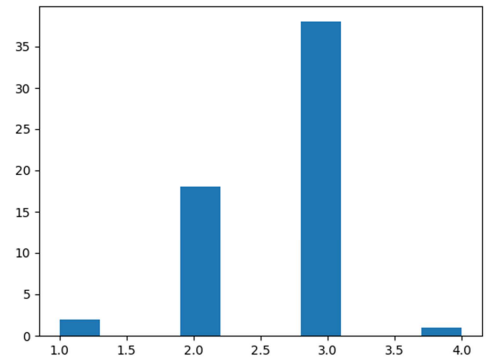
These parcels have very different accessibility types, with predominance of medium (3) and good (3) accessibility. These parcels are considered productive, probably formed by agricultural and cattle exploitations, or adjacent parcels to traditional farmhouses.

In terms of grouping, they are in all in grouping types, but type 1 (grouped) is more common. This means that in this case study area, with rural character (as is extracted from the Relative Rurality Map from chapter 3), residential buildings in grouped areas are nearby to productive parcels, as it is expected from rural areas.

T6

This typology is formed by productive urban parcels (buildings) over non-productive rustic parcels. These parcels are distributed as shown on Accessibility and Grouping maps

Accessibility Map	Grouping Map
	
Darker colours (darker blue) show less accessible parcels, whereas lighter colours (green and yellow) show more accessible parcels. Grey areas on the map represent the rest of the municipalities'´ areas for easier visualization.	This map represents the grouping areas where the T6 parcels are located. The lighter colours represent isolated areas, the darker colours are grouped areas, and the intermediate colour parcels are disperse areas.

<table>
<tr>
<td> 
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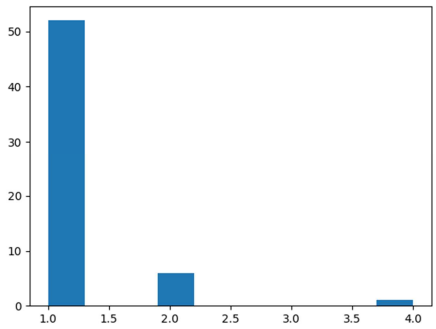
<td> 
</td>
</tr>
<tr>
<td>This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).
It shows that T6 parcels are predominantly type 3 for accessibility (medium), with also some cases of type 2 (good) and very few cases of types 1 and 4 (very good and poor accessibility respectively).</td>
<td>This histogram represents the grouping distribution of T6 parcels.
It shows that most of the T6 parcels are in grouped areas; whereas there are few cases in disperse areas and very few in isolated areas.</td>
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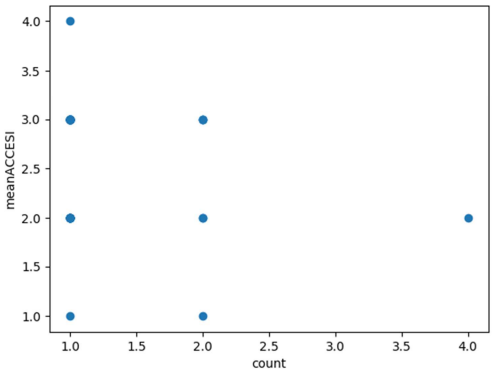
<tr>
<td> 
</td>
<td>The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows that: for grouped parcels there are cases for every accessibility case but for type 5 (very poor).
For parcels on dispersed areas the accessibility is from very good to medium.
For isolated T6 parcels accessibility value is 2 (good accessibility).</td>
</tr>
</table>

It can be summarized that T6 parcels are formed by productive buildings that lie on non-productive land parcels, being very few cases and forming a small part of the total surface of the case study area.

2

These parcels have very different accessibility types, with predominance of medium (3) and, in fewer amounts, good (2) accessibility. These parcels are considered productive buildings over non-productive land, being probably a mix of productive uses non-related to agriculture, cattle and forestry.

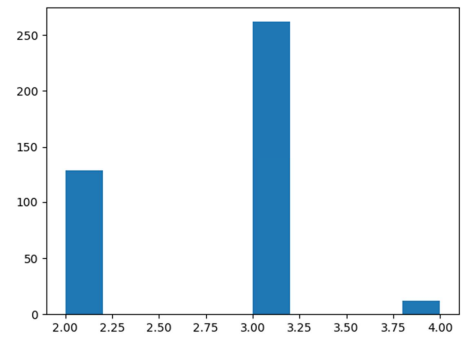
In terms of grouping, they are in all in grouping types, being predominant type 1 (grouped). This means that in this case study area, productive buildings on non-productive land parcels are predominantly located in grouped built environments.

T7

This typology is formed by non-productive urban parcels (buildings) over productive rustic parcels. These parcels are distributed as shown on Accessibility and Grouping maps

Accessibility Map	Grouping Map
	
Darker colours (darker blue) show less accessible parcels, whereas lighter colours (green and yellow) show more accessible parcels.	This map represents the grouping areas where the T7 parcels are located. The lighter colours represent isolated areas (3), and darker colours are grouped areas (1). Intermediate colours represent disperse areas (2).

2

<table>
<tr>
<td> 
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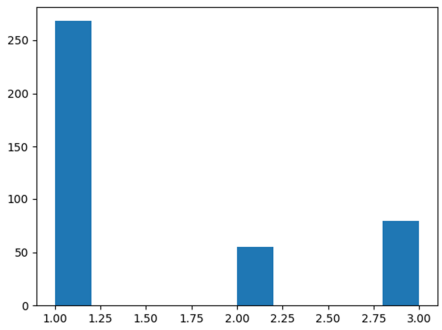
<td> 
</td>
</tr>
<tr>
<td>This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).
It shows that T7 parcels are predominantly type 3 for accessibility (medium), with also some cases of type 2 (good) and very few cases of types 1 and 4 (very good and poor accessibility respectively).</td>
<td>This histogram represents the grouping distribution of T7 parcels.
It shows that most of the T7 parcels are in grouped areas; whereas there are few cases in both disperse isolated areas.</td>
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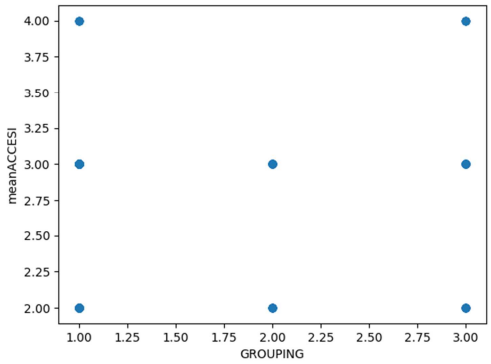
<tr>
<td> 
</td>
<td>The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows that: for grouped parcels there three accessibility types, good (2), medium (3) and poor (4).
For parcels on dispersed areas the accessibility is from good (2) to medium (3).
For isolated T7 parcels accessibility values are the same as for grouped areas.</td>
</tr>
</table>

It can be summarized that T7 parcels are formed by non-productive buildings that lie on productive land parcels, and they represent an important amount of surface of the case study area.

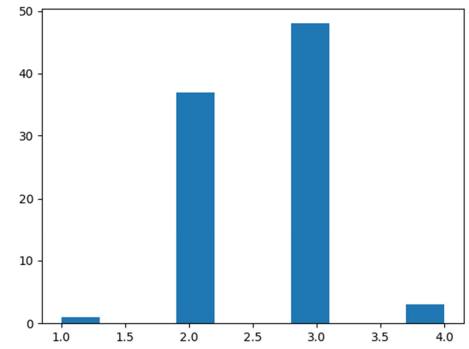
These parcels have different accessibility types, with predominance of medium (3) and, in fewer amounts, good (2) accessibility. These parcels are considered non-productive buildings over productive land, or more than one building of different type per productive parcel, being probably a good representative of the traditional farmhouse of the area. The traditional farmhouse is a main building that originally had mixed use, nowadays transformed into residential in many cases, with additional productive buildings such as barns. The rustic parcels are productive, usually of a mix of uses (agriculture, cattle and forest).

In terms of grouping, they are in all in grouping types, being predominant type 1 (grouped). This means that in this case study area, non-productive buildings on productive land parcels are predominantly located in grouped built environments, meaning that they most certainly form boroughs or neighbourhoods.

T8

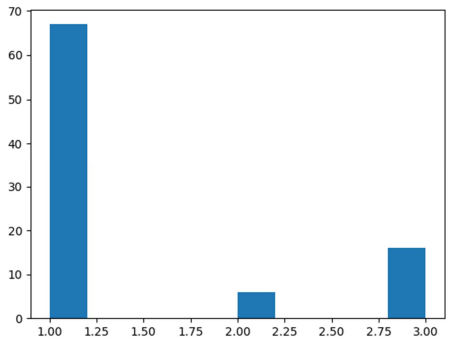
This typology is formed by non-productive urban parcels (buildings) over non-productive rustic parcels. These parcels are distributed as shown on Accessibility and Grouping maps

Accessibility Map	Grouping Map
	
Darker colours (darker blue) show less accessible parcels, whereas lighter colours (green and yellow) show more accessible parcels.	This map represents the grouping areas where the T8 parcels are located. The lighter colours represent isolated areas (3), and darker colours are grouped areas (1). Intermediate colours represent disperse areas (2).



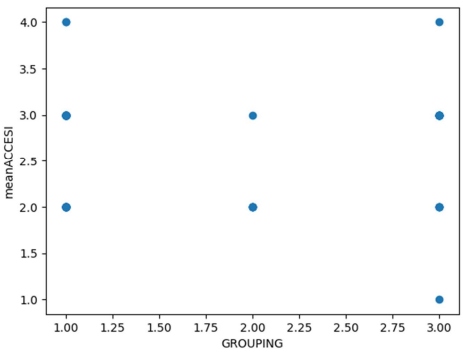
This histogram represents the distribution of parcels per accessibility (1 to 5, Y axis).

It shows that T8 parcels are predominantly types 2 and 3 (good and medium respectively) for accessibility with also some cases of type 4 (poor) and very few cases of type 1 (very good accessibility).



This histogram represents the grouping distribution of T8 parcels.

It shows that most of the T8 parcels are in grouped areas (1); whereas there are few cases in isolated areas (3) and very few in disperse areas (2).



The Dispersion table for accessibility (Y axis) and Grouping (X axis) shows that: for grouped parcels the accessibility varies from good (2) to poor (4).

For parcels on dispersed areas the accessibility is good (2) to medium (3).

For isolated T8 parcels accessibility values are from very good (1) to poor (4).

It can be summarized that T8 parcels are formed by non-productive buildings on non-productive land parcels, and they represent small amount of surface of the case study area.

These parcels have different accessibility types, with predominance of medium (3) and good (2) accessibility. These parcels are considered non-productive buildings over non-productive land, being probably the main use low-density residential.

In terms of grouping, they are in all in grouping types, being predominant type 1 (grouped). This means that in this case study area, non-productive buildings on non-productive land parcels are predominantly located in grouped built environments, meaning that they most certainly form boroughs or neighbourhoods, together with the T4 (non-productive buildings with no land parcels).

Conclusions

The main objective of this chapter was to obtain a characterization of the different typologies of a successful rural area, so that this method allows extracting guidelines for other similar areas based on analysis examples.

Thus, the main objective is achieved. The method proposed has shown the different typologies based on cadastral parcels and simplified uses, so that this type of analysis can be dove overcoming administrative boundaries and without entering to consider each municipality´s planning. This allows studying bigger areas from a broad perspective, obtaining insight on the characteristics of the studied area.

There were some decisions to make during the process that could have influenced the results of the analysis such as the simplification of uses. There are uses such as broad leaved forest that has been considered non-productive (as that kind of forest is the autochthonous in this areas and it is not usually utilised for plantations because of its slow growing rate). This might be true for most areas, but it could also be that there are some parcels containing this use combined with productive uses, that because the productive surface was smaller than the broad leaved forest, the whole parcel might have been considered non-productive.

This is not possible to foresee at this scale, and although it might change some of the results, it does not alter the general overview of the area. At the end these areas might have been considered non-productive when they were productive, so the area would have an even more rural character.

The results are satisfactory as it has been achieved the characterization by the proposed method, and the results represent the area. They have also given insight on what characteristics do have most of the parcels of each typology.

These characteristics have been summarised in the tables, showing accessibility and grouping maps for each type, and also hypsometric charts for easier interpretation of basic statistics (per characteristic). This has proven useful to easily visualize the most common displays of each typologies´ parcels. It can be summarized that the studied area is a rather accessible area, and most parcels have accessibility type 3, which is medium accessibility. It is easy to obtain this information by going to the histograms per type, and checking the most given value for accessibility (or grouping).

Overall, this method allows studying typologies based on simplified uses and combinations with cadastral parcels, and allows, from a rather big scale, to identify settlement typologies and their characteristics. This is why it is considered that the application to other areas could complete a more general understanding of the region.

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Conclusions

This section summarizes the main conclusions of this work, and suggests future research lines related to the present topic.

The state of the art has showed that one of the main concerns in European, Spanish and autonomic policies. This concern has suffered an evolution and nowadays it is considered even an opportunity to develop new ways of managing things.

This change has produced a more concerned public opinion regarding today´s and future´s generation's needs, and it is expanding its limits to all areas, from environmental to social and cultural.

Sustainability is another key concept in current policies and it aims to maintain the activities, uses, and characteristics of an area keeping the reposition rate of goods and energy, and of absorption of waste and emissions viable without compromising next futures generations ability to live up to the same comfort. For this work, this has been simplified as having a good development indicator such as the Gross Domestic Product per capita, which was proven in chapter 4 to serve for this purpose.

The rural term has also suffered an evolution, and nowadays has lost the negative connotation to it. However, its attributes are diverse: population density, low density, population employment, development, access to services, etc. There is no general definition, and its characteristics vary from region to region.

Regarding rural areas planning has suffered an evolution too: at first they were seen as mere productive areas and as a soil reserve, and nowadays they are considered to have more complex uses such as ecosystem services, access to nature, example of cultural heritage, territory custody, etc.

This change still has another step to give: equal rural areas to urban ones, or even better, end up the territory duality that has allowed neglecting rural areas to favour urban. From European policies they are aiming for this scope, looking for territory cohesion.

The need for a relative method of identification of rural areas was concluded in chapter 1, as there is no possible absolute definition because of their variety and differences.

The results of the Relative Rurality Map of Chapter 3 shows that there are rural areas along all the Basque territory in different degrees, and that among them there are differences not only due to climate but also due to development degree.

Thus, the first question regarding whether there are still rural areas in Europe, especially within predominantly urban regions, is answered: yes there are. The thing is that rurality cannot be expressed in one single way as it depends much on the surroundings and the characteristics of the area being studied. That is why a relative method is appropriate for this area and for others by extrapolating the methodology proposed. The Relative Rurality Map achieved in chapter 3 allows including different types of indicators and data to obtain a map showing the gradient of different rural areas.

Although there have been some difficulties such as finding the regression equations in order to get the common scale needed to transform all indicators into one index, finding values by linear interpolation resulted in a valid figure.

For the overlay it was considered at first an Analytic Hierarchy Process (Saaty 1987), but it was necessary to scale the indicators regarding their importance towards defining the rurality of an area. After the method was made considering all indicators the same weight, I would recommend considering the population density by LPE with more weight. However,

recently it has been posted a map of population density by square kilometre, based on the number of neighbours per building number. Nevertheless, it does not give the density, but punctuation, as it is sensitive information.

It has been proved that a predominantly urban region such as the Basque Country has significant amounts of rural areas, influencing the cultural image of the region and its perception of landscape.

The method to identify rural areas has proven to be an operative method to identify rural areas within a given territory as long as data is available.

The RRM can be a useful tool to give insight of a territory oriented towards strategic planning. It can also be used as a tester of the evolution of the rurality of an area, if indicators are chosen from former years.

In chapter 4 a characterization of the Basque Atlantic successful rural area is made, enabling to apply the characteristics found to another less successful similar areas.

This method has proven to overcome administrative boundaries although the boundaries of the area were municipalities. It also enables to analyse an area without entering to consider their planning, by simplified uses and cadastral parcels, which simplifies the procedure.

The parcels of the case study area have been characterized, showing that the area has an important rural character: the presence of a great number of T7, which can be considered as the traditional farmhouse with mix of uses and productive parcels. Apart from this typology, productive non-occupied areas are much bigger than non-productive non-occupied ones, and more importantly, much greater productive land than built space.

It has also shown a common characteristic to the whole Basque Country: its accessibility. Even the most rural areas are connected to one of the three main capital cities in less than one hour. This changes the scene for the traditionally consideration of rural as isolated and remote. Although most for the less accessible areas of the analysed typologies are non-productive non-built areas, it is a relative scale and overall their travel time to the capital city is still within the hour.

The method used to synthesize the typologies has proved to be effective in terms of visibility: it is easy to compare typologies, regarding accessibility, grouping and distribution. If other areas with similar characteristics were to be analysed, the comparison would be very easy and direct.

This method allows a general understanding of an area without having to analyse each of the municipalities involved, and limiting the data available to cadastral parcels, forest inventory and road infrastructure map. This type of study could facilitate territory analysis oriented towards creating strategic guidelines and plans.

Overall, this work has shown that even on predominantly urban regions such as the Basque Country, which has three times that average population density of Spain, there are rural areas in different degrees, and these areas have an important role in cultural heritage and territory management.

The methods proposed have served for the purposes established. However there have been several drawbacks, especially regarding data, that have been resolved and given the results. The changes derived of these drawbacks could have influenced the results in a small scale, but given the territory scale of the work the solutions applied have resulted appropriate.

The present work has shown not only that the Basque Country still has a lot of rural areas, but also that these methods are capable of offering results oriented towards a desired objective, not only resulting in raw data. Thus, the application of GIS technologies using different data origins and types is highly recommended for a better understanding of territory, which a very complex and yet limited space.

Future research lines

As addressed in chapter 2, there is still a lot to do regarding rural areas. It has to be taken into account that the areas being studied here are part of a densely populated territory with good accessibility. Hence, it is not only a problem of rural agricultural policies, or environmental guidelines that matter. It concerns the whole territory taken as one single unity. Urban areas and rural areas are not different entities. They form regions, and complement one another.

Future guidelines are key for the future development and management of territories. Considering territory as a duality emphasizes the difference, and that difference has traditionally resulted in positioning the urban areas first, and the rest as just the rest.

In order to maintain cultural heritage in a globalized world, so that identities are not lost, places and people are linked to territory, identified with it, and thus, more concern about it, more research on the particularities of rural areas is needed.

From the planning point of view it is necessary to understand that, although there are urban cores among rural zones, the general characteristics and functioning of the areas is very different from cities.

It has also to be considered that Basque rural areas have suffered a transformation, and have evolved towards a more relaxed use of the land. This means that productive areas are not as productive as they could, as there are other considerations such as the maintenance of landscape that are being prioritised. All those “new” services given by rural areas are another line of research, especially how they could change the way in which those areas are planned.

GIS technology has proven to be a very useful tool to analyse an area. It is broadly used in areas such as geography, biology, and economics, in an analytical manner. However, the use of it oriented towards planning is still not enough developed. Analysis is an important fact, but the aim of those analyses shapes them. Producing data is important, but being able to extract guidelines for planning (precise guidelines, not general, operative guidelines) is still not much researched.

This analysis can be repeated for other successful areas of the same climate and compared the characteristics, in order to have a more complete guide.

It could also be interesting to get access to other climatic areas´ data, such as Araba, and make the same study. There would be very different characteristics and typologies, and that could complete the Basque Country´s guidelines for rural areas.

In summary, future research lines are suggested:

- Planning point of view
- New services of rural areas and how they are transformed into territory
- Use of GIS to create and validate alternatives of planning simulating different options for improvements of areas and their typologies and compare alternatives.
- Repeat these analysis in other territories and observe the characteristics of rural areas
- Repeat the characterization and typologies to similar areas (less successful) and compare results, possibly obtaining planning guidelines
- Repeat characterization for other climatic areas, obtain results of successful areas (and eventually of less successful too and do as

explained in the former point) and compare results for more insight on climatic differences.

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Annex 1

Population over 16 employed on the agro-fisheries sector

Abadiño	1,29
Abaltzisketa	3,47
Abanto y Ciérvana-Abanto Zierbena	0,16
Aduna	1,89
Aia	8,29
Aizarnazabal	2,48
Ajangiz	3,29
Albiztur	2,38
Alegia	0,66
Alegría-Dulantzi	1,44
Alkiza	3,66
Alonsotegi	0,66
Altzaga	1,25
Altzo	0,61
Amezketa	2,7
Amorebieta-Etxano	0,61
Amoroto	5,03
Amurrio	1,71
Andoain	0,36
Anoeta	0,6
Antzuola	1,57
Arakaldo	3,85
Arama	5,43
Aramaio	2,24
Arantzazu	2,03
Areatza	3,1
Aretxabaleta	0,61
Armiñón	13,19
Arraia-Maeztu	9,55
Arrankudiaga	1,45
Arrasate/Mondragón	0,3
Arratzu	3,28
Arratzua-Ubarrundia	4,2
Arrieta	7,54
Arrigorriaga	0,23
Artea	1,99
Artzentales	4,89
Artziniega	1,79
Asparrena	3,69
Asteasu	4,84
Astigarraga	1,41
Ataun	3,72
Atxondo	1,84
Aulesti	5,84
Ayala/Aiara	5,17
Azkoitia	1,02
Azpeitia	1,03
Añana	8
Bakio	3,24
Baliarrain	3,33
Balmaseda	0,54
Barakaldo	0,24
Barrika	0,77
Barrundia	12,45
Basauri	0,23
Baños de Ebro/Mañueta	47,14
Beasain	0,49
Bedia	0,49
Beizama	3,03
Belauntza	2,19
Berango	0,51
Berantevilla	19,7
Berastegi	1,98
Bergara	0,54
Bermeo	5,62
Bernedo	16,31
Berriatua	9,25
Berriz	0,77
Berrobi	2,07
Bidania-Goiatz	2,34
Bilbao	0,41
Busturia	1,18

Campezo/Kanpezu	4,96
Deba	2,07
Derio	0,54
Dima	1,71
Donostia / San Sebastián	0,39
Durango	0,79
Ea	1,56
Eibar	0,38
Elantxobe	4,27
Elburgo/Burgelu	6,59
Elciego	10,92
Elduain	1,85
Elgeta	1,4
Elgoibar	0,92
Elorrio	0,88
Elvillar/Bilar	40,79
Erandio	0,35
Ereño	3,17
Ermua	0,25
Errenteria	0,49
Errezil	6,37
Erriberagoitia/Ribera Alta	4,63
Errigoiti	3,8
Eskoriatza	0,75
Etxebarri	0,21
Etxebarria	2,26
Ezkio-Itsaso	3,72
Forua	0,46
Fruiz	1,44
Gabiria	3,41
Gaintza	1,85
Galdakao	0,38
Galdames	1,36
Gamiz-Fika	3,37
Garai	1,8
Gatika	1,39
Gautegiz Arteaga	0,77
Gaztelu	3,75
Gernika-Lumo	0,9
Getaria	7,8
Getxo	0,36
Gizaburuaga	2,91

Gordexola	1,59
Gorliz	0,94
Güeñes	1,01
Harana/Valle de Arana	23,53
Hernani	0,62
Hernialde	1,21
Hondarribia	3,01
Ibarra	0,84
Ibarrangelu	1,78
Idiazabal	2,37
Igorre	1,45
Ikaztegieta	2
Irun	0,39
Irura	0,12
Iruraiz-Gauna	14,93
Iruña Oka/Iruña de Oca	0,95
Ispaster	7,28
Itsasondo	1,78
Iurreta	1,32
Izurtza	7,09
Karrantza Harana/Valle de Carranza	18,69
Kortezubi	4,37
Kripan	13,7
Kuartango	4,09
Labastida/Bastida	7,68
Lagrán	8,33
Laguardia	9,26
Lanciego/Lantziego	25
Lanestosa	8,89
Lantarón	10,64
Lapuebla de Labarca	23,16
Larrabetzu	1,21
Larraul	3,88
Lasarte-Oria	0,35
Laudio/Llodio	0,82
Laukiz	1,59
Lazkao	0,61
Leaburu	1,19
Legazpi	0,71
Legorreta	0,15
Legutio	3,04
Leintz-Gatzaga	3,2

Leioa	0,28
Lekeitio	4,01
Lemoa	1,21
Lemoiz	2,31
Leza	14,81
Lezama	2,43
Lezo	0,31
Lizartza	2,06
Loiu	0,28
Mallabia	2,86
Markina-Xemein	4,6
Maruri-Jatabe	1,17
Mañaria	2,99
Mendaro	1,02
Mendata	3,43
Mendexa	5,61
Meñaka	2,16
Moreda de Álava / Moreda Araba	11,43
Morga	3,47
Mundaka	1,97
Mungia	1,15
Munitibar-Arbatzegi Gerrikaitz-	3,63
Murueta	1,39
Muskiz	0,58
Mutiloa	0
Mutriku	3,91
Muxika	3,12
Nabarniz	5,56
Navaridas	35,63
Oiartzun	1,22
Okondo	3,97
Olaberria	2,43
Ondarroa	8,77
Ordizia	0,67
Orendain	10,84
Orexa	12,07
Orio	2,51
Ormaiztegi	0,34
Orozko	2,88
Ortuella	0,14
Otxandio	1,84
Oyón-Oion	4,47
Oñati	0,69

Pasaia	1,62
Peñacerrada-Urizaharra	9,35
Plentzia	0,77
Portugalete	0,27
Ribera Baja/Erribera Beitia	1,84
Salvatierra/Agurain	1,65
Samaniego	28,48
San Millán/Donemiliaga	14,57
Santurtzi	0,36
Segura	1,68
Sestao	0,33
Sondika	0,05
Sopelana	0,47
Sopuerta	1,31
Soraluze-Placencia de las Armas	0,54
Sukarrieta	2,13
Tolosa	0,73
Trucios-Turtzioz	6,78
Ubide	5,75
Ugao-Miraballes	0,33
Urduliz	0,89
Urduña/Orduña	1,63
Urkabustaiz	6,64
Urnieta	0,84
Urretxu	0,17
Usurbil	1,38
Valdegovía/Gaubea	6,74
Valle de Trápaga-Trapagaran	0,23
Villabona	0,86
Villabuena de Álava/Eskuernaga	31,06
Vitoria-Gasteiz	0,53
Yécora/Iekora	19,83
Zaldibar	0,73
Zaldibia	2,49
Zalduondo	7,92
Zalla	2,25
Zambrana	5,84
Zamudio	0,98
Zaratamo	0,79
Zarautz	0,75
Zeanuri	2,62
Zeberio	2,24
Zegama	1,78

Zerain	5,66
Zestoa	2,27
Zierbena	1,06
Zigoitia	4,18
Ziortza-Bolibar	3,76

Zizurkil	1,6
Zuia	2,07
Zumaia	0,95
Zumarraga	0,3

Population devoted to the agro-fisheries sector transformed into scale

MUNICIPALITIES	VALUE	SCALE
Abadiño	1,29	21,21
Abaltzisketa	3,47	45,00
Abanto y Ciérvana-Abanto Zierbena	0,16	2,80
Aduna	1,89	29,21
Aia	8,29	66,48
Aizarnazabal	2,48	36,32
Ajangiz	3,29	43,49
Albiztur	2,38	35,12
Alegia	0,66	11,56
Alegría-Dulantzi	1,44	23,47
Alkiza	3,66	46,60
Alonsotegi	0,66	11,56
Altzaga	1,25	20,60
Altzo	0,61	10,68
Amezketa	2,7	38,53
Amorebieta-Etxano	0,61	10,68
Amoroto	5,03	54,38
Amurrio	1,71	27,04
Andoain	0,36	6,30
Anoeta	0,6	10,51
Antzuola	1,57	25,35
Añana	8	65,69
Arakaldo	3,85	48,20
Arama	5,43	56,19
Aramaio	2,24	33,43
Arantzazu	2,03	30,90
Areatza	3,1	41,89
Aretxabaleta	0,61	10,68
Armiñón	13,19	77,00
Arraia-Maeztu	9,55	69,89
Arrankudiaga	1,45	23,62
Arrasate/Mondragón	0,3	5,25
Arratzu	3,28	43,41
Arratzua-Ubarrundia	4,2	50,61
Arrieta	7,54	64,45
Arrigorriaga	0,23	4,03
Artea	1,99	30,41
Artzentales	4,89	53,74

Artziniega	1,79	28,00
Asparrena	3,69	46,85
Asteasu	4,84	53,52
Astigarraga	1,41	23,02
Ataun	3,72	47,10
Atxondo	1,84	28,61
Aulesti	5,84	58,05
Ayala/Aiara	5,17	55,01
Azkoitia	1,02	17,13
Azpeitia	1,03	17,28
Bakio	3,24	43,07
Baliarrain	3,33	43,83
Balmaseda	0,54	9,46
Baños de Ebro/Mañueta	47,14	100,00
Barakaldo	0,24	4,20
Barrika	0,77	13,35
Barrundia	12,45	76,16
Basauri	0,23	4,03
Beasain	0,49	8,58
Bedia	0,49	8,58
Beizama	3,03	41,30
Belauntza	2,19	32,83
Berango	0,51	8,93
Berantevilla	19,7	84,45
Berastegi	1,98	30,29
Bergara	0,54	9,46
Bermeo	5,62	57,05
Bernedo	16,31	80,57
Berriatua	9,25	69,08
Berriz	0,77	13,35
Berrobi	2,07	31,38
Bidania-Goiatz	2,34	34,63
Bilbao	0,41	7,18
Busturia	1,18	19,55
Campezo/Kanpezu	4,96	54,06
Deba	2,07	31,38
Derio	0,54	9,46
Dima	1,71	27,04
Donostia / San Sebastián	0,39	6,83
Durango	0,79	13,65
Ea	1,56	25,23

Eibar	0,38	6,65
Elantxobe	4,27	50,93
Elburgo/Burgelu	6,59	61,45
Elciego	10,92	73,60
Elduain	1,85	28,73
Elgeta	1,4	22,87
Elgoibar	0,92	15,62
Elorrio	0,88	15,01
Elvillar/Bilar	40,79	96,80
Erandio	0,35	6,13
Ereño	3,17	42,48
Ermua	0,25	4,38
Errenteria	0,49	8,58
Errezil	6,37	60,45
Erriberagoitia/Ribera Alta	4,63	52,56
Errigoiti	3,8	47,78
Eskoriatza	0,75	13,05
Etxebarri	0,21	3,68
Etxebarria	2,26	33,67
Ezkio-Itsaso	3,72	47,10
Forua	0,46	8,06
Fruiz	1,44	23,47
Gabiria	3,41	44,50
Gaintza	1,85	28,73
Galdakao	0,38	6,65
Galdames	1,36	22,26
Gamiz-Fika	3,37	44,16
Garai	1,8	28,12
Gatika	1,39	22,72
Gautegiz Arteaga	0,77	13,35
Gaztelu	3,75	47,36
Gernika-Lumo	0,9	15,31
Getaria	7,8	65,15
Getxo	0,36	6,30
Gizaburuaga	2,91	40,29
Gordexola	1,59	25,59
Gorliz	0,94	15,92
Güeñes	1,01	16,98
Harana/Valle de Arana	23,53	88,09
Hernani	0,62	10,86
Hernialde	1,21	20,00
Hondarribia	3,01	41,14

Ibarra	0,84	14,41
Ibarrangelu	1,78	27,88
Idiazabal	2,37	35,00
Igorre	1,45	23,62
Ikaztegieta	2	30,53
Irun	0,39	6,83
Iruña Oka/Iruña de Oca	0,95	16,07
Irura	0,12	2,10
Iruraiz-Gauna	14,93	78,99
Ispaster	7,28	63,74
Itsasondo	1,78	27,88
Iurreta	1,32	21,66
Izurtza	7,09	63,23
Karrantza Harana/Valle de Carranza	18,69	83,29
Kortezubi	4,37	51,39
Kripan	13,7	77,59
Kuartango	4,09	50,12
Labastida/Bastida	7,68	64,83
Lagrán	8,33	66,59
Laguardia	9,26	69,10
Lanciego/Lantziego	25	88,83
Lanestosa	8,89	68,10
Lantarón	10,64	72,84
Lapuebla de Labarca	23,16	87,90
Larrabetzu	1,21	20,00
Larraul	3,88	48,45
Lasarte-Oria	0,35	6,13
Laudio/Llodio	0,82	14,11
Laukiz	1,59	25,59
Lazkao	0,61	10,68
Leaburu	1,19	19,70
Legazpi	0,71	12,43
Legorreta	0,15	2,63
Legutio	3,04	41,39
Leintz-Gatzaga	3,2	42,73
Leioa	0,28	4,90
Lekeitio	4,01	49,54
Lemoa	1,21	20,00
Lemoiz	2,31	34,27
Leza	14,81	78,86
Lezama	2,43	35,72

Lezo	0,31	5,43
Lizartza	2,06	31,26
Loiu	0,28	4,90
Mallabia	2,86	39,87
Mañaria	2,99	40,97
Markina-Xemein	4,6	52,43
Maruri-Jatabe	1,17	19,39
Mendaro	1,02	17,13
Mendata	3,43	44,67
Mendexa	5,61	57,01
Meñaka	2,16	32,46
Moreda de Álava / Moreda Araba	11,43	74,98
Morga	3,47	45,00
Mundaka	1,97	30,17
Mungia	1,15	19,09
Munitibar-Arbatzegi Gerrikaitz-	3,63	46,35
Murueta	1,39	22,72
Muskiz	0,58	10,16
Mutiloa	0,0001	0,00
Mutriku	3,91	48,70
Muxika	3,12	42,06
Nabarniz	5,56	56,78
Navaridas	35,63	94,19
Oiartzun	1,22	20,15
Okondo	3,97	49,21
Olaberria	2,43	35,72
Ondarroa	8,77	67,78
Oñati	0,69	12,08
Ordizia	0,67	11,73
Orendain	10,84	73,38
Orexa	12,07	75,72
Orio	2,51	36,68
Ormaiztegi	0,34	5,95
Orozko	2,88	40,04
Ortuella	0,14	2,45
Otxandio	1,84	28,61
Oyón-Oion	4,47	51,84
Pasaia	1,62	25,95
Peñacerrada-Urizaharra	9,35	69,35
Plentzia	0,77	13,35
Portugalete	0,27	4,73
Ribera Baja/Erribera Beitia	1,84	28,61

Salvatierra/Agurain	1,65	26,31
Samaniego	28,48	90,58
San Millán/Donemiliaga	14,57	78,58
Santurtzi	0,36	6,30
Segura	1,68	26,68
Sestao	0,33	5,78
Sondika	0,05	0,88
Sopelana	0,47	8,23
Sopuerta	1,31	21,51
Soraluze-Placencia de las Armas	0,54	9,46
Sukarrieta	2,13	32,10
Tolosa	0,73	12,75
Trucios-Turtzioz	6,78	62,31
Ubide	5,75	57,64
Ugao-Miraballes	0,33	5,78
Urduliz	0,89	15,16
Urduña/Orduña	1,63	26,07
Urkabustaiz	6,64	61,68
Urnieta	0,84	14,41
Urretxu	0,17	2,98
Usurbil	1,38	22,57
Valdegovía/Gaubea	6,74	62,13
Valle de Trápaga-Trapagaran	0,23	4,03
Villabona	0,86	14,71
Villabuena de Álava/Eskuernaga	31,06	91,89
Vitoria-Gasteiz	0,53	9,28
Yécora/Iekora	19,83	84,60
Zaldibar	0,73	12,75
Zaldibia	2,49	36,44
Zalduondo	7,92	65,48
Zalla	2,25	33,55
Zambrana	5,84	58,05
Zamudio	0,98	16,52
Zaratamo	0,79	13,65
Zarautz	0,75	13,05
Zeanuri	2,62	37,86
Zeberio	2,24	33,43
Zegama	1,78	27,88
Zerain	5,66	57,23
Zestoa	2,27	33,79
Zierbena	1,06	17,73

Zigoitia	4,18	50,52
Ziortza-Bolibar	3,76	47,44
Zizurkil	1,6	25,71
Zuia	2,07	31,38
Zumaia	0,95	16,07
Zumarraga	0,3	5,25

Gross Added Value of the agro-fisheries sector

Abadiño	0,15
Abaltzisketa	4,09
Abanto y Ciérvana-Abanto Zierbena	0,32
Aduna	0,53
Aia	5,34
Aizarnazabal	0,77
Ajangiz	1,14
Albiztur	2,67
Alegia	0,82
Alegría-Dulantzi	1,16
Alkiza	11,41
Alonsotegi	0,3
Altzaga	5,65
Altzo	1,6
Amezketa	3,2
Amorebieta-Etxano	0,36
Amoroto	2,87
Amurrio	0,59
Andoain	0,45
Anoeta	0,44
Antzuola	0,83
Arakaldo	1,22
Arama	1,54
Aramaio	8,92
Arantzazu	1,78
Areatza	0,57
Aretxabaleta	0,33
Armiñón	5,94
Arraia-Maeztu	6,94
Arrankudiaga	1,34
Arrasate/Mondragón	0,1
Arratzu	10,95
Arratzua-Ubarrundia	4,52
Arrieta	11,27
Arrigorriaga	0,11
Artea	2,63
Artzentales	9,16
Artziniega	1,13
Asparrena	2,42

Asteasu	2,2
Astigarraga	0,19
Ataun	7
Atxondo	0,47
Aulesti	3,46
Ayala/Aiara	4,95
Azkoitia	0,55
Azpeitia	0,42
Añana	13,16
Bakio	4,47
Baliarrain	10,99
Balmaseda	0,42
Barakaldo	0,03
Barrika	1,5
Barrundia	22,1
Basauri	0,07
Baños de Ebro/Mañueta	27,14
Beasain	0,17
Bedia	1,05
Beizama	15,68
Belauntza	1,59
Berango	0,95
Berantevilla	3,86
Berastegi	3,83
Bergara	0,56
Bermeo	15,1
Bernedo	5,16
Berriatua	1,48
Berriz	0,51
Berrobi	1,83
Bidania-Goiatz	6,14
Bilbao	0,03
Busturia	6,91
Campezo/Kanpezu	7,5
Deba	0,98
Derio	0,13
Dima	4,31
Donostia / San Sebastián	0,11
Durango	0,06

Ea	4,86
Eibar	0,11
Elantxobe	10,38
Elburgo/Burgelu	13,33
Elciego	13,15
Elduain	6,6
Elgeta	0,6
Elgoibar	0,28
Elorrio	0,38
Elvillar/Bilar	30,12
Erandio	0,15
Ereño	7,28
Ermua	0,04
Errenteria	0,17
Errezil	8,04
Erriberagoitia/Ribera Alta	21
Errigoiti	7,33
Eskoriatza	0,59
Etxebarri	0,04
Etxebarria	0,88
Ezkio-Itsaso	1,45
Forua	3,07
Fruiz	4,31
Gabiria	4,51
Gaintza	12,34
Galdakao	0,2
Galdames	4,53
Gamiz-Fika	18,22
Garai	4,85
Gatika	2,29
Gautegiz Arteaga	4,64
Gaztelu	12,89
Gernika-Lumo	0,13
Getaria	18,93
Getxo	0,14
Gizaburuaga	1,61
Gordexola	5,07
Gorliz	1,67
Güeñes	0,81
Harana/Valle de Arana	22,74
Hernani	0,51
Hernialde	8,03
Hondarribia	4,64

Ibarra	0,87
Ibarrangelu	4,83
Idiazabal	2,38
Igorre	0,21
Ikaztegieta	1,02
Irun	0,21
Irura	0,09
Iruraiz-Gauna	32,3
Iruña Oka/Iruña de Oca	0,83
Ispaster	5,9
Itsasondo	0,8
Iurreta	0,09
Izurtza	0,31
Karrantza Harana/Valle de Carranza	12,08
Kortezubi	27,72
Kripan	39,4
Kuartango	28,33
Labastida/Bastida	9,94
Lagrán	22,13
Laguardia	11,39
Lanciego/Lantziego	18,57
Lanestosa	5,73
Lantarón	3,06
Lapuebla de Labarca	2,43
Larrabetzu	3,16
Larraul	28,43
Lasarte-Oria	0,17
Laudio/Llodio	0,19
Laukiz	2,99
Lazkao	0,84
Leaburu	3,63
Legazpi	0,28
Legorreta	2,21
Legutio	0,56
Leintz-Gatzaga	5,51
Leioa	0,03
Lekeitio	1,14
Lemoa	0,22
Lemoiz	4
Leza	12,12
Lezama	1,84
Lezo	0,17

Lizartza	1,67
Loiu	0,24
Mallabia	0,67
Markina-Xemein	1,56
Maruri-Jatabe	4,33
Mañaria	0,4
Mendaro	0,35
Mendata	17,32
Mendexa	10,22
Meñaka	5,8
Moreda de Álava / Moreda Araba	34,13
Morga	15,23
Mundaka	0,97
Mungia	0,68
Munitibar-Arbatzegi Gerrikaitz-	9,21
Murueta	2,8
Muskiz	0,36
Mutiloa	8,49
Mutriku	2,12
Muxika	4,1
Nabarniz	7,35
Navaridas	29,56
Oiartzun	0,52
Okondo	2,82
Olaberria	0,19
Ondarroa	14,26
Ordizia	0,13
Orendain	26,43
Orexa	8,84
Orio	7,12
Ormaiztegi	0,28
Orozko	2,85
Ortuella	0,05
Otxandio	0,57
Oyón-Oion	3,84
Oñati	0,58
Pasaia	2,17
Peñacerrada-Urizaharra	23,24
Plentzia	2,08
Portugalete	0,02
Ribera Baja/Erribera Beitia	1,43
Salvatierra/Agurain	1,2

Samaniego	17,55
San Millán/Donemiliaga	16,65
Santurtzi	0,23
Segura	2,02
Sestao	0
Sondika	0,08
Sopelana	1
Sopuerta	2,33
Soraluze-Placencia de las Armas	0,37
Sukarrieta	0,28
Tolosa	0,45
Trucios-Turtzioz	6,29
Ubide	3,4
Ugao-Miraballes	0,22
Urduliz	0,54
Urduña/Orduña	3,5
Urkabustaiz	4,19
Urnieta	0,87
Urretxu	0,24
Usurbil	0,56
Valdegovía/Gaubea	15,16
Valle de Trápaga-Trapagaran	0,03
Villabona	0,6
Villabuena de Álava/Eskuernaga	17,07
Vitoria-Gasteiz	0,14
Yécora/Iekora	39,73
Zaldibar	0,2
Zaldibia	2,48
Zalduondo	26,04
Zalla	0,57
Zambrana	5,17
Zamudio	0,1
Zaratamo	0,86
Zarautz	0,52
Zeanuri	5,22
Zeberio	8,43
Zegama	2,78
Zerain	13,48
Zestoa	1,11
Zierbena	0,31
Zigoitia	2,18
Ziortza-Bolibar	3,37

Zizurkil	1,29
Zuia	2,9

Zumaia	0,4
Zumarraga	0,26

Gross Added value of the agro-fisheries sector transformed into scale

MUNICIPALITIES	VALUE	SCALE
Abadiño	0,15	3,94
Abaltzisketa	4,09	43,08
Abanto y Ciérvana-Abanto Zierbena	0,32	8,41
Aduna	0,53	13,18
Aia	5,34	50,25
Aizarnazabal	0,77	16,17
Ajangiz	1,14	20,78
Albiztur	2,67	33,94
Alegia	0,82	16,79
Alegría-Dulantzi	1,16	21,03
Alkiza	11,41	67,59
Alonsotegi	0,30	7,89
Altzaga	5,65	51,28
Altzo	1,60	25,91
Amezketa	3,20	37,82
Amorebieta-Etxano	0,36	9,46
Amoroto	2,87	35,44
Amurrio	0,59	13,93
Andoain	0,45	11,83
Anoeta	0,44	11,56
Antzuola	0,83	16,92
Añana	13,16	71,35
Arakaldo	1,22	21,78
Arama	1,54	25,46
Aramaio	8,92	62,10
Arantzazu	1,78	27,26
Areatza	0,57	13,68
Aretxabaleta	0,33	8,67
Armiñón	5,94	52,24
Arraia-Maeztu	6,94	55,55
Arrankudiaga	1,34	23,27
Arrasate/Mondragón	0,10	2,63
Arratzu	10,95	66,60
Arratzua-Ubarrundia	4,52	45,62
Arrieta	11,27	67,29
Arrigorriaga	0,11	2,89
Artea	2,63	33,64

Artzentales	9,16	62,75
Artziniega	1,13	20,66
Asparrena	2,42	32,06
Asteasu	2,20	30,41
Astigarraga	0,19	4,99
Ataun	7,00	55,75
Atxondo	0,47	12,35
Aulesti	3,46	39,36
Ayala/Aiara	4,95	48,15
Azkoitia	0,55	13,43
Azpeitia	0,42	11,04
Bakio	4,47	45,32
Baliarrain	10,99	66,69
Balmaseda	0,42	11,04
Baños de Ebro/Mañueta	27,14	90,13
Barakaldo	0,03	0,79
Barrika	1,50	25,16
Barrundia	22,10	85,14
Basauri	0,07	1,84
Beasain	0,17	4,47
Bedia	1,05	19,66
Beizama	15,68	76,15
Belauntza	1,59	25,84
Berango	0,95	18,41
Berantevilla	3,86	41,72
Berastegi	3,83	41,54
Bergara	0,56	13,55
Bermeo	15,10	75,34
Bernedo	5,16	49,39
Berriatua	1,48	25,01
Berriz	0,51	12,93
Berrobi	1,83	27,64
Bidania-Goiatz	6,14	52,90
Bilbao	0,03	0,79
Busturia	6,91	55,45
Campezo/Kanpezu	7,50	57,40
Deba	0,98	18,79
Derio	0,13	3,42
Dima	4,31	44,38
Donostia / San Sebastián	0,11	2,89
Durango	0,06	1,58
Ea	4,86	47,62

Eibar	0,11	2,89
Elantxobe	10,38	65,38
Elburgo/Burgelu	13,33	71,72
Elciego	13,15	71,33
Elduain	6,60	54,42
Elgeta	0,60	14,05
Elgoibar	0,28	7,36
Elorrio	0,38	9,99
Elvillar/Bilar	30,12	92,47
Erandio	0,15	3,94
Ereño	7,28	56,67
Ermua	0,04	1,05
Errenteria	0,17	4,47
Errezil	8,04	59,19
Erriberagoitia/Ribera Alta	21,00	83,60
Errigoiti	7,33	56,84
Eskoriatza	0,59	13,93
Etxebarri	0,04	1,05
Etxebarria	0,88	17,54
Ezkio-Itsaso	1,45	24,64
Forua	3,07	36,94
Fruiz	4,31	44,38
Gabiria	4,51	45,56
Gaintza	12,34	69,59
Galdakao	0,20	5,26
Galdames	4,53	45,67
Gamiz-Fika	18,22	79,71
Garai	4,85	47,56
Gatika	2,29	31,09
Gautegiz Arteaga	4,64	46,32
Gaztelu	12,89	70,77
Gernika-Lumo	0,13	3,42
Getaria	18,93	80,70
Getxo	0,14	3,68
Gizaburuaga	1,61	25,99
Gordexola	5,07	48,86
Gorliz	1,67	26,44
Güeñes	0,81	16,67
Harana/Valle de Arana	22,74	86,04
Hernani	0,51	12,93
Hernialde	8,03	59,15

Hondarribia	4,64	46,32
Ibarra	0,87	17,42
Ibarrangelu	4,83	47,44
Idiazabal	2,38	31,76
Igorre	0,21	5,52
Ikaztegieta	1,02	19,28
Irun	0,21	5,52
Iruña Oka/Iruña de Oca	0,83	16,92
Irura	0,09	2,37
Iruraiz-Gauna	32,30	94,17
Ispaster	5,90	52,11
Itsasondo	0,80	16,54
Iurreta	0,09	2,37
Izurtza	0,31	8,15
Karrantza Harana/Valle de Carranza	12,08	69,03
Kortezubi	27,72	90,58
Kripan	39,40	99,74
Kuartango	28,33	91,06
Labastida/Bastida	9,94	64,43
Lagrán	22,13	85,18
Laguardia	11,39	67,55
Lanciego/Lantziego	18,57	80,20
Lanestosa	5,73	51,54
Lantarón	3,06	36,86
Lapuebla de Labarca	2,43	32,14
Larrabetzu	3,16	37,59
Larraul	28,43	91,14
Lasarte-Oria	0,17	4,47
Laudio/Llodio	0,19	4,99
Laukiz	2,99	36,34
Lazkao	0,84	17,04
Leaburu	3,63	40,36
Legazpi	0,28	7,36
Legorreta	2,21	30,49
Legutio	0,56	13,55
Leintz-Gatzaga	5,51	50,82
Leioa	0,03	0,79
Lekeitio	1,14	20,78
Lemoa	0,22	5,78
Lemoiz	4,00	42,55
Leza	12,12	69,12

Lezama	1,84	27,71
Lezo	0,17	4,47
Lizartza	1,67	26,44
Loiu	0,24	6,31
Mallabia	0,67	14,92
Mañaria	0,40	10,51
Markina-Xemein	1,56	25,61
Maruri-Jatabe	4,33	44,49
Mendaro	0,35	9,20
Mendata	17,32	78,45
Mendexa	10,22	65,03
Meñaka	5,80	51,78
Moreda de Álava / Moreda Araba	34,13	95,61
Morga	15,23	75,52
Mundaka	0,97	18,66
Mungia	0,68	15,05
Munitibar-Arbatzegi Gerrikaitz-	9,21	62,86
Murueta	2,80	34,91
Muskiz	0,36	9,46
Mutiloa	8,49	60,67
Mutriku	2,12	29,81
Muxika	4,10	43,14
Nabarniz	7,35	56,90
Navaridas	29,56	92,03
Oiartzun	0,52	13,05
Okondo	2,82	35,06
Olaberria	0,19	4,99
Ondarroa	14,26	73,72
Oñati	0,58	13,80
Ordizia	0,13	3,42
Orendain	26,43	89,57
Orexa	8,84	61,83
Orio	7,12	56,14
Ormaiztegi	0,28	7,36
Orozko	2,85	35,29
Ortuella	0,05	1,31
Otxandio	0,57	13,68
Oyón-Oion	3,84	41,60
Pasaia	2,17	30,19
Peñacerrada-Urizaharra	23,24	86,74
Plentzia	2,08	29,51

Portugalete	0,02	0,53
Ribera Baja/Erribera Beitia	1,43	24,39
Salvatierra/Agurain	1,20	21,53
Samaniego	17,55	78,77
San Millán/Donemiliaga	16,65	77,51
Santurtzi	0,23	6,05
Segura	2,02	29,06
Sestao	0,00	0,00
Sondika	0,08	2,10
Sopelana	1,00	19,04
Sopuerta	2,33	31,39
Soraluze-Placencia de las Armas	0,37	9,73
Sukarrieta	0,28	7,36
Tolosa	0,45	11,83
Trucios-Turtzioz	6,29	53,40
Ubide	3,40	39,00
Ugao-Miraballes	0,22	5,78
Urduliz	0,54	13,30
Urduña/Orduña	3,50	39,59
Urkabustaiz	4,19	43,67
Urnieta	0,87	17,42
Urretxu	0,24	6,31
Usurbil	0,56	13,55
Valdegovía/Gaubea	15,16	75,42
Valle de Trápaga-Trapagaran	0,03	0,79
Villabona	0,60	14,05
Villabuena de Álava/Eskuernaga	17,07	78,10
Vitoria-Gasteiz	0,14	3,68
Yécora/Iekora	39,73	100,00
Zaldibar	0,20	5,26
Zaldibia	2,48	32,51
Zalduondo	26,04	89,27
Zalla	0,57	13,68
Zambrana	5,17	49,45
Zamudio	0,10	2,63
Zaratamo	0,86	17,29
Zarautz	0,52	13,05
Zeanuri	5,22	49,75
Zeberio	8,43	60,48
Zegama	2,78	34,76
Zerain	13,48	72,04
Zestoa	1,11	20,41

Zierbena	0,31	8,15
Zigoitia	2,18	30,26
Ziortza-Bolibar	3,37	38,83
Zizurkil	1,29	22,65
Zuia	2,90	35,66
Zumaia	0,40	10,51
Zumarraga	0,26	6,83

Density of dwellings in residential land (dwellings per hectare of residential land) (201

Abadiño	53,2
Abaltzisketa	54,48
Abanto y Ciérvana-Abanto Zierbena	43,17
Aduna	25,41
Aia	25,14
Aizarnazabal	31,96
Ajangiz	5,48
Albiztur	47,18
Alegia	84,83
Alegría-Dulantzi	12,69
Alkiza	36,3
Alonsotegi	29,6
Altzaga	18,68
Altzo	27,96
Amezketa	33,11
Amorebieta-Etxano	38,53
Amoroto	13,79
Amurrio	22,08
Andoain	60,97
Anoeta	50,24
Antzuola	51,77
Añana	13,62
Arakaldo	10,85
Arama	36,09
Aramaio	4,76
Arantzazu	7,9
Areatza	29,79
Aretxabaleta	46,56
Armiñón	7,13
Arraia-Maeztu	8,26
Arrankudiaga	10,37
Arrasate/Mondragón	71,2
Arratzu	2,4
Arratzua-Ubarrundia	5,41
Arrieta	5,68
Arrigorriaga	71,68
Artea	11,81
Artzentales	11,13
Artziniega	13,39
Asparrena	9,39
Asteasu	28,54
Astigarraga	47,31
Ataun	33,48
Atxondo	14,75
Aulesti	10,03
Ayala/Aiara	5,25
Azkoitia	58,01
Azpeitia	80,18
Bakio	16,75
Baliarrain	29,52
Balmaseda	57,89
Baños de Ebro/Mañueta	6,19
Barakaldo	106,27
Barrika	11,5
Barrundia	3,91
Basauri	114,57
Beasain	93,33
Bedia	22,53
Beizama	31,54
Belauntza	14,18
Berango	23,75
Berantevilla	9,47
Berastegi	34,21
Bergara	87,22
Bermeo	119,39
Bernedo	5,98
Berriatua	15,53
Berriz	23,31
Berrobi	37,84
Bidania-Goiatz	26,86
Bilbao	114,15
Busturia	15,58
Campezo/Kanpezu	12,52
Deba	54,57
Derio	13,9

Dima	12,8
Donostia / San Sebastián	61,73
Durango	57,18
Ea	68,84
Eibar	120,75
Elantxobe	59,86
Elburgo/Burgelu	5,21
Elciego	26,15
Elduain	6,91
Elgeta	48,33
Elgoibar	67,91
Elorrio	32,86
Elvillar/Bilar	11,72
Erandio	78,43
Ereño	5,43
Ermua	130,07
Errenteria	77,07
Errezil	70,95
Erriberagoitia/Ribera Alta	4,89
Errigoiti	8,38
Eskoriatza	16,48
Etxebarri	46,52
Etxebarria	74,34
Ezkio-Itsaso	30,09
Forua	17,26
Fruiz	6,27
Gabiria	13,74
Gaintza	70,83
Galdakao	44,6
Galdames	10,99
Gamiz-Fika	8,2
Garai	2,44
Gatika	12,42
Gautegiz Arteaga	5,31
Gaztelu	18,93
Gernika-Lumo	60,12
Getaria	71,86
Getxo	54,03
Gizaburuaga	11,57
Gordexola	14,31
Gorliz	27,95

Güeñes	32,8
Harana/Valle de Arana	10,36
Hernani	69,04
Hernialde	47,78
Hondarribia	24,61
Ibarra	115,95
Ibarrangelu	10,67
Idiazabal	71,11
Igorre	30,12
Ikaztegieta	29,85
Irun	67,56
Iruña Oka/Iruña de Oca	12,6
Irura	55,17
Iruraiz-Gauna	3,65
Ispaster	11,83
Itsasondo	30,16
Iurreta	50,45
Izurtza	15,49
Karrantza Harana/Valle de Carranza	3,31
Kortezubi	6,18
Kripan	12,56
Kuartango	4,17
Labastida/Bastida	20,33
Lagrán	12,71
Laguardia	6,36
Lanciego/Lantziego	16,43
Lanestosa	10,74
Lantarón	6,66
Lapuebla de Labarca	11,59
Larrabetzu	22,69
Larraul	27,63
Lasarte-Oria	74,38
Laudio/Llodio	53,17
Laukiz	3,35
Lazkao	44,75
Leaburu	42,79
Legazpi	57,41
Legorreta	48,31
Legutio	12,05
Leintz-Gatzaga	53,48

Leioa	53,57
Lekeitio	73,01
Lemoa	18,89
Lemoiz	13,1
Leza	13,72
Lezama	21,82
Lezo	87,13
Lizartza	42,88
Loiu	10,77
Mallabia	7,48
Mañaria	10,8
Markina-Xemein	58,23
Maruri-Jatabe	7,94
Mendaro	93,23
Mendata	5,96
Mendexa	10,16
Meñaka	7,99
Moreda de Álava / Moreda Araba	12,52
Morga	9,17
Mundaka	49,39
Mungia	9,16
Munitibar-Arbatzegi Gerrikaitz-	15,92
Murueta	3,5
Muskiz	41,23
Mutiloa	32,14
Mutriku	55,72
Muxika	9,8
Nabarniz	4,91
Navaridas	14,26
Oiartzun	39,22
Okondo	16,24
Olaberria	24
Ondarroa	75,61
Oñati	59,27
Ordizia	62,76
Orendain	23,02
Orexa	11,03
Orio	62,03
Ormaiztegi	46,8
Orozko	8,22
Ortuella	54,84

Otxandio	21,16
Oyón-Oion	23,55
Pasaia	129,15
Peñacerrada-Urizaharra	9,83
Plentzia	21,27
Portugalete	179,96
Ribera Baja/Erribera Beitia	6,27
Salvatierra/Agurain	19,33
Samaniego	14,76
San Millán/Donemiliaga	3,46
Santurtzi	139,12
Segura	47,69
Sestao	137,56
Sondika	23,86
Sopelana	32,99
Sopuerta	14,07
Soraluze-Placencia de las Armas	94,68
Sukarrieta	18,29
Tolosa	70,04
Trucios-Turtzioz	6,67
Ubide	14,95
Ugao-Miraballes	48,54
Urduliz	27,37
Urduña/Orduña	15,67
Urkabustaiz	8,88
Urnieta	66,44
Urretxu	87,47
Usurbil	31,6
Valdegovía/Gaubea	4,99
Valle de Trápaga-Trapagaran	58,03
Villabona	88,97
Villabuena de Álava/Eskuernaga	23,67
Vitoria-Gasteiz	43,24
Yécora/Iekora	14,79
Zaldibar	38,8
Zaldibia	78,99
Zalduondo	4,72
Zalla	9,79
Zambrana	11,72
Zamudio	42,89
Zaratamo	15,42

Zarautz	70,34
Zeanuri	10,78
Zeberio	10,69
Zegama	32,93
Zerain	24,91
Zestoa	41,8
Zierbena	9,46

Zigoitia	4,62
Ziortza-Bolibar	6,75
Zizurkil	55,79
Zuia	4,97
Zumaia	49,48
Zumarraga	84,09

Density of dwellings on residential land into scale

MUNICIPALITIES	VALUE	SCALE
Abadiño	53,20	64,6601955
Abaltzisketa	54,48	65,5898473
Abanto y Ciérvana-Abanto Zierbena	43,17	56,7260167
Aduna	25,41	38,693721
Aia	25,14	38,3737627
Aizarnazabal	31,96	46,4556722
Ajangiz	5,48	5,73673538
Albiztur	47,18	60,0075658
Alegia	84,83	84,023403
Alegría-Dulantzi	12,69	20,1550924
Alkiza	36,30	51,1040111
Alonsotegi	29,60	43,6589997
Altzaga	18,68	29,9284142
Altzo	27,96	41,7155493
Amezketa	33,11	47,8184576
Amorebieta-Etxano	38,53	52,9289124
Amoroto	13,79	22,5079611
Amurrio	22,08	34,42691
Andoain	60,97	70,3034727
Anoeta	50,24	62,5103756
Antzuola	51,77	63,6216001
Añana	13,62	22,1443359
Arakaldo	10,85	16,2193848
Arama	36,09	50,9321594
Aramaio	4,76	4,39568036
Arantzazu	7,90	10,2441703
Areatza	29,79	43,8841556
Aretxabaleta	46,56	59,5001941
Armiñón	7,13	8,80998648
Arraia-Maeztu	8,26	10,9146978
Arrankudiaga	10,37	15,1926785
Arrasate/Mondragón	71,20	76,9524461
Arratzu	2,40	0
Arratzua-Ubarrundia	5,41	5,60635503
Arrieta	5,68	6,10925067
Arrigorriaga	71,68	77,20146
Artea	11,81	18,2727975
Artzentales	11,13	16,8182968

Artziniega	13,39	21,6523725
Asparrena	9,39	13,0964864
Asteasu	28,54	42,4028671
Astigarraga	47,31	60,1139502
Ataun	33,48	48,2569189
Atxondo	14,75	24,5613737
Aulesti	10,03	14,4654282
Ayala/Aiara	5,25	5,30834281
Azkoitia	58,01	68,1536528
Azpeitia	80,18	81,6110809
Bakio	16,75	27,3748563
Baliarrain	29,52	43,5641973
Balmaseda	57,89	68,0664979
Baños de Ebro/Mañueta	6,19	7,05916464
Barakaldo	106,27	89,5833922
Barrika	11,50	17,6097163
Barrundia	3,91	2,8124904
Basauri	114,57	90,7566565
Beasain	93,33	87,7542308
Bedia	22,53	35,0222991
Beizama	31,54	45,9579593
Belauntza	14,18	23,34216
Berango	23,75	36,6364652
Berantevilla	9,47	13,2676041
Berastegi	34,21	49,1219914
Bergara	87,22	85,2632846
Bermeo	119,39	91,4379979
Bernedo	5,98	6,6680236
Berriatua	15,53	25,7606902
Berriz	23,31	36,054307
Berrobi	37,84	52,3642569
Bidania-Goiatz	26,86	40,4120155
Bilbao	114,15	90,6972865
Busturia	15,58	25,8268446
Campezo/Kanpezu	12,52	19,7914672
Deba	54,57	65,6552135
Derio	13,90	22,7432479
Dima	12,80	20,3903793
Donostia / San Sebastián	61,73	70,8554535
Durango	57,18	67,5508317
Ea	68,84	75,7281278

Eibar	120,75	91,6302436
Elantxobe	59,86	69,4972902
Elburgo/Burgelu	5,21	5,23383975
Elciego	26,15	39,5706437
Elduain	6,91	8,40021967
Elgeta	48,33	60,9486585
Elgoibar	67,91	75,2456634
Elorrio	32,86	47,5221999
Elvillar/Bilar	11,72	18,08029
Erandio	78,43	80,7032178
Ereño	5,43	5,64360656
Ermua	130,07	92,9476922
Errenteria	77,07	79,9976785
Errezil	70,95	76,8227514
Erriberagoitia/Ribera Alta	4,89	4,63781529
Errigoiti	8,38	11,138207
Eskoriatza	16,48	27,0176228
Etxebarri	46,52	59,4674605
Etxebarria	74,34	78,581412
Ezkio-Itsaso	30,09	44,2396648
Forua	17,26	28,0496307
Fruiz	6,27	7,20817076
Gabiria	13,74	22,4010125
Gaintza	70,83	76,7604979
Galdakao	44,60	57,8962449
Galdames	10,99	16,5188408
Gamiz-Fika	8,20	10,8029433
Garai	2,44	0,07450306
Gatika	12,42	19,5775701
Gautegiz Arteaga	5,31	5,42009739
Gaztelu	18,93	30,259186
Gernika-Lumo	60,12	69,6861258
Getaria	71,86	77,2948402
Getxo	54,03	65,2630166
Gizaburuaga	11,57	17,7594443
Gordexola	14,31	23,6202263
Gorliz	27,95	41,703699
Güeñes	32,80	47,451098
Harana/Valle de Arana	10,36	15,1712888
Hernani	69,04	75,8318836
Hernialde	47,78	60,4985707
Hondarribia	24,61	37,7456964

Ibarra	115,95	90,9517294
Ibarrangelu	10,67	15,8343699
Idiazabal	71,11	76,905756
Igorre	30,12	44,2752157
Ikaztegieta	29,85	43,9552574
Irun	67,56	75,0640908
Iruña Oka/Iruña de Oca	12,60	19,962585
Irura	55,17	66,0909878
Iruraiz-Gauna	3,65	2,32822053
Ispaster	11,83	18,3155769
Itsasondo	30,16	44,3226169
Iurreta	50,45	62,6628966
Izurtza	15,49	25,7077667
Karrantza Harana/Valle de Carranza	3,31	1,69494455
Kortezubi	6,18	7,04053888
Kripan	12,56	19,8770261
Kuartango	4,17	3,29676027
Labastida/Bastida	20,33	32,1115077
Lagrán	12,71	20,1978718
Laguardia	6,36	7,37580264
Lanciego/Lantziego	16,43	26,9514685
Lanestosa	10,74	15,9840979
Lantarón	6,66	7,93457556
Lapuebla de Labarca	11,59	17,8022237
Larrabetzu	22,69	35,233993
Larraul	27,63	41,3244892
Lasarte-Oria	74,38	78,6021631
Laudio/Llodio	53,17	64,6384068
Laukiz	3,35	1,7694476
Lazkao	44,75	58,0189961
Leaburu	42,79	56,4150469
Legazpi	57,41	67,7178785
Legorreta	48,31	60,9322916
Legutio	12,05	18,7861506
Leintz-Gatzaga	53,48	64,8635568
Leioa	53,57	64,928923
Lekeitio	73,01	77,891436
Lemoa	18,89	30,2062625
Lemoiz	13,10	21,0320707
Leza	13,72	22,3582331
Lezama	21,82	34,0829073

Lezo	87,13	85,2165945
Lizartza	42,88	56,4886977
Loiu	10,77	16,0482671
Mallabia	7,48	9,46188823
Mañaria	10,80	16,1124362
Markina-Xemein	58,23	68,3134367
Maruri-Jatabe	7,94	10,3186734
Mendaro	93,23	87,7400951
Mendata	5,96	6,63077207
Mendexa	10,16	14,7434945
Meñaka	7,99	10,4118022
Moreda de Álava / Moreda Araba	12,52	19,7914672
Morga	9,17	12,6259127
Mundaka	49,39	61,8161004
Mungia	9,16	12,6045229
Munitibar-Arbatzegi Gerrikaitz-	15,92	26,2766941
Murueta	3,50	2,04883407
Muskiz	41,23	55,1384343
Mutiloa	32,14	46,6689778
Mutriku	55,72	66,4904476
Muxika	9,80	13,9734647
Nabarniz	4,91	4,67506682
Navaridas	14,26	23,5132777
Oiartzun	39,22	53,493568
Okondo	16,24	26,700082
Olaberria	24,00	36,967237
Ondarroa	75,61	79,2402612
Oñati	59,27	69,0687788
Ordizia	62,76	71,6035327
Orendain	23,02	35,6706117
Orexa	11,03	16,6043997
Orio	62,03	71,0733406
Ormaiztegi	46,80	59,6965961
Orozko	8,22	10,8401948
Ortuella	54,84	65,8513119
Otxandio	21,16	33,2096699
Oyón-Oion	23,55	36,3718478
Pasaia	129,15	92,8176436
Peñacerrada-Urizaharra	9,83	14,0376339
Plentzia	21,27	33,3552095
Portugalete	179,96	100
Ribera Baja/Erribera Beitia	6,27	7,20817076

Salvatierra/Agurain	19,33	30,7884207
Samaniego	14,76	24,5827634
San Millán/Donemiliaga	3,46	1,97433101
Santurtzi	139,12	94,2269743
Segura	47,69	60,4249199
Sestao	137,56	94,0064572
Sondika	23,86	36,7820048
Sopelana	32,99	47,6762539
Sopuerta	14,07	23,1068731
Soraluze-Placencia de las Armas	94,68	87,945063
Sukarrieta	18,29	29,4124103
Tolosa	70,04	76,3506626
Trucios-Turtzioz	6,67	7,95320133
Ubide	14,95	24,989168
Ugao-Miraballes	48,54	61,1205102
Urduliz	27,37	41,0163812
Urduña/Orduña	15,67	25,9459224
Urkabustaiz	8,88	12,0694952
Urnieta	66,44	74,2762818
Urretxu	87,47	85,3929794
Usurbil	31,60	46,0290612
Valdegovía/Gaubea	4,99	4,82407294
Valle de Trápaga-Trapagaran	58,03	68,1681786
Villabona	88,97	86,1711478
Villabuena de Álava/Eskuernaga	23,67	36,5306183
Vitoria-Gasteiz	43,24	56,7833006
Yécora/Iekora	14,79	24,6469326
Zaldibar	38,80	53,1498646
Zaldibia	78,99	80,993734
Zalduondo	4,72	4,3211773
Zalla	9,79	13,952075
Zambrana	11,72	18,08029
Zamudio	42,89	56,4968811
Zaratamo	15,42	25,6151506
Zarautz	70,34	76,5062962
Zeanuri	10,78	16,0696568
Zeberio	10,69	15,8771494
Zegama	32,93	47,605152
Zerain	24,91	38,1012056
Zestoa	41,80	55,6048889
Zierbena	9,46	13,2462144

Zigoitia	4,62	4,13491966
Ziortza-Bolibar	6,75	8,10220744
Zizurkil	55,79	66,5412879
Zuia	4,97	4,78682141
Zumaia	49,48	61,8897511
Zumarraga	84,09	83,6395066

Population density per Local Population Entity (inhab/km²)

MUNICIPALITIES	LPE	INHAB.	AREA (km²)	Inhab/km²
Abadiño	Traña-Matiena	4387	2,67	1640,20
Abadiño	Mendiola	154	10,28	14,98
Abadiño	Muntsaratz	1259	4,00	314,91
Abadiño	Urkiola	42	10,89	3,86
Abadiño	Gaztelua	116	5,34	21,73
Abadiño	Gerediaga	154	1,81	84,93
Abadiño	Abadiño-Zelaieta	1276	1,04	1228,26
Abaltzisketa	Abaltzisketa	316	11,46	27,57
Abanto y Ciérvana/Abanto Zierbena	Las Carreras	1873	0,91	2057,06
Abanto y Ciérvana/Abanto Zierbena	La Balastera	62	0,27	231,62
Abanto y Ciérvana/Abanto Zierbena	Las Calizas	53	0,90	58,67
Abanto y Ciérvana/Abanto Zierbena	El Campillo	31	0,67	45,95
Abanto y Ciérvana/Abanto Zierbena	La Florida	9	0,26	34,46
Abanto y Ciérvana/Abanto Zierbena	Gallarta	4925	1,87	2637,70
Abanto y Ciérvana/Abanto Zierbena	Picón	0	1,70	0,00
Abanto y Ciérvana/Abanto Zierbena	Los Castaños	66	1,43	46,21
Abanto y Ciérvana/Abanto Zierbena	Las Cortes	7	1,46	4,81
Abanto y Ciérvana/Abanto Zierbena	Cotorrio	168	2,22	75,83
Abanto y Ciérvana/Abanto Zierbena	Murrieta	51	1,21	42,05
Abanto y Ciérvana/Abanto Zierbena	Putxeta	361	0,46	790,34
Abanto y Ciérvana/Abanto Zierbena	San Pedro	42	0,71	59,24
Abanto y Ciérvana/Abanto Zierbena	Santa Juliana	129	0,19	686,44
Abanto y Ciérvana/Abanto Zierbena	Triano	51	0,51	99,55

Abanto y Ciérvana/Abanto Zierbena	Sanfuentes	1867	1,09	1720,47
Abanto y Ciérvana/Abanto Zierbena	Abanto	56	0,34	163,73
Aduna	Aduna	446	7,03	63,41
Aia	Olaskoegia	189	3,31	57,11
Aia	Ubegun Industrigunea	0	0,12	0,00
Aia	Santio Erreka	264	8,07	32,72
Aia	Urdaneta	74	3,11	23,78
Aia	Arrutiegia	302	3,51	86,02
Aia	Etxetaballa	35	1,98	17,67
Aia	Kurpidea	67	3,04	22,07
Aia	Arratola Aldea	128	0,45	284,37
Aia	Altzola	15	4,52	3,32
Aia	Andatza	243	5,35	45,40
Aia	Aia	109	0,11	989,61
Aia	Elkano	105	4,87	21,57
Aia	Iruretaegia	98	4,97	19,70
Aia	Laurgain	67	11,68	5,74
Aizarnazabal	Mugitzagaina	19	2,21	8,60
Aizarnazabal	Saiatz	57	2,66	21,41
Aizarnazabal	Zubialdea	80	0,16	490,68
Aizarnazabal	Aizarnazabal	542	0,73	738,60
Aizarnazabal	Etxabe	40	0,49	81,10
Aizarnazabal	Etxezarreta	0	0,29	0,00
Ajangiz	Kanpantxu	185	4,63	39,94
Ajangiz	Mendieta	13	2,58	5,04
Albiztur	Albiztur	293	12,71	23,05
Alegia	Alegia	769	0,07	11055,11
Alegia	Errotaldea	879	3,75	234,15
Alegia	Langaurrealdea	142	3,95	35,93
Alegría-Dulantzi	Alegría-Dulantzi	2873	15,50	185,31
Alegría-Dulantzi	Egileta	115	4,38	26,27
Alkiza	Alkiza	352	12,18	28,90
Alonsotegi	Alonsotegi	1694	15,45	109,68
Alonsotegi	Irauregi	869	4,19	207,57
Alonsotegi	Arbuio	298	0,59	504,30
Altzaga	Altzaga	10641	2,41	4418,78
Altzo	Altzo	354	9,82	36,06
Amezketa	Amezketa	697	18,03	38,66
Amezketa	Ugarte	66	2,55	25,88
Amezketa	Ergoiena	152	0,07	2123,22
Amorebieta-Etxano	Aldana	90	6,91	13,03

Amorebieta-Etxano	Amorebieta	16437	11,23	1463,76
Amorebieta-Etxano	Astepe	235	0,77	305,49
Amorebieta-Etxano	Autzagana	119	3,30	36,08
Amorebieta-Etxano	Bernagoitia	91	8,83	10,31
Amorebieta-Etxano	Boroa	177	7,22	24,52
Amorebieta-Etxano	Etxano	222	7,84	28,32
Amorebieta-Etxano	Euba	604	7,05	85,67
Amorebieta-Etxano	Oromiño	38	2,26	16,84
Amorebieta-Etxano	Dudea	133	3,54	37,57
Amoroto	Elexalde	186	1,13	164,64
Amoroto	Odiaga	77	8,01	9,61
Amoroto	Ugaran	67	1,61	41,59
Amoroto	Urrutia	71	2,38	29,86
Amurrio	Tertanga	82	5,14	15,96
Amurrio	Lekamaña	37	2,26	16,40
Amurrio	Amurrio	8985	27,86	322,49
Amurrio	Artomaña	62	4,78	12,97
Amurrio	Baranbio	147	12,02	12,23
Amurrio	Delika	164	13,44	12,20
Amurrio	Larrinbe	277	4,48	61,89
Amurrio	Aloria	24	2,54	9,45
Amurrio	Lezama	270	18,76	14,39
Amurrio	Saratxo	97	4,65	20,88
Andoain	Andoain	13265	1,40	9484,85
Andoain	Buruntza	163	3,46	47,05
Andoain	Goiburu	146	2,32	62,80
Andoain	Leizotz	240	12,78	18,77
Andoain	Sorabilla	1036	7,24	143,13
Anoeta	Anoeta	1836	4,19	437,74
Antzuola	Antzuola	2190	27,72	79,00
Añana	Salinas de Añana/Gesaltza Añana	157	11,14	14,10
Añana	Atiega/Atiaga	15	10,49	1,43
Arakaldo	Arakaldo	125	2,71	46,10
Arama	Arama	199	1,38	144,14
Aramaio	Ibarra	920	4,65	197,78
Aramaio	Oleta	108	43,70	2,47
Aramaio	Uribarri	70	3,78	18,53
Aramaio	Arexola	59	2,33	25,30
Aramaio	Barajuen	89	2,00	44,49
Aramaio	Etxaguen	22	1,82	12,07
Aramaio	Gantzaga	33	10,20	3,24

Aramaio	Untzilla	78	3,04	25,63
Aramaio	Azkoaga	156	7,30	21,37
Arantzazu	Zelaia	255	1,45	176,17
Arantzazu	Olarra	62	0,96	64,71
Arantzazu	Arantzazugoiti	42	1,14	36,82
Areatza	Launtzain	22	1,37	16,06
Areatza	Uparan	29	7,02	4,13
Areatza	Areatza	1167	0,70	1669,95
Aretxabaleta	Izurieta	17	1,07	15,92
Aretxabaleta	Larrino	51	4,50	11,32
Aretxabaleta	Oro	47	1,77	26,56
Aretxabaleta	Aretxabaleta	6456	0,81	7950,47
Aretxabaleta	Areantza	30	1,37	21,82
Aretxabaleta	Apotzaga-Etxebarri	15	0,73	20,52
Aretxabaleta	Galartza	121	1,48	81,55
Aretxabaleta	Goroeta	33	13,39	2,47
Aretxabaleta	Aozaratza	80	0,84	95,31
Aretxabaleta	Arkarazo	41	0,69	59,82
Armiñón	Estavillo	88	3,57	24,67
Armiñón	Lacorzana	5	2,34	2,13
Armiñón	Armiñón	111	7,02	15,81
Arraia-Maeztu	Musitu	12	8,91	1,35
Arraia-Maeztu	Vírgala Mayor/Birgara Goien	45	5,46	8,25
Arraia-Maeztu	Vírgala Menor/Birgara Barren	4	2,14	1,87
Arraia-Maeztu	Leorza/Elortza	14	0,90	15,51
Arraia-Maeztu	Apellániz/Apinaiz	0	21,62	0,00
Arraia-Maeztu	Atauri	34	9,33	3,64
Arraia-Maeztu	Róitegui/Erroitegi	28	8,05	3,48
Arraia-Maeztu	Sabando	42	9,69	4,34
Arraia-Maeztu	Aletxa	31	5,07	6,11
Arraia-Maeztu	Onraita/Erroeta	23	8,08	2,85
Arraia-Maeztu	Arenaza/Areatza	6	5,26	1,14
Arraia-Maeztu	Azaceta	36	13,80	2,61
Arraia-Maeztu	Cicujano/Zekuiano	11	1,77	6,22
Arraia-Maeztu	Ibisate	6	1,79	3,36
Arraia-Maeztu	Korres	24	14,08	1,70
Arraia-Maeztu	Maeztu/Maestu	332	6,95	47,76
Arrankudiaga	Uribarri	70	3,45	20,29
Arrankudiaga	Aspiuntza	34	0,66	51,27
Arrankudiaga	Zollo-Elexalde	102	6,84	14,91
Arrankudiaga	Zuloaga	122	1,42	85,91
Arrankudiaga	Arene	634	10,30	61,56
Arrasate/Mondragón	Udala	42	4,80	8,74

Arrasate/Mondragón	Meatzerreka	53	5,19	10,21
Arrasate/Mondragón	Bedoña	92	2,60	35,39
Arrasate/Mondragón	Garagartza	193	2,63	73,31
Arrasate/Mondragón	Gesalibar	562	2,52	222,93
Arrasate/Mondragón	Arrasate/Mondragón	20908	15,17	1377,91
Arratzu	Zubiate	39	0,82	47,30
Arratzu	Barrutia	38	0,76	50,28
Arratzu	Elexalde	186	0,79	236,21
Arratzu	Gorozika	147	0,62	236,05
Arratzu	Loiola	91	0,39	230,49
Arratzu	Monte	2	4,29	0,47
Arratzu	Uarka	54	0,78	69,68
Arratzu	Zabala-Belendiz	58	0,62	93,46
Arratzu	Barroeta	14	0,96	14,64
Arratzua-Ubarrundia	Mendibil	48	3,01	15,97
Arratzua-Ubarrundia	Luko	57	3,45	16,52
Arratzua-Ubarrundia	Arzubiaga	11	3,43	3,21
Arratzua-Ubarrundia	Betolaza	27	2,02	13,37
Arratzua-Ubarrundia	Ziriano	6	5,43	1,11
Arratzua-Ubarrundia	Durana	353	4,21	83,84
Arratzua-Ubarrundia	Arroiabe	93	4,10	22,67
Arratzua-Ubarrundia	Nanclares de Ganboa/Langara Ganboa	25	9,37	2,67
Arratzua-Ubarrundia	Ullíbarri-Gamboa	81	8,84	9,16
Arratzua-Ubarrundia	Zurbano/Zurbao	252	4,37	57,70
Arratzua-Ubarrundia	Landa	41	9,15	4,48
Arrieta	Agirre	84	5,41	15,52
Arrieta	Jainko-Oleaga	105	4,03	26,05
Arrieta	Libao	250	2,73	91,41
Arrieta	Olatxua-Olabarri	106	2,26	46,96
Arrigorriaga	Agirre	84	6,89	12,19
Arrigorriaga	Arrigorriaga	8411	4,77	1763,72
Arrigorriaga	Abusu/La Peña	3705	2,44	1519,11
Arrigorriaga	Martiartu	168	2,07	81,32
Artea	Herriko Plaza	470	0,46	1013,84
Artea	Sarasola	47	2,37	19,81
Artea	Ugarte	66	0,88	75,16
Artea	Elexabeitia	60	5,79	10,37
Artea	Esparta	69	1,97	34,99
Artea	Bildosola	51	0,85	59,83
Artzentales	Gorgolas	56	10,74	5,21
Artzentales	San Miguel de Linares	191	5,87	32,56

Artzentales	Santa Cruz	90	5,28	17,04
Artzentales	Traslaviña	331	11,30	29,29
Artzentales	Traslosheros	85	3,29	25,86
Artziniega	Campijo	5	4,10	1,22
Artziniega	Gordeliz	40	2,08	19,25
Artziniega	Mendieta	13	4,27	3,05
Artziniega	Retes de Tudela/Erretes Tudela	31	3,52	8,82
Artziniega	Santa Koloma	22	2,36	9,30
Artziniega	Artziniega	1732	7,84	220,96
Artziniega	Sojoguti/Soxoguti	35	2,96	11,84
Asparrena	Araia	1306	17,05	76,58
Asparrena	Arriola	40	14,68	2,73
Asparrena	Egino	83	7,40	11,21
Asparrena	Urabain	21	2,17	9,67
Asparrena	Gordoa	37	4,18	8,84
Asparrena	Ibarguren	17	2,65	6,41
Asparrena	Albeiz/Albéniz	82	2,77	29,63
Asparrena	Ametzaga Asparrena	41	1,22	33,59
Asparrena	Andoin	25	5,31	4,71
Asparrena	Ilarduia	57	7,56	7,54
Asteasu	Asteasu	807	0,45	1792,90
Asteasu	Beballara	97	1,33	73,09
Asteasu	Elizmendi	262	1,30	202,26
Asteasu	Errekaballara	75	1,33	56,60
Asteasu	Goiballara	167	10,58	15,79
Asteasu	Upazan	87	1,89	46,07
Astigarraga	Astigarraga	4928	12,01	410,37
Ataun	Aia	109	23,59	4,62
Ataun	San Gregorio	382	18,31	20,86
Ataun	San Martin	1188	16,40	72,45
Atxondo	San Juan	66	3,70	17,82
Atxondo	Santiago	46	1,25	36,76
Atxondo	Arrazola	145	8,85	16,39
Atxondo	Marzana	23	1,21	19,03
Atxondo	Olazabal	155	4,94	31,35
Atxondo	Apatamonasterio	1068	3,45	309,31
Aulesti	Aulesti	35	0,66	53,12
Aulesti	Narea	49	1,70	28,75
Aulesti	San Anton	22	4,26	5,16
Aulesti	Zubero	28	1,59	17,58
Aulesti	Malats	34	4,47	7,61
Aulesti	Urriola	34	2,51	13,55

Aulesti	Goierri	646	4,75	136,14
Aulesti	Ibarrola	89	5,75	15,48
Ayala/Aiara	Retes de Llanteno	59	3,67	16,09
Ayala/Aiara	Salmantón	29	5,45	5,32
Ayala/Aiara	Llanteno	120	14,13	8,49
Ayala/Aiara	Madaria	8	10,27	0,78
Ayala/Aiara	Maroño	31	4,41	7,02
Ayala/Aiara	Menagarai	171	6,65	25,72
Ayala/Aiara	Menoio	33	3,23	10,21
Ayala/Aiara	Murga	116	4,25	27,32
Ayala/Aiara	Ozeka	20	3,34	6,00
Ayala/Aiara	Agiñaga	27	5,84	4,62
Ayala/Aiara	Añes	25	17,14	1,46
Ayala/Aiara	Beotegi	60	1,69	35,56
Ayala/Aiara	Costera/Opellora	28	3,14	8,92
Ayala/Aiara	Etxegoien	18	1,92	9,37
Ayala/Aiara	Erbi	8	3,34	2,39
Ayala/Aiara	Izoria	157	3,80	41,31
Ayala/Aiara	Lejarzo/Lexartzu	15	3,16	4,75
Ayala/Aiara	Luxo/Lujo	4	1,48	2,71
Ayala/Aiara	Luiaondo	1156	8,90	129,96
Ayala/Aiara	Soxo/Sojo	46	7,46	6,16
Ayala/Aiara	Zuaza/Zuhatza	120	12,98	9,24
Ayala/Aiara	Olabezar	64	3,16	20,23
Ayala/Aiara	Quejana/Kexaa	45	2,44	18,44
Ayala/Aiara	Arespalditza/Respaldiza	486	9,84	49,39
Azkoitia	Izarraitz	389	18,66	20,85
Azkoitia	Ormaolamendi	226	18,54	12,19
Azkoitia	Azkoitia	10733	1,26	8534,36
Azkoitia	Arrietamendi	333	16,66	19,98
Azpeitia	Loiola	91	4,70	19,35
Azpeitia	Nuarbe	45	0,02	1809,73
Azpeitia	Urrestilla	572	7,04	81,29
Azpeitia	Azpeitia	13537	57,49	235,48
Badaia elkarrekikoa / Parzonería Badaia	Badaia elkarrekikoa / Parzonería Badaia	0	19,81	0,00
Bakio	Artzalde	29	1,11	26,09
Bakio	Zubiaur	561	4,15	135,13
Bakio	Elexalde	186	2,55	72,95
Bakio	Goitisoloalde	250	2,12	117,84
Bakio	Gibelorratzagako San Pelaio	963	3,83	251,35
Bakio	Urkitzaur	479	2,66	180,40

Baliarrain	Baliarrain	125	2,83	44,11
Balmaseda	Pandozales	36	8,36	4,30
Balmaseda	Peñueco	23	4,06	5,67
Balmaseda	Balmaseda	7613	9,97	763,73
Baños de Ebro/Mañueta	Baños de Ebro/Mañueta	320	9,53	33,56
Barakaldo	Errekatxo/El Regato	474	11,23	42,20
Barakaldo	San Vicente de Barakaldo	99052	13,73	7212,36
Barrika	Elexalde	186	4,11	45,24
Barrika	Goierri	646	3,53	182,79
Barrundia	Mendixur/Mendíjur	55	5,45	10,09
Barrundia	Ozaeta	223	7,50	29,72
Barrundia	Barrundia	4	6,56	0,61
Barrundia	Etxabarri Urtupiña	0	6,37	0,00
Barrundia	Elgea	63	11,63	5,42
Barrundia	Etura	74	4,21	17,59
Barrundia	Gebara	49	3,83	12,79
Barrundia	Heredia	90	10,12	8,89
Barrundia	Hermua	42	9,49	4,43
Barrundia	Audikana	21	3,26	6,45
Barrundia	Dallo	26	3,39	7,68
Barrundia	Larrea	92	9,60	9,59
Barrundia	Marieta-Larrintzar	93	11,78	7,89
Barrundia	Maturana	40	4,13	9,68
Basauri	Arizgoiti	35502	3,02	11760,01
Basauri	Elexalde	186	2,45	75,83
Basauri	Urbi	2142	1,60	1341,43
Beasain	Salbatore	29	1,32	21,90
Beasain	Aratz-Matxinbenta	25	6,42	3,90
Beasain	Arriaran	63	4,39	14,36
Beasain	Altamira	7	0,81	8,62
Beasain	Antzizar	3	1,08	2,77
Beasain	Beasainmendi	81	4,09	19,78
Beasain	Gudugarreta	25	1,00	24,97
Beasain	Loinatz	85	1,13	75,13
Beasain	Ugartemendi	6	0,31	19,22
Beasain	Astigarreta	20	3,70	5,40
Beasain	Beasain	13390	1,27	10512,84
Beasain	Garin	21	4,55	4,62
Bedia	Barroeta	14	1,65	8,49
Bedia	Ereño	16	5,76	2,78
Bedia	Eroso-Ugarte	57	5,27	10,82
Bedia	Jauregi	12	0,29	42,03
Bedia	Murtatza	227	2,02	112,50

Bedia	Elexalde	186	0,13	1477,81
Bedia	Asteitza	39	0,13	291,59
Bedia	Bidekoetxea	44	0,16	270,61
Bedia	Ibarra	920	0,96	957,23
Beizama	Beizama	140	16,55	8,46
Belauntza	Belauntza	298	3,54	84,07
Berango	Berango	4460	2,04	2191,29
Berango	Baserri-Santa Ana	2510	6,72	373,58
Berantevilla	Berantevilla	306	7,10	43,07
Berantevilla	Escanzana	8	1,16	6,87
Berantevilla	Lacorzanilla	13	3,90	3,33
Berantevilla	Lacervilla	21	5,41	3,88
Berantevilla	Mijancas	51	6,21	8,21
Berantevilla	Santa Cruz del Fierro	51	2,89	17,65
Berantevilla	Santurde	21	5,99	3,50
Berantevilla	Tobera	8	3,29	2,43
Berastegi	Berastegi	990	42,01	23,56
Berastegi	Eldua	52	4,04	12,88
Bergara	Angiozar	303	13,88	21,83
Bergara	Basalgo	52	9,29	5,60
Bergara	Elosua	21	8,69	2,42
Bergara	Osintxu	480	7,33	65,46
Bergara	Elorregi	115	8,86	12,98
Bergara	Ubera	132	2,40	55,01
Bergara	Bergara	13666	25,19	542,49
Bermeo	Agirre	84	1,23	68,15
Bermeo	Almika	72	1,46	49,25
Bermeo	Arranotegi	19	3,06	6,22
Bermeo	Artika	123	3,79	32,47
Bermeo	Bermeo	16207	1,43	11315,89
Bermeo	Demiku	48	1,21	39,81
Bermeo	Mañu	86	5,66	15,18
Bermeo	San Andres	36	1,13	31,87
Bermeo	San Migel	82	2,40	34,20
Bermeo	Arane-Gibelortzaga	159	12,33	12,89
Bermeo	Baratz Eder	79	0,03	2486,99
Bernedo	Arluzea	33	12,78	2,58
Bernedo	Urturi	78	7,60	10,27
Bernedo	Villafría	23	5,53	4,16
Bernedo	Berrozi	0	7,34	0,00
Bernedo	Izartza	4	7,12	0,56
Bernedo	Markinez	67	34,42	1,95

Bernedo	Navarrete	38	4,01	9,47
Bernedo	Okina	23	7,13	3,22
Bernedo	Angostina	19	6,32	3,01
Bernedo	Kintana	21	10,53	1,99
Bernedo	San Román de Campezo/Durruma Kanpezu	23	7,86	2,92
Bernedo	Urarte	33	8,42	3,92
Bernedo	Bernedo	226	11,71	19,30
Berriatua	Asterrika	113	5,41	20,89
Berriatua	Magdalena	82	6,79	12,08
Berriatua	Merelludi	118	5,67	20,81
Berriatua	Erribera	945	1,21	780,57
Berriz	Sallobente	208	3,95	52,68
Berriz	Sarria	303	12,97	23,36
Berriz	Andikoa	108	3,72	29,07
Berriz	Berriz-Olakueta	4072	0,80	5075,28
Berriz	Eitua	181	2,85	63,43
Berriz	Murgoitio	60	2,36	25,39
Berriz	Okango	163	3,11	52,48
Berrobi	Berrobi	578	2,73	211,92
Bidegoian	Bidania	412	2,94	140,19
Bidegoian	Goiatz	122	10,55	11,57
Bilbao	Bilbao	350558	40,59	8636,73
Busturia	Altamira-San Kristobal	898	13,31	67,45
Busturia	Axpe-San Bartolome	0	6,44	0,00
Campezo/Kanpezu	Antoñana	143	13,53	10,57
Campezo/Kanpezu	Bujanda	19	9,09	2,09
Campezo/Kanpezu	Orbiso	70	17,37	4,03
Campezo/Kanpezu	Oteo	25	13,13	1,90
Campezo/Kanpezu	Santa Cruz de Campezo/Santikurutze Kanpezu	876	32,44	27,00
Deba	Deba	4343	4,29	1012,21
Deba	Itziar	847	24,08	35,18
Deba	Lastur	194	21,80	8,90
Derio	Aranoltza (San Antolin)	37	0,93	39,65
Derio	Elexalde Derio	319	2,79	114,27
Derio	San Esteban Derio	954	1,11	856,00
Derio	Arteaga Derio	4372	1,90	2302,93
Derio	Aldekona (San Isidro)	229	3,40	67,41
Derio	Ugaldeguren (Santimami)	23	0,06	367,78
Dima	Ugarana	537	0,83	647,36
Dima	Aroztegieta	68	1,15	59,31

Dima	Bargondia	150	8,97	16,71
Dima	Intxaurbizkar	4	6,26	0,64
Dima	Indusi	100	27,32	3,66
Dima	Lamindao	71	1,22	58,15
Dima	Oba	43	3,19	13,49
Dima	Olazabal	155	4,71	32,88
Dima	Bikarregi	233	8,64	26,97
Donostia / San Sebastián	Añorga	1770	2,27	779,67
Donostia / San Sebastián	Igeldo	1049	10,25	102,29
Donostia / San Sebastián	Landarbaso	13	4,41	2,95
Donostia / San Sebastián	Donostia / San Sebastián	178673	37,13	4811,93
Donostia / San Sebastián	Zubieta	283	6,91	40,93
Durango	Durango	28893	10,71	2698,55
Ea	Ea	486	3,30	147,27
Ea	Natxitua	257	6,24	41,17
Ea	Bedaroa	129	4,47	28,83
Eibar	Aginaga	46	4,58	10,05
Eibar	Arrate	95	2,88	32,95
Eibar	Eibar	27140	16,99	1597,48
Eibar	Maltzaga	0	0,25	0,00
Elantxobe	Elantxobe	409	1,83	223,32
Elburgo/Burgelu	Argomaniz	202	2,85	70,88
Elburgo/Burgelu	Elburgo/Burgelu	167	16,60	10,06
Elburgo/Burgelu	Gazeta	50	2,13	23,52
Elburgo/Burgelu	Hijona/Ixona	57	4,85	11,74
Elburgo/Burgelu	Añua	69	2,59	26,63
Elburgo/Burgelu	Arbulo/Arbulu	100	2,77	36,04
Elciego	Elciego	1079	16,23	66,50
Elduain	Elduain	233	25,18	9,25
Elgeta	Elgeta	1101	17,12	64,31
Elgoibar	Altzola	15	1,06	14,19
Elgoibar	Elgoibar	8313	10,42	797,86
Elgoibar	Sallobente-Ermuaran	220	10,12	21,73
Elgoibar	Aiastia (San Migel)	204	9,10	22,42
Elgoibar	Idotorbe (San Pedro)	136	4,46	30,49
Elgoibar	Azkue (San Roke)	2243	3,61	620,58
Elorrio	Mendraka	58	0,98	59,15
Elorrio	San Agustin	96	3,46	27,74
Elorrio	Gazeta	50	1,71	29,26
Elorrio	Gaztañeta	25	0,67	37,58
Elorrio	Iguria	70	13,65	5,13
Elorrio	Leiz-Miñota	74	2,26	32,71

Elorrio	Lekeriketa	52	1,36	38,29
Elorrio	Berrio-Aldape	85	6,09	13,97
Elorrio	Berriozabaleta-Aramiño	42	2,16	19,44
Elorrio	Elorrio	6715	4,56	1472,68
Elvillar/Bilar	Elvillar/Bilar	356	17,43	20,42
Enirio-Aralar	Enirio-Aralar	0	33,88	0,00
Entzia elkarrekikoa / Parzonería de Entzia	Entzia elkarrekikoa / Parzonería de Entzia	0	49,60	0,00
Erandio	Goierri	646	8,03	80,44
Erandio	Erandiogoikoa	1251	3,64	344,03
Erandio	Lutxana-Enekuri	422	1,72	245,45
Erandio	Altzaga	10641	1,18	9001,75
Erandio	Arriaga	555	1,13	490,97
Erandio	Astrabudua	10412	1,09	9532,10
Erandio	Asua-Lauroeta	322	2,00	161,11
Ereño	Akorda-Bollar	52	2,60	19,97
Ereño	Basetxeta-Atxoste	64	3,13	20,47
Ereño	Elexalde-Zeeta	85	1,88	45,18
Ereño	Gabika	70	2,92	23,96
Ermua	Ermua	16262	6,39	2545,79
Errenteria	Errenteria	2390	31,93	74,86
Errezil	Ibarbia	86	5,52	15,58
Errezil	Errezil	123	0,05	2430,59
Errezil	Erdoizta	26	4,72	5,51
Errezil	Argisain (Santa Marina)	0	0,40	0,00
Errezil	Artzalluz	155	12,62	12,28
Errezil	Ezama	92	2,80	32,83
Errezil	Letea	128	6,09	21,00
Erriberagoitia/Ribera Alta	Villabezana	28	6,76	4,14
Erriberagoitia/Ribera Alta	Villaluenga	15	3,87	3,88
Erriberagoitia/Ribera Alta	Arreo	4	3,29	1,22
Erriberagoitia/Ribera Alta	Tuyo	98	3,50	28,01
Erriberagoitia/Ribera Alta	Viloria	27	3,11	8,67
Erriberagoitia/Ribera Alta	Artaza/Artatza	19	7,90	2,41
Erriberagoitia/Ribera Alta	Lasierra	20	2,50	8,00
Erriberagoitia/Ribera Alta	Leciñana de la Oca	18	4,35	4,14
Erriberagoitia/Ribera Alta	Morillas	27	3,32	8,14
Erriberagoitia/Ribera Alta	Nuvilla	10	2,05	4,88
Erriberagoitia/Ribera Alta	Paul	54	3,14	17,20
Erriberagoitia/Ribera Alta	Antezana de la Ribera	50	6,20	8,07
Erriberagoitia/Ribera Alta	Anuntzeta/Anúcita	76	3,88	19,59
Erriberagoitia/Ribera Alta	Arbigano	12	2,63	4,56
Erriberagoitia/Ribera Alta	Villambrosa	17	3,99	4,26

Erriberagoitia/Ribera Alta	San Miguel	5	7,31	0,68
Erriberagoitia/Ribera Alta	Subijana-Morillas	85	7,22	11,77
Erriberagoitia/Ribera Alta	Barrón	27	9,04	2,99
Erriberagoitia/Ribera Alta	Basquiñuelas	6	5,30	1,13
Erriberagoitia/Ribera Alta	Caicedo-Sopeña	27	2,82	9,56
Erriberagoitia/Ribera Alta	Castillo Sopeña	5	3,00	1,67
Erriberagoitia/Ribera Alta	Escota/Axkoeta	14	6,81	2,06
Erriberagoitia/Ribera Alta	Hereña	22	4,11	5,35
Erriberagoitia/Ribera Alta	Ormijana	29	10,55	2,75
Erriberagoitia/Ribera Alta	Pobes	181	3,36	53,87
Errigoiti	Atxika-Errekalde	57	2,50	22,79
Errigoiti	Elexalde-Olabarri	174	4,82	36,12
Errigoiti	Errigoiti	200	2,85	70,09
Errigoiti	Metxika	103	6,37	16,17
Eskoriatza	Bolibar	196	17,96	10,91
Eskoriatza	Eskoriatza	3594	5,20	690,59
Eskoriatza	Gellao	29	1,08	26,91
Eskoriatza	Marin	54	4,73	11,41
Eskoriatza	Mazmela	120	4,38	27,39
Eskoriatza	Mendiola	154	2,95	52,17
Eskoriatza	Zarimutz	58	2,07	28,02
Eskoriatza	Apotzaga	56	2,16	25,94
Etxebarri	Legizamon	364	0,54	671,28
Etxebarri	Kukullaga	5699	2,07	2755,66
Etxebarri	Doneztebe	4221	0,79	5352,55
Etxebarria	Altzaa	143	2,09	68,52
Etxebarria	Aulesti	35	6,48	5,40
Etxebarria	Galartza	121	3,69	32,78
Etxebarria	Erbera /San Andres	376	0,55	680,13
Etxebarria	Unamuntzaga	62	4,91	12,63
Ezkio-Itsaso	Itsaso-Alegia	46	0,66	70,09
Ezkio-Itsaso	Ezkio	145	7,69	18,86
Ezkio-Itsaso	Itsaso	97	5,45	17,81
Ezkio-Itsaso	Aratz-Matxinbenta	25	4,02	6,22
Ezkio-Itsaso	Mandubia	4	1,17	3,43
Ezkio-Itsaso	Anduaga (Santa Lutzia)	312	2,20	141,93
Forua	Baldatika	21	3,25	6,47
Forua	Elexalde Forua	547	0,50	1090,01
Forua	Armotxerria	78	0,52	150,19
Forua	Atxondoa	124	1,87	66,15
Forua	Gaitoka	43	1,04	41,28
Forua	Landaberde	115	0,13	889,64

Forua	Urberuaga	44	0,32	138,14
Fruiz	Olalde	14	0,17	80,84
Fruiz	Plakonalde	20	0,77	26,12
Fruiz	Batiz	41	0,72	57,14
Fruiz	Lotina	5	0,30	16,86
Fruiz	Aldai	245	1,12	219,29
Fruiz	Ugane	25	0,18	139,50
Fruiz	Botiola	65	0,82	79,54
Fruiz	Mandaluiz	42	0,94	44,57
Fruiz	Andeko	61	0,62	98,48
Gabiria	Alegia	769	0,55	1392,13
Gabiria	Aztiria	47	1,45	32,50
Gabiria	Gabiria	412	12,81	32,15
Gaintza	Gaintza	125	5,91	21,17
Galdakao	Bekea	169	2,77	61,00
Galdakao	Agirre-Aperribai	2341	4,70	498,39
Galdakao	Kurtzea	21721	4,31	5035,82
Galdakao	Elexalde	186	4,54	41,01
Galdakao	Gumuzio	163	7,79	20,94
Galdakao	Usansolo	4108	7,20	570,90
Galdames	La Aceña/Atxuriaga	59	4,53	13,03
Galdames	Txabarri	125	6,40	19,52
Galdames	Montellano	86	3,01	28,58
Galdames	San Esteban Galdames	269	9,91	27,13
Galdames	San Pedro Galdames	312	20,53	15,20
Gamiz-Fika	Elexalde	186	2,49	74,56
Gamiz-Fika	Ergoien	640	6,58	97,19
Gamiz-Fika	Ibarra	920	1,86	493,87
Gamiz-Fika	Mendotza	158	4,41	35,83
Garai	Garai (San Migel)	164	1,86	87,97
Garai	Momoitio	116	2,01	57,70
Garai	Goierri	646	3,26	198,14
Gatika	Igartua	101	1,80	56,23
Gatika	Libaroa	46	1,54	29,93
Gatika	Urresti	33	1,54	21,37
Gatika	Zurbao	144	3,22	44,71
Gatika	Butroe	48	4,45	10,78
Gatika	Gorordo	158	0,67	234,97
Gatika	Ugarte	66	1,14	57,91
Gatika	Garai	176	0,83	211,01
Gatika	Sertutxa	753	2,11	357,36
Gautegiz Arteaga	Zelaieta	718	2,40	298,58
Gautegiz Arteaga	Isla	60	2,49	24,07

Gautegiz Arteaga	Errekalde	19	1,11	17,11
Gautegiz Arteaga	Basetxeta	46	3,36	13,69
Gautegiz Arteaga	Kanala	62	3,73	16,60
Gaztelu	Gaztelu	171	8,80	19,44
Gernika-Lumo	Arana	1025	1,22	843,09
Gernika-Lumo	Gernika-Lumo	12909	1,90	6794,00
Gernika-Lumo	Errenteria	2390	0,28	8420,77
Gernika-Lumo	Lumo	184	3,07	60,02
Gernika-Lumo	Zallo	48	2,03	23,68
Getaria	Askizu	107	3,16	33,90
Getaria	Eitzaga	91	1,86	48,87
Getaria	Getaria	2239	0,63	3552,94
Getaria	Meaga	117	3,45	33,95
Getaria	San Prudentzio	145	1,87	77,60
Getxo	Algorta	38926	2,87	13567,70
Getxo	Andra Mari	14023	7,67	1829,35
Getxo	Areeta/Las Arenas	26866	1,28	21046,75
Gipuzkoako Partzuergo Txikia / Parzonería Menor de	Gipuzkoako Partzuergo Txikia / Parzonería Menor de	0	4,72	0,00
Gizaburuaga	Eguen	98	0,54	182,71
Gizaburuaga	Lariz	49	1,02	47,96
Gizaburuaga	Laxier	26	2,10	12,41
Gizaburuaga	Okamika	32	2,18	14,69
Gordexola	Iratzagorria	143	14,42	9,92
Gordexola	Sandamendi	976	10,20	95,64
Gordexola	Zaldu	170	9,10	18,68
Gordexola	Zubiete	444	7,30	60,85
Gorliz	Elexalde	186	1,51	123,17
Gorliz	Gandia	223	1,80	123,83
Gorliz	Urezarantza	524	5,86	89,40
Gorliz	Agirre-Areantza-Guzurmendi	1053	0,89	1177,03
Güeñes	Güeñes	1636	17,42	93,90
Güeñes	La Quadra	282	11,28	25,00
Güeñes	Sodupe	4067	9,96	408,15
Güeñes	Zaramillo	446	2,81	158,74
Harana/Valle de Arana	Alda	42	5,64	7,44
Harana/Valle de Arana	Kontrasta	59	12,31	4,79
Harana/Valle de Arana	San Vicente de Arana/Done Bikendi Harana	123	9,66	12,73
Harana/Valle de Arana	Ullibarri-Arana/Uribarri Harana	0	11,40	0,00
Hernani	Santa Barbara	771	1,48	519,63

Hernani	Zikuñaga	720	0,65	1109,73
Hernani	Eziago	0	0,23	0,00
Hernani	Akerregi	106	0,52	204,16
Hernani	Epela	110	0,77	143,26
Hernani	Ereñotzu	437	12,95	33,75
Hernani	Hernani	16538	3,25	5084,91
Hernani	Jauregi	12	2,13	5,63
Hernani	Martindegi	147	1,54	95,58
Hernani	Osinaga	211	2,97	71,08
Hernani	Pagoaga	45	13,38	3,36
Hernialde	Hernialde	353	4,17	84,64
Hondarribia	Jaitzubia	1659	8,60	192,86
Hondarribia	Portua	2491	0,25	10129,28
Hondarribia	Gornutz (Montaña)	100	13,84	7,23
Hondarribia	Puntalea	1169	0,35	3343,22
Hondarribia	Zimizarga	1108	1,19	927,98
Hondarribia	Mendelu	795	0,08	10180,83
Hondarribia	Akartegi	5381	2,91	1846,09
Hondarribia	Arkolla	241	1,02	237,43
Hondarribia	Amute-Kosta	1674	1,53	1094,02
Hondarribia	Alde Zaharra	1770	0,09	19730,65
Ibarra	Ibarra	920	5,10	180,42
Ibarrangelu	Akorda	71	6,92	10,25
Ibarrangelu	Elexalde	186	7,28	25,55
Idiazabal	Idiazabal	2262	14,20	159,30
Idiazabal	Urtsuaran	44	15,20	2,90
Igorre	Sabino Arana	514	0,60	857,73
Igorre	Santa Lutzia	139	3,54	39,28
Igorre	Basauntz	120	5,79	20,73
Igorre	Elexalde	186	2,32	80,30
Igorre	Urkizu	161	3,29	48,91
Igorre	San Juan	66	1,46	45,29
Igorre	Olabarri	602	0,16	3817,56
Ikaztegieta	Ikaztegieta	467	2,02	231,63
Irun	Bidasoa	99	6,38	15,53
Irun	Irun	59704	35,50	1681,86
Iruña Oka/Iruña de Oca	Víllodas/Billoda	0	6,08	0,00
Iruña Oka/Iruña de Oca	Montevite/Mandaita	62	11,89	5,21
Iruña Oka/Iruña de Oca	Nanclares de la Oca/Langraiz Oka	2268	15,29	148,29
Iruña Oka/Iruña de Oca	Ollávarre/Olabarri	206	7,30	28,23
Iruña Oka/Iruña de Oca	Trespuentes	264	12,52	21,09
Irura	Irura	1610	2,95	546,28

Iruraiz-Gauna	Azilu	33	1,27	26,08
Iruraiz-Gauna	Alaitza	77	3,38	22,80
Iruraiz-Gauna	Arrieta	45	4,11	10,94
Iruraiz-Gauna	Erentxun	94	7,64	12,31
Iruraiz-Gauna	Ezkerekotxa	56	3,70	15,12
Iruraiz-Gauna	Gazeo	39	3,01	12,96
Iruraiz-Gauna	Gauna	70	5,96	11,74
Iruraiz-Gauna	Trokoniz	67	4,46	15,01
Iruraiz-Gauna	Gereñu	40	7,07	5,66
Iruraiz-Gauna	Jauregi	12	3,13	3,83
Iruraiz-Gauna	Langarika	40	3,04	13,17
Ispaster	Solarte-Gallete	83	4,24	19,60
Ispaster	Mendazoa	29	4,99	5,81
Ispaster	Barainka	18	2,53	7,11
Ispaster	Kurtziaga-Arropain	102	2,21	46,24
Ispaster	Gardata-Artika	85	3,04	27,99
Ispaster	Ispaster-Elexalde	360	4,84	74,43
Ispaster	Soloaran	23	1,34	17,20
Itsasondo	Itsasondo	680	8,95	76,00
Iurreta	Fauste	158	1,45	109,18
Iurreta	Arriandi	99	0,60	164,97
Iurreta	Gaztañatza	24	0,47	51,29
Iurreta	Santa Maña	41	2,14	19,17
Iurreta	Iurreta	2877	0,79	3619,07
Iurreta	Goiuria	46	1,55	29,74
Iurreta	Mañariku	31	0,28	109,24
Iurreta	Aita San Migel	144	0,17	830,99
Iurreta	Amatza	59	0,64	91,85
Iurreta	Arandia	11	0,16	69,24
Iurreta	Garaizar	18	0,41	43,90
Iurreta	Iturburu	71	0,44	161,92
Iurreta	Mallabiena	1	0,12	8,28
Iurreta	Orozketa	78	2,51	31,04
Iurreta	San Andres	36	0,83	43,26
Iurreta	Santa Apolonia	44	0,77	57,24
Iurreta	Artatza	6999	0,04	155671,65
Iurreta	Oromiño	38	0,10	399,47
Iurreta	San Marko	44	5,35	8,22
Iurreta	Bakixa	21	0,10	204,90
Izurtza	Izurtza	287	4,39	65,35
Karrantza Harana/Valle de Carranza	Ahedo	150	10,65	14,08

Karrantza Harana/Valle de Carranza	Aldeacueva	86	24,37	3,53
Karrantza Harana/Valle de Carranza	Bernales	28	8,76	3,20
Karrantza Harana/Valle de Carranza	Biáñez	139	2,56	54,33
Karrantza Harana/Valle de Carranza	La Calera del Prado	21	9,04	2,32
Karrantza Harana/Valle de Carranza	El Callejo	93	1,65	56,31
Karrantza Harana/Valle de Carranza	La Cerca	12	5,26	2,28
Karrantza Harana/Valle de Carranza	Concha	473	2,01	234,83
Karrantza Harana/Valle de Carranza	San Cipriano	37	3,82	9,70
Karrantza Harana/Valle de Carranza	San Esteban	153	3,35	45,63
Karrantza Harana/Valle de Carranza	Sangrices	107	11,91	8,98
Karrantza Harana/Valle de Carranza	Santecilla	50	3,71	13,49
Karrantza Harana/Valle de Carranza	Sierra	88	3,01	29,19
Karrantza Harana/Valle de Carranza	Soscaño	296	3,33	89,01
Karrantza Harana/Valle de Carranza	El Suceso	73	6,22	11,73
Karrantza Harana/Valle de Carranza	Ambasaguas	519	1,00	520,15
Karrantza Harana/Valle de Carranza	Herboso	17	0,89	19,07
Karrantza Harana/Valle de Carranza	Lanzas Agudas	75	6,04	12,42
Karrantza Harana/Valle de Carranza	Manzaneda de Biáñez	32	1,48	21,61
Karrantza Harana/Valle de Carranza	Matienzo	75	5,79	12,95
Karrantza Harana/Valle de Carranza	Molinar	34	0,79	43,28
Karrantza Harana/Valle de Carranza	Pando	40	5,38	7,43
Karrantza Harana/Valle de	Paúles	42	7,96	5,28

Carranza				
Karrantza Harana/Valle de Carranza	Presa	65	3,95	16,48
Karrantza Harana/Valle de Carranza	Ranero	41	3,32	12,34
Karrantza Harana/Valle de Carranza	Rioseco	55	1,37	40,29
Kortezubi	Basondo	44	2,25	19,54
Kortezubi	Elorriaga-Santa Ana	71	0,95	74,85
Kortezubi	Kortezubi	287	4,58	62,70
Kortezubi	Oma	22	4,02	5,48
Kripan	Kripan	197	12,72	15,49
Kuartango	Santa Eulalia	14	1,90	7,36
Kuartango	Luna	11	5,71	1,93
Kuartango	Marinda	1	8,15	0,12
Kuartango	Anda	27	1,92	14,07
Kuartango	Andagoia	18	10,95	1,64
Kuartango	Aprikano	16	3,67	4,36
Kuartango	Artxua	10	1,71	5,84
Kuartango	Sendadiano	19	3,01	6,31
Kuartango	Tortura	3	2,62	1,15
Kuartango	Uribarri-Kuartango	11	2,13	5,16
Kuartango	Urbina de Basabe	1	1,07	0,94
Kuartango	Urbina Eza	14	2,25	6,22
Kuartango	Villamanca	9	3,19	2,82
Kuartango	Zuhatzu-Kuartango	121	5,23	23,13
Kuartango	Arriano	7	2,08	3,36
Kuartango	Katadiano	3	3,90	0,77
Kuartango	Etxabarri-Kuartango	17	2,13	7,99
Kuartango	Guillarte	6	2,44	2,45
Kuartango	Iñurrieta	1	16,57	0,06
Kuartango	Jokano	33	3,47	9,51
Labastida/Bastida	Labastida/Bastida	1414	24,77	57,09
Labastida/Bastida	Salinillas de Buradón/Gatzaga Buradon	0	13,52	0,00
Lagrán	Lagrán	0	17,84	0,00
Lagrán	Pipaon	45	18,95	2,37
Lagrán	Villaverde	32	8,51	3,76
Laguardia	Campillar (El)	27	14,58	1,85
Laguardia	Laguardia	1440	59,96	24,02
Laguardia	Laserna	51	4,94	10,32
Laguardia	Páganos	78	2,93	26,64

Lanciego/Lantziego	Lanciego/Lantziego	593	13,49	43,95
Lanciego/Lantziego	Viñaspre/Biasteri	77	4,02	19,18
Lanciego/Lantziego	Assa	34	6,81	4,99
Lanestosa	Lanestosa	273	1,15	237,53
Lantarón	Comunión/Komunioi	92	4,59	20,05
Lantarón	Fontecha	112	8,50	13,17
Lantarón	Leciñana del Camino/Leziñana	49	2,91	16,83
Lantarón	Molinilla	11	4,00	2,75
Lantarón	Puentelarrá/Larrazubi	173	0,55	313,73
Lantarón	Salcedo	115	5,15	22,32
Lantarón	Sobrón	69	11,54	5,98
Lantarón	Turiso	50	6,13	8,16
Lantarón	Alcedo	30	4,96	6,05
Lantarón	Bergonda/Bergüenda	69	5,23	13,19
Lantarón	Caicedo de Yuso	55	8,67	6,35
Lantarón	Polígono Industrial Lantaron	0	0,98	0,00
Lantarón	Zubillaga	111	4,50	24,65
Lapuebla de Labarca	Lapuebla de Labarca	863	5,99	144,01
Larrabetzu	Goikoelexalde/Elexalde	342	12,47	27,43
Larrabetzu	Uria	1638	9,01	181,78
Larraul	Larraul	249	5,59	44,55
Lasarte-Oria	Lasarte	174	1,15	150,81
Lasarte-Oria	Oria	1044	2,21	473,23
Lasarte-Oria	Larrekoetxe	770	0,66	1174,32
Lasarte-Oria	Atsobakar	1509	0,10	15252,92
Lasarte-Oria	Oztaran	1974	1,70	1157,96
Laudio/Llodio	Laudio/Llodio	18564	37,42	496,07
Laukiz	Agirre	84	0,61	137,98
Laukiz	Aurrekoetxea	153	1,44	106,50
Laukiz	Mentxaketa	146	1,38	106,04
Laukiz	Mendiondo	598	3,99	149,85
Laukiz	Elexalde	186	0,69	271,08
Lazkao	Senpere	23	0,44	52,79
Lazkao	Zubierreka	46	1,00	46,22
Lazkao	Lazkao	5178	4,30	1203,53
Lazkao	Lazkaomendi	92	5,88	15,65
Leaburu	Txarama	144	0,94	153,22
Leaburu	Leaburu	239	2,51	95,39
Legazpi	Brinkola	148	17,68	8,37
Legazpi	Legazpi	8310	15,93	521,52
Legazpi	Telleriarte	139	8,47	16,40
Legorreta	Legorreta	1516	8,59	176,58

Legutio	Elosu	113	3,56	31,74
Legutio	Goiain	21	1,86	11,27
Legutio	Urbina	126	2,06	61,03
Legutio	Urrunaga	114	6,59	17,29
Legutio	Legutio	1354	31,88	42,47
Leintz Gatzaga	Leintz-Gatzaga	264	14,75	17,90
Leioa	Artatza	6999	2,44	2867,72
Leioa	Elexalde	186	4,82	38,62
Leioa	Lamiako	4641	1,06	4383,77
Lekeitio	Lekeitio	7408	1,80	4124,48
Lemoa	Lemoa	3468	15,40	225,16
Lemoiz	Andraka	118	3,05	38,74
Lemoiz	Armintza	629	9,95	63,22
Lemoiz	Gure Mendi	31	0,62	49,69
Lemoiz	Urizar	303	4,93	61,48
Leza	Leza	227	8,44	26,88
Lezama	Goitioltza	237	4,82	49,14
Lezama	Aretxalde	917	6,89	133,10
Lezama	Garaioltza	1292	4,60	281,07
Lezo	Lezo	6043	8,46	713,98
Lizartza	Lizartza	649	12,13	53,48
Loiu	Elotxelerri	474	2,93	161,95
Loiu	Lauroeta	475	7,92	59,98
Loiu	Zangroiz	63	0,20	318,31
Loiu	Zabaloetxe	1412	3,96	356,54
Mallabia	Goita	116	4,92	23,56
Mallabia	Areitio	57	0,90	63,01
Mallabia	Mallabia	666	1,48	449,73
Mallabia	Arandoño	48	0,77	62,06
Mallabia	Berano Txikia	27	2,93	9,23
Mallabia	Gerea	90	6,00	15,01
Mallabia	Osma	46	4,93	9,33
Mallabia	Berano Nagusia	75	1,27	58,88
Mañaria	Mañaria	514	17,55	29,29
Markina-Xemein	Larruskain-Amalloa	132	16,07	8,22
Markina-Xemein	Barinaga	113	7,46	15,15
Markina-Xemein	Iluntzar	74	3,75	19,75
Markina-Xemein	Iturreta	83	3,61	22,99
Markina-Xemein	Markina-Xemein	4342	3,70	1174,25
Markina-Xemein	Meabe	62	3,77	16,46
Markina-Xemein	Ubilla-Urberuaga	100	7,08	14,12
Maruri-Jatabe	Erbera	281	6,19	45,41

Maruri-Jatabe	Ergoien	640	9,77	65,52
Mendaro	Azpilgoeta	493	3,71	132,78
Mendaro	Mendarozabal	312	1,21	258,01
Mendaro	Plaza	591	6,83	86,55
Mendaro	Garagartza	193	13,53	14,26
Mendata	Olabe	81	7,70	10,52
Mendata	Albiz	58	6,61	8,77
Mendata	Elexalde	186	4,56	40,79
Mendata	Marmiz	88	3,90	22,58
Mendexa	Leagi	69	1,41	49,10
Mendexa	Likoa	153	1,78	85,78
Mendexa	Zelaia	255	1,53	166,70
Mendexa	Iturreta	83	2,23	37,29
Meñaka	Meñakabarrena	240	4,52	53,10
Meñaka	Mesterika	268	2,37	112,93
Meñaka	Ametzaga	116	0,65	177,86
Meñaka	Emerando	110	5,11	21,53
Moreda de Álava/Moreda Araba	Moreda de Álava/Moreda Araba	283	8,74	32,37
Morga	Andra Mari	14023	2,08	6726,26
Morga	Eskerika	61	3,13	19,49
Morga	Meaka	30	2,64	11,36
Morga	Meakaur	27	0,62	43,75
Morga	Morgaondo	48	1,12	42,97
Morga	Oñarte	39	1,35	28,85
Morga	Ganbe	72	3,52	20,44
Mundaka	Arketa-Aranburu	35	1,50	23,32
Mundaka	Mundaka	1708	0,32	5392,08
Mundaka	Portuondo-Basaran	181	2,21	81,78
Mungia	Maurola	7	2,65	2,65
Mungia	Zabalondo	170	1,93	88,11
Mungia	Atxuri	281	2,00	140,23
Mungia	Mungia	12257	2,45	5001,26
Mungia	Larrauri	289	5,87	49,27
Mungia	Markaida	165	5,92	27,87
Mungia	Atela	206	1,73	118,87
Mungia	Iturribaltzaga	131	0,77	169,84
Mungia	Basozabal	281	2,56	109,55
Mungia	Elgezabal	141	2,43	58,12
Mungia	Llona	145	0,96	151,43
Mungia	Berreagamendi	2094	3,05	685,94
Mungia	Billela	341	3,14	108,49
Mungia	Trobika	164	2,91	56,34

Mungia	Emerando	110	5,83	18,87
Munitibar-Arbatzegi Gerrikaitz	Munitibar	252	0,51	493,55
Munitibar-Arbatzegi Gerrikaitz	Berreño	63	7,35	8,57
Munitibar-Arbatzegi Gerrikaitz	Gerrikaitz	82	10,87	7,55
Munitibar-Arbatzegi Gerrikaitz	Gerrika	16	2,17	7,37
Munitibar-Arbatzegi Gerrikaitz	Totorika	25	3,17	7,88
Murueta	Murueta	102	5,32	19,16
Muskiz	San Julián de Muskiz	243	1,90	128,07
Muskiz	Santelices	247	4,88	50,62
Muskiz	Cobarón	123	1,63	75,31
Muskiz	Pobeña	215	2,45	87,89
Muskiz	La Rigada	412	2,77	148,48
Muskiz	San Juan de Muskiz	6209	7,27	854,31
Mutiloa	Mutiloa	243	8,62	28,18
Mutriku	Astigarribia	52	1,99	26,11
Mutriku	Mutriku	4415	1,33	3329,64
Mutriku	Artzainerreka	3	1,38	2,18
Mutriku	Galdona	120	2,11	56,98
Mutriku	Ibiri	65	2,34	27,75
Mutriku	Olabarrieta	33	1,20	27,48
Mutriku	Olatz	35	10,39	3,37
Mutriku	Laranga	156	2,44	63,92
Mutriku	Mijoa	175	1,69	103,77
Mutriku	Mizkia	4	2,72	1,47
Mutriku	Urazamendik	10	0,06	179,15
Muxika	Ugarte	66	7,69	8,58
Muxika	Usparitxa	177	5,32	33,28
Muxika	Gorozika	147	8,31	17,69
Muxika	Ibarruri	229	21,58	10,61
Muxika	San Roman	111	6,42	17,28
Nabarniz	Lekerika	27	1,21	22,29
Nabarniz	Merika	44	1,28	34,43
Nabarniz	Uribarri-Zabaleta	19	1,16	16,42
Nabarniz	Elexalde	186	4,74	39,20
Nabarniz	Ikazurieta	17	1,00	16,93
Nabarniz	Intxaurraga	30	2,14	14,05
Navaridas	Navaridas	235	8,96	26,24
Oiartzun	Arragua	1459	4,66	313,40
Oiartzun	Elizalde	3546	0,89	3963,48
Oiartzun	Ergoien	640	25,75	24,85
Oiartzun	Iturriotz	1042	9,67	107,80
Oiartzun	Altzibar	1390	0,68	2029,99

Oiartzun	Karrika	252	9,52	26,46
Oiartzun	Ugaldetxo	1331	3,09	430,67
Oiartzun	Gurutze	325	5,21	62,39
Okondo	Irabien	796	2,06	386,24
Okondo	Jandiola	37	5,90	6,28
Okondo	San Roman	111	3,63	30,55
Okondo	Ugalde	72	12,78	5,64
Okondo	Billatxika	122	3,41	35,78
Okondo	Zudubiarte	21	2,55	8,25
Olaberria	Olaberria	442	6,15	71,86
Olaberria	Ihurre	494	0,80	616,44
Ondarroa	Ondarroa	8794	4,29	2051,71
Oñati	Murgia	1213	3,37	359,86
Oñati	Larraña	106	8,23	12,88
Oñati	Olabarrieta	33	11,91	2,77
Oñati	Oñati	9459	1,18	7985,18
Oñati	Lezesarri	75	1,03	72,99
Oñati	Santxolopeztegi	48	0,63	76,28
Oñati	Torreauzo	41	0,26	159,91
Oñati	Arantzazu	91	28,01	3,25
Oñati	Araotz	37	18,85	1,96
Oñati	Uribarri	70	3,05	22,93
Oñati	Urrexola	10	3,06	3,27
Oñati	Zañartu	39	3,90	10,00
Oñati	Zubillaga	111	9,93	11,18
Oñati	Goribar	43	0,67	64,29
Oñati	Berezao	230	5,46	42,13
Oñati	Garibai	49	5,36	9,14
Oñati	Garagaltza	118	2,66	44,40
Ordizia	Ordizia	9509	5,62	1691,79
Orendain	Orendain	177	6,41	27,59
Orexa	Orexa	114	5,89	19,36
Orio	Orio	5372	9,68	554,95
Ormaiztegi	Ormaiztegi	1311	6,87	190,94
Orozko	Urigoiti	55	2,77	19,82
Orozko	Zubiaur	561	11,07	50,66
Orozko	Murueta	102	12,18	8,38
Orozko	Albizuelexaga	146	10,33	14,13
Orozko	Arbaitza	50	22,66	2,21
Orozko	Bengoetxea	104	7,09	14,67
Orozko	Gallartu	41	8,74	4,69
Orozko	Ibarra	920	27,42	33,55
Ortuella	Ortuella	7265	2,12	3418,95

Ortuella	Triano	51	3,00	17,02
Ortuella	Urioste	861	0,88	977,89
Ortuella	Cadegal	38	0,26	143,94
Ortuella	Nocedal	189	0,91	206,73
Ortuella	La Orconera	53	0,79	67,22
Otxandio	Andaparaluzeta	28	1,26	22,20
Otxandio	Mekoleta	22	2,15	10,21
Otxandio	Otxandio	1248	8,91	140,08
Oyón-Oion	Barriobusto/Gorrebusto	93	12,95	7,18
Oyón-Oion	Labraza	115	14,44	7,97
Oyón-Oion	Oyón-Oion	3166	17,66	179,27
Partzuergo Nagusia / Parzonería General	Partzuergo Nagusia / Parzonería General	0	31,59	0,00
Pasaia	Pasai Antxo	4714	0,41	11374,81
Pasaia	Pasai San Pedro	2851	0,55	5208,83
Pasaia	Pasai Donibane	2367	9,05	261,54
Pasaia	Trintxerpe	6228	0,58	10736,56
Peñacerrada-Urizaharra	Faido/Faidu	24	4,93	4,87
Peñacerrada-Urizaharra	Loza	20	11,95	1,67
Peñacerrada-Urizaharra	Montoria	19	22,14	0,86
Peñacerrada-Urizaharra	Payueta/Pagoeta	66	5,74	11,51
Peñacerrada-Urizaharra	Peñacerrada-Urizaharra	133	10,88	12,22
Peñacerrada-Urizaharra	Baroja	32	5,90	5,43
Plentzia	Txipio	671	0,20	3354,34
Plentzia	Isuskitza	980	3,58	274,11
Plentzia	Plentzia	2635	0,81	3268,65
Plentzia	Saratxaga	121	1,30	93,40
Portugalete	Portugalete	47631	3,19	14940,09
Ribera Baja/Erribera Beitia	Rivaguda	21	2,92	7,20
Ribera Baja/Erribera Beitia	Igay	12	1,95	6,16
Ribera Baja/Erribera Beitia	Manzanos	187	4,65	40,22
Ribera Baja/Erribera Beitia	Melledes	46	3,03	15,17
Ribera Baja/Erribera Beitia	Quintanilla de la Ribera	14	3,61	3,87
Ribera Baja/Erribera Beitia	Rivabellosa	1156	9,25	125,02
Salvatierra/Agurain	Alangua	34	3,50	9,71
Salvatierra/Agurain	Arrizala	24	2,02	11,87
Salvatierra/Agurain	Egileor	21	5,27	3,98
Salvatierra/Agurain	Opakua	39	6,27	6,22
Salvatierra/Agurain	Agurain/Salvatierra	4901	20,82	235,44
Samaniego	Samaniego	324	10,70	30,28
San Millán/Donemiliaga	Luzuriaga	31	2,93	10,59
San Millán/Donemiliaga	Mezkia	21	3,16	6,64

San Millán/Donemiliaga	Munain	34	3,47	9,79
San Millán/Donemiliaga	Narbaiza	106	24,07	4,40
San Millán/Donemiliaga	Okariz	36	5,36	6,72
San Millán/Donemiliaga	Adana	56	4,50	12,45
San Millán/Donemiliaga	Aspuru/Axpuru	22	3,70	5,95
San Millán/Donemiliaga	Txintxetru	34	5,19	6,55
San Millán/Donemiliaga	Eguilaz/Egilatz	43	1,91	22,50
San Millán/Donemiliaga	Ullibarri-Jauregi/Uribarri-Jauregi	79	3,99	19,82
San Millán/Donemiliaga	Bikuña	31	7,61	4,07
San Millán/Donemiliaga	Ordoñana/Erdoñana	42	3,25	12,92
San Millán/Donemiliaga	Durruma/San Román de San Millán	90	4,36	20,64
San Millán/Donemiliaga	Zuazo de San Millán/Zuhatzu Donemiliaga	0	3,67	0,00
San Millán/Donemiliaga	Galarreta	49	8,04	6,09
Santurtzi	Balparda	22	0,14	156,12
Santurtzi	Santurtzi	46827	7,69	6091,44
Santurtzi	El Villar	99	0,86	114,91
Segura	Segura	1480	9,23	160,43
Sestao	Sestao	28548	3,62	7888,91
Sondika	Basozabal	281	1,46	192,32
Sondika	Landa	41	0,44	92,87
Sondika	Izartza	4	4,12	0,97
Sondika	Zangroiz	63	0,84	75,43
Sopelana	Ugeraga	2941	4,95	594,54
Sopelana	Moreaga	9250	3,36	2753,02
Sopuerta	Arenao	9	0,43	20,70
Sopuerta	El Castaño	310	0,90	344,30
Sopuerta	La Baluga	872	1,74	499,80
Sopuerta	Las Muñecas	73	3,41	21,44
Sopuerta	Jarralta	86	4,13	20,84
Sopuerta	San Martín de Carral	161	4,88	32,98
Sopuerta	Alen	15	4,56	3,29
Sopuerta	Avellaneda	68	5,31	12,81
Sopuerta	Labarrieta/Olabarrieta	58	4,88	11,89
Sopuerta	Bezi	112	6,01	18,62
Sopuerta	Mercadillo	740	5,00	148,03
Sopuerta	Las Ribas	71	0,77	91,83
Sopuerta	El Alisal	0	0,40	0,00
Soraluze-Placencia de las Armas	Soraluze-Placencia de las Armas	3954	14,10	280,40
Sukarrieta	Sukarrieta	284	1,34	211,43

Sukarrieta	Abiña (Andoni Deuna)	13	0,13	97,07
Sukarrieta	Txatxarramendi	0	0,09	0,00
Sukarrieta	Kanala	62	0,50	123,71
Tolosa	Urkizu	161	2,68	60,05
Tolosa	Tolosa	11648	0,77	15094,95
Tolosa	Aldaba	66	6,10	10,82
Tolosa	Auzotxikia	152	4,21	36,14
Tolosa	Bedaio	93	12,14	7,66
Tolosa	Monteskue	146	1,22	120,09
Tolosa	Usabal	320	1,77	180,69
Tolosa	Santa Lutzia	139	3,58	38,82
Tolosa	San Blas	5309	1,65	3222,73
Tolosa	San Esteban	153	3,13	48,90
Trucios-Turtzioz	Cueto	44	18,64	2,36
Trucios-Turtzioz	Gordón	16	8,14	1,97
Trucios-Turtzioz	La Iglesia	339	2,45	138,54
Trucios-Turtzioz	Pando	40	1,71	23,43
Ubide	San Juan	66	1,24	53,04
Ubide	Magdalena	82	1,56	52,61
Ugao-Miraballes	Markio	29	0,86	33,76
Ugao-Miraballes	Ugao-Miraballes	4017	4,39	915,30
Urduliz	Landa	41	1,92	21,33
Urduliz	Dobaran	85	1,06	80,23
Urduliz	Zalbidea	76	2,48	30,66
Urduliz	Elortza	1081	0,68	1593,33
Urduliz	Mendiondo	598	1,59	375,73
Urduña/Orduña	Belandia	42	5,79	7,25
Urduña/Orduña	Lendoñobeiti/Lendoño de Abajo	39	4,35	8,97
Urduña/Orduña	Lendoño Goikoa/Lendoño de Arriba	13	4,51	2,89
Urduña/Orduña	Mendeika	17	2,69	6,32
Urduña/Orduña	Urduña/Orduña	4094	16,08	254,64
Urkabustaiz	Uzkiano	24	4,18	5,75
Urkabustaiz	Abezia	43	14,46	2,97
Urkabustaiz	Goiuri-Ondona	52	8,89	5,85
Urkabustaiz	Inoso	21	3,10	6,77
Urkabustaiz	Izarra	1019	5,15	197,76
Urkabustaiz	Larrazkueta	11	1,75	6,28
Urkabustaiz	Oiardo	45	7,79	5,77
Urkabustaiz	Untzaga/Unzá	55	5,14	10,70
Urkabustaiz	Abornikano	68	6,35	10,70

Urkabustaiz	Beluntza	41	4,14	9,90
Urnieta	Urnieta	6143	22,42	274,05
Urretxu	Urretxu	6940	7,69	902,69
Usurbil	Txikierdi	223	2,09	106,78
Usurbil	Aginaga	46	5,68	8,10
Usurbil	Kalezar	610	3,40	179,62
Usurbil	Zubieta	283	0,79	360,10
Usurbil	San Esteban	153	10,85	14,10
Usurbil	Usurbil	3906	2,96	1319,15
Valdegovía/Gaubea	Villamaderne	54	5,11	10,56
Valdegovía/Gaubea	Villamardones	0	6,42	0,00
Valdegovía/Gaubea	Villanañe	101	9,47	10,67
Valdegovía/Gaubea	Villanueva de Valdegovía	0	8,61	0,00
Valdegovía/Gaubea	Bóveda	80	21,16	3,78
Valdegovía/Gaubea	Karkamu	30	10,26	2,92
Valdegovía/Gaubea	Corro	27	6,53	4,14
Valdegovía/Gaubea	Espejo	237	8,42	28,16
Valdegovía/Gaubea	Acebedo	11	3,87	2,85
Valdegovía/Gaubea	Astúlez/Estuliz	10	6,84	1,46
Valdegovía/Gaubea	Bachicabo	38	9,99	3,80
Valdegovía/Gaubea	Barrio	22	9,89	2,23
Valdegovía/Gaubea	Basabe	12	4,39	2,73
Valdegovía/Gaubea	Bellojín	7	2,79	2,51
Valdegovía/Gaubea	Caranca	17	5,79	2,94
Valdegovía/Gaubea	Fresneda	21	9,83	2,14
Valdegovía/Gaubea	Guinea	14	6,20	2,26
Valdegovía/Gaubea	Gurendes	38	2,77	13,73
Valdegovía/Gaubea	Lahoz	1	15,25	0,07
Valdegovía/Gaubea	Lalastra	10	7,76	1,29
Valdegovía/Gaubea	Mioma	16	6,44	2,48
Valdegovía/Gaubea	Nograro	14	12,93	1,08
Valdegovía/Gaubea	Valluerca	7	4,47	1,57
Valdegovía/Gaubea	Osma	46	10,08	4,57
Valdegovía/Gaubea	Pinedo	24	4,73	5,07
Valdegovía/Gaubea	Quejo	7	4,37	1,60
Valdegovía/Gaubea	Quintanilla	13	11,11	1,17
Valdegovía/Gaubea	Ribera	0	11,60	0,00
Valdegovía/Gaubea	Tobillas	20	6,30	3,17
Valdegovía/Gaubea	Tuesta	102	4,75	21,46
Valle de Trápaga/Trapagaran	Galindo-Salcedillo	216	0,94	230,08
Valle de Trápaga/Trapagaran	Matamoros-Burtzako	0	0,54	0,00
Valle de Trápaga/Trapagaran	Parkotxa-Barrionuevo	49	1,59	30,81
Valle de Trápaga/Trapagaran	Larreineta	258	1,28	202,11

Valle de Trápaga/Trapagaran	Valle de Trápaga/Trapagaran	10166	1,92	5305,76
Valle de Trápaga/Trapagaran	Trapaga-Causo	0	0,39	0,00
Valle de Trápaga/Trapagaran	La Arboleda/Zugaztieta	517	3,60	143,77
Valle de Trápaga/Trapagaran	Durañona	35	1,33	26,41
Valle de Trápaga/Trapagaran	Elguero	120	0,49	245,46
Valle de Trápaga/Trapagaran	Ugarte	66	0,82	80,96
Villabona	Amasa	295	11,78	25,03
Villabona	Villabona	5487	5,78	950,06
Villabuena de Álava/Eskuernaga	Villabuena de Álava/Eskuernaga	0	8,46	0,00
Vitoria-Gasteiz	Castillo/Gaztelu	80	6,20	12,90
Vitoria-Gasteiz	Zerio	24	1,61	14,90
Vitoria-Gasteiz	Otogoien/Hueto Arriba	57	10,00	5,70
Vitoria-Gasteiz	Ilarratza	104	3,23	32,16
Vitoria-Gasteiz	Junguitu/Jungitu	93	2,85	32,66
Vitoria-Gasteiz	Bolívar	0	1,14	0,00
Vitoria-Gasteiz	Gamarra Mayor/Gamarra Nagusia	309	5,89	52,47
Vitoria-Gasteiz	Gamarra Menor	29	0,73	39,52
Vitoria-Gasteiz	Lubiano	31	4,40	7,04
Vitoria-Gasteiz	Armentia	215	2,14	100,61
Vitoria-Gasteiz	Artatza Foronda	7	6,58	1,06
Vitoria-Gasteiz	Askartza	57	2,59	22,04
Vitoria-Gasteiz	Betoño	467	0,58	807,16
Vitoria-Gasteiz	Gamiz	21	3,65	5,75
Vitoria-Gasteiz	Gardelegi	68	5,12	13,29
Vitoria-Gasteiz	Gobeo	27	0,47	57,82
Vitoria-Gasteiz	Gometxa	53	3,54	14,96
Vitoria-Gasteiz	Mandojana	18	2,82	6,39
Vitoria-Gasteiz	Martioda	12	7,61	1,58
Vitoria-Gasteiz	Matauko	42	2,83	14,86
Vitoria-Gasteiz	Abetxuko	19	1,38	13,74
Vitoria-Gasteiz	Ehari/Ali	110	0,07	1607,95
Vitoria-Gasteiz	Amarita	37	2,84	13,04
Vitoria-Gasteiz	Otazu	74	3,26	22,68
Vitoria-Gasteiz	Retana	54	3,18	16,98
Vitoria-Gasteiz	Subijana de Alava/Subillana-Gasteiz	47	5,16	9,11
Vitoria-Gasteiz	Ullibarri de los Olleros/Uribarri Nagusia	54	8,33	6,48
Vitoria-Gasteiz	Guereña	33	1,97	16,77
Vitoria-Gasteiz	Mendiguren	27	2,12	12,76

Vitoria-Gasteiz	Miñao/Miñano Mayor	32	5,07	6,31
Vitoria-Gasteiz	Zuazo de Vitoria/Zuhatzu	81	3,47	23,33
Vitoria-Gasteiz	Zumelzu/Zumeltzu	35	4,40	7,96
Vitoria-Gasteiz	Foronda	39	2,29	17,05
Vitoria-Gasteiz	Lasarte	174	5,06	34,38
Vitoria-Gasteiz	Legarda	36	1,76	20,45
Vitoria-Gasteiz	Lermanda	14	0,08	176,79
Vitoria-Gasteiz	Lopidana	24	1,72	13,99
Vitoria-Gasteiz	Andollu	36	3,34	10,77
Vitoria-Gasteiz	Ullibarri-Arrazua	56	6,26	8,94
Vitoria-Gasteiz	Ullibarri-Viña/Uribarri-Dibiña	41	4,58	8,96
Vitoria-Gasteiz	Villafranca	190	2,03	93,76
Vitoria-Gasteiz	Aberasturi	139	12,61	11,02
Vitoria-Gasteiz	Asteguieta	272	3,11	87,43
Vitoria-Gasteiz	Berrostegieta	177	6,70	26,43
Vitoria-Gasteiz	Andetxa/Antezana	80	2,56	31,27
Vitoria-Gasteiz	Aránguiz/Arangiz	132	4,77	27,68
Vitoria-Gasteiz	Arkauti/Arcaute	81	2,91	27,87
Vitoria-Gasteiz	Arkaia	81	2,87	28,27
Vitoria-Gasteiz	Arechavaleta	251	0,10	2406,59
Vitoria-Gasteiz	Crispijana/Krispiñana	33	0,60	54,68
Vitoria-Gasteiz	Elorriaga	84	0,77	109,31
Vitoria-Gasteiz	Eskibel	7	1,24	5,63
Vitoria-Gasteiz	Estarrona	59	3,00	19,65
Vitoria-Gasteiz	Hueto Abajo/Otobarren	51	11,21	4,55
Vitoria-Gasteiz	Mendiola	154	8,40	18,33
Vitoria-Gasteiz	Mendoza	111	9,64	11,51
Vitoria-Gasteiz	Argandoña	41	2,69	15,26
Vitoria-Gasteiz	Ariñiz/Aríñez	0	4,99	0,00
Vitoria-Gasteiz	Arriaga	555	0,01	41752,28
Vitoria-Gasteiz	Yurre/Ihurre	54	1,14	47,46
Vitoria-Gasteiz	Miñano Menor/Miñao Gutxia	26	2,71	9,60
Vitoria-Gasteiz	Monasterioguren	44	10,03	4,39
Vitoria-Gasteiz	Oreitia	81	3,09	26,21
Vitoria-Gasteiz	Vitoria-Gasteiz	234889	38,91	6036,15
Vitoria-Gasteiz	Margarita	40	0,05	856,86
Yécora/Iekora	Yécora/Iekora	297	18,58	15,98
Zaldibar	Zaldibar	2853	1,03	2770,36
Zaldibar	Eitzaga	91	5,30	17,15
Zaldibar	Gazaga	51	3,59	14,21
Zaldibar	Goierri	646	1,72	374,56
Zaldibia	Zaldibia	1510	16,66	90,61
Zalduondo	Zalduondo	191	12,03	15,88

Zalla	Aranguren	1826	1,88	971,13
Zalla	La Herrera	290	9,47	30,63
Zalla	Mimetiz	5443	8,95	608,23
Zalla	Otxaran	229	3,03	75,46
Zalla	Sollano-Llantada	591	7,83	75,49
Zambrana	Berganzo	48	15,09	3,18
Zambrana	Ocio	40	9,06	4,41
Zambrana	Portilla/Zabalate	15	7,24	2,07
Zambrana	Zambrana	334	8,23	40,61
Zamudio	Ugaldeguren (Santimami)	23	1,89	12,18
Zamudio	Arteaga (San Martin)	2657	3,59	740,52
Zamudio	Geldo	136	6,55	20,76
Zamudio	Aranoltza (San Antolin)	37	6,09	6,08
Zaratamo	Moiordin-Barrondo	161	0,80	202,33
Zaratamo	Zaratamo	496	2,77	178,97
Zaratamo	Gutiolo	24	3,09	7,76
Zaratamo	Arkotxa	951	1,73	549,80
Zaratamo	Burbustu-Altamira	30	1,77	16,97
Zarautz	Aitza	233	5,56	41,90
Zarautz	Elkano	105	1,49	70,41
Zarautz	Urteta	78	2,75	28,35
Zarautz	Zarautz	22121	4,54	4872,71
Zeanuri	Ipiñaburu	97	22,62	4,29
Zeanuri	Otzerinmendi	76	6,59	11,53
Zeanuri	Altzusta	178	14,54	12,24
Zeanuri	Altzuaga	39	8,47	4,61
Zeanuri	Asterria	86	3,81	22,59
Zeanuri	Plaza	591	0,83	712,00
Zeanuri	Ibarguen	71	2,16	32,93
Zeanuri	Undurraga	84	3,32	25,32
Zeanuri	Uribe	94	4,84	19,41
Zeberio	Uriondo	20	5,76	3,47
Zeberio	Zubialde	412	5,84	70,61
Zeberio	Areiltza-Olatzar	106	6,04	17,55
Zeberio	Ermitabarri-Ibarra	129	4,99	25,87
Zeberio	Gezala	23	6,11	3,76
Zeberio	Solatxi	25	1,90	13,18
Zeberio	Ametzola	25	2,00	12,52
Zeberio	Arkulanda	136	3,69	36,89
Zeberio	Aresandiaga	141	6,86	20,55
Zeberio	Argiñao	42	4,50	9,33
Zegama	Arrieta	45	10,99	4,09

Zegama	Barrenaldea	87	2,82	30,80
Zegama	Goialdea	91	16,26	5,60
Zegama	Olaran	30	4,43	6,77
Zegama	Zegama	1274	0,61	2092,58
Zerain	Zerain	263	10,24	25,68
Zestoa	Endoia	19	1,58	12,02
Zestoa	Lasao	64	6,51	9,82
Zestoa	Aizarna	296	17,54	16,88
Zestoa	Arroa Goia	289	4,28	67,55
Zestoa	Arroa Behea	532	4,08	130,26
Zestoa	Zestoa	2270	8,07	281,14
Zestoa	Iraeta	185	1,67	110,54
Zierbena	La Arena	380	1,51	251,65
Zierbena	La Cuesta	354	0,72	489,55
Zierbena	Kardeo	77	2,97	25,95
Zierbena	El Puerto	297	4,23	70,22
Zierbena	San Mamés	207	1,09	190,67
Zierbena	Valle	145	1,80	80,57
Zigoitia	Letona	45	8,30	5,42
Zigoitia	Manurga	81	5,36	15,12
Zigoitia	Mendarozketa	55	3,76	14,63
Zigoitia	Murua	156	17,15	9,10
Zigoitia	Olano	21	3,23	6,51
Zigoitia	Diseminados de Zigoitia	20	9,99	2,00
Zigoitia	Ondategi	167	2,01	82,96
Zigoitia	Zaitegi	42	4,65	9,03
Zigoitia	Apodaka	167	2,70	61,92
Zigoitia	Berrikano	111	6,78	16,37
Zigoitia	Buruaga	50	5,24	9,55
Zigoitia	Zestafe	39	8,83	4,42
Zigoitia	Etxaguen (Zigoitia)	80	11,58	6,91
Zigoitia	Etxabarri Ibiña	0	3,79	0,00
Zigoitia	Eribe	66	4,95	13,34
Zigoitia	Gopegi	248	0,72	343,00
Zigoitia	Larrinoa	13	1,37	9,49
Zigoitia	Acosta/Okoizta	68	2,05	33,13
Ziortza-Bolibar	Ziortza-Goierria	38	7,21	5,27
Ziortza-Bolibar	Arta	67	3,53	18,98
Ziortza-Bolibar	Bolibar	196	1,08	182,03
Ziortza-Bolibar	Zeinka-Ziarregi	88	5,62	15,66
Ziortza-Bolibar	Iruzubieta	58	1,58	36,71
Zizurkil	Zizurkil	388	13,78	28,16
Zizurkil	Elbarrena	2434	1,85	1318,62

Zuia	Guillerna/Gilierna	52	4,17	12,47
Zuia	Jugo	42	5,09	8,24
Zuia	Lukiano	68	4,84	14,04
Zuia	Markina	56	21,11	2,65
Zuia	Murgia	1213	3,22	376,40
Zuia	Sarria	303	20,26	14,95
Zuia	Bitoriano	270	4,04	66,88
Zuia	Zarate	38	7,46	5,09
Zuia	Altube	27	22,96	1,18
Zuia	Ametzaga Zuia	265	3,51	75,43
Zuia	Aperregi	45	5,08	8,86
Zuia	Ziorraga	13	12,55	1,04
Zuia	Domaikia	60	8,14	7,37
Zumaia	Oikia	306	4,36	70,16
Zumaia	Artadi	64	2,02	31,76
Zumaia	Zumaia	9125	4,30	2123,38
Zumarraga	Zumarraga	9889	13,59	727,47
Zumarraga	Aginaga	46	4,93	9,34

Population density by LPE (inhab/km2) into scale

MUNICIPALITIES	LPE	VALUE	SCALE
Abadiño	Urkiola	3,86	2,79
Abadiño	Mendiola	14,98	10,82
Abadiño	Gaztelua	21,73	13,86
Abadiño	Gerediaga	84,93	27,92
Abadiño	Muntsaratz	314,91	41,67
Abadiño	Abadiño-Zelaieta	1228,26	56,14
Abadiño	Traña-Matiena	1640,20	60,16
Abaltzisketa	Abaltzisketa	27,57	15,65
Abanto y Ciérvana/Abanto Zierbena	Picón	0,00	0,00
Abanto y Ciérvana/Abanto Zierbena	Las Cortes	4,81	3,47
Abanto y Ciérvana/Abanto Zierbena	La Florida	34,46	17,77
Abanto y Ciérvana/Abanto Zierbena	Murrieta	42,05	20,10
Abanto y Ciérvana/Abanto Zierbena	El Campillo	45,95	21,30
Abanto y Ciérvana/Abanto Zierbena	Los Castaños	46,21	21,38
Abanto y Ciérvana/Abanto Zierbena	Las Calizas	58,67	25,07
Abanto y Ciérvana/Abanto Zierbena	San Pedro	59,24	25,14
Abanto y Ciérvana/Abanto Zierbena	Cotorrio	75,83	26,93
Abanto y Ciérvana/Abanto Zierbena	Triano	99,55	29,50
Abanto y Ciérvana/Abanto Zierbena	Abanto	163,73	36,45
Abanto y Ciérvana/Abanto Zierbena	La Balastera	231,62	39,22
Abanto y Ciérvana/Abanto Zierbena	Santa Juliana	686,44	50,87
Abanto y Ciérvana/Abanto Zierbena	Putxeta	790,34	51,88
Abanto y Ciérvana/Abanto Zierbena	Sanfuentes	1720,47	60,94
Abanto y Ciérvana/Abanto	Las Carreras	2057,06	63,17

Zierbena			
Abanto y Ciérvana/Abanto Zierbena	Gallarta	2637,70	65,39
Aduna	Aduna	63,41	25,59
Aia	Ubegun Industrigunea	0,00	0,00
Aia	Altzola	3,32	2,40
Aia	Laurgain	5,74	4,14
Aia	Etxetaballa	17,67	12,61
Aia	Iruretaegia	19,70	13,24
Aia	Elkano	21,57	13,81
Aia	Kurpidea	22,07	13,97
Aia	Urdaneta	23,78	14,49
Aia	Santio Erreka	32,72	17,24
Aia	Andatza	45,40	21,13
Aia	Olaskoegia	57,11	24,73
Aia	Arrutiegia	86,02	28,04
Aia	Arratola Aldea	284,37	40,77
Aia	Aia	989,61	53,82
Aizarnazabal	Etxezarreta	0,00	0,00
Aizarnazabal	Mugitzagaina	8,60	6,21
Aizarnazabal	Saiatz	21,41	13,76
Aizarnazabal	Etxabe	81,10	27,50
Aizarnazabal	Zubialdea	490,68	46,85
Aizarnazabal	Aizarnazabal	738,60	51,38
Ajangiz	Mendieta	5,04	3,64
Ajangiz	Kanpantxu	39,94	19,46
Albiztur	Albiztur	23,05	14,27
Alegia	Langaurrealdea	35,93	18,22
Alegia	Errotaldea	234,15	39,29
Alegia	Alegia	11055,11	82,37
Alegría-Dulantzi	Egileta	26,27	15,25
Alegría-Dulantzi	Alegría-Dulantzi	185,31	37,85
Alkiza	Alkiza	28,90	16,06
Alonsotegi	Alonsotegi	109,68	30,60
Alonsotegi	Irauregi	207,57	38,51
Alonsotegi	Arbuio	504,30	47,26
Altzaga	Altzaga	4418,78	72,19
Altzo	Altzo	36,06	18,26
Amezketa	Ugarte	25,88	15,14
Amezketa	Amezketa	38,66	19,06
Amezketa	Ergoiena	2123,22	63,43

Amorebieta-Etxano	Bernagoitia	10,31	7,44
Amorebieta-Etxano	Aldana	13,03	9,41
Amorebieta-Etxano	Oromiño	16,84	12,16
Amorebieta-Etxano	Boroa	24,52	14,72
Amorebieta-Etxano	Etxano	28,32	15,88
Amorebieta-Etxano	Autzagana	36,08	18,27
Amorebieta-Etxano	Dudea	37,57	18,73
Amorebieta-Etxano	Euba	85,67	28,00
Amorebieta-Etxano	Astepe	305,49	41,39
Amorebieta-Etxano	Amorebieta	1463,76	58,44
Amoroto	Odiaga	9,61	6,94
Amoroto	Urrutia	29,86	16,36
Amoroto	Ugaran	41,59	19,96
Amoroto	Elexalde	164,64	36,55
Amurrio	Aloria	9,45	6,82
Amurrio	Delika	12,20	8,81
Amurrio	Baranbio	12,23	8,83
Amurrio	Artomaña	12,97	9,37
Amurrio	Lezama	14,39	10,40
Amurrio	Tertanga	15,96	11,52
Amurrio	Lekamaña	16,40	11,84
Amurrio	Saratxo	20,88	13,60
Amurrio	Larrinbe	61,89	25,42
Amurrio	Amurrio	322,49	41,89
Andoain	Leizotz	18,77	12,95
Andoain	Buruntza	47,05	21,64
Andoain	Goiburu	62,80	25,52
Andoain	Sorabilla	143,13	34,22
Andoain	Andoain	9484,85	80,41
Anoeta	Anoeta	437,74	45,29
Antzuola	Antzuola	79,00	27,27
Añana	Atiega/Atiaga	1,43	1,03
Añana	Salinas de Añana/Gesaltza Añana	14,10	10,18
Arakaldo	Arakaldo	46,10	21,35
Arama	Arama	144,14	34,33
Aramaio	Oleta	2,47	1,79
Aramaio	Gantzaga	3,24	2,34
Aramaio	Etxaguen	12,07	8,72
Aramaio	Uribarri	18,53	12,87
Aramaio	Azkoaga	21,37	13,75
Aramaio	Arexola	25,30	14,96

Aramaio	Untzilla	25,63	15,06
Aramaio	Barajuen	44,49	20,85
Aramaio	Ibarra	197,78	38,22
Arantzazu	Arantzazugoiti	36,82	18,50
Arantzazu	Olarra	64,71	25,73
Arantzazu	Zelaia	176,17	37,58
Areatza	Uparan	4,13	2,98
Areatza	Launtzain	16,06	11,60
Areatza	Areatza	1669,95	60,45
Aretxabaleta	Goroeta	2,47	1,78
Aretxabaleta	Larrino	11,32	8,18
Aretxabaleta	Izurieta	15,92	11,50
Aretxabaleta	Apotzaga-Etxebarri	20,52	13,49
Aretxabaleta	Areantza	21,82	13,89
Aretxabaleta	Oro	26,56	15,34
Aretxabaleta	Arkarazo	59,82	25,20
Aretxabaleta	Galartza	81,55	27,55
Aretxabaleta	Aozaratza	95,31	29,04
Aretxabaleta	Aretxabaleta	7950,47	78,49
Armiñón	Lacorzana	2,13	1,54
Armiñón	Armiñón	15,81	11,42
Armiñón	Estavillo	24,67	14,76
Arraia-Maeztu	Apellániz/Apinaiz	0,00	0,00
Arraia-Maeztu	Arenaza/Areatza	1,14	0,82
Arraia-Maeztu	Musitu	1,35	0,97
Arraia-Maeztu	Korres	1,70	1,23
Arraia-Maeztu	Vírgala Menor/Birgara Barren	1,87	1,35
Arraia-Maeztu	Azaceta	2,61	1,88
Arraia-Maeztu	Onraita/Erroeta	2,85	2,06
Arraia-Maeztu	Ibisate	3,36	2,43
Arraia-Maeztu	Róitegui/Erroitegi	3,48	2,51
Arraia-Maeztu	Atauri	3,64	2,63
Arraia-Maeztu	Sabando	4,34	3,13
Arraia-Maeztu	Aletxa	6,11	4,41
Arraia-Maeztu	Cicujano/Zekuiano	6,22	4,49
Arraia-Maeztu	Vírgala Mayor/Birgara Goien	8,25	5,96
Arraia-Maeztu	Leorza/Elortza	15,51	11,20
Arraia-Maeztu	Maeztu/Maestu	47,76	21,86
Arrankudiaga	Zollo-Elexalde	14,91	10,77
Arrankudiaga	Uribarri	20,29	13,42
Arrankudiaga	Aspiuntza	51,27	22,94

Arrankudiaga	Arene	61,56	25,39
Arrankudiaga	Zuloaga	85,91	28,02
Arrasate/Mondragón	Udala	8,74	6,31
Arrasate/Mondragón	Meatzerreka	10,21	7,38
Arrasate/Mondragón	Bedoña	35,39	18,06
Arrasate/Mondragón	Garagartza	73,31	26,66
Arrasate/Mondragón	Gesalibar	222,93	38,96
Arrasate/Mondragón	Arrasate/Mondragón	1377,91	57,60
Arratzu	Monte	0,47	0,34
Arratzu	Barroeta	14,64	10,57
Arratzu	Zubiate	47,30	21,72
Arratzu	Barrutia	50,28	22,63
Arratzu	Uarka	69,68	26,27
Arratzu	Zabala-Belendiz	93,46	28,84
Arratzu	Loiola	230,49	39,18
Arratzu	Gorozika	236,05	39,35
Arratzu	Elexalde	236,21	39,35
Arratzua-Ubarrundia	Ziriano	1,11	0,80
Arratzua-Ubarrundia	Nanclares de Ganboa/Langara Ganboa	2,67	1,93
Arratzua-Ubarrundia	Arzubiaga	3,21	2,32
Arratzua-Ubarrundia	Landa	4,48	3,24
Arratzua-Ubarrundia	Ullíbarri-Gamboa	9,16	6,62
Arratzua-Ubarrundia	Betolaza	13,37	9,65
Arratzua-Ubarrundia	Mendibil	15,97	11,53
Arratzua-Ubarrundia	Luko	16,52	11,93
Arratzua-Ubarrundia	Arroiabe	22,67	14,15
Arratzua-Ubarrundia	Zurbano/Zurbao	57,70	24,91
Arratzua-Ubarrundia	Durana	83,84	27,80
Arrieta	Agirre	15,52	11,21
Arrieta	Jainko-Oleaga	26,05	15,19
Arrieta	Olatxua-Olabarri	46,96	21,61
Arrieta	Libao	91,41	28,62
Arrigorriaga	Agirre	12,19	8,81
Arrigorriaga	Martiartu	81,32	27,53
Arrigorriaga	Abusu/La Peña	1519,11	58,98
Arrigorriaga	Arrigorriaga	1763,72	61,36
Artea	Elexabeitia	10,37	7,49
Artea	Sarasola	19,81	13,27
Artea	Esparta	34,99	17,93
Artea	Bildosola	59,83	25,20
Artea	Ugarte	75,16	26,86

Artea	Herriko Plaza	1013,84	54,06
Artzentales	Gorgolas	5,21	3,76
Artzentales	Santa Cruz	17,04	12,30
Artzentales	Traslosheros	25,86	15,13
Artzentales	Traslaviña	29,29	16,18
Artzentales	San Miguel de Linares	32,56	17,19
Artziniega	Campijo	1,22	0,88
Artziniega	Mendieta	3,05	2,20
Artziniega	Retes de Tudela/Erretes Tudela	8,82	6,37
Artziniega	Santa Koloma	9,30	6,72
Artziniega	Sojoguti/Soxoguti	11,84	8,55
Artziniega	Gordeliz	19,25	13,10
Artziniega	Artziniega	220,96	38,90
Asparrena	Arriola	2,73	1,97
Asparrena	Andoin	4,71	3,40
Asparrena	Ibarguren	6,41	4,63
Asparrena	Ilarduia	7,54	5,44
Asparrena	Gordoa	8,84	6,39
Asparrena	Urabain	9,67	6,98
Asparrena	Egino	11,21	8,10
Asparrena	Albeiz/Albéniz	29,63	16,29
Asparrena	Ametzaga Asparrena	33,59	17,51
Asparrena	Araia	76,58	27,01
Asteasu	Goiballara	15,79	11,40
Asteasu	Upazan	46,07	21,34
Asteasu	Errekaballara	56,60	24,57
Asteasu	Beballara	73,09	26,64
Asteasu	Elizmendi	202,26	38,35
Asteasu	Asteasu	1792,90	61,64
Astigarraga	Astigarraga	410,37	44,49
Ataun	Aia	4,62	3,34
Ataun	San Gregorio	20,86	13,59
Ataun	San Martin	72,45	26,57
Atxondo	Arrazola	16,39	11,84
Atxondo	San Juan	17,82	12,66
Atxondo	Marzana	19,03	13,03
Atxondo	Olazabal	31,35	16,82
Atxondo	Santiago	36,76	18,48
Atxondo	Apatamonasterio	309,31	41,51
Aulesti	San Anton	5,16	3,73

Aulesti	Malats	7,61	5,50
Aulesti	Urriola	13,55	9,78
Aulesti	Ibarrola	15,48	11,18
Aulesti	Zubero	17,58	12,58
Aulesti	Narea	28,75	16,02
Aulesti	Aulesti	53,12	23,51
Aulesti	Goierri	136,14	33,46
Ayala/Aiara	Madaria	0,78	0,56
Ayala/Aiara	Añes	1,46	1,05
Ayala/Aiara	Erbi	2,39	1,73
Ayala/Aiara	Luxo/Lujo	2,71	1,96
Ayala/Aiara	Agiñaga	4,62	3,34
Ayala/Aiara	Lejarzo/Lexartzu	4,75	3,43
Ayala/Aiara	Salmantón	5,32	3,84
Ayala/Aiara	Ozeka	6,00	4,33
Ayala/Aiara	Soxo/Sojo	6,16	4,45
Ayala/Aiara	Maroño	7,02	5,07
Ayala/Aiara	Llanteno	8,49	6,13
Ayala/Aiara	Costera/Opellora	8,92	6,44
Ayala/Aiara	Zuaza/Zuhatza	9,24	6,68
Ayala/Aiara	Etxegoien	9,37	6,77
Ayala/Aiara	Menoio	10,21	7,37
Ayala/Aiara	Retes de Llanteno	16,09	11,62
Ayala/Aiara	Quejana/Kexaa	18,44	12,85
Ayala/Aiara	Olabezar	20,23	13,40
Ayala/Aiara	Menagarai	25,72	15,09
Ayala/Aiara	Murga	27,32	15,58
Ayala/Aiara	Beotegi	35,56	18,11
Ayala/Aiara	Izoria	41,31	19,88
Ayala/Aiara	Arespalditza/Respaldiza	49,39	22,36
Ayala/Aiara	Luiaondo	129,96	32,79
Azkoitia	Ormaolamendi	12,19	8,80
Azkoitia	Arrietamendi	19,98	13,32
Azkoitia	Izarraitz	20,85	13,59
Azkoitia	Azkoitia	8534,36	79,22
Azpeitia	Loiola	19,35	13,13
Azpeitia	Urrestilla	81,29	27,52
Azpeitia	Azpeitia	235,48	39,33
Azpeitia	Nuarbe	1809,73	61,81
Badaia elkarrekikoa / Parzonería Badaia	Badaia elkarrekikoa / Parzonería Badaia	0,00	0,00
Bakio	Artzalde	26,09	15,20

Bakio	Elexalde	72,95	26,62
Bakio	Goitisoloalde	117,84	31,48
Bakio	Zubiaur	135,13	33,35
Bakio	Urkitzaur	180,40	37,70
Bakio	Gibelorratzagako San Pelaio	251,35	39,80
Baliarrain	Baliarrain	44,11	20,74
Balmaseda	Pandozales	4,30	3,11
Balmaseda	Peñueco	5,67	4,09
Balmaseda	Balmaseda	763,73	51,62
Baños de Ebro/Mañueta	Baños de Ebro/Mañueta	33,56	17,50
Barakaldo	Errekatxo/El Regato	42,20	20,15
Barakaldo	San Vicente de Barakaldo	7212,36	77,57
Barrika	Elexalde	45,24	21,08
Barrika	Goierri	182,79	37,78
Barrundia	Etxabarri Urtupiña	0,00	0,00
Barrundia	Barrundia	0,61	0,44
Barrundia	Hermua	4,43	3,20
Barrundia	Elgea	5,42	3,91
Barrundia	Audikana	6,45	4,66
Barrundia	Dallo	7,68	5,55
Barrundia	Marieta-Larrintzar	7,89	5,70
Barrundia	Heredia	8,89	6,42
Barrundia	Larrea	9,59	6,92
Barrundia	Maturana	9,68	6,99
Barrundia	Mendixur/Mendíjur	10,09	7,29
Barrundia	Gebara	12,79	9,24
Barrundia	Etura	17,59	12,59
Barrundia	Ozaeta	29,72	16,31
Basauri	Elexalde	75,83	26,93
Basauri	Urbi	1341,43	57,25
Basauri	Arizgoiti	11760,01	83,25
Beasain	Antzizar	2,77	2,00
Beasain	Aratz-Matxinbenta	3,90	2,81
Beasain	Garin	4,62	3,33
Beasain	Astigarreta	5,40	3,90
Beasain	Altamira	8,62	6,23
Beasain	Arriaran	14,36	10,37
Beasain	Ugartemendi	19,22	13,09
Beasain	Beasainmendi	19,78	13,26
Beasain	Salbatore	21,90	13,91
Beasain	Gudugarreta	24,97	14,86

Beasain	Loinatz	75,13	26,86
Beasain	Beasain	10512,84	81,69
Bedia	Ereño	2,78	2,01
Bedia	Barroeta	8,49	6,14
Bedia	Eroso-Ugarte	10,82	7,81
Bedia	Jauregi	42,03	20,10
Bedia	Murtatza	112,50	30,90
Bedia	Bidekoetxea	270,61	40,37
Bedia	Asteitza	291,59	40,98
Bedia	Ibarra	957,23	53,50
Bedia	Elexalde	1477,81	58,57
Beizama	Beizama	8,46	6,11
Belauntza	Belauntza	84,07	27,82
Berango	Baserri-Santa Ana	373,58	43,40
Berango	Berango	2191,29	63,69
Berantevilla	Tobera	2,43	1,76
Berantevilla	Lacorzanilla	3,33	2,41
Berantevilla	Santurde	3,50	2,53
Berantevilla	Lacervilla	3,88	2,81
Berantevilla	Escanzana	6,87	4,96
Berantevilla	Mijancas	8,21	5,93
Berantevilla	Santa Cruz del Fierro	17,65	12,60
Berantevilla	Berantevilla	43,07	20,42
Berastegi	Eldua	12,88	9,31
Berastegi	Berastegi	23,56	14,42
Bergara	Elosua	2,42	1,75
Bergara	Basalgo	5,60	4,04
Bergara	Elorregi	12,98	9,38
Bergara	Angiozar	21,83	13,89
Bergara	Ubera	55,01	24,09
Bergara	Osintxu	65,46	25,81
Bergara	Bergara	542,49	48,38
Bermeo	Arranotegi	6,22	4,49
Bermeo	Arane-Gibelortzaga	12,89	9,31
Bermeo	Mañu	15,18	10,97
Bermeo	San Andres	31,87	16,98
Bermeo	Artika	32,47	17,16
Bermeo	San Migel	34,20	17,69
Bermeo	Demiku	39,81	19,42
Bermeo	Almika	49,25	22,32
Bermeo	Agirre	68,15	26,10
Bermeo	Baratz Eder	2486,99	64,81

Bermeo	Bermeo	11315,89	82,69
Bernedo	Berrozi	0,00	0,00
Bernedo	Izartza	0,56	0,41
Bernedo	Markinez	1,95	1,41
Bernedo	Kintana	1,99	1,44
Bernedo	Arluzea	2,58	1,87
Bernedo	San Román de Campezo/Durruma Kanpezu	2,92	2,11
Bernedo	Angostina	3,01	2,17
Bernedo	Okina	3,22	2,33
Bernedo	Urarte	3,92	2,83
Bernedo	Villafría	4,16	3,01
Bernedo	Navarrete	9,47	6,84
Bernedo	Urturi	10,27	7,42
Bernedo	Bernedo	19,30	13,11
Berriatua	Magdalena	12,08	8,73
Berriatua	Merelludi	20,81	13,58
Berriatua	Asterrika	20,89	13,60
Berriatua	Erribera	780,57	51,78
Berriz	Sarria	23,36	14,36
Berriz	Murgoitio	25,39	14,98
Berriz	Andikoa	29,07	16,11
Berriz	Okango	52,48	23,31
Berriz	Sallobente	52,68	23,37
Berriz	Eitua	63,43	25,59
Berriz	Berriz-Olakueta	5075,28	74,70
Berrobi	Berrobi	211,92	38,63
Bidegoian	Goiatz	11,57	8,35
Bidegoian	Bidania	140,19	33,90
Bilbao	Bilbao	8636,73	79,35
Busturia	Axpe-San Bartolome	0,00	0,00
Busturia	Altamira-San Kristobal	67,45	26,02
Campezo/Kanpezu	Oteo	1,90	1,37
Campezo/Kanpezu	Bujanda	2,09	1,51
Campezo/Kanpezu	Orbiso	4,03	2,91
Campezo/Kanpezu	Antoñana	10,57	7,63
Campezo/Kanpezu	Santa Cruz de Campezo/Santikurutze Kanpezu	27,00	15,48
Deba	Lastur	8,90	6,43
Deba	Itziar	35,18	17,99

Deba	Deba	1012,21	54,04
Derio	Aranoltza (San Antolin)	39,65	19,37
Derio	Aldekona (San Isidro)	67,41	26,02
Derio	Elexalde Derio	114,27	31,09
Derio	Ugaldeguren (Santimami)	367,78	43,23
Derio	San Esteban Derio	856,00	52,52
Derio	Arteaga Derio	2302,93	64,11
Dima	Intxaurbizkar	0,64	0,46
Dima	Indusi	3,66	2,64
Dima	Oba	13,49	9,75
Dima	Bargondia	16,71	12,07
Dima	Bikarregi	26,97	15,47
Dima	Olazabal	32,88	17,29
Dima	Lamindao	58,15	25,02
Dima	Aroztegieta	59,31	25,14
Dima	Ugarana	647,36	50,49
Donostia / San Sebastián	Landarbaso	2,95	2,13
Donostia / San Sebastián	Zubieta	40,93	19,76
Donostia / San Sebastián	Igeldo	102,29	29,80
Donostia / San Sebastián	Añorga	779,67	51,78
Donostia / San Sebastián	Donostia / San Sebastián	4811,93	73,69
Durango	Durango	2698,55	65,62
Ea	Bedaroa	28,83	16,04
Ea	Natxitua	41,17	19,83
Ea	Ea	147,27	34,67
Eibar	Maltzaga	0,00	0,00
Eibar	Aginaga	10,05	7,26
Eibar	Arrate	32,95	17,31
Eibar	Eibar	1597,48	59,74
Elantxobe	Elantxobe	223,32	38,97
Elburgo/Burgelu	Elburgo/Burgelu	10,06	7,27
Elburgo/Burgelu	Hijona/Ixona	11,74	8,48
Elburgo/Burgelu	Gazeta	23,52	14,41
Elburgo/Burgelu	Añua	26,63	15,37
Elburgo/Burgelu	Arbulo/Arbulu	36,04	18,26
Elburgo/Burgelu	Argomaniz	70,88	26,40
Elciego	Elciego	66,50	25,92
Elduain	Elduain	9,25	6,68
Elgeta	Elgeta	64,31	25,68
Elgoibar	Altzola	14,19	10,25
Elgoibar	Sallobente-Ermuaran	21,73	13,86
Elgoibar	Aiastia (San Migel)	22,42	14,07

Elgoibar	Idotorbe (San Pedro)	30,49	16,55
Elgoibar	Azkue (San Roke)	620,58	50,23
Elgoibar	Elgoibar	797,86	51,95
Elorrio	Iguria	5,13	3,70
Elorrio	Berrio-Aldape	13,97	10,09
Elorrio	Berriozabaleta-Aramiño	19,44	13,16
Elorrio	San Agustin	27,74	15,71
Elorrio	Gazeta	29,26	16,17
Elorrio	Leiz-Miñota	32,71	17,23
Elorrio	Gaztañeta	37,58	18,73
Elorrio	Lekeriketa	38,29	18,95
Elorrio	Mendraka	59,15	25,13
Elorrio	Elorrio	1472,68	58,52
Elvillar/Bilar	Elvillar/Bilar	20,42	13,46
Enirio-Aralar	Enirio-Aralar	0,00	0,00
Entzia elkarrekikoa / Parzonería de Entzia	Entzia elkarrekikoa / Parzonería de Entzia	0,00	0,00
Erandio	Goierri	80,44	27,43
Erandio	Asua-Lauroeta	161,11	36,16
Erandio	Lutxana-Enekuri	245,45	39,62
Erandio	Erandiogoikoa	344,03	42,53
Erandio	Arriaga	490,97	46,86
Erandio	Altzaga	9001,75	79,80
Erandio	Astrabudua	9532,10	80,47
Ereño	Akorda-Bollar	19,97	13,32
Ereño	Basetxeta-Atxoste	20,47	13,47
Ereño	Gabika	23,96	14,55
Ereño	Elexalde-Zeeta	45,18	21,07
Ermua	Ermua	2545,79	65,04
Errenteria	Errenteria	74,86	26,83
Errezil	Argisain (Santa Marina)	0,00	0,00
Errezil	Erdoizta	5,51	3,98
Errezil	Artzalluz	12,28	8,87
Errezil	Ibarbia	15,58	11,25
Errezil	Letea	21,00	13,64
Errezil	Ezama	32,83	17,27
Errezil	Errezil	2430,59	64,60
Erriberagoitia/Ribera Alta	San Miguel	0,68	0,49
Erriberagoitia/Ribera Alta	Basquiñuelas	1,13	0,82
Erriberagoitia/Ribera Alta	Arreo	1,22	0,88
Erriberagoitia/Ribera Alta	Castillo Sopeña	1,67	1,20

Erriberagoitia/Ribera Alta	Escota/Axkoeta	2,06	1,49
Erriberagoitia/Ribera Alta	Artaza/Artatza	2,41	1,74
Erriberagoitia/Ribera Alta	Ormijana	2,75	1,99
Erriberagoitia/Ribera Alta	Barrón	2,99	2,16
Erriberagoitia/Ribera Alta	Villaluenga	3,88	2,80
Erriberagoitia/Ribera Alta	Leciñana de la Oca	4,14	2,99
Erriberagoitia/Ribera Alta	Villabezana	4,14	2,99
Erriberagoitia/Ribera Alta	Villambrosa	4,26	3,08
Erriberagoitia/Ribera Alta	Arbigano	4,56	3,29
Erriberagoitia/Ribera Alta	Nuvilla	4,88	3,52
Erriberagoitia/Ribera Alta	Hereña	5,35	3,86
Erriberagoitia/Ribera Alta	Lasierra	8,00	5,78
Erriberagoitia/Ribera Alta	Antezana de la Ribera	8,07	5,83
Erriberagoitia/Ribera Alta	Morillas	8,14	5,88
Erriberagoitia/Ribera Alta	Viloria	8,67	6,26
Erriberagoitia/Ribera Alta	Caicedo-Sopeña	9,56	6,91
Erriberagoitia/Ribera Alta	Subijana-Morillas	11,77	8,50
Erriberagoitia/Ribera Alta	Paul	17,20	12,42
Erriberagoitia/Ribera Alta	Anuntzeta/Anúcita	19,59	13,20
Erriberagoitia/Ribera Alta	Tuyo	28,01	15,79
Erriberagoitia/Ribera Alta	Pobes	53,87	23,74
Errigoiti	Metxika	16,17	11,68
Errigoiti	Atxika-Errekalde	22,79	14,19
Errigoiti	Elexalde-Olabarri	36,12	18,28
Errigoiti	Errigoiti	70,09	26,31
Eskoriatza	Bolibar	10,91	7,88
Eskoriatza	Marin	11,41	8,24
Eskoriatza	Apotzaga	25,94	15,15
Eskoriatza	Gellao	26,91	15,45
Eskoriatza	Mazmela	27,39	15,60
Eskoriatza	Zarimutz	28,02	15,79
Eskoriatza	Mendiola	52,17	23,21
Eskoriatza	Eskoriatza	690,59	50,91
Etxebarri	Legizamon	671,28	50,72
Etxebarri	Kukullaga	2755,66	65,84
Etxebarri	Doneztebe	5352,55	75,25
Etxebarria	Aulesti	5,40	3,90
Etxebarria	Unamuntzaga	12,63	9,12
Etxebarria	Galartza	32,78	17,25
Etxebarria	Altzaa	68,52	26,14
Etxebarria	Erbera /San Andres	680,13	50,81
Ezkio-Itsaso	Mandubia	3,43	2,48

Ezkio-Itsaso	Aratz-Matxinbenta	6,22	4,49
Ezkio-Itsaso	Itsaso	17,81	12,65
Ezkio-Itsaso	Ezkio	18,86	12,98
Ezkio-Itsaso	Itsaso-Alegia	70,09	26,31
Ezkio-Itsaso	Anduaga (Santa Lutzia)	141,93	34,09
Forua	Baldatika	6,47	4,67
Forua	Gaitoka	41,28	19,87
Forua	Atxondoa	66,15	25,88
Forua	Urberuaga	138,14	33,68
Forua	Armotxerria	150,19	34,98
Forua	Landaberde	889,64	52,85
Forua	Elexalde Forua	1090,01	54,80
Fruiz	Lotina	16,86	12,18
Fruiz	Plakonalde	26,12	15,21
Fruiz	Mandaluiz	44,57	20,88
Fruiz	Batiz	57,14	24,74
Fruiz	Botiola	79,54	27,33
Fruiz	Olalde	80,84	27,47
Fruiz	Andeko	98,48	29,38
Fruiz	Ugane	139,50	33,82
Fruiz	Aldai	219,29	38,85
Gabiria	Gabiria	32,15	17,06
Gabiria	Aztiria	32,50	17,17
Gabiria	Alegia	1392,13	57,74
Gaintza	Gaintza	21,17	13,69
Galdakao	Gumuzio	20,94	13,62
Galdakao	Elexalde	41,01	19,78
Galdakao	Bekea	61,00	25,33
Galdakao	Agirre-Aperribai	498,39	47,08
Galdakao	Usansolo	570,90	49,22
Galdakao	Kurtzea	5035,82	74,55
Galdames	La Aceña/Atxuriaga	13,03	9,41
Galdames	San Pedro Galdames	15,20	10,98
Galdames	Txabarri	19,52	13,18
Galdames	San Esteban Galdames	27,13	15,52
Galdames	Montellano	28,58	15,96
Gamiz-Fika	Mendotza	35,83	18,19
Gamiz-Fika	Elexalde	74,56	26,79
Gamiz-Fika	Ergoien	97,19	29,24
Gamiz-Fika	Ibarra	493,87	46,95
Garai	Momoitio	57,70	24,91

Garai	Garai (San Migel)	87,97	28,25
Garai	Goierri	198,14	38,23
Gatika	Butroe	10,78	7,79
Gatika	Urresti	21,37	13,75
Gatika	Libaroa	29,93	16,38
Gatika	Zurbao	44,71	20,92
Gatika	Igartua	56,23	24,46
Gatika	Ugarte	57,91	24,98
Gatika	Garai	211,01	38,61
Gatika	Gorordo	234,97	39,31
Gatika	Sertutxa	357,36	42,92
Gautegiz Arteaga	Basetxeta	13,69	9,89
Gautegiz Arteaga	Kanala	16,60	11,99
Gautegiz Arteaga	Errekalde	17,11	12,36
Gautegiz Arteaga	Isla	24,07	14,58
Gautegiz Arteaga	Zelaieta	298,58	41,19
Gaztelu	Gaztelu	19,44	13,16
Gernika-Lumo	Zallo	23,68	14,46
Gernika-Lumo	Lumo	60,02	25,22
Gernika-Lumo	Arana	843,09	52,39
Gernika-Lumo	Gernika-Lumo	6794,00	77,05
Gernika-Lumo	Errenteria	8420,77	79,08
Getaria	Askizu	33,90	17,60
Getaria	Meaga	33,95	17,61
Getaria	Eitzaga	48,87	22,20
Getaria	San Prudentzio	77,60	27,12
Getaria	Getaria	3552,94	68,88
Getxo	Andra Mari	1829,35	62,00
Getxo	Algorta	13567,70	85,50
Getxo	Areeta/Las Arenas	21046,75	88,02
Gipuzkoako Partzuergo Txikia / Parzonería Menor de	Gipuzkoako Partzuergo Txikia / Parzonería Menor de	0,00	0,00
Gizaburuaga	Laxier	12,41	8,96
Gizaburuaga	Okamika	14,69	10,61
Gizaburuaga	Lariz	47,96	21,92
Gizaburuaga	Eguen	182,71	37,77
Gordexola	Iratzagorria	9,92	7,16
Gordexola	Zaldu	18,68	12,92
Gordexola	Zubiete	60,85	25,31
Gordexola	Sandamendi	95,64	29,08
Gorliz	Urezarantza	89,40	28,40
Gorliz	Elexalde	123,17	32,06

Gorliz	Gandia	123,83	32,13
Gorliz	Agirre-Areantza-Guzurmendi	1177,03	55,65
Güeñes	La Quadra	25,00	14,87
Güeñes	Güeñes	93,90	28,89
Güeñes	Zaramillo	158,74	35,91
Güeñes	Sodupe	408,15	44,42
Harana/Valle de Arana	Ullibarri-Arana/Uribarri Harana	0,00	0,00
Harana/Valle de Arana	Kontrasta	4,79	3,46
Harana/Valle de Arana	Alda	7,44	5,38
Harana/Valle de Arana	San Vicente de Arana/Done Bikendi Harana	12,73	9,19
Hernani	Eziago	0,00	0,00
Hernani	Pagoaga	3,36	2,43
Hernani	Jauregi	5,63	4,06
Hernani	Ereñotzu	33,75	17,55
Hernani	Osinaga	71,08	26,42
Hernani	Martindegi	95,58	29,07
Hernani	Epela	143,26	34,23
Hernani	Akerregi	204,16	38,41
Hernani	Santa Barbara	519,63	47,71
Hernani	Zikuñaga	1109,73	54,99
Hernani	Hernani	5084,91	74,73
Hernialde	Hernialde	84,64	27,89
Hondarribia	Gornutz (Montaña)	7,23	5,22
Hondarribia	Jaitzubia	192,86	38,07
Hondarribia	Arkolla	237,43	39,39
Hondarribia	Zimizarga	927,98	53,22
Hondarribia	Amute-Kosta	1094,02	54,84
Hondarribia	Akartegi	1846,09	62,16
Hondarribia	Puntalea	3343,22	68,08
Hondarribia	Portua	10129,28	81,21
Hondarribia	Mendelu	10180,83	81,28
Hondarribia	Alde Zaharra	19730,65	87,91
Ibarra	Ibarra	180,42	37,71
Ibarrangelu	Akorda	10,25	7,41
Ibarrangelu	Elexalde	25,55	15,03
Idiazabal	Urtsuaran	2,90	2,09
Idiazabal	Idiazabal	159,30	35,97
Igorre	Basauntz	20,73	13,55
Igorre	Santa Lutzia	39,28	19,25

Igorre	San Juan	45,29	21,10
Igorre	Urkizu	48,91	22,21
Igorre	Elexalde	80,30	27,42
Igorre	Sabino Arana	857,73	52,54
Igorre	Olabarri	3817,56	69,90
Ikaztegieta	Ikaztegieta	231,63	39,22
Irun	Bidasoa	15,53	11,22
Irun	Irun	1681,86	60,56
Iruña Oka/Iruña de Oca	Víllodas/Billoda	0,00	0,00
Iruña Oka/Iruña de Oca	Montevite/Mandaita	5,21	3,77
Iruña Oka/Iruña de Oca	Trespuentes	21,09	13,66
Iruña Oka/Iruña de Oca	Ollávarre/Olabarri	28,23	15,86
Iruña Oka/Iruña de Oca	Nanclares de la Oca/Langraiz Oka	148,29	34,78
Irura	Irura	546,28	48,49
Iruraiz-Gauna	Jauregi	3,83	2,77
Iruraiz-Gauna	Gereñu	5,66	4,09
Iruraiz-Gauna	Arrieta	10,94	7,90
Iruraiz-Gauna	Gauna	11,74	8,48
Iruraiz-Gauna	Erentxun	12,31	8,89
Iruraiz-Gauna	Gazeo	12,96	9,36
Iruraiz-Gauna	Langarika	13,17	9,51
Iruraiz-Gauna	Trokoniz	15,01	10,84
Iruraiz-Gauna	Ezkerekotxa	15,12	10,92
Iruraiz-Gauna	Alaitza	22,80	14,19
Iruraiz-Gauna	Azilu	26,08	15,20
Ispaster	Mendazoa	5,81	4,19
Ispaster	Barainka	7,11	5,14
Ispaster	Soloaran	17,20	12,42
Ispaster	Solarte-Gallete	19,60	13,20
Ispaster	Gardata-Artika	27,99	15,78
Ispaster	Kurtziaga-Arropain	46,24	21,39
Ispaster	Ispaster-Elexalde	74,43	26,78
Itsasondo	Itsasondo	76,00	26,95
Iurreta	San Marko	8,22	5,94
Iurreta	Mallabiena	8,28	5,98
Iurreta	Santa Maña	19,17	13,07
Iurreta	Goiuria	29,74	16,32
Iurreta	Orozketa	31,04	16,72
Iurreta	San Andres	43,26	20,48
Iurreta	Garaizar	43,90	20,67
Iurreta	Gaztañatza	51,29	22,94

Iurreta	Santa Apolonia	57,24	24,77
Iurreta	Arandia	69,24	26,22
Iurreta	Amatza	91,85	28,67
Iurreta	Fauste	109,18	30,54
Iurreta	Mañariku	109,24	30,55
Iurreta	Iturburu	161,92	36,25
Iurreta	Arriandi	164,97	36,58
Iurreta	Bakixa	204,90	38,43
Iurreta	Oromiño	399,47	44,17
Iurreta	Aita San Migel	830,99	52,28
Iurreta	Iurreta	3619,07	69,14
Iurreta	Artatza	155671,65	100,00
Izurtza	Izurtza	65,35	25,80
Karrantza Harana/Valle de Carranza	La Cerca	2,28	1,65
Karrantza Harana/Valle de Carranza	La Calera del Prado	2,32	1,68
Karrantza Harana/Valle de Carranza	Bernales	3,20	2,31
Karrantza Harana/Valle de Carranza	Aldeacueva	3,53	2,55
Karrantza Harana/Valle de Carranza	Paúles	5,28	3,81
Karrantza Harana/Valle de Carranza	Pando	7,43	5,37
Karrantza Harana/Valle de Carranza	Sangrices	8,98	6,49
Karrantza Harana/Valle de Carranza	San Cipriano	9,70	7,00
Karrantza Harana/Valle de Carranza	El Suceso	11,73	8,47
Karrantza Harana/Valle de Carranza	Ranero	12,34	8,91
Karrantza Harana/Valle de Carranza	Lanzas Agudas	12,42	8,97
Karrantza Harana/Valle de Carranza	Matienzo	12,95	9,36
Karrantza Harana/Valle de Carranza	Santecilla	13,49	9,74
Karrantza Harana/Valle de Carranza	Ahedo	14,08	10,17
Karrantza Harana/Valle de	Presa	16,48	11,90

Carranza			
Karrantza Harana/Valle de Carranza	Herboso	19,07	13,04
Karrantza Harana/Valle de Carranza	Manzaneda de Biáñez	21,61	13,82
Karrantza Harana/Valle de Carranza	Sierra	29,19	16,15
Karrantza Harana/Valle de Carranza	Rioseco	40,29	19,56
Karrantza Harana/Valle de Carranza	Molinar	43,28	20,48
Karrantza Harana/Valle de Carranza	San Esteban	45,63	21,20
Karrantza Harana/Valle de Carranza	Biáñez	54,33	23,88
Karrantza Harana/Valle de Carranza	El Callejo	56,31	24,49
Karrantza Harana/Valle de Carranza	Soscaño	89,01	28,36
Karrantza Harana/Valle de Carranza	Concha	234,83	39,31
Karrantza Harana/Valle de Carranza	Ambasaguas	520,15	47,72
Kortezubi	Oma	5,48	3,96
Kortezubi	Basondo	19,54	13,19
Kortezubi	Kortezubi	62,70	25,51
Kortezubi	Elorriaga-Santa Ana	74,85	26,83
Kripan	Kripan	15,49	11,19
Kuartango	Iñurrieta	0,06	0,04
Kuartango	Marinda	0,12	0,09
Kuartango	Katadiano	0,77	0,56
Kuartango	Urbina de Basabe	0,94	0,68
Kuartango	Tortura	1,15	0,83
Kuartango	Andagoia	1,64	1,19
Kuartango	Luna	1,93	1,39
Kuartango	Guillarte	2,45	1,77
Kuartango	Villamanca	2,82	2,04
Kuartango	Arriano	3,36	2,43
Kuartango	Aprikano	4,36	3,15
Kuartango	Uribarri-Kuartango	5,16	3,72
Kuartango	Artxua	5,84	4,22
Kuartango	Urbina Eza	6,22	4,49

Kuartango	Sendadiano	6,31	4,56
Kuartango	Santa Eulalia	7,36	5,32
Kuartango	Etxabarri-Kuartango	7,99	5,77
Kuartango	Jokano	9,51	6,87
Kuartango	Anda	14,07	10,16
Kuartango	Zuhatzu-Kuartango	23,13	14,29
Labastida/Bastida	Salinillas de Buradón/Gatzaga Buradon	0,00	0,00
Labastida/Bastida	Labastida/Bastida	57,09	24,73
Lagrán	Lagrán	0,00	0,00
Lagrán	Pipaon	2,37	1,72
Lagrán	Villaverde	3,76	2,72
Laguardia	Campillar (El)	1,85	1,34
Laguardia	Laserna	10,32	7,45
Laguardia	Laguardia	24,02	14,56
Laguardia	Páganos	26,64	15,37
Lanciego/Lantziego	Assa	4,99	3,60
Lanciego/Lantziego	Viñaspre/Biasteri	19,18	13,08
Lanciego/Lantziego	Lanciego/Lantziego	43,95	20,69
Lanestosa	Lanestosa	237,53	39,39
Lantarón	Polígono Industrial Lantaron	0,00	0,00
Lantarón	Molinilla	2,75	1,98
Lantarón	Sobrón	5,98	4,32
Lantarón	Alcedo	6,05	4,37
Lantarón	Caicedo de Yuso	6,35	4,58
Lantarón	Turiso	8,16	5,89
Lantarón	Fontecha	13,17	9,51
Lantarón	Bergonda/Bergüenda	13,19	9,53
Lantarón	Leciñana del Camino/Leziñana	16,83	12,15
Lantarón	Comunión/Komunioi	20,05	13,34
Lantarón	Salcedo	22,32	14,04
Lantarón	Zubillaga	24,65	14,76
Lantarón	Puentelarrá/Larrazubi	313,73	41,64
Lapuebla de Labarca	Lapuebla de Labarca	144,01	34,31
Larrabetzu	Goikoelexalde/Elexalde	27,43	15,61
Larrabetzu	Uria	181,78	37,75
Larraul	Larraul	44,55	20,87
Lasarte-Oria	Lasarte	150,81	35,05
Lasarte-Oria	Oria	473,23	46,34
Lasarte-Oria	Oztaran	1157,96	55,46

Lasarte-Oria	Larrekoetxe	1174,32	55,62
Lasarte-Oria	Atsobakar	15252,92	87,51
Laudio/Llodio	Laudio/Llodio	496,07	47,01
Laukiz	Mentxaketa	106,04	30,20
Laukiz	Aurrekoetxea	106,50	30,25
Laukiz	Agirre	137,98	33,66
Laukiz	Mendiondo	149,85	34,94
Laukiz	Elexalde	271,08	40,38
Lazkao	Lazkaomendi	15,65	11,30
Lazkao	Zubierreka	46,22	21,39
Lazkao	Senpere	52,79	23,40
Lazkao	Lazkao	1203,53	55,90
Leaburu	Leaburu	95,39	29,05
Leaburu	Txarama	153,22	35,31
Legazpi	Brinkola	8,37	6,05
Legazpi	Telleriarte	16,40	11,85
Legazpi	Legazpi	521,52	47,76
Legorreta	Legorreta	176,58	37,59
Legutio	Goiain	11,27	8,14
Legutio	Urrunaga	17,29	12,49
Legutio	Elosu	31,74	16,94
Legutio	Legutio	42,47	20,23
Legutio	Urbina	61,03	25,33
Leintz Gatzaga	Leintz-Gatzaga	17,90	12,68
Leioa	Elexalde	38,62	19,05
Leioa	Artatza	2867,72	66,27
Leioa	Lamiako	4383,77	72,06
Lekeitio	Lekeitio	4124,48	71,07
Lemoa	Lemoa	225,16	39,02
Lemoiz	Andraka	38,74	19,09
Lemoiz	Gure Mendi	49,69	22,45
Lemoiz	Urizar	61,48	25,38
Lemoiz	Armintza	63,22	25,57
Leza	Leza	26,88	15,44
Lezama	Goitioltza	49,14	22,28
Lezama	Aretxalde	133,10	33,13
Lezama	Garaioltza	281,07	40,67
Lezo	Lezo	713,98	51,14
Lizartza	Lizartza	53,48	23,62
Loiu	Lauroeta	59,98	25,22
Loiu	Elotxelerri	161,95	36,25
Loiu	Zangroiz	318,31	41,77

Loiu	Zabaloetxe	356,54	42,90
Mallabia	Berano Txikia	9,23	6,66
Mallabia	Osma	9,33	6,74
Mallabia	Gerea	15,01	10,84
Mallabia	Goita	23,56	14,42
Mallabia	Berano Nagusia	58,88	25,10
Mallabia	Arandoño	62,06	25,44
Mallabia	Areitio	63,01	25,54
Mallabia	Mallabia	449,73	45,65
Mañaria	Mañaria	29,29	16,18
Markina-Xemein	Larruskain-Amalloa	8,22	5,93
Markina-Xemein	Ubilla-Urberuaga	14,12	10,20
Markina-Xemein	Barinaga	15,15	10,94
Markina-Xemein	Meabe	16,46	11,89
Markina-Xemein	Iluntzar	19,75	13,25
Markina-Xemein	Iturreta	22,99	14,25
Markina-Xemein	Markina-Xemein	1174,25	55,62
Maruri-Jatabe	Erbera	45,41	21,14
Maruri-Jatabe	Ergoien	65,52	25,82
Mendaro	Garagartza	14,26	10,30
Mendaro	Plaza	86,55	28,09
Mendaro	Azpilgoeta	132,78	33,10
Mendaro	Mendarozabal	258,01	39,99
Mendata	Albiz	8,77	6,34
Mendata	Olabe	10,52	7,60
Mendata	Marmiz	22,58	14,12
Mendata	Elexalde	40,79	19,72
Mendexa	Iturreta	37,29	18,64
Mendexa	Leagi	49,10	22,27
Mendexa	Likoa	85,78	28,01
Mendexa	Zelaia	166,70	36,77
Meñaka	Emerando	21,53	13,80
Meñaka	Meñakabarrena	53,10	23,50
Meñaka	Mesterika	112,93	30,95
Meñaka	Ametzaga	177,86	37,63
Moreda de Álava/Moreda Araba	Moreda de Álava/Moreda Araba	32,37	17,13
Morga	Meaka	11,36	8,20
Morga	Eskerika	19,49	13,17
Morga	Ganbe	20,44	13,46
Morga	Oñarte	28,85	16,05

Morga	Morgaondo	42,97	20,39
Morga	Meakaur	43,75	20,63
Morga	Andra Mari	6726,26	76,96
Mundaka	Arketa-Aranburu	23,32	14,35
Mundaka	Portuondo-Basaran	81,78	27,58
Mundaka	Mundaka	5392,08	75,30
Mungia	Maurola	2,65	1,91
Mungia	Emerando	18,87	12,98
Mungia	Markaida	27,87	15,75
Mungia	Larrauri	49,27	22,32
Mungia	Trobika	56,34	24,50
Mungia	Elgezabal	58,12	25,01
Mungia	Zabalondo	88,11	28,26
Mungia	Billela	108,49	30,47
Mungia	Basozabal	109,55	30,58
Mungia	Atela	118,87	31,59
Mungia	Atxuri	140,23	33,90
Mungia	Llona	151,43	35,12
Mungia	Iturribaltzaga	169,84	37,11
Mungia	Berreagamendi	685,94	50,86
Mungia	Mungia	5001,26	74,42
Munitibar-Arbatzegi Gerrikaitz	Gerrika	7,37	5,32
Munitibar-Arbatzegi Gerrikaitz	Gerrikaitz	7,55	5,45
Munitibar-Arbatzegi Gerrikaitz	Totorika	7,88	5,69
Munitibar-Arbatzegi Gerrikaitz	Berreño	8,57	6,19
Munitibar-Arbatzegi Gerrikaitz	Munitibar	493,55	46,94
Murueta	Murueta	19,16	13,07
Muskiz	Santelices	50,62	22,74
Muskiz	Cobarón	75,31	26,88
Muskiz	Pobeña	87,89	28,24
Muskiz	San Julián de Muskiz	128,07	32,59
Muskiz	La Rigada	148,48	34,80
Muskiz	San Juan de Muskiz	854,31	52,50
Mutiloa	Mutiloa	28,18	15,84
Mutriku	Mizkia	1,47	1,06
Mutriku	Artzainerreka	2,18	1,57
Mutriku	Olatz	3,37	2,43
Mutriku	Astigarribia	26,11	15,20
Mutriku	Olabarrieta	27,48	15,63
Mutriku	Ibiri	27,75	15,71
Mutriku	Galdona	56,98	24,69
Mutriku	Laranga	63,92	25,64

Mutriku	Mijoa	103,77	29,96
Mutriku	Urazamendik	179,15	37,67
Mutriku	Mutriku	3329,64	68,03
Muxika	Ugarte	8,58	6,20
Muxika	Ibarruri	10,61	7,67
Muxika	San Roman	17,28	12,48
Muxika	Gorozika	17,69	12,62
Muxika	Usparitxa	33,28	17,41
Nabarniz	Intxaurraga	14,05	10,15
Nabarniz	Uribarri-Zabaleta	16,42	11,86
Nabarniz	Ikazurieta	16,93	12,23
Nabarniz	Lekerika	22,29	14,03
Nabarniz	Merika	34,43	17,76
Nabarniz	Elexalde	39,20	19,23
Navaridas	Navaridas	26,24	15,24
Oiartzun	Ergoien	24,85	14,82
Oiartzun	Karrika	26,46	15,31
Oiartzun	Gurutze	62,39	25,48
Oiartzun	Iturriotz	107,80	30,39
Oiartzun	Arragua	313,40	41,63
Oiartzun	Ugaldetxo	430,67	45,09
Oiartzun	Altzibar	2029,99	63,07
Oiartzun	Elizalde	3963,48	70,45
Okondo	Ugalde	5,64	4,07
Okondo	Jandiola	6,28	4,53
Okondo	Zudubiarte	8,25	5,96
Okondo	San Roman	30,55	16,57
Okondo	Billatxika	35,78	18,18
Okondo	Irabien	386,24	43,78
Olaberria	Olaberria	71,86	26,50
Olaberria	Ihurre	616,44	50,19
Ondarroa	Ondarroa	2051,71	63,15
Oñati	Araotz	1,96	1,42
Oñati	Olabarrieta	2,77	2,00
Oñati	Arantzazu	3,25	2,35
Oñati	Urrexola	3,27	2,36
Oñati	Garibai	9,14	6,60
Oñati	Zañartu	10,00	7,23
Oñati	Zubillaga	11,18	8,08
Oñati	Larraña	12,88	9,30
Oñati	Uribarri	22,93	14,23

Oñati	Berezao	42,13	20,13
Oñati	Garagaltza	44,40	20,83
Oñati	Goribar	64,29	25,68
Oñati	Lezesarri	72,99	26,62
Oñati	Santxolopeztegi	76,28	26,98
Oñati	Torreauzo	159,91	36,03
Oñati	Murgia	359,86	43,00
Oñati	Oñati	7985,18	78,53
Ordizia	Ordizia	1691,79	60,66
Orendain	Orendain	27,59	15,66
Orexa	Orexa	19,36	13,13
Orio	Orio	554,95	48,75
Ormaiztegi	Ormaiztegi	190,94	38,02
Orozko	Arbaitza	2,21	1,59
Orozko	Gallartu	4,69	3,39
Orozko	Murueta	8,38	6,05
Orozko	Albizuelexaga	14,13	10,21
Orozko	Bengoetxea	14,67	10,59
Orozko	Urigoiti	19,82	13,27
Orozko	Ibarra	33,55	17,49
Orozko	Zubiaur	50,66	22,75
Ortuella	Triano	17,02	12,29
Ortuella	La Orconera	67,22	26,00
Ortuella	Cadegal	143,94	34,30
Ortuella	Nocedal	206,73	38,48
Ortuella	Urioste	977,89	53,71
Ortuella	Ortuella	3418,95	68,37
Otxandio	Mekoleta	10,21	7,38
Otxandio	Andaparaluzeta	22,20	14,00
Otxandio	Otxandio	140,08	33,89
Oyón-Oion	Barriobusto/Gorrebusto	7,18	5,19
Oyón-Oion	Labraza	7,97	5,75
Oyón-Oion	Oyón-Oion	179,27	37,67
Partzuergo Nagusia / Parzonería General	Partzuergo Nagusia / Parzonería General	0,00	0,00
Pasaia	Pasai Donibane	261,54	40,10
Pasaia	Pasai San Pedro	5208,83	75,07
Pasaia	Trintxerpe	10736,56	81,97
Pasaia	Pasai Antxo	11374,81	82,77
Peñacerrada-Urizaharra	Montoria	0,86	0,62
Peñacerrada-Urizaharra	Loza	1,67	1,21
Peñacerrada-Urizaharra	Faido/Faidu	4,87	3,52

Peñacerrada-Urizaharra	Baroja	5,43	3,92
Peñacerrada-Urizaharra	Payueta/Pagoeta	11,51	8,31
Peñacerrada-Urizaharra	Peñacerrada-Urizaharra	12,22	8,83
Plentzia	Saratxaga	93,40	28,83
Plentzia	Isuskitza	274,11	40,47
Plentzia	Plentzia	3268,65	67,80
Plentzia	Txipio	3354,34	68,13
Portugalete	Portugalete	14940,09	87,22
Ribera Baja/Erribera Beitia	Quintanilla de la Ribera	3,87	2,80
Ribera Baja/Erribera Beitia	Igay	6,16	4,45
Ribera Baja/Erribera Beitia	Rivaguda	7,20	5,20
Ribera Baja/Erribera Beitia	Melledes	15,17	10,96
Ribera Baja/Erribera Beitia	Manzanos	40,22	19,54
Ribera Baja/Erribera Beitia	Rivabellosa	125,02	32,26
Salvatierra/Agurain	Egileor	3,98	2,88
Salvatierra/Agurain	Opakua	6,22	4,49
Salvatierra/Agurain	Alangua	9,71	7,02
Salvatierra/Agurain	Arrizala	11,87	8,58
Salvatierra/Agurain	Agurain/Salvatierra	235,44	39,33
Samaniego	Samaniego	30,28	16,49
San Millán/Donemiliaga	Zuazo de San Millán/Zuhatzu Donemiliaga	0,00	0,00
San Millán/Donemiliaga	Bikuña	4,07	2,94
San Millán/Donemiliaga	Narbaiza	4,40	3,18
San Millán/Donemiliaga	Aspuru/Axpuru	5,95	4,30
San Millán/Donemiliaga	Galarreta	6,09	4,40
San Millán/Donemiliaga	Txintxetru	6,55	4,73
San Millán/Donemiliaga	Mezkia	6,64	4,80
San Millán/Donemiliaga	Okariz	6,72	4,85
San Millán/Donemiliaga	Munain	9,79	7,07
San Millán/Donemiliaga	Luzuriaga	10,59	7,65
San Millán/Donemiliaga	Adana	12,45	8,99
San Millán/Donemiliaga	Ordoñana/Erdoñana	12,92	9,33
San Millán/Donemiliaga	Ullibarri-Jauregi/Uribarri-Jauregi	19,82	13,27
San Millán/Donemiliaga	Durruma/San Román de San Millán	20,64	13,53
San Millán/Donemiliaga	Eguilaz/Egilatz	22,50	14,10
Santurtzi	El Villar	114,91	31,16
Santurtzi	Balparda	156,12	35,62
Santurtzi	Santurtzi	6091,44	76,17

Segura	Segura	160,43	36,09
Sestao	Sestao	7888,91	78,41
Sondika	Izartza	0,97	0,70
Sondika	Zangroiz	75,43	26,89
Sondika	Landa	92,87	28,78
Sondika	Basozabal	192,32	38,06
Sopelana	Ugeraga	594,54	49,92
Sopelana	Moreaga	2753,02	65,83
Sopuerta	El Alisal	0,00	0,00
Sopuerta	Alen	3,29	2,38
Sopuerta	Labarrieta/Olabarrieta	11,89	8,59
Sopuerta	Avellaneda	12,81	9,25
Sopuerta	Bezi	18,62	12,90
Sopuerta	Arenao	20,70	13,54
Sopuerta	Jarralta	20,84	13,59
Sopuerta	Las Muñecas	21,44	13,77
Sopuerta	San Martín de Carral	32,98	17,32
Sopuerta	Las Ribas	91,83	28,66
Sopuerta	Mercadillo	148,03	34,75
Sopuerta	El Castaño	344,30	42,54
Sopuerta	La Baluga	499,80	47,12
Soraluze-Placencia de las Armas	Soraluze-Placencia de las Armas	280,40	40,65
Sukarrieta	Txatxarramendi	0,00	0,00
Sukarrieta	Abiña (Andoni Deuna)	97,07	29,23
Sukarrieta	Kanala	123,71	32,11
Sukarrieta	Sukarrieta	211,43	38,62
Tolosa	Bedaio	7,66	5,53
Tolosa	Aldaba	10,82	7,81
Tolosa	Auzotxikia	36,14	18,29
Tolosa	Santa Lutzia	38,82	19,11
Tolosa	San Esteban	48,90	22,21
Tolosa	Urkizu	60,05	25,22
Tolosa	Monteskue	120,09	31,72
Tolosa	Usabal	180,69	37,71
Tolosa	San Blas	3222,73	67,62
Tolosa	Tolosa	15094,95	87,41
Trucios-Turtzioz	Gordón	1,97	1,42
Trucios-Turtzioz	Cueto	2,36	1,71
Trucios-Turtzioz	Pando	23,43	14,38
Trucios-Turtzioz	La Iglesia	138,54	33,72
Ubide	Magdalena	52,61	23,35

Ubide	San Juan	53,04	23,48
Ugao-Miraballes	Markio	33,76	17,56
Ugao-Miraballes	Ugao-Miraballes	915,30	53,10
Urduliz	Landa	21,33	13,74
Urduliz	Zalbidea	30,66	16,60
Urduliz	Dobaran	80,23	27,41
Urduliz	Mendiondo	375,73	43,46
Urduliz	Elortza	1593,33	59,70
Urduña/Orduña	Lendoño Goikoa/Lendoño de Arriba	2,89	2,08
Urduña/Orduña	Mendeika	6,32	4,56
Urduña/Orduña	Belandia	7,25	5,24
Urduña/Orduña	Lendoñobeiti/Lendoño de Abajo	8,97	6,48
Urduña/Orduña	Urduña/Orduña	254,64	39,89
Urkabustaiz	Abezia	2,97	2,15
Urkabustaiz	Uzkiano	5,75	4,15
Urkabustaiz	Oiardo	5,77	4,17
Urkabustaiz	Goiuri-Ondona	5,85	4,22
Urkabustaiz	Larrazkueta	6,28	4,54
Urkabustaiz	Inoso	6,77	4,89
Urkabustaiz	Beluntza	9,90	7,15
Urkabustaiz	Untzaga/Unzá	10,70	7,73
Urkabustaiz	Abornikano	10,70	7,73
Urkabustaiz	Izarra	197,76	38,22
Urnieta	Urnieta	274,05	40,47
Urretxu	Urretxu	902,69	52,97
Usurbil	Aginaga	8,10	5,85
Usurbil	San Esteban	14,10	10,19
Usurbil	Txikierdi	106,78	30,28
Usurbil	Kalezar	179,62	37,68
Usurbil	Zubieta	360,10	43,00
Usurbil	Usurbil	1319,15	57,03
Valdegovía/Gaubea	Villamardones	0,00	0,00
Valdegovía/Gaubea	Villanueva de Valdegovía	0,00	0,00
Valdegovía/Gaubea	Ribera	0,00	0,00
Valdegovía/Gaubea	Lahoz	0,07	0,05
Valdegovía/Gaubea	Nograro	1,08	0,78
Valdegovía/Gaubea	Quintanilla	1,17	0,85
Valdegovía/Gaubea	Lalastra	1,29	0,93
Valdegovía/Gaubea	Astúlez/Estuliz	1,46	1,06

Valdegovía/Gaubea	Valluerca	1,57	1,13
Valdegovía/Gaubea	Quejo	1,60	1,16
Valdegovía/Gaubea	Fresneda	2,14	1,54
Valdegovía/Gaubea	Barrio	2,23	1,61
Valdegovía/Gaubea	Guinea	2,26	1,63
Valdegovía/Gaubea	Mioma	2,48	1,79
Valdegovía/Gaubea	Bellojín	2,51	1,81
Valdegovía/Gaubea	Basabe	2,73	1,98
Valdegovía/Gaubea	Acebedo	2,85	2,06
Valdegovía/Gaubea	Karkamu	2,92	2,11
Valdegovía/Gaubea	Caranca	2,94	2,12
Valdegovía/Gaubea	Tobillas	3,17	2,29
Valdegovía/Gaubea	Bóveda	3,78	2,73
Valdegovía/Gaubea	Bachicabo	3,80	2,75
Valdegovía/Gaubea	Corro	4,14	2,99
Valdegovía/Gaubea	Osma	4,57	3,30
Valdegovía/Gaubea	Pinedo	5,07	3,66
Valdegovía/Gaubea	Villamaderne	10,56	7,63
Valdegovía/Gaubea	Villanañe	10,67	7,71
Valdegovía/Gaubea	Gurendes	13,73	9,92
Valdegovía/Gaubea	Tuesta	21,46	13,78
Valdegovía/Gaubea	Espejo	28,16	15,84
Valle de Trápaga/Trapagaran	Matamoros-Burtzako	0,00	0,00
Valle de Trápaga/Trapagaran	Trapaga-Causo	0,00	0,00
Valle de Trápaga/Trapagaran	Durañona	26,41	15,30
Valle de Trápaga/Trapagaran	Parkotxa-Barrionuevo	30,81	16,65
Valle de Trápaga/Trapagaran	Ugarte	80,96	27,49
Valle de Trápaga/Trapagaran	La Arboleda/Zugaztieta	143,77	34,29
Valle de Trápaga/Trapagaran	Larreineta	202,11	38,34
Valle de Trápaga/Trapagaran	Galindo-Salcedillo	230,08	39,17
Valle de Trápaga/Trapagaran	Elguero	245,46	39,62
Valle de Trápaga/Trapagaran	Valle de Trápaga/Trapagaran	5305,76	75,19
Villabona	Amasa	25,03	14,87
Villabona	Villabona	950,06	53,43
Villabuena de Álava/Eskuernaga	Villabuena de Álava/Eskuernaga	0,00	0,00
Vitoria-Gasteiz	Bolívar	0,00	0,00
Vitoria-Gasteiz	Ariñiz/Aríñez	0,00	0,00
Vitoria-Gasteiz	Artatza Foronda	1,06	0,77
Vitoria-Gasteiz	Martioda	1,58	1,14
Vitoria-Gasteiz	Monasterioguren	4,39	3,17
Vitoria-Gasteiz	Hueto Abajo/Otobarren	4,55	3,29

Vitoria-Gasteiz	Eskibel	5,63	4,07
Vitoria-Gasteiz	Otogoien/Hueto Arriba	5,70	4,12
Vitoria-Gasteiz	Gamiz	5,75	4,15
Vitoria-Gasteiz	Miñao/Miñano Mayor	6,31	4,56
Vitoria-Gasteiz	Mandojana	6,39	4,62
Vitoria-Gasteiz	Ullibarri de los Olleros/Uribarri Nagusia	6,48	4,68
Vitoria-Gasteiz	Lubiano	7,04	5,08
Vitoria-Gasteiz	Zumelzu/Zumeltzu	7,96	5,75
Vitoria-Gasteiz	Ullibarri-Arrazua	8,94	6,46
Vitoria-Gasteiz	Ullibarri-Viña/Uribarri-Dibiña	8,96	6,47
Vitoria-Gasteiz	Subijana de Alava/Subillana-Gasteiz	9,11	6,58
Vitoria-Gasteiz	Miñano Menor/Miñao Gutxia	9,60	6,94
Vitoria-Gasteiz	Andollu	10,77	7,78
Vitoria-Gasteiz	Aberasturi	11,02	7,96
Vitoria-Gasteiz	Mendoza	11,51	8,32
Vitoria-Gasteiz	Mendiguren	12,76	9,21
Vitoria-Gasteiz	Castillo/Gaztelu	12,90	9,32
Vitoria-Gasteiz	Amarita	13,04	9,42
Vitoria-Gasteiz	Gardelegi	13,29	9,60
Vitoria-Gasteiz	Abetxuko	13,74	9,92
Vitoria-Gasteiz	Lopidana	13,99	10,11
Vitoria-Gasteiz	Matauko	14,86	10,73
Vitoria-Gasteiz	Zerio	14,90	10,76
Vitoria-Gasteiz	Gometxa	14,96	10,80
Vitoria-Gasteiz	Argandoña	15,26	11,02
Vitoria-Gasteiz	Guereña	16,77	12,11
Vitoria-Gasteiz	Retana	16,98	12,27
Vitoria-Gasteiz	Foronda	17,05	12,31
Vitoria-Gasteiz	Mendiola	18,33	12,81
Vitoria-Gasteiz	Estarrona	19,65	13,22
Vitoria-Gasteiz	Legarda	20,45	13,47
Vitoria-Gasteiz	Askartza	22,04	13,96
Vitoria-Gasteiz	Otazu	22,68	14,15
Vitoria-Gasteiz	Zuazo de Vitoria/Zuhatzu	23,33	14,35
Vitoria-Gasteiz	Oreitia	26,21	15,24
Vitoria-Gasteiz	Berrostegieta	26,43	15,30
Vitoria-Gasteiz	Aránguiz/Arangiz	27,68	15,69
Vitoria-Gasteiz	Arkauti/Arcaute	27,87	15,75
Vitoria-Gasteiz	Arkaia	28,27	15,87

Vitoria-Gasteiz	Andetxa/Antezana	31,27	16,79
Vitoria-Gasteiz	Ilarratza	32,16	17,06
Vitoria-Gasteiz	Junguitu/Jungitu	32,66	17,22
Vitoria-Gasteiz	Lasarte	34,38	17,75
Vitoria-Gasteiz	Gamarra Menor	39,52	19,33
Vitoria-Gasteiz	Yurre/Ihurre	47,46	21,77
Vitoria-Gasteiz	Gamarra Mayor/Gamarra Nagusia	52,47	23,31
Vitoria-Gasteiz	Crispijana/Krispiñana	54,68	23,98
Vitoria-Gasteiz	Gobeo	57,82	24,95
Vitoria-Gasteiz	Asteguieta	87,43	28,19
Vitoria-Gasteiz	Villafranca	93,76	28,87
Vitoria-Gasteiz	Armentia	100,61	29,61
Vitoria-Gasteiz	Elorriaga	109,31	30,56
Vitoria-Gasteiz	Lermanda	176,79	37,60
Vitoria-Gasteiz	Betoño	807,16	52,04
Vitoria-Gasteiz	Margarita	856,86	52,53
Vitoria-Gasteiz	Ehari/Ali	1607,95	59,84
Vitoria-Gasteiz	Arechavaleta	2406,59	64,51
Vitoria-Gasteiz	Vitoria-Gasteiz	6036,15	76,10
Vitoria-Gasteiz	Arriaga	41752,28	89,87
Yécora/Iekora	Yécora/Iekora	15,98	11,54
Zaldibar	Gazaga	14,21	10,26
Zaldibar	Eitzaga	17,15	12,39
Zaldibar	Goierri	374,56	43,43
Zaldibar	Zaldibar	2770,36	65,90
Zaldibia	Zaldibia	90,61	28,53
Zalduondo	Zalduondo	15,88	11,47
Zalla	La Herrera	30,63	16,60
Zalla	Otxaran	75,46	26,89
Zalla	Sollano-Llantada	75,49	26,90
Zalla	Mimetiz	608,23	50,11
Zalla	Aranguren	971,13	53,64
Zambrana	Portilla/Zabalate	2,07	1,50
Zambrana	Berganzo	3,18	2,30
Zambrana	Ocio	4,41	3,19
Zambrana	Zambrana	40,61	19,66
Zamudio	Aranoltza (San Antolin)	6,08	4,39
Zamudio	Ugaldeguren (Santimami)	12,18	8,80
Zamudio	Geldo	20,76	13,56
Zamudio	Arteaga (San Martin)	740,52	51,39
Zaratamo	Gutiolo	7,76	5,60

Zaratamo	Burbustu-Altamira	16,97	12,26
Zaratamo	Zaratamo	178,97	37,66
Zaratamo	Moiordin-Barrondo	202,33	38,35
Zaratamo	Arkotxa	549,80	48,60
Zarautz	Urteta	28,35	15,89
Zarautz	Aitza	41,90	20,06
Zarautz	Elkano	70,41	26,34
Zarautz	Zarautz	4872,71	73,92
Zeanuri	Ipiñaburu	4,29	3,10
Zeanuri	Altzuaga	4,61	3,33
Zeanuri	Otzerinmendi	11,53	8,33
Zeanuri	Altzusta	12,24	8,84
Zeanuri	Uribe	19,41	13,15
Zeanuri	Asterria	22,59	14,12
Zeanuri	Undurraga	25,32	14,96
Zeanuri	Ibarguen	32,93	17,30
Zeanuri	Plaza	712,00	51,12
Zeberio	Uriondo	3,47	2,51
Zeberio	Gezala	3,76	2,72
Zeberio	Argiñao	9,33	6,74
Zeberio	Ametzola	12,52	9,04
Zeberio	Solatxi	13,18	9,52
Zeberio	Areiltza-Olatzar	17,55	12,58
Zeberio	Aresandiaga	20,55	13,50
Zeberio	Ermitabarri-Ibarra	25,87	15,13
Zeberio	Arkulanda	36,89	18,52
Zeberio	Zubialde	70,61	26,37
Zegama	Arrieta	4,09	2,96
Zegama	Goialdea	5,60	4,04
Zegama	Olaran	6,77	4,89
Zegama	Barrenaldea	30,80	16,65
Zegama	Zegama	2092,58	63,31
Zerain	Zerain	25,68	15,07
Zestoa	Lasao	9,82	7,10
Zestoa	Endoia	12,02	8,68
Zestoa	Aizarna	16,88	12,19
Zestoa	Arroa Goia	67,55	26,04
Zestoa	Iraeta	110,54	30,69
Zestoa	Arroa Behea	130,26	32,82
Zestoa	Zestoa	281,14	40,68
Zierbena	Kardeo	25,95	15,16

Zierbena	El Puerto	70,22	26,32
Zierbena	Valle	80,57	27,44
Zierbena	San Mamés	190,67	38,01
Zierbena	La Arena	251,65	39,81
Zierbena	La Cuesta	489,55	46,82
Zigoitia	Etxabarri Ibiña	0,00	0,00
Zigoitia	Diseminados de Zigoitia	2,00	1,45
Zigoitia	Zestafe	4,42	3,19
Zigoitia	Letona	5,42	3,92
Zigoitia	Olano	6,51	4,70
Zigoitia	Etxaguen (Zigoitia)	6,91	4,99
Zigoitia	Zaitegi	9,03	6,53
Zigoitia	Murua	9,10	6,57
Zigoitia	Larrinoa	9,49	6,86
Zigoitia	Buruaga	9,55	6,89
Zigoitia	Eribe	13,34	9,64
Zigoitia	Mendarozketa	14,63	10,57
Zigoitia	Manurga	15,12	10,92
Zigoitia	Berrikano	16,37	11,83
Zigoitia	Acosta/Okoizta	33,13	17,36
Zigoitia	Apodaka	61,92	25,43
Zigoitia	Ondategi	82,96	27,70
Zigoitia	Gopegi	343,00	42,50
Ziortza-Bolibar	Ziortza-Goierria	5,27	3,81
Ziortza-Bolibar	Zeinka-Ziarregi	15,66	11,31
Ziortza-Bolibar	Arta	18,98	13,02
Ziortza-Bolibar	Iruzubieta	36,71	18,46
Ziortza-Bolibar	Bolibar	182,03	37,75
Zizurkil	Zizurkil	28,16	15,84
Zizurkil	Elbarrena	1318,62	57,02
Zuia	Ziorraga	1,04	0,75
Zuia	Altube	1,18	0,85
Zuia	Markina	2,65	1,92
Zuia	Zarate	5,09	3,68
Zuia	Domaikia	7,37	5,32
Zuia	Jugo	8,24	5,95
Zuia	Aperregi	8,86	6,40
Zuia	Guillerna/Gilierna	12,47	9,00
Zuia	Lukiano	14,04	10,14
Zuia	Sarria	14,95	10,80
Zuia	Bitoriano	66,88	25,96
Zuia	Ametzaga Zuia	75,43	26,89

Zuia	Murgia	376,40	43,48
Zumaia	Artadi	31,76	16,94
Zumaia	Oikia	70,16	26,32
Zumaia	Zumaia	2123,38	63,43
Zumarraga	Aginaga	9,34	6,75
Zumarraga	Zumarraga	727,47	51,27

Annex 2

Gross Added Value per capita per Municipality

MUNICIPALITY	GDP pc (Euros)
Abadiño	62.924,00
Abaltzisketa	19.761,00
Abanto y Ciérvana-Abanto Zierbena	28.413,00
Aduna	122.302,00
Aia	32.857,00
Aizarnazabal	46.841,00
Ajangiz	159.754,00
Albiztur	46.299,00
Alegia	23.297,00
Alegría-Dulantzi	21.494,00
Alkiza	13.842,00
Alonsotegi	28.869,00
Altzaga	10.652,00
Altzo	84.130,00
Amezketa	37.075,00
Amorebieta-Etxano	44.658,00
Amoroto	43.907,00
Amurrio	44.597,00
Andoain	29.158,00
Anoeta	37.159,00
Antzuola	34.174,00
Arakaldo	55.137,00
Arama	55.362,00
Aramaio	13.567,00
Arantzazu	12.888,00
Areatza	11.472,00
Aretxabaleta	29.385,00
Armiñón	57.066,00
Arraia-Maeztu	27.928,00
Arrankudiaga	51.738,00
Arrasate/Mondragón	44.717,00
Arratzu	21.230,00
Arratzua-Ubarrundia	30.590,00
Arrieta	12.963,00
Arrigorriaga	23.542,00
Artea	47.180,00
Artzentales	13.677,00
Artziniega	21.151,00
Asparrena	51.307,00
Asteasu	66.790,00
Astigarraga	47.009,00
Ataun	10.590,00
Atxondo	53.823,00
Aulesti	23.187,00
Ayala/Aiara	25.176,00
Azkoitia	24.584,00
Azpeitia	27.780,00
Añana	32.355,00
Bakio	20.032,00
Baliarrain	15.266,00
Balmaseda	18.413,00
Barakaldo	22.562,00
Barrika	13.408,00
Barrundia	16.348,00
Basauri	27.547,00
Baños de Ebro/Mañueta	30.238,00
Beasain	52.226,00
Bedia	56.558,00
Beizama	15.978,00
Belauntza	68.003,00
Berango	16.987,00
Berantevilla	157.035,00
Berastegi	25.888,00
Bergara	30.035,00

Bermeo	28.622,00
Bernedo	85.655,00
Berriatua	62.547,00
Berriz	33.230,00
Berrobi	21.307,00
Bidania-Goiatz	18.820,00
Bilbao	30.889,00
Busturia	14.139,00
Campezo/Kanpezu	26.167,00
Deba	35.544,00
Derio	109.369,00
Dima	15.648,00
Donostia / San Sebastián	34.589,00
Durango	21.861,00
Ea	20.137,00
Eibar	23.641,00
Elantxobe	11.493,00
Elburgo/Burgelu	17.715,00
Elciego	55.103,00
Elduain	27.928,00
Elgeta	45.743,00
Elgoibar	40.093,00
Elorrio	34.961,00
Elvillar/Bilar	31.142,00
Erandio	41.400,00
Ereño	16.536,00
Ermua	19.215,00
Errenteria	17.133,00
Errezil	31.769,00
Erriberagoitia/Ribera Alta	17.853,00
Errigoiti	12.564,00
Eskoriatza	37.098,00
Etxebarri	27.282,00
Etxebarria	129.118,00
Ezkio-Itsaso	72.399,00
Forua	15.786,00
Fruiz	11.054,00
Gabiria	20.640,00
Gaintza	15.350,00
Galdakao	29.305,00

Galdames	28.163,00
Gamiz-Fika	13.264,00
Garai	10.524,00
Gatika	24.217,00
Gautegiz Arteaga	13.848,00
Gaztelu	13.178,00
Gernika-Lumo	22.209,00
Getaria	34.242,00
Getxo	19.275,00
Gizaburuaga	73.162,00
Gordexola	17.503,00
Gorliz	21.411,00
Güeñes	23.432,00
Harana/Valle de Arana	16.783,00
Hernani	35.672,00
Hernialde	10.767,00
Hondarribia	22.776,00
Ibarra	24.522,00
Ibarrangelu	16.485,00
Idiazabal	47.627,00
Igorre	48.410,00
Ikaztegieta	60.498,00
Irun	27.367,00
Irura	68.784,00
Iruraiz-Gauna	14.683,00
Iruña Oka/Iruña de Oca	43.459,00
Ispaster	21.368,00
Itsasondo	37.820,00
Iurreta	74.728,00
Izurtza	128.734,00
Karrantza Harana/Valle de Carranza	20.835,00
Kortezubi	17.891,00
Kripan	13.924,00
Kuartango	17.837,00
Labastida/Bastida	38.407,00
Lagrán	21.183,00
Laguardia	108.612,00
Lanciego/Lantziego	43.633,00
Lanestosa	16.455,00
Lantarón	76.139,00

Lapuebla de Labarca	39.230,00
Larrabetzu	32.516,00
Larraul	11.929,00
Lasarte-Oria	22.633,00
Laudio/Llodio	30.391,00
Laukiz	15.303,00
Lazkao	23.856,00
Leaburu	33.102,00
Legazpi	27.994,00
Legorreta	28.729,00
Legutio	125.502,00
Leintz-Gatzaga	12.397,00
Leioa	44.197,00
Lekeitio	15.835,00
Lemoa	33.290,00
Lemoiz	13.963,00
Leza	25.287,00
Lezama	47.557,00
Lezo	35.817,00
Lizartza	27.370,00
Loiu	173.202,00
Mallabia	95.370,00
Markina-Xemein	21.051,00
Maruri-Jatabe	12.584,00
Mañaria	32.392,00
Mendaro	59.885,00
Mendata	12.176,00
Mendexa	16.689,00
Meñaka	18.121,00
Moreda de Álava / Moreda Araba	21.265,00
Morga	15.396,00
Mundaka	36.270,00
Mungia	36.560,00
Munitibar-Arbatzegi Gerrikaitz-	15.737,00
Murueta	35.945,00
Muskiz	30.789,00
Mutiloa	13.492,00
Mutriku	13.309,00
Muxika	25.924,00
Nabarniz	19.974,00
Navaridas	25.552,00
Oiartzun	49.847,00
Okondo	25.888,00
Olaberria	182.738,00
Ondarroa	20.692,00
Ordizia	26.079,00
Orendain	12.120,00
Orexa	14.728,00
Orio	19.063,00
Ormaiztegi	80.601,00
Orozko	40.499,00
Ortuella	25.181,00
Otxandio	21.100,00
Oyón-Oion	53.488,00
Oñati	42.478,00
Pasaia	19.913,00
Peñacerrada-Urizaharra	19.017,00
Plentzia	15.061,00
Portugalete	14.953,00
Ribera Baja/Erribera Beitia	59.120,00
Salvatierra/Agurain	28.246,00
Samaniego	43.168,00
San Millán/Donemiliaga	26.812,00
Santurtzi	17.790,00
Segura	14.441,00
Sestao	17.913,00
Sondika	56.997,00
Sopela	17.667,00
Sopuerta	20.316,00
Soraluze-Placencia de las Armas	19.834,00
Sukarrieta	39.997,00
Tolosa	25.020,00
Trucios-Turtzioz	18.278,00
Ubide	11.838,00
Ugao-Miraballes	22.061,00
Urduliz	33.681,00
Urduña/Orduña	16.223,00
Urkabustaiz	19.926,00
Urnieta	36.388,00
Urretxu	16.508,00

Usurbil	44.169,00
Valdegovía/Gaubea	24.371,00
Valle de Trápaga-Trapagaran	50.120,00
Villabona	16.204,00
Villabuena de Álava/Eskuernaga	69.963,00
Vitoria-Gasteiz	32.252,00
Yécora/Iekora	18.429,00
Zaldibar	35.214,00
Zaldibia	15.591,00
Zalduondo	12.445,00
Zalla	19.591,00
Zambrana	78.574,00
Zamudio	318.148,00
Zaratamo	52.160,00
Zarautz	26.093,00
Zeanuri	15.173,00
Zeberio	16.262,00
Zegama	13.980,00
Zerain	28.080,00
Zestoa	36.451,00
Zierbena	173.690,00
Zigoitia	30.126,00
Ziortza-Bolibar	9.218,00
Zizurkil	32.651,00
Zuia	19.887,00
Zumaia	35.743,00
Zumarraga	26.447,00