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A VISION FOR RURAL AREAS

MAP Discussion Paper

LONG-TERM VISION FOR RURAL AREAS: CONTRIBUTION FROM 20 SCIENCE- SOCIETY-POLICY PLATFORMS

MAP DISCUSSION PAPER

INNOVATION IN RURAL DEVELOPMENT IN ARAGÓN (IDRA)

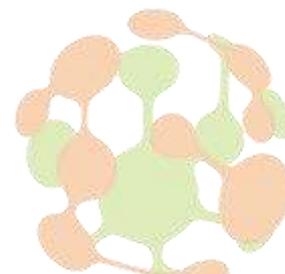
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Page | 1



1. Introduction

The Multi-Actor Platform (MAP) Innovation in Rural Development in Aragón (Innovación en Desarrollo Rural de Aragón, IDRA) covers the region of Aragón, in the north-east of Spain. The region consists of 3 provinces, Zaragoza, Huesca and Teruel, all of which are part of the work of the MAP. The platform is newly established, and the participants represent civil society (farm, business and LEADER organisations), regional public administration, and science (representatives from three universities).

The region of Aragón is characterised by large heterogeneity, where parts of the region has very low population density with ongoing depopulation, an ageing population (with some of the highest old-dependency rates of the EU), and an increasing proportion of men in rural areas because of the outmigration of women. As a consequence, IDRA will treat territorial themes linked to demographic shift, change in production and diversification of the rural economy, infrastructure and basic services, digitalisation, and inequalities and well-being in rural areas.

The objective of the platform is to generate knowledge and create networks seeking synergies between various policy areas in order to contribute to vibrant rural areas.

Keywords: *depopulation, low population density, ageing population, accessibility, transports and communication, digitalization, housing, family farming, urban-rural connection*

2. Results from desk research

2.1. Review of key trends

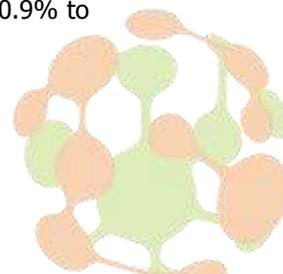
Decreasing population, and increasing urbanisation. A general challenge facing rural areas is that of demographic change. Aragón is among the 50 European regions where the population decline has been greatest between 2011-2015. Between 2008-2018, the population decreased by 1.4%, contrary to the general trend of Spain where the population increased by 1.2% during the same time period. However, the decline is not uniform and it is in rural areas where the decline is most pronounced. All Aragonese counties had negative gross vegetative growth rates in 2017 (Government of Aragon, 2019). Some municipalities have even experienced growth rates below -30% in the last years. (CESA, 2018).

About 70% of the Aragonese population is concentrated in municipalities of more than 10,000 inhabitants, and the majority, 51%, in its capital, Zaragoza. The share of rural population is 15.9%, a decrease by 8.9% between 2008 and 2018. (CESA, 2018). The latest data show that 74.4% of the municipalities of the region do not exceed 500 inhabitants, only 13 of the 731 municipalities of Aragon exceed 10,000 inhabitants, and 18% are at risk of irreversible depopulation.

At the same time, rural areas are characterized by an ageing population, negative population growth rates and an outflow of the young population. Aragón is the second-most aged European region (comparing the share of the population over 80 years to the total population over 64 years), and at NUTS3 level, Teruel, one of the three provinces, ranks second and Huesca, another province, ranks seventh (Eurostat, 2016). The share of the population aged 80 and over among the population over the age of 64 has increased over the last ten years. The increase has been 15.3% since 2008, leaving the rate at 36.3% in Aragón (32.2% for Spain). (CESA, 2018).

The average age of Aragon has increased from 42.8 to 44.7 years between 2008 and 2018. In addition, the percentage of the population over 64 years has grown from 19.8% to 21.6%, according to the National Statistical Institute (INE), while in Spain the share is 19.1%. The share of the population below 45 years is well-below the national average for Aragón. From that age, the proportions are greater in Aragón than for Spain as a whole.

The dependency rate relates the economically inactive population (under 16 years and 65 years and older) to the active population, underlining the weight of economically dependent people in the society. The above described for developments have resulted in an increase in the Aragonese dependency rate from 50.9% to



57.8% over the past decade, indicating that the economically inactive population has intensified (it is 4 percentage points higher than the national average). (CESA, 2018).

The main reason for the decline of the active population is the loss of the population aged 16 and over. This phenomenon is mainly explained by the exodus of young people to other places in search of new job opportunities. Approximately 25,600 people ceased to be part of the population over 15 years since 2010, and the share of young Aragonese (15-34 years) residing outside Spain increased by 90% between 2009 and 2017.

The province of Zaragoza has the lowest average age (44.3), and a lower dependency rate. Teruel shows the most extreme results, with an average age of 46.4 and an old-age dependency rate of 24.1% (21.6% for Aragón as a whole), and a share of over-ageing of 43% (36.3% for Aragón).

Rural areas also face a bigger challenge with increasing masculinisation, due to the out migration of women. There is an increasing "masculinisation", i.e. an increasing share of men in rural areas, because of greater exodus of women. The rural areas of Huesca and Teruel have 103 vs 104 men for every 100 women (in Zaragoza the equivalent figure is 97). In the fertile age segment (between 15 and 49 years) this figure reaches 105.9 points for Aragón as a whole (substantially higher in rural areas). Descending on a municipal scale, in certain areas, in the age range of 15 to 49 years, the index is above 700, and there are two municipalities where there are no women in that age segment. As can be expected, the counties that have the most important urban centres are those that record the lowest masculinity data. (Government of Aragon, 2017).

Immigration temporarily reverted the ageing-trend, but the economic crisis led to an outmigration. The immigration to Aragón that has occurred mainly from year 2000, simultaneously to the economic growth that occurred in Spain between the years 2000-2008, seemed to alleviate the demographic problems of the region; however, from 2012 on, the opposite phenomenon was caused by the economic crisis. There was a sharp decrease in immigration, -23%, between 2012-2016. Since 2017 there has been a slight increase, of between 2-3% per year. (Government of Aragon, 2017; CESA, 2018).

Agriculture production is of essential importance in numerous counties. Overall, the average income in Aragón is higher than the average Spanish income. Services, including retail trade and the restaurant sector, is the main income generating activity in all 33 Aragonese counties. In 26 of the counties, the construction sector is the second main income generating activity. In 28 counties, agriculture and related services is one of the top-4 economic activities, although only in seven counties is agriculture the second income generating activity after services. 4.4% of the Aragonese work force is employed in agriculture, but in Huesca, that share is almost 10%. Less than 20% of the farm managers are women. (Government of Aragon, 2017)

Low population density and high territorial dispersion in parts of the region, combined with a high mobility of the population, leads to difficulties in providing basic services. The population density of the region is the fourth lowest in Spain: only 27.4/km². On a European level, Aragón occupies the 20th position with regard to population density (of 320 regions). On NUTS3 level, Teruel is the 17th less densely population province in Europe (out of 1 472 administrative units). (Eurostat, 2015). This trend is pronounced on a county and municipality level and changes significantly when Zaragoza is excluded. Aragón has four counties (of 33) with less than 4 inhabitants/km², and another 6 counties with a population density between 4-8 inhabitants/km². Only six counties have a population density above 25 habitans/km², whereas the Spanish average is 92.3 habitans/km². (Government of Aragon, 2017; CESA, 2018).

In Aragón, it is also common to have a second home, often in the family village, which is visited during weekends or holidays. This explains why 30% of the housing fleet is made up of non-primary homes, and 61% of the secondary homes are located in municipalities with less than 2 000 inhabitants. (Government of Aragon, 2017).

2.2. Review of main challenges and opportunities

Challenges: Demographic change and uneven population patterns with large remote areas lead to high costs of providing basic services in rural areas

One of the most important challenges facing Aragon is the demographic change that is observed and that carries consequences on an economic, social and territorial level. Aragón faces a number of structural problems that represent major challenges, such as low birth rates, outflow of young citizens, and limited employment opportunities.

At the same time, the uneven levels of population and the existence of large remote areas, together with the marked population asymmetry between work-week/weekend and for some specific holiday weeks of the year, mean that the economies of regions with low population density tend to grow to a much lesser extent, with the consequent delay in the social development of their communities. In sparsely populated territories, workers often specialize in the primary sector (agriculture, forestry, fisheries and mining), energy production, manufacturing and tourism services, leading to mono-economies. (Government of Aragon, 2017).

In addition, the low population density in many areas lead to costly provision of basic services, including health care, education, and transports. Due to this, the service provision is by some considered poor. (Southern Sparsely Populated Rural Areas, 2019). Many young people migrate to cities due to the perception of lack of attractiveness in rural areas, linked to remoteness, lack of activities, low mobility and connectivity and restriction of labour markets, among others (Eurostat, 2019). Therefore, the need for personalized services for young people and families is also very important, within a political objective of maintaining a balanced age structure of the population.

One of the most important issues in providing quality services in Aragón is the common shortage of professionals who wish to develop their careers in rural areas, this is particularly the case for health care workers. Equally important is the lack of specialised medics, mainly pediatrics and gynecologist, in much of the region, a matter of specific interest when establishing and/or maintaining the female population in rural areas. (Government of Aragon, 2017). In Aragon, the average time of access to the nearest health centre ranges from 12 minutes from the regions of Teruel or Zaragoza to 28 minutes from the Sierra de Albarracín (Government of Aragon, 2019).

Educational services are one of the most important tools for maintaining a population in rural areas and preventing migration to cities. In Aragón, although not the entire school population can access schools without using means of transport, 17% of Aragon's school population accesses educational centres located in towns with less than 5,000 inhabitants. In all counties, there is access to educational centres for the pre-school, primary, and secondary levels, while in 7 counties there is no access to Baccalaureate studies. The average time of access to a Baccalaureate centre in the county of Maestrazgo is 60 minutes (Government of Aragón, 2019). The Rural Schools (Colegios Rurales Agrupados) provide child care and primary education in small municipalities. The number of rural schools has declined in the last 10 years from 328 to 287, with a decrease in the number of pupils from about 10,000 to 8,380 in the 2018/2019 school year (<https://opendata.aragon.es/servicios/cras/evolucion-alumnos>).

The quality of the transport service, in terms of frequency and accessibility, has strong territorial contrasts: 28% of the main population centres have a bus service of excellent or good quality, where 86% of the Aragonese population resides. At the same time, 3.2% of the population, residing in peripheral areas, does not have access to any public transport. (Government of Aragon, 2017).

Thus, traditional transport services are fairly poor, and the provision of social services costly. The level of funding required from the national, regional and local administrations to meet the needs related to basic health care, education, social services, environment, infrastructure, etc. of its inhabitants is significant, and represents a major challenge. (Government of Aragon, 2017).

Opportunities: A high degree of digitalisation and ample offer of natural resources offer significant possibilities for the generation of economic growth and jobs in rural areas

Several studies indicate that digitalisation, tourism, the cooperation among agricultural producers, together with smart specialization strategies could offer new opportunities to promote the economic prosperity of large areas with limited population. Also, the opportunities offered from bioeconomy, production of renewable energy, and industry 4.0 (the internet of things, connectivity, bigdata) are often highlighted as important for Aragón. (Government of Aragon, 2017).

Aragon is one of the Spanish regions with better internet access. In 2018, 88.4% of the population had broadband access and 59.7% had fibre optics, above the national average and with an increasing trend (MINECO, 2019). Despite this, some counties still have low internet coverage, such as the case of Campo de Belchite where the coverage with fiber optics is only 5% (Government of Aragon, 2019). Furthermore, Aragón is the region with the lowest share of the population without access to computer. In Aragon, only 2.1% of

the families do not have a personal computer for economic reasons, significantly lower than the Spanish average of 5.1%.

Aragón also contain several natural parks, with an increasing trend of area protected as natural parks. It enjoys high environmental quality standards, and is rich in cultural heritage. All of which offers a potential to attract increasing tourism, with the potential of job creation and economic growth in rural areas. In addition, environmental conditions, quality of life, as well as the availability of resources difficult to delocalise make sparsely populated rural areas the ideal location for the development of an array of economic activities with a high capacity to generate wealth and jobs that are sustainable, innovative and complementary to those found in urban areas. (Southern Sparsely Populated Rural Areas, 2019).

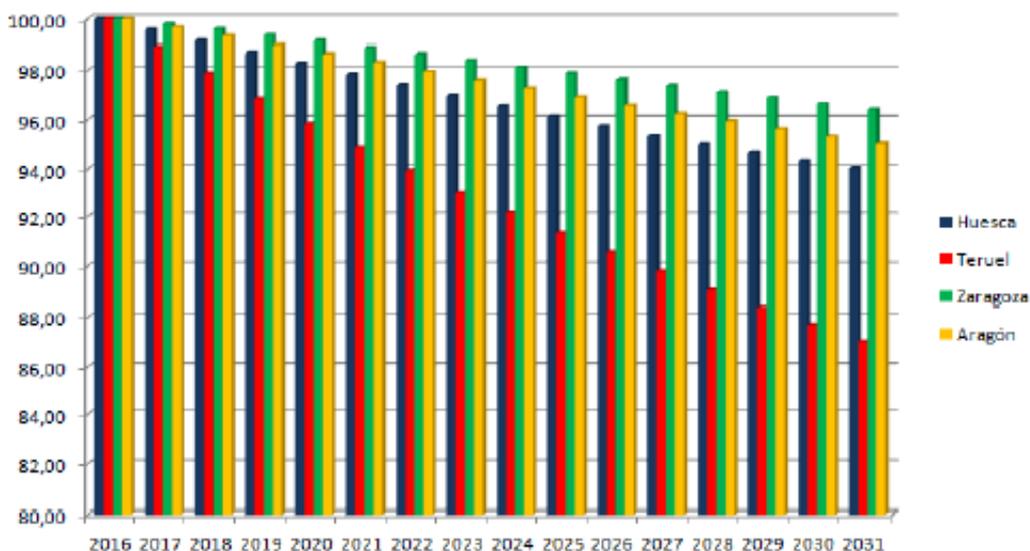
2.3. Summary of existing foresight(s)

The projections made by both the Spanish national statistics institute (INE) and EUROSTAT for the future reflect the maintenance of the demographic trends in Aragón, with a general decline and ageing of the population in rural and intermediate areas.

Generational replacement is generally considered to be ensured when the average of 2.1 children per woman is obtained; with lower numbers the absolute total population tends to decline. In the Aragonese case, the index is less than 1.4, which leads to a decrease in absolute numbers in case there are no contributions from positive migration balances. Current estimates indicate that by the end of the 21st century, if current vegetative and migratory trends are maintained, the Aragonese population will have decreased by 75% from the current size. An immediate consequence will be the substantial increase in the dependency ratio. (Government of Aragón, 2017).

By 2031, INE expects the size of the population in Aragón to be 95.3% of its 2016 levels, while Eurostat estimates it to be 92.5%. The population decrease is particularly pronounced in Teruel, where INE estimates it to be -13% (again, compared to 2016 levels), and Eurostat estimates it to be -16.7%. For Huesca, the same estimates are -6 - -9%, and for Zaragoza -3.6 - -6.3%. (CESA, 2018).

Population projection for Aragón, by province, 2016-2031 (index), by INE



World Population Prospects (UN, 2015) project that the Spanish population will have decreased by 16.8% between year 2015 and 2100, hence the population decrease in Aragón is expected to be significantly more pronounced than for the country as a whole. At the same time, the average age is expected to have increased from 43.2 to 51.3 years. By 2040, the share of the Spanish population that is 65 years or older is expected to increase from 20.1% to 31.0%, and the share of the population that is 80 years or older is expected to increase from 6.2% to 9.8%. (European Commission, 2019).

At the same time, the share of the Aragonese population over 65 years is expected to have increased by 42% between 2016 and 2031. (INE). At county level, 6 counties are expected to have increased their share of the population over 65 years by more than 100% by 2031. Hence, again, the general trend expected for Spain is further pronounced for Aragón.

3. Results from interviews with MAP members

Interviews with nine MAP members, representing civil society, science and regional public administration, were undertaken in June 2020, with the aim of identifying the main challenges and opportunities for Aragón in the next 20 years, as well as the desirable scenario for 2040 including the challenges of reaching that vision.

3.1. Challenges and opportunities in the next 20 years

Challenges for rural areas in Aragón

An attempt has been made to capture the main challenges identified for rural areas in Aragón over the coming 20 years. Whereas most or all of the interviewees agreed on some of the challenges, other challenges were found particularly relevant only by a few individuals. A careful assessment has been made of the arguments made in order to present a balanced picture.

Demographic challenges

All interviewees agreed that the decreasing population, ageing population and increasing gender gap represents the major challenge for rural areas in Aragón. The previous sections contain substantial data and analysis of these challenges, and the discussions held reflected to a great extent the trends identified from the desk research. In brief, the need to obtain demographic balance in order to maintain population in rural areas was identified as the key issue to resolve in the coming 20 years. Related to this, the current unequal opportunities available to men and women, which leads to increased masculinisation and depopulation of rural areas, was identified by some as a highly relevant challenge.

Economic challenges

The interviewees also reached a general consensus that the human capital flight from rural areas represents a major challenge. Some pointed out that the lack of workforce, both qualified and unqualified, is already an issue, that will increase in importance unless measures are taken. Some also considered there to be a lack of entrepreneurship among rural citizens, linked to the human capital flight, while others considered that there was not a lack of entrepreneurship but rather a lack of support for those with an entrepreneurial mindset facilitating their development of new businesses. Some underlined the risk that only unqualified employment is generated in rural areas, which is easy to relocate with global supply chains, thus offering only temporary solutions to rural areas.

Related to this is the structural change that the agriculture sector is undergoing, leading to fewer farm holdings and larger individual farms. Thus, the family farming model which has had – and still has – a very important role for rural areas in Aragón is increasingly disappearing. In particular, the following challenges for the agriculture sector were identified:

- The need to facilitate the continuation of family farming, in order not to lose important employment opportunities in rural areas;
- The need to facilitate for young farmers and new entrants to establish themselves in the sector;
- And, simultaneously, the need to incorporate larger agricultural holdings in the system, rather than fighting against their existence.

Financial challenges related to the provision of adequate services

Financial resources to satisfy needs of rural areas are significant, but on a medium-term, there will be limited financing available, a situation further exacerbated by the economic crisis expected to follow the COVID-19 pandemic outbreak. Financing is needed both for the provision of adequate services, and for public investments in rural areas.

The provision of the adequate level and the adequate type of services is becoming increasingly complex, as the rural tissue is changing. Basic services provided need to cater simultaneously to:

- the needs of young citizens and families, in order to maintain them in, or attract them to, rural areas;
- the needs of an ageing population;
- the particular needs of immigrants.

The three groups have different necessities, and in combination with the low population density leads the cost of the services per inhabitant to be expensive, causing a challenge for policy makers to prioritise among the different services provided and the groups to which they are targeted.

With regard to services, improving the provision of public transport was highlighted by some interviewees as a key challenge to solve in order to maintain people in rural areas, permitting to close the physical gap between urban and rural areas. Furthermore, several interviewees highlighted the necessity to improve the offer of housing. Currently, the housing offer is limited in several rural areas, both for rental and purchase, making it difficult for those who wish to establish themselves and who are not already home owners. Ultimately, the mismatch between the current offer of education for young people and the needs of employers in rural areas was highlighted, further contributing to the lack of work force with the adequate preparation experienced by employers, and to the human capital flight among young people.

Social challenges

Low degree of rural-urban connection and low self-esteem of rural citizens was by several interviewees considered an important obstacle in the effort of attempting to dynamize rural areas in Aragón. Interviewees considered that the feeling of being second level citizens among the rural population in Aragón is linked to a general perception in the society that life in cities is better, with a better offer of work opportunities, education, health care, and a better cultural offer etc. At the same time, the valorisation of the values and qualities offered from life in rural areas has been low, leading rural citizens to have a lower self-esteem than urban citizens. The general increasing awareness towards the importance of a sustainable lifestyle may, together with the propelling effect of the COVID-19 pandemic, lead to a revalorisation of the quality of life offered in rural areas, see further discussion below. As such, there is a potential for rural citizens to also come to value more the life in rural areas, which intrinsically will lead to increased self-esteem.

Challenges related to governance and policy making

All interviewees agreed on the importance of the role of public policy making in shaping the future of rural areas. Different challenges and needs were outlined with regard to the existing governance system in Aragón:

- Currently, citizens are incentivised to be passive, and their role of influencing is to a large degree limited to their role as consumers. There is a need to generate a more participative governance, where citizens are incentivised to participate to a greater degree in policy making.
- Currently, much of the decision making concerning rural areas is done in cities, there is a need to move decision making closer to rural areas. The administrative set-up in Spain leaves municipalities in rural areas with limited influence over the decisions taken, and with limited financial capacity to act on their challenges/needs. There is a need to review the public administration representative level.
- Currently, there is a lack of coordination of actions and policies targeting rural areas. There is a need to focus and coordinate better, between different actors, to avoid overlaps or contradictory policies and messages.

Digitalisation as a challenge

Digitalisation represents in general a major opportunity for rural areas in Aragón. However, at the same time, it represents a challenge as:

- (i) The continuous development of technology means that rural areas have to be aware to ensure that the connectivity gap between rural and urban areas does not increase over time.
- (ii) The unequal capacities to use information and communication technology leads some groups to be excluded from the opportunities offered by digitalisation.
- (iii) The increased digitalisation should not lead us to forget the importance of human contact.

- (iv) Additionally, the externalisation of services made possible through digitalisation may lead to a local/regional loss of knowledge and awareness of local/regional specificities related to nature, environment, culture etc. it may also lead to the loss of traditional production methods.

Opportunities for rural areas in Aragón

The main opportunities identified relate to digitalisation, the sustainable management of natural resources, the new forms of organisation of production and distribution, and the increasing appreciation in society of the values offered by rural areas.

Digitalisation offers the best tool to close the gap between rural and urban areas.

Digitalisation makes it possible and more attractive to more citizens to live and work in rural areas. It offers the possibility of working from a distance, thereby potentializing more work opportunities in rural areas. It also offers the possibility of on-line teaching, on-line medical consultations, and a virtual cultural offer. The COVID 19 pandemic has led the society to experience this at an intensive scale, and thereby propelled developments that were already put in movement.

The sustainable management of natural resources is important as a tool to increase attractiveness of rural areas and to generate growth and employment opportunities.

The depopulation has, besides its demographic impacts, also negative environmental impacts, which through sustainable management of the natural resources, which are plentiful in Aragón, can be reverted and as such improve the attractiveness of rural areas at the same time as generating income for the rural population. Linked to this are the following developments:

- Bioeconomy
- Provision of public goods and services by the agriculture and forestry sectors
- Renewable energies: offers substantial possibilities for Aragón, although careful planning is needed in order to avoid negative spill-over effects
- Organic agriculture: great potential to develop further in Aragón
- Prioritising and incentivising extensive agriculture: a more sustainable form of animal rearing which is frequent in Aragón
- Sustainable management of natural forestry resources, and of nature.

New forms of organisation of production and of distribution.

The increasing demand for sustainably produced goods also increases the demand for short supply-chains, another development boosted by the COVID 19 pandemic experience. In addition, the increasing frequency of on-line sales further contribute to the new organisation of production and distribution. In combination, this offer increasing possibilities for SMEs to operate from rural locations.

Increasing appreciation in the society of the qualities and values offered by rural areas

Many of the interviewees were of the opinion that the healthier life style offered by rural areas – with less stress, less contamination, closer to nature, etc. – will cause a migration towards rural areas by those that have the possibility to. Again, this trend was by interviewees considered to have been further boosted by the COVID 19 pandemic, where rural areas have had fewer outbreaks, and thus are also considered safer from a health point of view, an aspect that may not have been valued before the pandemic.

The increasing appreciation of the qualities offered by rural areas is also an opportunity for tourism. Tourism related to nature, as well as to patrimony and culture in smaller villages, is expected to generate increasing job opportunities in the future, for the rural areas that are skilled at marketing and communication. The increasing ageing generation offers potential for tourism directed towards senior citizens. At the same time some interviewees pointed out that, even though Aragón is highly endowed with natural resources, the share of municipalities/counties that can benefit or develop a living from tourism is still limited.

Ultimately, the possibility of the public administration to drive the positive changes in rural areas in Aragón was highlighted by some interviewees. Institutional innovation and political solutions to facilitate investments in rural areas were mentioned as two measures that would generate opportunities.

3.2. Desirable future for 2040

The vision for 2040 presented by the nine interviewees embark on different aspects of society. But all agreed on the necessity for the future rural areas to be sustainable – from an economic, social, and environmental perspective.

In 20 years, it was seen as desirable to have a better rural-urban connection. A revalorisation of the role of rural areas in the society as a whole was desired for by several interviewees. This will be triggered by the fact that cities will lose in attractiveness, thereby making it more interesting for today's urban citizens to seek connections with rural areas. Triggers for this process were related to:

- Climate change, causing life in Spanish cities to be more difficult (increasingly hot summers and deterioration of air and water quality were some of the effects from climate change expected to lead cities to lose in attractiveness).
- Increased appreciation of nature.
- People searching for less intensification and massification, and more human contacts.
- Healthier life style (less stress, and fewer health problems related to the conglomeration of cities).

By 2040, the link between science and rural areas will be better, and the presence of foresight analysis will contribute to improving the rural-urban connection. In 20 years, society is also expected to have adopted to all the benefits offered from digitalisation, thereby rural areas will be put on more equal ground to urban areas, and this will have caused a change to the mentality of urban citizens. Digitalisation will facilitate for a large share of the population to work from a distance, it will provide a new organisation of health care services where for example the first visit can be done virtually, and it will make possible the provision of education in a more flexible format both in terms of form, time and space. At the same time, several interviewees underlined the importance of maintaining the provision of basic services in rural areas, and hence digitalisation will offer an add-on to the presential offer on the ground, but digital services will not replace presential services. Also, digitalisation permits for a new role of public administration, where citizens can participate to a greater extent and where the bottom-up approach is facilitated, thereby reducing tensions between different public administration levels.

The management of natural resources will be done in a sustainable manner, contributing to the revalorisation of existing natural resources. The agriculture sector will maintain its role as an important employer in rural areas, but the sector will have adapted to new, modern technologies improving efficiencies in the production. At the same time, the new social organisation linked to new production and distribution forms with short supply-chains and on-line sales will facilitate the future existence of family farms.

3.3. Challenges in reaching the vision

All challenges outlined under section 2.2 and 3.1 are relevant in influencing the possibility of reaching the vision sketched for 2040. At the same time, the expected revalorisation of rural areas and the possibilities offered by digitalisation may to some extent outweigh the negative effects expected to be caused by demographic changes, and it may revert the human capital flight. Thus, the challenges that are considered of most relevance in reaching the desirable vision for 2040 are:

1. The challenge of prioritising between policy goals and the importance of coordinated and focused actions where rural citizens are actively participating in the decision making.

Everyone agrees on the goal to have a sustainable society, but there is sometimes a conflict between environmental, economic and social sustainability. What aspect should be prioritised and how does this influence the overall level of sustainability? And who coordinates the actions, at what level are decisions taken? As long as the decision making is centred to cities, rural areas will have more difficulties in defending their interests, and the possibility of building bridges between rural and urban areas will be harder.

2. Digitalisation in combination with low financial resources, or how to ensure that the benefits offered from digitalisation do not have negative spill-over effects?

With digitalisation, more services can be offered on-line, work can be done from home, and the daily grocery shopping can be done on-line. At the same time, low financial resources may lead to difficulties in providing basic services in a presential manner in rural areas that are sparsely populated. This inevitably leads to fewer human interactions. Simultaneously, the increased closeness to other humans is considered to offer an important value to rural areas.

Thus, how to ensure that digitalisation does not lead to increased isolation of citizens, and that the local knowledge and production techniques are not lost in a globalised service offer? Will the offer of presential social services be down-prioritised for financial reasons, thereby increasing the risk of rural areas losing in attractiveness? The balance between enjoying the benefits offered from digitalisation and the potential negative consequences need to be carefully assessed.

3. The challenge of combining the sustainable management of natural resources with economic profit maximization, when supply chains are increasingly global.

How can family farms be maintained, thereby contributing to the maintenance of the rural tissue highly valorised by European citizens, when farms rely to an increasing extent on modern technologies whereby the demand for on-farm labour decreases? And how can family farms be competitive when the competition is global, and all goods can be purchased on-line? To what extent are consumers and the public sector willing and able of paying for the provision of public goods?

4. Conclusion and next steps

Rural areas in Aragón are some of the least densely populated areas in Europe. At the same time, they are experiencing depopulation, the ageing of the population is significant, and the masculinisation is an increasing phenomenon. This leads the provision of services to be expensive, and it leads to a difficulty in providing adequate services to the existing, older rural population, while at the same providing services to attract more young citizens and families, a prerequisite in order to rebalance the population demography. The human capital flight, and the mismatch between the skills of the younger generation graduating from school with the needs of employers leads to a lack of workforce, which in turn leads to fewer enterprises establishing in rural areas.

However, the increasing appreciation in the society of the qualities and values offered by rural areas, further exacerbated by climate change impacts and the ongoing COVID-19 pandemic, may present an opportunity for rural areas in a near future, leading to an increased rural-urban connection. Essential for the vitalisation of rural areas is also digitalisation, which offers numerous opportunities for rural areas both in relation to facilitating work opportunities on a distance, and in the provision of basic services and even providing a virtual cultural offer, contributing to closing the gap between rural and urban areas. In fact, the expected revalorisation of rural areas and the possibilities offered by digitalisation may outweigh the negative effects expected to be caused by demographic changes, and it may revert the human capital flight.

This then generates the vision of a rural society in Aragón in 2040 that is sustainable, where there is a greater rural-urban connection, and where the positive effects of digitalisation are fully capitalised on, making rural areas an attractive place to live for all generations, for men as well as women. In order to reach this vision, the challenge of prioritising between policy goals, and of implementing well-coordinated actions, will have to be overcome, as well as the challenge of ensuring that the negative spill-over effects from digitalisation do not outweigh its benefits. Furthermore, the sustainable management of natural resources is essential.

The next step is to develop a position paper, where suggestions for actions aiming at obtaining the outlined vision will be provided. In order to develop the position paper, a survey will be done with relevant stakeholders. Based on the survey findings, a draft position paper will be developed and serve as a basis for discussion in a meeting to be organised with all MAP members in September 2020, where the proposed actions will be discussed. Based on the discussions, a final position paper will be developed containing measures proposed to address the main challenges.

Annex 1. References

- Consilio Economico y Social de Aragón, CESA (2019): Informe sobre la situación económica y social de Aragón en 2018
- European Commission (2019): The 2018 Ageing Report
- Government of Aragón (2017) Directriz especial de política demográfica y contra la despoblación. Departamento de vertebración del territorio, movilidad y vivienda, Dirección General de Ordenación del Territorio.
- Government of Aragón (2019) Synthetic Index of Territorial Development (factor: actividad económica, componente: Demografía)
- Hernández Navarro M.L., Serrano Andrés A., Méndez Sánchez J., López Escolano C., (2019): Estudio de la situación del mundo rural aragonés desde una perspectiva de género, 2018. Departamento de Geografía y Ordenación del Territorio – Grupo de Estudios en Ordenación del Territorio (GEOT)- IUCA. Universidad de Zaragoza
- MINECO (2019): Informe sobre la sociedad de la Información y las Telecomunicaciones y el Sector TIC y los contenidos por CCAA. Aragón.
- MINECO (2020): COBERTURA DE BANDA ANCHA EN ESPAÑA EN EL AÑO 2019. Informe
- Southern Sparsely Populated Rural Areas (2019): Position Paper-2019 on the EU post-2020 Territorial Cohesion Policy
- United Nations (2015): World population prospects

