Agriculture, Climate, Workforce and Income in Piran

Olive groves in Piran - development into a sustainable future?

In Piran, a small town with four thousand inhabitants in the west of Slovenia, a number of family managed olive plantations are located. 36 percent of slovenian ground are used by the agricultural sector while there are about 70.000 farms with an average size of 6,9 hectars.1



Agriculture

Since these farms are mostly shaped in a small, non-specialized, familial structure that is often producing their goods for selfconsumption, the overall profitability of the slovenian agriculture is much lower than other EU-countries. This situation has an effect on Slovenias economical growth, which is why the Slovenian government is developing measures with the goal to raise competitiveness in between the farmers and, as a result, cause a higher productivity by ensuring a fair system of financial support for the farmers, consisting of 98 million Euros aiming to help 25 thousand farmers to specialize in a specific agricultural sector.1

According to the European Commission, the "Slovenian 2023-2027 Common Agricultural Policy (CAP) strategic plan" is not only going to help farmers become more economically sustainable but it is also aiming to provide for long-term food security, a green breakthrough, a sustainable development in agriculture, forestry and food industry. It was made to support the transition to a digital, climate-neutral agriculture in Slovenia and is also affecting the small olive plantations in Piran by estimating them to shink to an overall share of only 0.2 percent of agricultural output by 2027 while their share at agricultual output is now 1 percent.2In 2020, the exports of agricultural products made in Slovenia earned the country more than two billion Euros, the exports of olive oil alone have only made up 660 thousand Euros of this number.2

Climate

Another aspect the CAP plan wants to address are the protection and sustainable management of natural resources, climate mitigation and the preservation of biodiversity.

As the maintenance of good agricultural and environmental conditions is particularly important due to the high share of permanent grassland in Slovenia and as a result, very limited area that can be used for agriculture, new requirements have been passed which consist of the better protection of wetlands and peatlands, aiming to protect the carbon rich soils that plants and trees need in order to grow efficiently. To archive this goal, the Slovenian government has allocated nearly 60 percent of its rural development budget to

 $^{^1}$ https://agriculture.ec.europa.eu/system/files/2022-10/csp-at-a-glance-slovenia_en.pdf 2 https://agriculture.ec.europa.eu/system/files/2021-12/agri-statistical-factsheet-sl_en_0.pdf

environmental and climate objectives and is reserving 11,8 Million Euros per year for the preservation of biodiversity.³

A funding that the olive farmers in Piran will be able to profit of are another 91 Million Euros which are planned to be used for the conversion to, and the maintenance of, organic farming.³

As Piran is a region with one of the warmest climates in Slovenia and is, because of that, not suitable for many types of agriculture, it is specially in need of the climatic conditions for olive planting like they are now.

Workforce

A prioritised development in the workforce of Slovenia is an investment of more than 25 Million Euros in the improvement of the living conditions in rural communities in order to create a good place to live for young people. The reason for these measures is the rapidly ageing population in the agricultural sector of Slovenia. Only 4,6 percent of the farm holders are under the age of 35 while 57,3 percent of them are over the age of 55. This phenomenon is posing a thread to the future of the agricultural sector.⁴

A possible part of a solution could be an increasement of women being farmers themselves, because until now, only 21,7 percent of all the farmholders in Slovenia are female. The Slovenian government is aiming to rise this rate to 30,7 percent until 2027.4

For the Slovenian economy, the predominantly rural regions archive less GVA (Gross Value Added) than the intermediate regions, while using up almost two thirds of territory and workforce, which proves the high labour intensity and space consumption for comparatively little profit.

Income

Over the last years, the income of farms and, resulting out of that, the salaries have increased. While in 2018, the agricultural income peaked, it abruptly sank during the Covid-19 Pandemic and is now steadily rising again.

With the CAP-Plan, Slovenia is planning on an income support of almost 34 Million Euros in order to rise the income of the agricultural sector that was a total of 500 Million Euros in $2020.^3$

With numerous developments and improvement measurements planned to be taken in the next years, the olive groves in Piran have a chance of becoming more valuable together with the rest of Slovenias agriculture for the overall economy of the country. However, a risk for small businesses like the olive groves in Piran is not being able to keep up with the growing and specializing farms because the family owned farms are marked by traditional ways of working and a high investment into working hours because of the manual way of harvesting. They are posed with the thread of not bringing enough productivity and efficiency for the European export market and having too little value on the market due to too low profitability.

³ https://agriculture.ec.europa.eu/system/files/2022-10/csp-at-a-glance-slovenia_en.pdf

https://agriculture.ec.europa.eu/system/files/2022-10/csp-at-a-giance-slovenia_en.pdf
https://agriculture.ec.europa.eu/system/files/2021-12/agri-statistical-factsheet-sl_en_0.pdf

Additionally, the problem of the fast aging workforce is creating the risk of not having enough employees or even farm holders to continue the traditional work of the small farms as young people tend to move to urban areas.

Since Piran already has a very warm climate, it could become disadvantageous for olive growing.



oking at the olive groves from another perspective, also ing of the planned improvements by the CAP-Plan, there hany chances for development given to the olive groves in

example, if the Slovenian government keeps their nises of improving the living conditions for young people the countryside, more young people can find job tor and the average age and gender of farmholders could e direction. By continuing increasment of the income and e additionally getting more attractive for young people.

ential to become more profitable by introducing new farm , digital and productive and that are not mostly producing

mpetitiveness in between the farms is archived, this could oil could become more valuable for the European export

By adapting organic ways of farming also in the small business like in Piran, they are also becoming climatically sustainable and they get the possibility of financial support by the CAP-Plan to help them fully specialise in either tourism or productive harvesting of olives and processing to olive oil.

In conclusion, the olive plantations in Piran do have potential to develop into efficient, productive income sources for the Slovenian economy, but they do need to take part in the changes and improvements that are aimed to happen in the next years in order to keep their value on the market and to stay relevant for exports in order to keep receiving financial support from the Slovenian government, without which a fully sustainable future will not be realistic.

Ida Engelke:

The local culture, traditions, the use of the land, and the profitability of the olive groves

The olive trees on the small, organic olive oil farms of about 70 ha each that are located close to Piran, were originally harvested by hand and included the use of an apron with a pocket to collect the picked olives.

Nowadays, there has been some development concerning the harvesting methods, in order to decrease the high labour intensity on the olive farms. Today, the olives are mostly harvested with the use of a net, which is spread under the tree and with either a manual or an electric rake. When the olives are picked with the rake, they fall onto the net and can then be collected. This method is a much faster process than the traditional method, although one has

to be careful not to step on any olives on the net. If so, these olives need to be thrown away, as they become unusable for olive oil production.

The most important factor during the harvesting of the olives, which later on determines the quality of the oil, is the time the olives are picked. In general, the olive harvesting season at the Mediterranean extends from October to November. However, the earlier the olives are picked, the better the quality of the olive oil will be.

These olives are later washed by a special washing machine that ensures a constant flow of water. The following step in olive oil production is the crushing of the olives, which is often carried out by millstones. This crushing method has been used since the Hellenic age and is extremely labour intensive. However, nowadays, many olive farms have replaced the traditional method with the more modern hammer crushers, which crush the olives by pushing them against a metal grid.² On one hand, this method is a lot faster than the old one and on the other hand, the physical work required to crush the olives is much lower.

A tradition of harvesting the olives on the small farms in Slovenia is to invite friends and family of the farm owners and to pick olives together all day long. Usually, the more traditional harvesting method is used during this process of picking the olives together. Additionally, many farm owners, including the olive farm we visited in Piran include a pause at mid-day and in the evening, during which they offer home-made food including olives from salted water, olive spread, eggplant in olive oil, bread and herbal drinks, e.g. syrup or tea. Tourists can also take part in this tradition by booking an excursion to one of the olive farms in Slovenia.³

In general, the olive farms are a key element of rural economy in Slovenia and the process of harvesting the olives is a sign of Slovene culture and tradition. Therefore, many tourists, who are interested in the culture and landscape, want to visit the olive farms during their holidays. Due to the increasing popularity among tourists the olive farms in Slovenia have a high dependency on tourism in their regions, as a large part of their income is generated by olive grove tours. Many olive farms have therefore established Internet websites to inform the tourists about their farms. Some of them have even started to offer accommodation for tourists.⁴ All in all, the tourism has caused great profits for the olive oil farms in Slovenia.

However, a high dependency on the tourism industry indicates that the olive farms in Slovenia are not very economically sustainable, as the tourism industry can be extremely endangered by economic, social and political changes within the generating or host countries.⁵ For this reason, efficient management strategies and farming investments need to be made in order to ensure the farms' economic sustainability and to further improve their profitability.

¹ https://www.slovenia.info/en/stories/learn-about-the-story-of-slovenian-olive-oil

² https://www.villacampestri.com/blog/en/olive-oil-production-steps/

³ https://www.portoroz.si/en/plan-your-stay/adventures/5382-experience-among-olive-groves-in-the-piran-countryside

⁴ http://apartment-olive-grove.sloveniahotel.net/de/

⁵ https://geographyfieldwork.com/TourismDependency.htm

For instance, the farms need to adapt to electronic equipment and mechanisation. As olive oil production is mostly represented by small and medium-scale farms or traditional olive orchards, which usually have a relatively low productivity, as well as low levels of mechanisation, the farms have high production costs and high labour intensity. These factors imply an economically unsustainable production. However, the olive oil farms near Piran have already taken steps towards a more mechanized production by replacing manual harvesting of the olives with electronic rakes and by changing the crushing method from manual crushing with millstones to crushing with the use of modern hammer crushers.

Nevertheless, the process of turning olive oil production into a more mechanized and economically sustainable process is not easy. One reason for this is the location of the olive groves. As the groves are located on hillsides, it is very difficult to use tractors, which could simplify harvesting the olives. Additionally, it is not possible to grow any sort of crops in between or instead of the groves, as the temperatures on the hillsides are too high in summer and too low in winter. It is also extremely difficult to cultivate new olive trees, since they take at least 20 years until they are high-yield and can be harvested professionally. However, the olive groves also provide shade and cover for wildlife, which is especially profitable for birds and reptiles, which feel very comfortable in between the groves. The trees can also prevent soil erosion and are very efficient for the environment, since they cause the reduction of great levels of CO2.8

Another possibility, which could increase the economic sustainability of the olive farms in Slovenia, would be to use the olive trees for other goods besides olive oil, such as olive wood boards. As olive wood is a quite expensive and popular material, this would diversify the farms' offer and potentially increase their profitability.

In conclusion, the olive oil production near Piran is very labour intensive and mostly profits from tourism, which poses a threat to their economic sustainability. In order to stay relevant on the market and to increase their economic sustainability, the farms need to adapt to mechanisation and diversify their sources of income. However, it is important that they do not lose all forms of tradition, as the traditional aspect of the olive groves is one of the main attractions for tourists and also a very important part of Slovene culture.

- regional identity and conversion
 - 1. Introduction (Mathilde)

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https://www.researchgate.net/publication/307607115 Economic Profitability Assessment of Mediterranean Olive Growing Systems

⁷ https://de.wikipedia.org/wiki/Olivenbaum

⁸ https://www.enn.com/articles/45473-desertification-solution

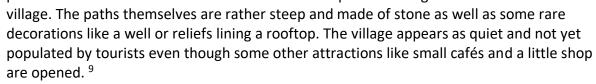
During our visit in Koper, we were able to visit the Karst in Štanjel where we were greeted by the founders of the "Cultural Incubator Štanjel". They are the representatives of the project that focuses on the support of the development of tourist attractions in the Karts in order to revitalize the region. Therefore, an interactive museum has been founded as well as an art gallery, a Café, Bed and Breakfast and a local shop, that are indented to work as tourist attractions while the project supports new regional start-ups on their way to rapid growth. Štanjel, like many rather rural areas in Slovenia and all around the globe, is struggling with urbanisation as the village itself does not have many job opportunities and a limited access to educative offers as well as free time activities. The "Cultural Incubator" is intended to counteract the development of a decreasing population figure that endangers the future monetary and social stability of Štanjel.

In the following the project with its advantages and risks shall be evaluated and assessed.

2.1. Impression on the visitor (Antonia)

Upon arrival, Štanjel enchants the visitor with beautiful green and natural surroundings as well as the masses of stone and impressive stonework that characterise the sight. At first, we visited or rather experienced the museum where we were able to learn about Štanjel's rich history while delving into interactive activities such as lifting stones with and without a cable pull to understand to what extent advancements in technology benefitted the region. Right after leaving the museum, we were able to explore the nature and compact village of Štanjel by taking a walk in its small alleyways.

The visitor only needs a few minutes to reach the idyllic hilltop from where the main part of the Karst area with its unique and boundless view can be admired. Depending on the season, the dark green of the enormous variety of different plants surrounds all the houses and the stonework placed throughout the



One does not see any inhabitants which is due to them working in other, bigger towns as Štanjel presents only limited job offers.¹⁰

Leaving Štanjel one is undoubtably familiar with all its natural beauty and traditional history which awakens interest for further visits and serves as just another recommendation to fellow travellers.

Overall, the entire area seems peaceful and reigned by nature with only little help of mankind. It leaves the visitor with a deep calmness and offers some interesting opportunities to explore, such as the eye-catching castle found on the central karst hill, a big diversity in trees, stunning caves and stones thousands of years old.¹¹

2.2. Climatical conditions (Mathilde)



⁹ Personal visit and experience in September 2022

¹⁰ Presentation "The Cultural Incubator Štanjel", September 2022

¹¹ https://www.visitkras.info/de/stanjel, January 2023

When it comes to future perspectives, not only the inner issues of the project must be considered but also external challenges like the climate change must be evaluated. Karst lays with 312 metres above the sea level rather high which leads to pleasant temperatures. The highest temperature in July is around 20 Celsius whereas the lowest, in January is at only 4 Celsius. So, in summertime, which is from June until September, Štanjel's landscapes can still be visited without unpleasant heat.¹²

In the other months when the temperatures are even lower the experience of the visit will also not suffer. Yet the precipitation with around 80mm per month can cause problems when participating in the outside activities of the Štanjel-Project.

Of course, all these circumstances are going to go through major changes in the next years due to factors like the climate change. Currently the

temperatures are mild throughout the entire year so even with a few degrees higher and lower, an enjoyable stay is guaranteed. However, the precipitation will also increase which could cause a lack of visitors and therefore financial problems as well. Additionally, the famous and exceptionally strong wind "Bora" may result in further difficulties especially for outside activities.

Concluding it is clear to say that the focus of the Štanjel Project should be set on the inside activities such as the museum or the art gallery even though the captivating nature maintains an important element of the region's attractiveness to tourists.



The project is targeting innovative potential entrepreneurs as well as already existing or new companies that are regionally located. The "Cultural Incubator" is supposed to help those start-ups to increase the number of entrepreneurs in the region which will result in more



regional businesses that than again can function as touristic attractions or at least promote the region. ¹³ Štanjel itself offers opportunities to book the castle as a venue for weddings or other private events for a unique and remarkable experience.

Needless to say, Štanjel also uses its potential for own festive occasions such as the Wine Festival "Prasnik Vina"

celebrated annually in November. 14

where traditional music is played while local wine can be savoured.

The museum is presented as the centre of the to be found tourist hotspot and attracts with a unique Christmas exhibition during the winter and its second function as an art gallery.

¹² https://weather-and-climate.com/average-monthly-Rainfall-Temperature-Sunshine, stanjel-si, Slovenia

¹³ Presentation by the founders, September 2022

¹⁴ https://gradstanjel.si/en, January 2023

Furthermore, Štanjel's surrounding areas offer broad variety in activities such as hiking, biking and rock climbing which is a perfect addition to the rather calm activities like the museum and the art gallery. ¹⁵

2.1. Historical background (Mathilde)

The small village in the karst region of Slovenia is well known for its historical importance as a settlement in the Middle Ages. Back then it was an important trading post known as "Stanclaria", a name given to the stone-built village during the Romanian period. The origin of the unique name "Štanjel" lies in the patron St. Daniel, who is still part of the regions' religious culture as the main church was named after him.

Štanjel was first mentioned in written documents in 1261 when the castle itself was owned by the Ortenburg family. In the 16th century the castles history took a drastical turn when it was destroyed by the Turks but even after its rebuilt in the 17th century the castle was abandoned and fell into disrepair in the 19th century¹⁶.

Now that the castle was almost fully restored in the 1960s it is open for everyone to visit and explore as it is a great example for well-preserved medieval architecture.

¹⁵ https://www.visitstanjel.si/prireditve/praznik-vina-v-stanjelu 3

¹⁶ https://en.m.wikipedia.org/wiki/Štanjel

2.1. Current state of development (Mathilde)



As the Cultural Incubator Štanjel grew over the years, its popularity grew with it. The over 5000 followers on Instagram get new insights almost daily. Warm colours and an easy overview lead to many likes and shares on each post while regular stories of new photographs of the landscape attract people's attention.

Yet attention does not only arise from social media but also from Slovenia's politicians. The Minister of Culture, Dr. Asta Vrečko, signed a contract in November 2022 which promises around 4.5 million EUR to the project. ¹⁷ In order to build further funds, the projects leaders are intending to have several strategic partners, such as both public and private Innovative Environment Entities in Slovenia, stakeholders from the economy all over the world, regional development agencies, chambers of

commerce and trade and university and higher education institutions in the region and beyond, as well as other supporting organisations in Slovenia and abroad.

 $^{^{\}rm 17}$ https://www.gov.si/en/news/2022-11-11-minister-dr-asta-vrecko-signs-contracts-for-museum-projects-worth-around-eur-4-5-million-in-primorska-region/

2.1. Future Perspective (Antonia)

The future perspective of Štanjel and the region of the Karst in general will consist of the fight for a further enhancement of tourism while simultaneously protecting previously almost untouched nature from being destroyed.

The village marks a commonly used place for scientific events already¹⁸, yet an appeal for foreign visitors is still to be found.

Factors like online marketing will play an important role, especially because the aim of the "Incubator Štanjel" is to attract international tourists.

The team behind the "Cultural Incubator" will have to balance between creating interesting and diverse tourist attractions while taking potentially upcoming changes in climate into consideration as well as finding a variety of investors.

2.1.1. Best case scenario (Antonia)

If the project "Incubator Štanjel" proves to be successful, the region of the Karst will boom and bloom within the next years and the village in Štanjel will be filled with life as visitors explore the region while enjoying some freshly made coffee and local food specialities. Thus, Štanjel would become a sustainable and important place for national as well as international tourists to visit.¹⁹

Additionally, with its growth every start-up would support the region and due to the increasing sales volume and the multiplication effect many new employment opportunities could arise.²⁰ That might lead to people permanently moving to the Karst and revitalising it with younger generations.

By then new tourist attractions and maybe even hotels could have been opened with the ongoing support of the "Incubator Štanjel" and the concept of working locally and the prevention of urbanisation would be further spread within the area.

2.4.2. Worst case scenario (Mathilde)

If the project "Incubator Štanjel" does not work out, the area is in danger as without money and support places like the museum would have to close without being taken care of anymore and the process of urbanisation will follow quickly and leave the castle abandoned once again. All the financial support that went in the project already could not be refunded and millions of euros would not have an outcome at all.

Not only the project itself but also the people living and working there would find themselves in difficult financial situations and as already mentioned they would have to leave the village.

This threat does not only apply for Štanjel but for most regions without any particular attractions for either the inhabitants itself or tourists to revitalize the areas.

3. <u>Final Assessment (Antonia)</u>

¹⁸ https://www.visitkras.info/de/stanjel, January 2023

¹⁹ Presentation "Cultural Incubator Štanjel", September 2022

²⁰ https://www.investopedia.com/terms/m/multipliereffect.asp, January 2023

Tourism can sometimes pose the only rescue for small and rural regions, therefore the "Incubator Štanjel" is an important first step into the right direction even though more will have to follow.

The search for investors and supporters might be a difficult one and even with the existence of tourist attractions the problem of the right advertisements remains as Štanjel is neither close to the Italian border (a one-day trip to visit the region would be possible) nor is it close to the sea.

Additionally, the uncertain climatic developments of the region may influence potential investors in their decision to support the project as well as the risk of even stronger "Boras" must be considered regarding the planning and creation of new tourist attractions.

Looking at Slovenia in its entirety, the country offers a great variety of beautiful nature and architectures to explore as well as interesting cultural experiences, which leaves Štanjel with a lot of great options to compete with.

Especially due to the location of the area, being only an hour away from Koper, which is significantly closer to Trieste and the Slovenian capital Ljubljana, Štanjel might struggle with presenting itself as the main attraction and favourable area to reside at.

On the other hand, as Štanjel is not yet highly populated by tourists it can attract with lower prices and the possibility to be used as a place of calmness. Furthermore, the interaction with locals is more likely to happen in smaller and cosier villages, which could be presented as an opportunity to learn more about Slovenian culture and the language.²¹

Overall, the region is impressive and would deserve it if the "Incubator Štanjel" were to be a full-on success, although a further enhancement of tourism poses a threat to the untouched nature and well-preserved examples of medieval architectures.

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Presentation "Cultural Incubator Štanjel", September 2022

Conversation with Slovene host family, September 2022

Pictures: private

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²¹ Conversation with Slovene host family, September 2022