

Socio-economic measures for a sustainable development of Dimitrovgrad



Results from the Applied Ecosystem Management Field course in Dimitrovgrad, Serbia

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Executive Summary

Dimitrovgrad is a Serbian town and municipality close to the Bulgarian border. The entire municipality counts 10'000 inhabitants, of whom more than 50% are of Bulgarian ethnicity. In the past years, the municipality has suffered from strong depopulation. The lack of attractive job opportunities, especially for young and well-educated people, has prompted emigration and over-aging of the population. While agriculture is still an important economic sector and the key factor in shaping the landscape, a difficult market situation and a general disinterest from the younger generations to become farmers have led to large-scale land abandonment.

These preconditions form the overall framework for a field course run by ETH Zurich in collaboration with local stakeholders. The goal of the course was to assess the current situation of Dimitrovgrad and to compile a set of measures to promote sustainable development in the region. In order to do so, we first interviewed different people from different backgrounds, sectors and professions. This helped us to get a general impression of the local population's needs, wishes and opinions about potential improvements to encourage people to stay in the Dimitrovgrad area. We analysed the weaknesses and threats but also the strengths and opportunities of the municipality using the SWOT-analysis technique. Based on this, we identified the main issues and set different targets. With the help of a conceptual model, we then identified the important drivers of the Dimitrovgrad system influencing the targets. From both the system- and SWOT-analysis, possible measures were derived that influence the system beneficially. The measures developed can be separated into three groups of measures, namely touristic, agricultural and cultural measures.

First, in the tourism sector, we propose founding a private tour operator in Dimitrovgrad and the Stara Planina region. However, the focus would not lay on the already well-established weekend tourism from Bulgaria but rather on western European tourists, who are interested in the wide variety of socio-cultural and ecological values that this region has to offer and stay longer periods. The small-scale business would organize multiple-day tours, different activities, guides, meals, and accommodation by acting as the contact person between tourists and locals. Our budget calculations show that providing tours in the Stara Planina region could be economically attractive.

Second, as agricultural measure, we developed the idea of a farmers' association. The association would increase the exchange between farmers in terms of knowledge, experiences and tourism activities and other diversification options. Another goal of this association would be to increase farmers' market - and possibly political - power. The farmers would be part of a network that could provide them relevant information, workshops, and excursions. The association is run by a professional co-ordinator.

Finally, the cultural measures can be divided into four sub-measures. One idea is to set up a citizen-art exhibition with the goal to strengthen the local identity and to keep alive the rich culture of Dimitrovgrad. We suggest the library as the event organizer using a different topic every year. Furthermore, we thought of a food contest as a great opportunity to raise the awareness of the high quality of local and traditional products, which could take place in combination with the existing smoked meat festival. Besides promoting the local culture and products, we propose the organization of further education and workshops. The goal is to provide locals with expertise in different fields, for example tourism, marketing or entrepreneurship. Lastly, we suggest restoring and maintaining hiking trails on Stara Planina, as they are fundamental to the development of nature-related tourism.

Overall, we had a great experience in Dimitrovgrad and enjoyed very much the culture and the hospitality of the locals. We see great potential in this region and are convinced that the implementation of the proposed measures could significantly contribute to a sustainable development of the region.

Acknowledgments

During our stay in Dimitrovgrad, we visited various farmers. Our sincerest thanks go to Dejan Sokolov, Milan Nestorović Aleksander Vasov, Martin Krstev, Sinisa Stojkovic and Slavica & Goran Krstev for their time and for showing us around their farms. To Sergej Ivanov, we not only thank him for his information and advice, but also for his hospitality and great organisation, as well as his magic ability to fulfil any wishes we had. We thank Dejan Milev, Sasa Mancev, Aleksander Igov and Biljana Rangelov for welcoming us in their place of work and their valuable information about the municipality of Dimitrovgrad, as well as their personal insights. Marija Stavrov and the team of the tourist office gave us a helpful introduction about their work and the touristic offer of the region. For the information about the history of Dimitrovgrad, we received great help from the museum, more specifically from Vesna Nikolov, as well as Ivan Ivanov, former manager of the library, who helped us with his large knowledge. Further, we would like to thank Jasmina Mančev and her team for their presentation of the library and its work. Special thanks go to Bojan Zlatkovic and Milos Popovic for their detailed information about the flora and fauna of the Stara planina region; Nikodija Velinov, member of the hunters' association, his interesting information about hunting and beekeeping; Branislav Dimitrov for his insights into the aquatic ecology of the region and Ivica Kostov who guided us around the Greben Mountain.

Last but not least, we would like to thank Florian and Maja Knaus for their initiative, passion and wonderful organisation in leading this field course. This work would not have been possible without your constant motivation, guidance, anecdotes, and knowledge.

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1 Introduction

Dimitrovgrad is a Serbian town and municipality with a long and tumultuous history, influenced by many changes in its boundary and country affiliation. Besides political disruptions, the local culture and identity stayed more steady: Most people do not consider themselves Serbian or Bulgarian but rather “Shops”, which is the name of the old nomadic tribe that settled in the region long time ago. The municipality of Dimitrovgrad has around 10,000 inhabitants, of which more than 50% are of Bulgarian ethnicity. Urban inhabitants account for ca. 70% of the total population, while the rest is distributed among 42 villages around town.

In the last decades, the region has suffered from a constant depopulation. While in the communist times, the villages were actively resettled to the city, currently the main reason for depopulation is the lack of job opportunities, especially for the younger generation. The largest sector of employment in the city is the public administration. Furthermore, one large company exists (ca. 150 jobs) producing textile products / clothing. For future prospects, the municipality has developed an industrial zone in town, where private investors ought to create jobs by the end of this year. Tourism also plays an important role in local economy, with Bulgarian weekenders who come to Dimitrovgrad for food, drinks and leisure creating jobs in restaurants and hotels.

Agriculture is one of the main economic sectors in the municipality. Most of the farms operate on a small scale, with a low-intensity land use and are family-ran. Their main products are goat, sheep, cow milk and cheese. In total, there are 2'500 sheep and 1'000 goats and some rare breeds in this region but the livestock head count has dropped in the past years. Many farmers stopped farming due to market instabilities, such as the price volatility of milk, and low -sometimes uncertain- subsidies from the local and national government.

In terms of education, the town provides everything from primary school to college. 95% of students have a bachelor's degree and 80% study in Bulgaria, where most of them choose to live later on. The quality of education is perceived as decreasing in the past time and students are not fully qualified for jobs afterwards.

As for nature conservation, a part of the Nature Park of Stara Planina is located within the territory of the municipality. It was established by the national government in 1997. It is one of the richest areas in terms of plant diversity in Serbia. However, economical activities in state- and privately owned forests are still intensive and illegal logging and ski resort development threaten nature. Additionally, there is the special nature reserve “Jerma”, a river gorge offering type of modified Mediterranean climate in small micro-localities and an interesting flora and fauna. It is frequently visited by local people and can be very crowded on summer weekends.

This short overview indicates fundamental problems but also potentials in the municipality of Dimitrovgrad. These were explored in depth during a field course of ETH Zürich taking place in July 2018. Following a Design Thinking approach, the objective of this course was to identify the main unmet needs of various stakeholders in the region and to identify the drivers of the underlying socio-ecological system. Based on this, we aimed at proposing measures that can contribute in a focused and systematic way to a sustainable development in the region.

2 Methods

We adopted a series of analysis methods during our two-week investigation in Dimitrovgrad. First, interviewed numerous stakeholders. Our goal was to understand the perspectives, needs and motivations of the inhabitants with different backgrounds, as well as how they interacted with each other. The information we gathered served as basis for our assessment of the current socio-ecological situation. Table 1 lists all the persons we interviewed and their professions.

Table 1: List of interviewees

Name	Profession
Dejan Milev	Member of Municipality council responsible for Education and Information
Sasha Mancev	Head of the Department for Local Economic Development
Aleksander Igov	Head of the Department for Agriculture and Rural Development
Biljana Rangelov	Environmental Inspector of Dimitrovgrad
Marija Stavrov	Employee at the Dimitrovgrad Tourism Office
Ivan Ivanov	Former director of the Dimitrovgrad library
Dejan Sokolov	Medium-scale dairy cattle farmer
Sergej Ivanov	Donkey farmer
Milan Nestorovic	Sheep farmer
Aleksander Vasov	Sheep farmer, Musician and Politician
Martin Krstev	Small-scale farmer
Nikodija Velinov	Member of the Dimitrovgrad Hunters' Association, Beekeeper
Sinisa Stojkovic	Manager of Cor-Vet farm (former communist farm)
Slavica & Goran Krstev	Employees at a large-scale Busha cattle farm

Second, we conducted a SWOT analysis, where we defined the strengths and weaknesses of Dimitrovgrad, as well as external and internal opportunities and threats. After reflection upon our analysis, we identified the key issues of the region and subsequently determined three main targets that would be key in a sustainable development of the region.

Third, we compiled a conceptual model for each target using combined approach proposed by FOS 2018 (<http://www.fosonline.org/resource/using-conceptual-models-to-document-situation-analysis>) and by Tietje 2008 (EUUS course material). This allowed us to sort out the chain and web of influences between factors contributing to the problems we observed. Then, we combined the models for each target into one general conceptual model for the Dimitrovgrad system.

Fourth, we weighted the *direct* influences of each system variable from the general conceptual model in order to construct an influence-matrix. On each row of the matrix we described the influence of a variable on each of the other variables (columns). *Strong direct causal* influences were assigned a score of 3, while we attributed 1 to *partial or weak direct* influences and 0 to *indirect* or *no* influences. We then summed each column to determine the passivity of each variable (i.e. how much it is *influenced by* other variables) and each row for the activity (i.e. how it *influences* other variables). This resulted in a four-quadrant coordinate system called system grid, where the variables were categorised according to their degree of passivity and activity. Both passivity and activity were normalized and ranged from 0 to 1. This allowed us to identify the *Drivers* (high activity, low passivity), *Accelerators* (high activity, high passivity), *Buffers* (low activity, low passivity) and *Indicators* (low activity, high passivity) of the system (Table 2).

Finally, we collected potential measures by brainstorming and by combining items of the SWOT analysis. These measures were evaluated using the system grid: only measures having a direct link to drivers were chosen for further development.

Table 2: Variable subdivision and definition

Drivers (high activity, low passivity)	Drivers are factors with a high impact on the system. They are not themselves very susceptible to fluctuations on the system, but changes in drivers here can have a big influence on many other variables, which makes them the ideal starting points for measures.
Accelerators (high activity, high passivity)	Accelerators are factors with a high influence potential. They are sensitive to small changes in the system, which makes their behaviour unpredictable. As such, they are difficult to tackle individually.
Buffers (low activity, low passivity)	Buffers are factors with a low influence on the overall system. They are not subject to many influences, so they have the tendency to stabilise the system and prevent it from changing rapidly and unpredictably.
Indicators (low activity, high passivity)	Indicators are highly influenced by other factors, while they have with a small impact on other variables. They are often located at the end of impact chains, so there tends to be a time lag between changes in the system and their reaction to these changes. They can be seen as a summary of inter-relations between other variables higher up in the chain and are therefore useful indicators of the system for middle- to long-term monitoring.

3 Results

3.1 Conceptual model

3.1.1 Description of the system

Based on the insights from interviews and observations, we constructed a system for the Dimitrovgrad region using 46 variables in total. Due to visibility constraints, we decided not to show the general conceptual model. Instead, we provide the system grid (Figure 1), where all the system variables can be found, as well as their typology with respect to Table 2. We would like to emphasize that the system grid is only based on *direct* influences, where strong influences carry the most weight. If we had considered indirect influences as well, some variables would be shifted to other categories. In the following sub-section, we will describe how the main variables interact in our system.

3.1.1 Main variables

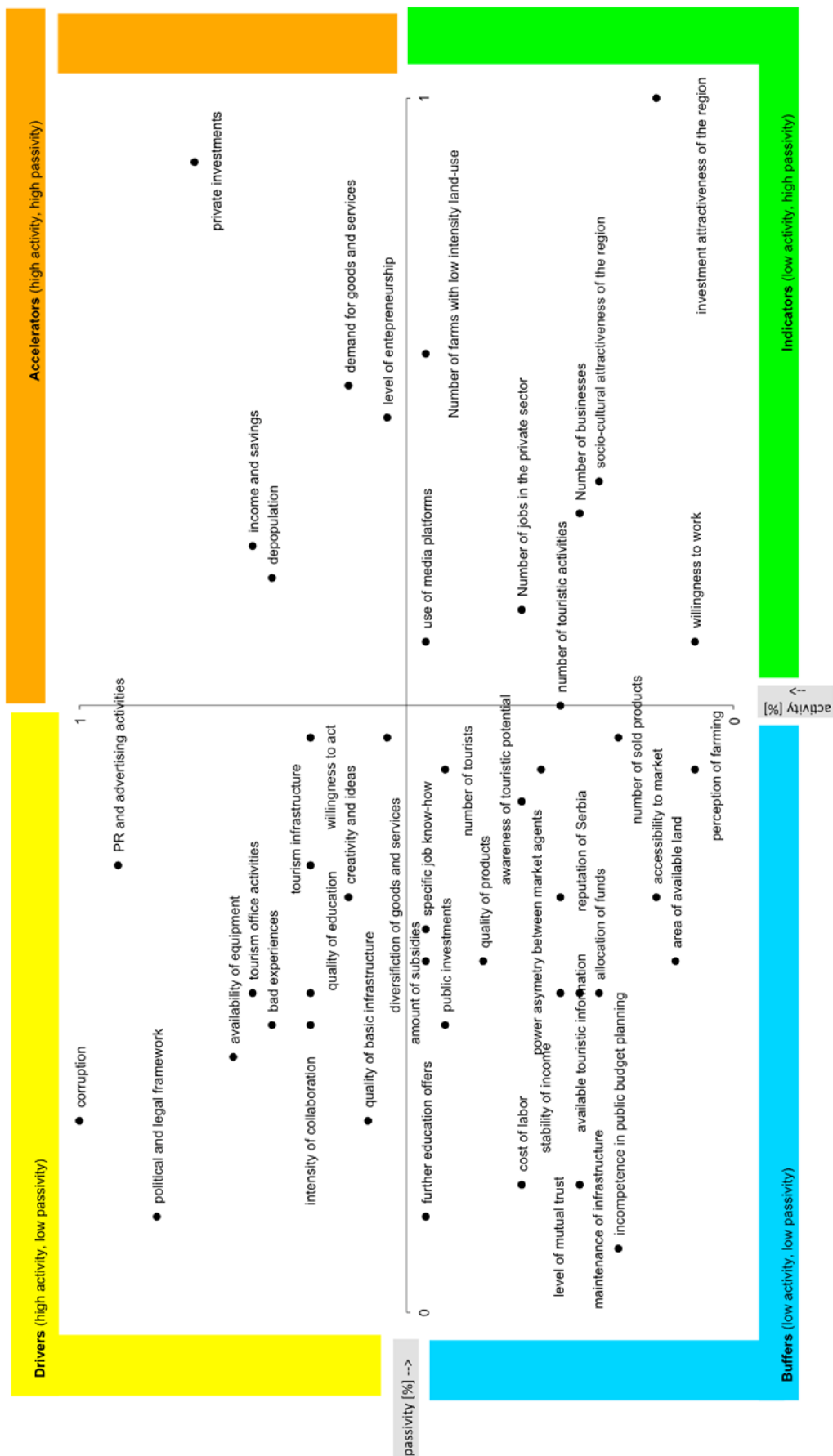
Rather than working with the entire system, we focused on key variables and their inter-relations. Figure 2 shows this sub-system, where the variables we deemed most important (see Table 3 for definitions) are represented. However, we urge the reader to keep in mind that not all interactions between and with other variables are shown here. For simplicity, we only displayed influences directed towards the indicators, even though there are many back loops and reverse effects present. Here, we highlight the indicators and drivers that our analysis revealed as having the highest potential. Simple measures directed at these can have a considerable impact in Dimitrovgrad in terms of sustainable development.

3.1.1.1 Targets tackled by the proposed measures

The measures we developed mainly target the *Number of jobs in the private sector*, as well as the *Number of farms with low intensity land use*. These are represented as indicators in our system (green boxes in Figure 2).

Generally, a high number of jobs in the private sector accounts for a bigger productiveness of a region and can be an indicator for a higher level of development. In turn, a large public sector is characteristic of regions showing low to middle average incomes.

Some of the most recurrent topics during the interviews were agriculture and traditional farming practices. Dimitrovgrad has a rich history and a unique landscape, which were shaped to a large extent by small-scale and low-intensity farming. This is why we focused on this type of activity in our targets. Favouring low input farming methods can promote a sustainable use of the vast areas of abandoned land in the region in terms of environmental impacts, economic opportunities and societal conservation. On the one hand, this could allow maintaining the characteristic landscape of the region, while preserving the meadow-type habitats and their respective flora and fauna species. On the other hand, it can broaden the spectrum of goods and services that farmers produce. This represents a considerable potential to strengthen the position of agriculture in the region's economy. More specifically, improving the collaboration with the tourism sector presents many interesting new opportunities to diversify the tourism offer, henceforth to increase the *number of tourists*.

Figure 1: System grid with all the system variables

The matrix grid contains all the variables from the Dimitrovgrad system we constructed, categorized according to their respective passivity and activity characteristics. The x-axis indicates the passivity of a variable and the y-axis the activity [in %]. As such, the yellow boxes contain all the drivers, the blue boxes the buffers, the orange boxes stand for the accelerators and the green boxes for the indicators

In the presented system of Dimitrovgrad, the number of jobs in the private sector, the number of farms with a low-intensity land use and the number of tourists are influenced by many other variables through large indirect impact chains. This means any change in the system will eventually ripple in these sectors. Hence, monitoring these numbers is a good way to assess the impact of measures taken within the system overall.

3.1.1.2 Main drivers in the system with regards to the targets

We identified the *Intensity of collaboration* as a key factor influencing the local economic development. More communication and cooperation within the municipality's departments could enable integrated strategies, foster synergies across actors from different sectors and provide more efficient solutions to common or ubiquitous problems. We also observed that private actors were not exploiting the full potential that more collaborative interactions could provide them. The intensity of collaboration affects key factors for economic development, namely power asymmetry between market agents, specific professional know-how, level of entrepreneurship, availability of equipment and accessibility to markets (Figure 2).

Secondly, the *Tourism office activities* stood out as another driver with great potential for the region's economic development. Actively promoting the region is a first step to further developing tourism. With a sound coordination strategy and well thought measures, the tourism office can facilitate synergies between other actors (e.g. restaurants, accommodation providers, farmers, the nature park). A flourishing tourism sector can allow the local economy to bloom by indirectly influencing other factors, namely the capacity to innovate, the demand for goods and services, the volume of sales and ultimately the number of jobs in the private sector (Figure 2). These indirect effect chains led us to focus on the *Number of tourists* as a third target. Building *Infrastructure for tourism* and its maintenance are thus crucial for the development of Dimitrovgrad. Furthermore, it requires pro-active *Public relations (PR) and advertisement activities*, not only for the promotion of the region as a touristic destination, but also to attract new foreign investors. This also applies to private businesses, as better self-promotion would allow them to strengthen their current market position and open up new opportunities.

Finally, we identified some overarching drivers. They hold an important position in the system because of their ubiquity during our research on the field. First, *Creativity and ideas* and the *Willingness to act* are crucial for any change to happen, might it be in the public or the private sector. Facing the competition of an open market, the capacity to innovate is essential to make the region more attractive as a whole, i.e. to foreign investors, foreign tourists and for local people, especially younger generations. *Quality of education* and *Corruption* influence directly and indirectly the ability to take initiatives and to innovate (see Figure 2). Throughout our interviews, bad experiences with the municipality were followed by a feeling of hopelessness and mistrust that prevented them to further explore new opportunities. This was especially strong among farmers who took the initiative to develop their business and ended up disappointed by the lack of cooperation and consideration from local officials in terms of transparency, favouritism and bad or unfair allocation of funds. We also observed the lack of a favourable environment for younger people to be creative and to take initiative for new business ventures.

3.1.1.3 Other variables important to the system

Besides the target indicators and the main drivers, there are several other variables interesting for the description of the system. One of those is the *Investment attractiveness of the region*, another indicator for the state of Dimitrovgrad's current business sector. It is directly linked to the PR and advertising activities, one of the focus points of the activities in the city and a starting point for our proposed measures. Complementary to this economic indicator, *Depopulation* attests for the lack of *Socio-cultural attractiveness of the region* and the lack of livelihood opportunities. Whilst the investment attractiveness and

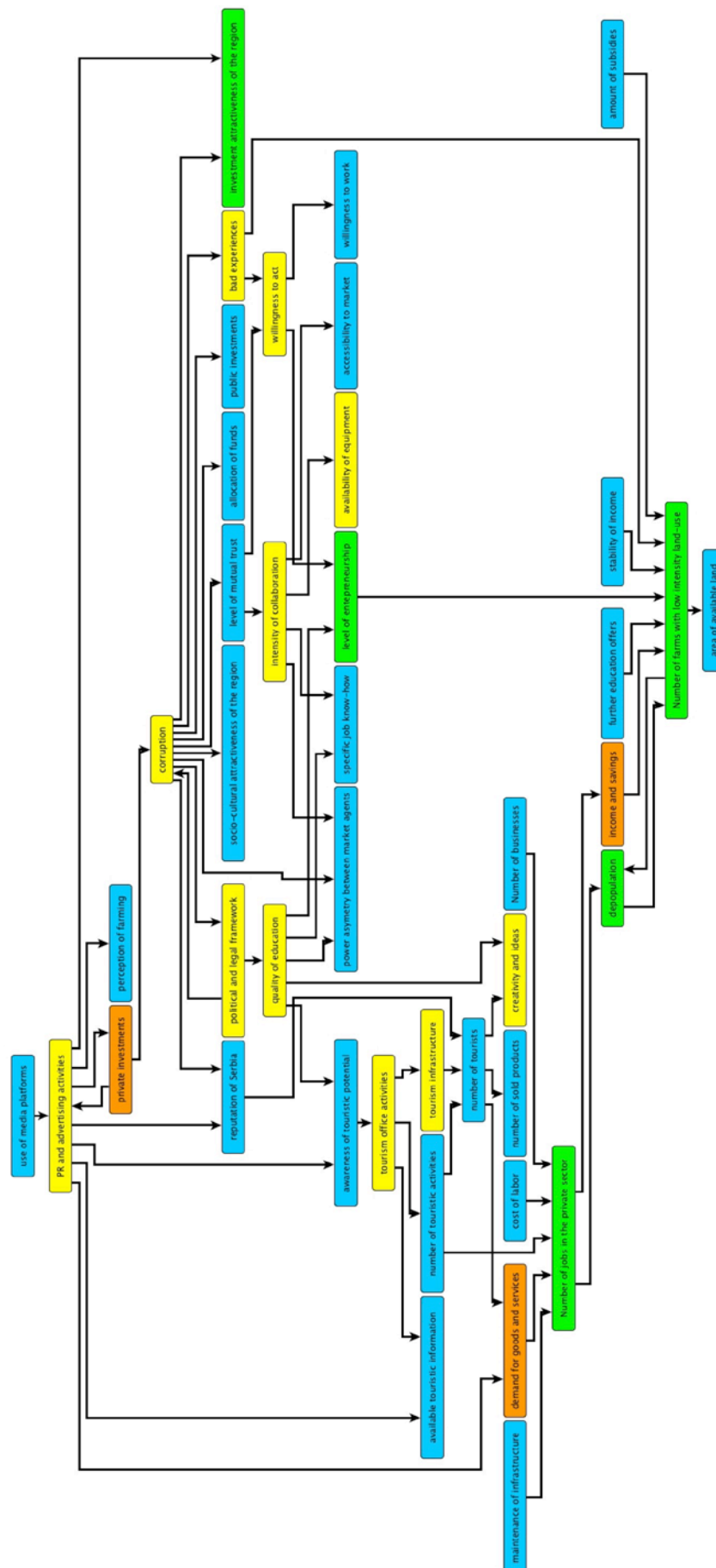
depopulation are relatively easy to measure, the last variable, *the level of entrepreneurship*, is interesting for the dynamic of the system but less tangible. It connects to many key variables that describe the mentality or social values of Dimitrovgrad's population, like the willingness to act and creativity and ideas. As these are crucial to our proposed measures, the level of entrepreneurship is a valuable element to have in mind when monitoring any expected development.

In the following section, we propose measures that we developed based on our insights into the system. They directly tackle the most promising drivers we identified.

Table 3: Definition and typology of the main variables of the system.

Critical drivers	
<i>Corruption</i>	The use of personal influence and contacts to enforce power and/or to obtain services, favours or funds, despite the legal or political framework in place
<i>Public relations (PR) and advertising activities</i>	The promotion of a favourable image of region of Dimitrovgrad through specific activities, public and private media and interpersonal relations. In our context, these are mainly directed outside of the region, but could also be internal to the region
<i>Tourism office activities</i>	Activities and tasks carried out by the tourism office personnel of Dimitrovgrad
<i>Tourism infrastructure</i>	Any infrastructure and installation (permanent or temporary) destined to touristic activities, e.g. hiking trails, accommodation
<i>Willingness to act</i>	The initiative and motivation of individuals to take action
<i>Creativity and ideas</i>	The ability to innovate and to generate new ideas and to connect existing ones in new ways
<i>Quality of education</i>	The level of knowledge of high school graduates (by national comparison) across topics, such as languages, economics, critical thinking, etc.
<i>Intensity of collaboration</i>	Cross- and intra-sectorial cooperation between public-public, private-private and private-public actors, whether personal or institutional
Main accelerators	
<i>Depopulation</i>	The process that reduces the population by decreasing numbers of births and most particularly through the emigration of young adults to other regions or countries
<i>Private investment</i>	Capital that originates from individuals, organizations and foreign investors and that is spent on equipment, material, infrastructure and other costs used to start new projects, to maintain or to develop existing ones

<i>Income and savings</i>	Money earned and accumulated by individuals, groups or the municipality through profitable activities and/or public and/or private financing. This money is destined to cover the cost of living/activities and can be further invested as public or private investment
<i>Demand for goods and services</i>	The amount and type of goods and services produced within the municipality that are consumed by physical and moral persons from the region and from outside the region
Main buffers	
<i>Specific job know-how</i>	Practical and technical knowledge that is specific to a professional activity
Important indicators	
<i>Number of farms with low-intensity land use</i>	Number of farms with a production that does not require a large area and/or with low-input agricultural practices
<i>Number of jobs in the private sector</i>	Number of jobs in Dimitrovgrad that are not in the public sector (local or national government)
<i>Number of tourists</i>	National and international tourists engaging in sustainable nature- and culture-oriented activities, e.g. eco- or agro-tourism
<i>Investment attractiveness of the region</i>	Degree of attractiveness of the region for investments, particularly foreign investors. This can be the result of a combination of economic, political and judicial incentives from the municipality
<i>Socio-cultural attractiveness of the region</i>	Non-economical attractiveness of the region as perceived by outsiders but mostly locals that gives them an incentive to live and stay in the region
<i>Use of media platforms</i>	Diversity and proficiency of the use of various online and offline media by individuals, companies and associations to promote and facilitate activities and services in the region, especially those related to tourism

Figure 2: Sub-system of Dimitrovgrad, showing the variables with the most potential

3.2 Measures

3.2.1 Agriculture-oriented measure: Farmer association

Vision	Increase the cooperation and exchange between farmers in terms of knowledge, experiences and business options and create a strong social network	
Time	2 years for the establishment of the association and indefinite operation The first 6 months are expected to be an intensive period (incl. internship position)	
Budget	<u>1st and 2nd year:</u>	
	Annual budget:	4800€
	Salary of coordinator (100%)	1200€
	Salary of intern (6 months)	1500€
	Office expenses (computer, phone and projector)	120€
	Expenses for social evenings	320€
	Workshops	20€
	Volunteering platform fees	440€
	Other costs	8400€
	<i>Total cost per year:</i>	<u>17'000€</u>
	Initial capital to establish the association (1 st and 2 nd year):	
	Financing: Development aid funds (e.g. SDC)	
	<u>Operation costs:</u>	
	Salary of coordinator (max 50%)	2400€
Actors	Office expenses	50€
	Social evenings	120€
	Workshops	160€
	Volunteering platform fees	20€
	<i>Total per year:</i>	<u>2750€</u>
	Financing:	
	Yearly membership fee per farmers (25 €)	550 €
	Municipality and/or private funds	2200€
	Farmers , municipality, development agency, existing farmers associations, one employee (+ short-term internship), workshop experts	
	Potential collaboration with business education offers	
System Variables	Intensity of collaboration	PR and advertising activities
	Bad experiences	Willingness to act
	Specific job know-how	Creativity and ideas
	Level of mutual trust between market agents	Further education offers
	Diversification of goods and services	Power asymmetry
		Use of media platforms

Details	<p><u>Membership</u> Farmers have two years of free membership, after which the fee of 25€ per year applies Upon entering the association, every farmer has to state a field of expertise in order to create a contact list of 'farmer-experts' among the members</p> <p><u>Advantages</u></p> <ul style="list-style-type: none"> • Easy access to relevant and new information • Learn about possibilities to diversify activities • Be part of farmers network • Free workshops and excursions • Friendly evenings with dinner and discussion • Connection with volunteering workers • Coordinated / organized market access (more efficient linkage, negotiation power etc...)
Details (cont.)	<p><u>Mandates of the farmer association</u> Coordination of volunteering activities:</p> <ul style="list-style-type: none"> • Inform farmers about platforms and how to handle volunteers • Assisting members with account set up for volunteering platforms, such as <i>Woofing</i> or <i>Workaway</i> • Organise contact with volunteers • Link between farmers and volunteers • Contact person in case of language difficulties • Organise social gatherings among volunteers <p>Organisation of social events (friendly gatherings) for members:</p> <ul style="list-style-type: none"> • Four meetings per year • Meetings at a 'best practice' farm, taking turns between members and regions • Select a focus topic for the evening/excursion • Have dinner and discussions • Collect ideas for new workshops topics <p>Organisation of workshops</p> <ul style="list-style-type: none"> • Select topics to help farmers diversify or improve their activities and have a better/more stable income. Possible topics: Tourism activities, marketing, other farming practices, agricultural economy, excursions to successful farms • Coordinate with experts for presentations and advise on topic • First two year twice a year, after that once a year • First workshop could be an internship project • Organization of market access <p><u>Tasks of the coordinator</u></p> <ul style="list-style-type: none"> • Contacting prospective farmers • Establishment of the association • Creating a database (including products, services etc) • Organise and coordinate all activities • First year 100% job, after that max. 50%

3.2.2 Tourism-oriented measure: 'Stara Planina Tours'

Vision	<p>Start a private tour operator ('Stara Planina Tours') that harnesses the cultural and ecological potential of Dimitrovgrad. This small business would mostly promote this unique region to western European visitors in order to expand and diversify to tourism sector, as these tourists tend to stay longer and to be interested in nature, agriculture and culture. Stara Planina Tours would offer multiple-day-tours where the tourists will have the opportunity to learn more about the region and to get in contact with the local inhabitants. The tour operator would organize all activities, meals and accommodation and engage with different types of actors (knowledgeable locals, guides) according to the activities.</p>																																									
Time	<p><u>Business:</u> 2 years to set up the business, with special focus on advertisement and networking</p> <p><u>Tours:</u></p> <ul style="list-style-type: none">• Main tourism seasons: Spring (May-June) and Autumn (September-October), with 3-4 tours per year• Duration of tours: 10 days, starting from Dimitrovgrad, Sofia or Nis																																									
Budget	<p><u>Cost of tours:</u></p> <ul style="list-style-type: none">• Groups of 10 with modest accommodation: 700€ per person• Groups of 7 with better accommodation: 870 € per person• See tables below for detailed budget <p><u>Expected profits:</u> ca. 2000€ per tour. With 3-4 offered tours per year this would result in a one-person salary of 500-650€ per month.</p> <p>NB: This includes an estimated 100€ cost for the advertisement per the tour. This does NOT include additional costs to set up a homepage, get a tour guide licence, licencing of the business, taxes, etc.</p> <table><tr><th colspan="3">Tour with more modest accomodations (10ppl)</th></tr><tr><th>Costs for:</th><th>Cost per day [€]</th><th>Cost per person and day [€]</th></tr><tr><td>Food</td><td>130</td><td>13</td></tr><tr><td>Accomodation</td><td>130</td><td>13</td></tr><tr><td>Transport with driver</td><td>120</td><td>12</td></tr><tr><td>Professor Guide (50% of 100 €/d)</td><td>50</td><td>5</td></tr><tr><td>Other Guides (50% of 40 €/d)</td><td>20</td><td>2</td></tr><tr><td>Other</td><td>40</td><td>4</td></tr><tr><td>Total</td><td>490</td><td>49</td></tr></table> <table><tr><th></th><th>Amount in €</th></tr><tr><td>Total Tour costs</td><td>4900</td></tr><tr><td>Tour costs per person</td><td>490</td></tr><tr><td>Selling price of Tour per person</td><td>696</td></tr><tr><td>Profit per person</td><td>206</td></tr><tr><td>Profit Total</td><td>2057</td></tr><tr><td>Profit Total - Advertisements</td><td>1957</td></tr></table>	Tour with more modest accomodations (10ppl)			Costs for:	Cost per day [€]	Cost per person and day [€]	Food	130	13	Accomodation	130	13	Transport with driver	120	12	Professor Guide (50% of 100 €/d)	50	5	Other Guides (50% of 40 €/d)	20	2	Other	40	4	Total	490	49		Amount in €	Total Tour costs	4900	Tour costs per person	490	Selling price of Tour per person	696	Profit per person	206	Profit Total	2057	Profit Total - Advertisements	1957
Tour with more modest accomodations (10ppl)																																										
Costs for:	Cost per day [€]	Cost per person and day [€]																																								
Food	130	13																																								
Accomodation	130	13																																								
Transport with driver	120	12																																								
Professor Guide (50% of 100 €/d)	50	5																																								
Other Guides (50% of 40 €/d)	20	2																																								
Other	40	4																																								
Total	490	49																																								
	Amount in €																																									
Total Tour costs	4900																																									
Tour costs per person	490																																									
Selling price of Tour per person	696																																									
Profit per person	206																																									
Profit Total	2057																																									
Profit Total - Advertisements	1957																																									

Budget (cont.)	Tour with better accomodations (7ppl)	
	Costs for:	Cost per day [€] Cost per person and day [€]
	Food	91 13
	Accomodation	105 15
	Transport with driver	84 12
	Professor Guide (50% of 100 €/d)	50 7
	Other Guides (50% of 40 €/d)	20 3
	Other	50 7
	Total	400 57
		Amount in €
	Total Tour costs	4000
	Tour costs per person	571
	Selling price of Tour per person	870
	Profit per person	298
	Profit Total	2087
	Profit minus Advertisement	1987
Actors	<u>Businessman/Entrepreneur:</u>	
	<ul style="list-style-type: none"> • A motivated local person who is knowledgeable (or curious) about the Dimitrovgrad and the Stara Planina regions • Needs good English skills • Ability to build up a good social network with local able to offer services in terms of accommodation, food, activities (e.g. a farmer willing to show his farm), sight-seeing 	
System Variables	<u>Targeted tourists:</u>	
	<ul style="list-style-type: none"> • mainly western-European • People between 20 and 35 years old, especially students, for tours oriented towards field courses. Advantage: lower tour costs with bigger groups and more modest accommodations, such as dorms • Tourists who are able to spend a little bit more money to be in smaller groups and for more comfortable accommodation, such as 2-persons rooms 	
Details	PR and advertising activities	Intensity of collaboration
	Tourism infrastructure	Creativity and ideas
Details	<u>Advantages:</u>	
	<ul style="list-style-type: none"> • Low initial investment. • Biggest expected cost: setting up an attractive webpage • Possibility to start with an informal business, i.e. running the tours without registration and guiding licences for a short period (until the business proves to be viable) to mitigate initial costs • Better use of the existing tourism infrastructure 	
Details	<u>Further requirements to set up the business:</u>	
	<ul style="list-style-type: none"> • Initial investment time of approximately 2 years to build up a professional social network of local partners • Setting up a webpage to promote the region and the tours • Reaching out to western European tourists by using creative advertisement channels, e.g. student platforms, specialised magazines (e.g. for botany, ornithology or from conservation organizations) and by ideally collaborating with travel agencies in western Europe 	

Details (cont.)	<p><u>Further ideas for the tours:</u></p> <p>The tours can have different main topics, for example birding, hiking, cultural heritage or a mixture of those.</p> <p>Possible activities include:</p> <ul style="list-style-type: none">• Visiting farms (traditional or with rare breeds)• Local craft tours• Botany excursions• Birding excursions• Hiking (one day or with overnight stays)• Hiking with donkeys• Horse-riding• Food tours to taste and learn about homemade and traditional food• Traditional music concerts• Visit the museum or exhibitions <p>We suggest collaborating with specialized local guides for thematic tours to offer tourists the best possible experience of Dimitrovgrad.</p> <p>Some touristic infrastructure already exists. But other infrastructure might be required to set up a network for the first tours.</p>
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3.2.3 Culture-oriented measures

3.2.3.1 'Citizen-art' Exhibitions

Vision	Organize exhibitions of art made by local photography-amateurs to: <ul style="list-style-type: none">• Strengthen the local identity;• Keep traditions and other cultural aspects alive;• Improving the image of farming professions;• Raise the awareness of the touristic potential of the Dimitrovgrad region															
Time	<u>Frequency</u> : One exhibition per year <u>Period</u> : August. The <i>vernissage</i> (opening event) would take place the week before school starts. <u>Duration of the exhibition</u> : min. 1 month to include the beginning of the main tourist season <u>Organization</u> : 3 month part time position															
Budget	<table><tr><td>Salary of the person in charge of the organization</td><td>200 €</td></tr><tr><td>Printing costs (photos)</td><td>80 €</td></tr><tr><td>Drinks and snacks for the opening day</td><td>80 €</td></tr><tr><td>Prize (for 2 categories: Kids and adults) e.g. voucher for photo printing/products (CEWE)</td><td>(variable)</td></tr><tr><td>Advertisement in local media (sponsoring-based)</td><td>-</td></tr><tr><td>Frames of varying sizes (only in the first year)</td><td>100 €</td></tr><tr><td><i>Total</i></td><td><u>460 €</u></td></tr></table>		Salary of the person in charge of the organization	200 €	Printing costs (photos)	80 €	Drinks and snacks for the opening day	80 €	Prize (for 2 categories: Kids and adults) e.g. voucher for photo printing/products (CEWE)	(variable)	Advertisement in local media (sponsoring-based)	-	Frames of varying sizes (only in the first year)	100 €	<i>Total</i>	<u>460 €</u>
Salary of the person in charge of the organization	200 €															
Printing costs (photos)	80 €															
Drinks and snacks for the opening day	80 €															
Prize (for 2 categories: Kids and adults) e.g. voucher for photo printing/products (CEWE)	(variable)															
Advertisement in local media (sponsoring-based)	-															
Frames of varying sizes (only in the first year)	100 €															
<i>Total</i>	<u>460 €</u>															
Actors	Target group: locals and tourists Organiser: library employee, in collaboration with the local photography club (art gallery)															
System Variables	Socio-cultural attractiveness of the region Awareness of touristic potential	Perception of farming Creativity and ideas Intensity of collaboration														
Details	<u>Organisation timeline and tasks</u> : Beginning of the organisation: early June. 1 st step: The library choses the theme of the exhibition, the opening day (<i>vernissage</i>) date and the photo submission deadline 2 nd : Inform the school and students about the event and the possibility to submit photos towards the end of the school year 3 rd : Design and print posters and flyers to be displayed on information boards, local establishments (shops, restaurants), the art gallery and the library In collaboration with the local photography club: organise photography workshops (possibly a summer school incl. excursions) to teach basic photography techniques to interested people and to present the theme of the year After the submission deadline: print the submitted photos (e.g. A4, A3) NB: If the photographs are exhibited outside for a longer time period, they should be printed on high quality paper															

Details (cont.)	<p>Shortly before the exhibition: active advertisement in collaboration with local media</p> <p>On the exhibition date: the library arranges the pictures (Good weather: amphitheatre. Bad weather: Library, School). The visitors get the chance to stroll around, have a look at the pictures before the winning pictures are awarded</p> <p>After the exhibition: possibility to move the pictures around town for a maximum of visibility, print the winning photographs in smaller format to decorate the tourism office or other municipal buildings and offices, restaurants, hotels, etc.</p> <p><u>Expected effects:</u></p> <ul style="list-style-type: none"> • Getting local people in closer contact with the region around a specific topic and thereby re-discovering and seeing their region from a different perspective, as an amateur-artist and/or as a spectator • Showing the various points of views of the population around a specific theme related to the municipality • Increasing contacts among the inhabitants • Promoting a better image of traditional practices (e.g. farming) • Raise the awareness of touristic potential of the region <p><u>Other suggestions:</u></p> <p>Flyer information: Theme of the year, competing categories (e.g. adults and children), date of the workshop, submission deadline, opening day date</p> <p>Advertisement of competition: local TV advertising, billboards, flyers, school, library</p> <p>Outreach: display photographs at different locations in town (e.g. school, art gallery, library, main square, tourism office, restaurants)</p> <p>Theme suggestions: portraits of different professions, traditions (craftsmanship, clothing, tools, etc.), scenic spots and landscapes, architecture, fauna, flora, food, agriculture</p> <p>Further use of the pictures: production of postcards for tourists, picture exhibition in the tourism office and art gallery, possibly also restaurants, include in tourism brochures</p>
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3.2.3.2 Food contest

Vision	Raise the awareness of the high quality of local, traditional products Encourage their further development and diversification of the products Stimulate the development of innovative products	
Time	Every year, in combination with the smoked meat festival	
Budget	Payment for Jury - 5 x 20 €	100 €
	Material costs	100 €
	Prize 50€/category	250 €
	<i>Total</i>	<u>450 €</u>
Actors	Target group and participants: farmers, local producers of food and beverages, restaurant owners, consumers Organizer: Moderation and invitation by tourism office, close cooperation with committee of smoked meat event Jury (5 members): dairy school Pirot, restaurant owners/chefs, local celebrities	
System Variables	Perception of farming Quality of products Level of entrepreneurship Creativity and ideas	Diversification of goods and services PR and advertising activities Socio-cultural attractiveness of the region
Details	<p><u>Main idea:</u> to promote local products. With the competition, we hope to increase the appreciation for the production process of these products, with the winner who can act as a role model for others.</p> <p><u>Organization and award process:</u> The competition would take place in combination with the smoked meat festival. We thought of different competing categories (e.g. cheese, jam, syrup, meat, innovative new products), with an official jury who would select the best products.</p> <p>Visitors of the fair would taste the products and rated them. We would suggest incorporating the results of this public rating in the selection of the winners, as a way to increase the acceptance of the results.</p> <p>Similar to a label, the award could be used as a promotional tool for the products and/or the producer. However, this would be up to the winner to decide and use.</p> <p><u>Tasks of the organizer:</u> Previous to the event: promote the festival through various media channels (TV, radio, newspaper, Instagram, Facebook, Twitter, etc.) and find the 5 members of the jury. Invite the media as well as representatives of local and regional restaurants to the event</p>	

3.2.3.3 Summer schools, further education and workshops

Vision	Potential local entrepreneurs are provided with the know-how required to start a business, especially for the tourism sector (e.g. B'n'B, tour guide, tourism activities like camping) and for the agricultural diversification (e.g. new breeds, innovative products, platforms for the sale of products)	
Time	Punctual events, with variable duration depending on the topic (from a couple of hours to days)	
Budget	Partly financed by the tourism office (e.g. tour guide course) Other financing can be granted through NGOs, Development aid agencies Small fee for participants of the courses	
Actors	Target group: local inhabitants interested in new business opportunities Organiser: Tourism office, NGO as promoter and possible support for organisation	
System Variables	Specific job know-how Level of entrepreneurship Quality of products Accessibility to market Further education offers Number of touristic activities	Creativity and ideas Tourism office activities Awareness of touristic potentials Diversification of goods and services Use of media platforms
Details	<p><u>Main idea:</u> Many farmers, restaurant owners and private persons are willing to diversify their income and expand their business into tourism or other new fields of income, but they lack the know-how to start and maintain a new business, e.g. becoming a tourist guide, diversifying their activities by hosting guests or producing new products such as syrup or honey. We believe that attending courses and workshops can provide them the necessary tools to overcome this hurdle.</p> <p><u>Status quo:</u> In the past, the tourist office was already willing to organize courses for tour guides, but they did not take place, as the targeted participants were not aware about this possibility. Therefore, the flow of information between the tourist office and locals interested in new touristic business ideas needs to be improved.</p> <p><u>Organisation of the events:</u> Tourism office as a first option, these courses and workshops can be organised by the tourism office.</p> <p>Alternatively, a new NGO could be founded to organise the events, think of new possible courses and link interested participants to existing courses. We would however strongly suggest maintaining a tight collaboration with the tourism office. This NGO could also be in charge of finding funds from foreign development agencies.</p> <p>Regardless of who the organiser would be, pro-active advertisement of these courses would be required to increase the awareness of the existence of these events among potential local entrepreneurs. This could be done in the form of visits, phone calls, advertisement on TV or information platforms.</p>	

3.2.3.4 Development measure: Trail maintenance

Vision	Maintaining existing hiking trails and marking new ones to diversify/strengthen the tourism offers, by integrating tourism activities and attract prospective tourist that take interest in hiking in the region. This could provide a strong foundation for the implementation of the other tourism measures.	
Time	Maintenance is needed once per year, mainly in summer.	
Budget	<u>20 euros/employee/day</u> , possibly from national funds (Nature Park) or local funds (tourism funds). For an estimated 60 days of work, 15 € per day, total funds: <u>900 €</u> per year	
Actors	Tourism Office: find funding for the maintenance either from the municipality or applies for the funds from national government and organizes people to maintain and develop the trails. Students during their summer break: maintenance and marking	
System Variables	PR and advertising activities Tourism infrastructure Tourism office activities	Maintenance of infrastructure Available touristic information
Details	<p>During our research, we saw large potential for hiking in Dimitrovgrad, as there are plenty of natural and cultural sights within reasonable distance. As hiking is a very popular activity in many western European countries, there is a great opportunity for Dimitrovgrad to diversify and develop its tourism sector through this activity.</p> <p>However, a crucial first step is the yearly maintenance of the trails. As a coordinator, the tourism office could ensure that the trails are properly maintained. Previous projects have already marked hiking trails in Stara Planina, but very few of these trails have been regularly maintained since then. We also found the hiking information poor or unavailable. For example, there is no physical and virtual access to good maps for these trails. Base maps including topography within the area already exist from a former project. The tourism office would need to update them, design attractive and user-friendly maps, print them and make them available for interested tourists.</p> <p>To better inform tourists, it is also important that the tourism office pro-actively advertises this activity. For example, attractive flyers with detailed information about hiking in Dimitrovgrad could be distributed in hostels and hotels in and outside the region. Maps should also be made available and shown to visitors of the tourist information centre.</p>	

4 Conclusion

During the past two weeks, we had the chance to experience Dimitrovgrad's best: warm hospitality, beautiful nature and rich culture. All this left a deep impression on us and convinced us of the region's potential in terms of local economic and social development.

We discovered the region by meeting with various local actors and exploring the landscape by ourselves. The measures we proposed in this report are the result of our impressions, experiences as well as the methods used. They target systematically some key drivers in sustainable development of the municipality of Dimitrovgrad.

First, tourism in the region is already a profitable business. However, we had the chance to experience the region beyond what regular tourists see and saw opportunities to diversify the tourism sector towards western tourists. We suggest founding a private tourism company, such as a tour operator, that would focus on guided tours for western European tourists. As done in many other developing countries, there is a potential for a flourishing business in Dimitrovgrad.

Agriculture is an important pillar of the local culture and livelihood. It also still embodies the function of the main landscape architect. This inspired our second measure. A closer collaboration and professional organisation of farmers has the potential to improve their daily lives and struggles by embedding them in a sound social community. Increasing the exchange in terms of knowledge and experiences can help them to overcome many hurdles they are currently facing and enable them to diversify their activities. Having closer connections allows also to stand up for fair market conditions.

Finally, the local culture and traditions stroke us as one of the most fascinating elements during our visit. Therefore, our last measures focus on strengthening the existing regional identity of Caribrod in order to encourage locals to rediscover their region and realize the potential it has to offer. We suggest 'citizen-art' exhibitions, local food celebrations and infrastructure improvements to develop the town into a cultural hotspot for locals and tourists alike.

By combining these three small-scale measures, we believe that Dimitrovgrad can go towards a path sustainable development of its economy, environment and social community. It requires the initiative of local inhabitants that are willing to start something small to make a change. We all hope to come back, hike in the beautiful Stara Planina nature park, and indulge ourselves with local cheese, meat and delicious Rakija, while admiring the farming traditions and landscapes of the hills surrounding the town. We would be especially delighted to see in a few years from now that some of our measures are implemented and help the people and the region for real.

5 Appendix: Interview summaries

5.1 Interview 1: Dejan Milev - Member of the Municipality Council, responsible for Education and Information

Economics

The region is in a transition period with a lack of jobs. The main issue is giving job to the people, especially to the young generation and therefore overturn the trend of depopulation.

There are large projects led by private investors. Currently all the industrial lands are sold, and the owners are obliged to start their investment project. The municipality is expecting 30% of the workers from each factory reserved for the locals, which means 20-30 positions, 50 at most. The largest investor is for alcohol processing, followed by rubber processing, which is said to be environmentally harmless according to the EIA (Environmental Impact Assessment).

There are also public investments: in total 5 Million € (1 Million from the Serbian government and the rest from local taxes – especially trunk taxes at the boarder - 30€/trunk, 3 million € in total).

Tourism plays an important role in the local economy. It is said that there are more than 2'000 visitors per year, most of who come from Bulgaria, stay there for the weekend. They are here for the food, nature and looser smoking regulations.

Education

The education system is the following: primary and secondary school are mandatory, then the students can choose between high school (3 years, more practical; 5% of the population) or college (4 years, more theoretical; 95% of the population). 80% of the young people go to Bulgaria to study and most of them do not come back to Serbia because there are in Bulgaria good and more job opportunities. In addition, it is reflected/confirmed by Ivan Ivanov that the education level is decreasing over time and pupils are less competent compared to other municipalities. According to Ivanov, the amount of teachers is enough and the real problem is to be revealed yet.

Health

There is one big health centre but both the birth centre and nursing home are planned but still missing. In comparison to the past, the mortality has decreased as the number of birth dropped (currently 50-60 new-born/year). Children with disabilities and elder people are given special attendance.

Different measures are adopted to help the families with low revenues (under 200€/household/month). And as for the couples that cannot have kids naturally, clinical support is fully financed by the government.

5.2 Interview 2: Sasa Mancev - Department for Local Economic Development

General context of Dimitrovgrad (municipality)

A lot of revenue flows into the municipality, of which 3/5 (i.e. 3 mio. €) from truck taxes at the border. A lot of money also comes from the central government. For example, between 2018 and 2019 they received 2 mio € for building and infrastructure renovation, although this might be exceptional. They also received ½ of the initial capital (i.e. 300'000 €) to buy land for an industrial zone. As a result, Dimitrovgrad is above the national average in terms of budget per capita compared.

On the other hand, the region suffers from (1) public debts, that cannot be reimbursed because funds tend to be program-specific, and (2) crippling unemployment and depopulation. With an average salary of 300€/((month x capita), the region is said to be under-developed and poor by national standards. Approx. 2'000 people are (officially) employed in the municipality. The public sector is the main employer (20%), followed by the textile industry (140 employed)¹ and tourism (200), i.e. hotels, restaurants. More people are employed in summer than in winter. In turn, there are 1'300 unemployed, of which 30% benefit from social security, and an unknown number of people who have an unofficial job and/or who are not registered as unemployed. The new industrial zone is expected to create 20-30 jobs, but certainly no more than 50.

How does the department work and how is development promoted?

- There are two measures to support entrepreneurs and investors:
- Participation in interest rate when loans are contracted
- Participation in the initial investments (max. 4'000€ and max 50% of the total)

The department solely focuses on investments and assistance that help to create new jobs, which seems to focus on manual work (factories) and tourism (household based and bigger entrepreneurs). Household-farms are not covered by the department's budget (jurisdiction of the agricultural department). Other areas of tourism, e.g. hiking trails, nature-related are also excluded, as these would receive funds through NGOs and other programs.

There seems to be no or little cooperation with other departments, as there seems to be no integrated management and planning strategies. Cooperation seems to further suffer from political tensions between departments, e.g. tensions between agriculture and local economic development due to differences in budget allocation.

According to Sasha, Dimitrovgrad is an attractive place for investors, as it benefits from the highway, existing equipment and infrastructure (roads, water, etc.) in the industrial zone. The official main push-factor is the economic crisis (world- and country-wide). In terms of economic development, he thinks that big companies are required (e.g. big factories) and a larger manual work force, and yet most of the working force is highly educated.

When speaking of attracting younger generations, he vaguely mentioned foreign direct investments. Other elements mentioned led us to believe that youth suffers from a lack of interesting job opportunities, but at the same time, they also lack the ability (or incentive?) to innovate and to be creative, as well as entrepreneurship qualities.

¹ Sasa mentioned textile as 1st sector and tourism as 2nd sector, even though the latter has more employees....

5.3 Interview 3: Aleksander Igov - Department for Agriculture and Rural Development

The Municipality has a yearly programme to support agriculture, which is approved by the national government. Funds for this programme vary, with 9 Mio RSD this year compared to 13 Mio RSD last year. The programme consists of 3 main types of measures for which 2 Mio RSD are available each year:

Direct payments

Support for rural development

Taking 50 % of the costs for the construction of facilities, purchase of equipment and animals, funding of 50 % of the cost for the certification of organic farms

New is also a payment for the use of high mountain pastures (herding above 900 m)

Special measures: Presence at agricultural fairs, study visits

The municipality only supports farms with up to 19 cattle heads; larger farms only receive subsidies on the national level. Irrigations systems are funded for all sizes of farms.

There are two big cattle farms in the municipality (150 and >300 heads), 12 medium-sized farms (20 – 40 heads), with a total of 2'500 heads. Lamb meat production is a smaller with 2'500 sheep. Further there are 1'000 goats.

An agro-biodiversity park was founded 6 years ago on the municipal level, but it is not recognised on a national/international level. The main aim of the park is marketing, for example of rare breed conservation. The declaration of this agro-biodiversity park is not really implemented. The main reason for this is that the tourist value is not recognised. Other reasons are a constant change of the persons in charge, legal procedures that are not suitable, and a lack of politicians considering the existing strategies when they are budgeting.

During the last 2 years Aleksander Igov noticed less interest of new farmers. He attributes this mainly to the high investment costs for starting a farm.

The region has a tradition in milk production. Challenging for the farmers is the fluctuating milk price, which makes the dairies unreliable partners.

In the southern part of the municipality there is a tradition of raspberry cultivation. A production of raspberries is not any more possible, as there is no market access to sell the fruit. This is due to the fact that the next cold storage facility is 60 km away. This leads to vicious cycle, as due to the missing producers the establishment of a cold storage facility in Dimitrovgrad is not profitable.

5.4 Interview 4: Biljana Rangelov - Environmental Inspector

Waste:

80% of the municipality inhabitants are covered by the waste collection system

Management plan more or less implemented, public recycling bins, school projects,

Further separation difficult, no separate collection, no market for recyclable waste (resp. wrong collection, only good market option for some material), small quantities, small-scale solutions for metal

Her solution: national initiative for waste cooperation

Magic WISH: solve the BIG plastic bag problem

Water: 7'000 people connected to waste water system, waste water treatment plant has not been working for 2 years, plans for new one, no money

Air: No monitoring, only contributor is wood heating in winter (no industry, highway too far)

Soil: No soil pollution to talk about, no industry, no fertilizer, no big farms

Nature:

3 Protected areas, PROBLEM: illegal construction, no control and no punishments in case of crime

Landscape change: Bush growth and forestation due to agricultural abandonment, no incentive for proposed measure of animal browsing

Education:

School programs/events for environmental awareness, concepts like recycling are accepted and understood by the population

5.5 Interview 5: Marija Stavrov - Dimitrovgrad Tourism Office

The tourist office in Dimitrovgrad is located in the centre of the town. Two other offices are located at the sports centre in Dimitrovgrad and in Stara Planina. The municipality has 369 registered beds for tourists and around 8000 overnight stays per year. Furthermore, there are also unregistered B&Bs, therefore the real number of overnight stays might be much higher. Tourism in the region of Dimitrovgrad has been increasing recently; the overnight stays increased three times in the last five years.

Most of the tourists are from Bulgaria and stay over the weekend to enjoy local food, pubs, music and party in town. The touristic spots in the region are the monastery at Poganovo, several churches, a monument, the museum of Dimitrovgrad, the nearby Jerma canyon and the national park of Stara Planina. The main seasons for tourism are in spring and autumn.

To promote the region, the employees of the tourism office are present on fairs in Belgrade and Sofia and they also present their region on their homepage and Facebook account. In the past, there have been cross-border projects with Bulgaria to promote Dimitrovgrad for tourism. Since recently, the tourism office gets

financial support for promotion from the government of Serbia and also the EU. However, there seems to be a lack of knowledge on how to advertise the region efficiently and in an appealing way.

Since there is the new highway circumventing Dimitrovgrad, the number of stop-overs from trucks and Turkish people on their way to Turkey decreased. Unfortunately, they cannot place billboards on the highway to encourage travellers to stop in Dimitrovgrad.

So far, Dimitrovgrad does not have an official tour guide that could show tourists around the region. Although the municipality would pay for education and license of a tour guide, there seems to be no interest of anyone in doing that job.

According to Marija Stavrov, more accommodation is required, especially some with higher standard (3+ stars). It does not matter whether the investors for those accommodations are locals or foreigners. When asked for the priorities of tourism development Marija mentioned the focus on weekend tourism of Bulgarians first. Second is the renovation of a decaying hotel close to Poganovo that used to flourish very well during communism time. That hotel is supposed to attract tourists who would stay longer.

5.6 Interview 6: Sergej Ivanov - Donkey farmer

Since 2005 Sergej Ivanov breeds donkeys and since 2015 the farm is located in Dimitrovgrad. This farm does not produce donkey meat but donkey milk, a niche product with an increasing demand. The farm counts 40 donkeys, the third largest donkey farm in this region. Per year, a donkey produces 70 litres of milk and the selling price is between 15 and 40€ per Litre, depending on the region. Donkey milk is used in beauty products and to treat illnesses but it is also low in fat and an alternative option for people with a cow milk protein allergy. High season for selling donkey milk is in September; the milk is sold in Sofia, Belgrade but also regionally. The daily plus approximately is 27 euros. The donkeys on this farm are Balkan Donkeys, so a cross-border breed. Donkeys are very robust animals (not like horses that are susceptible to digestion problems), but build groups within the flock, which makes it difficult to use shepherd dogs. As overgrazing has been a big problem in the area where the farm is situated for a long time, additional hay is given to the animals.

5.7 Interview 7: Dejan Sokolov - Medium-scale farmer

General information about Deyan's farm

Deyan (48) has a middle-sized farm since 2001. He works mostly alone or with his father. His business is viable, as he does not have any debts and most of his income is reinvested in the farm. He cultivates 50ha of land around Dimitrovgrad, most of which is rented. His family owns 8ha 35km away from the town but he only uses part of it because it is too remote and does not have good access to the market. The rest is illegally used by 'others'.

Difficulties related to production

Recently, Deyan had to downsize his production. In 2017, he had 40 cows, whereas this year he only has 20. This was due to two main reasons:

First, after his employee left to work on the nearby highway construction, the workload became too much for him alone. Despite several attempts to advertise the open position at his farm (mostly by mouth-to-ear), he has not been able to find a replacement, even in Pirot. He used to also have sheep but decided in 2013 to fully convert to cow farming, because he could not find a shepherd. Qualified personnel is hard to come by. He defined the minimum requirements as basic knowledge in feeding animals and milking machines, love for animals, willingness to work and a good sense of responsibilities. He would be willing to pay 200-300€/month for 4 hours/day, 7/7. But according to him, people prefer being unemployed and receiving social security payments. In Central Serbia, there is a high school for farming that provides a 3-4 years program to farmers about health and nutrition management. But farming is not an interesting vocation for people in the region, which he assumes is because of the intensity of the labour and the market conditions.

Second, the increases in production input prices and the market conditions. While the price of grain increased by 40RSD and the cost of fuel by 10RSD, the selling price of milk decreased by 2RSD. Uncertainty of sales and pricing makes his position insecure. The difficulty to sell the sheep meat was also a reason to convert his production activities.

In Deyan's opinion, the most pressing issue to solve for farming is the volatility of prices.

Difficulties related to further development of the business

Deyan receives subsidies for artificial insemination from the municipality and for cattle pedigree from the national government. However, for the past two years he hasn't received any other subsidies for his activities because of the administrative process. Access to financial support is hurdle for a lot of farmers according to Deyan, especially from the municipality's side. He recently formed a cooperative with other farmers to access funding for new milking equipment in order to improve the quality of the milk produced. However, after going through all the administrative steps, the 50'000€ agricultural subsidies were given to another cooperative that was composed of a family involved in the hotel business. Moreover, in summer he suffers from water scarcity. To remedy this, he was promised to be connected to the central water supply distribution, but this never happened.

5.8 Interview 8: Milan Nestorovic - Sheep farmer/ shepherd

The Nestorovic family, a young couple with their baby, moved from the city to the countryside to become sheep farmers. They own different kinds of sheep. One breed is endemic and endangered. They produce sheep milk, which they process themselves into cheese. The wool of their sheep has a high quality but at the moment there is no demand for sheep wool on the market. They sell cheese to the monastery and to people they know for 5€ per Kg. At the moment, their flock counts around 140 sheep; their goal is to enlarge the flock to 300 heads. Initially, they invested 2'000€ and expect to earn around 300 to 600€ per month, once the farm is well established. One of the problems they deal with at the moment is to find an employee that is willing to work on their farm.

5.9 Interview 9: Nikodija Velinov - Hunters Association and beekeeper

His background: Engineer of animal husbandry, consulting, owns 30 beehives, responsible for herd bookkeeping

Hunters' Association Members: Association covers 2/3 of the municipality, ca. 300 km². There are 450 registered hunters (ca. 5% of the population, 1/3 is younger than 30 years old)

Hunting Association Organisation: 4 employees, responsible for control. They recently set in place measures against illegal hunting (photo traps). They benefit from subsidies. Other activities: head counting and winterfeeding. Mandatory membership fee of 80€/year

Hunting: From February – May no hunting allowed. Red deer, lynx and some bird species are protected. Hunting quota per species per year per association depending on head count. E.g. in 2018: 150 wild boar, 50 deer, 50 rabbits. Kills have to be reported and require a payment for the meat and trophies.

Hunting control - every year there are 2 counting of animal stock. Illegal hunting occurs, control is difficult, attempts with hidden cameras, rangers and bolder patrol drones

Subsidies: e.g. 80CHF/wolf, 10CHF/jackal, 8CHF/fox - paid by the association

Hunting tourism: Italian tourism for bird hunting, locals are not interested in these species, no trade-off, potential for future tourism, very profitable

Why hunting? - 50% hobby, 50% for the meat. Furthermore it regulates the population and therefore minimizes the damages produced e.g. by wild boars in agricultural fields.

Agriculture- association responsible for damage, has to pay compensation that is agreed upon with the farmer, else court, how much depends on market value of the crop, not many incidents, ca. twice a year

Problems: illegal hunting and large livestock losses due to the wolf, hard to keep wolf population under control and hard to properly protect livestock, usually no compensations issued or paid, misuse of hunting regulation in the mountains, illegal hunting methods

Beekeeping. He owns 30 hives - 2500 hives in municipality in total. Produces ca. 400kg/year and sells to friends (of friends...). He used to have a certificate for organic production, but not anymore (doesn't believe in it + it's expensive + procedure too long). Subsidies: 7.5CHF/hive, honey sells for 7€/kg

5.10 Interview 10: Sinisa Stojkovic - Manager of Cor-Vet farm

This farm used to be the biggest sheep/goat farm in former Yugoslavia. Nowadays the biggest income is the solar energy that is produced by the solar panels on the roof of the old farm buildings. The electricity is sold to the government with a high price that is subsidised. Farming with local rare breeds (sheep, goats, cattle, donkeys, horses and Water Buffalo) is more an additional activity. Their biggest problem is the lack of people wanting to work as a farmer.