EU AM ENDE

Niedergang und Neuanfang am Beispiel des rumänischen Donaudeltas

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EU AM ENDE

NiedergangundNeuanfangamBeispieldesrumänischenDonaudeltas

Studierendenarbeiten an der TU Wien
Master Projekt Raumplanung “EU am Ende” WS 2014/15

INHALT

Wien, 24.04.2015

VORWORT

Sieben Studenten der Studienrichtung Raumplanung hatten die Möglichkeit im Donaudelta, in der Gemeinde C. A. Rosetti, direkt an der Grenze zur Ukraine und in unmittelbarer Nähe des Schwarzen Meer ein Master Projekt zu schreiben. Das Master Projekt ist ein Wahlpflichtfach und das größte Projekt im Masterstudium Raumplanung. Wir besuchten mit C. A. Rosetti eine schwer zugängliche Gemeinde, mit relativ wenig Tourismus, der ansonsten im Donaudelta eine immer große Rolle spielt. Die Grenzpolizei und der Servicesektor sind die größten Arbeitgeber. Die Privaten ziehen sich mangels wirtschaftlicher Möglichkeiten zurück. Die Bevölkerung wandert ab und die Gemeinde hat in den letzten 20 Jahren 40% der Bevölkerung verloren. Geblieben sind die Alten und wenig Privilegierten und die Berichte der Studierenden geben Einblicke in deren Situation.

Die Gemeinde mit derzeit 800 Einwohnern in fünf Dörfern ist auf drei Ethnien, Rumänen, Russen und Ukrainer, verteilt. Gerade durch die fortschreitenden Ereignisse im Nachbarland Ukraine, wo Konflikte zwischen den Ethnien teilweise bewusst geschürt werden, ist es wichtig geworden, auf deren friedliches Zusammenwirken in der Gemeinde C. A. Rosetti hinzuweisen. Die Lebenssituation ist aber für die meisten Bewohner schlechter geworden als sie es noch vor einigen Jahren war. Einige Schulen und Geschäfte haben für immer zugesperrt. Das weitgehende Vergessen durch die politisch Verantwortlichen beinhaltet aber auch positive Aspekte. Ein Bauboom mit wenig angepasster Architektur, der sich in den Boom Jahren nach Ende des Kommunismus bis 2009 breitmachte, fand gerade hier nicht statt. Die Ursprünglichkeit, das kulturelle Erbe der Ethnien, wirkt in der Gemeinde stärker als in vielen anderen Orten des Deltas. Dies gibt Hoffnung für eine bessere Entwicklung als dies in anderen Gemeinden des Donaudeltas der Fall war. Wir wollen hier unterstützend wirken.

Die Verwirklichung der studentischen Projekte hängt von lokalen Initiativträgern ab. Die müssen erst gefunden werden, denn die Projekte geben kaum Ausblick auf Reichtum, sondern nur für ein besseres ökonomisches und soziales Auskommen in einer einzigartigen Natur. Der Blick von außen auf die inneren Geschehnisse der Gemeinde ist notwendig geworden, um nach Jahren eines empfunden Verlusts von Auswärtigen zu lernen, wie wertvoll das Vorgefundene erachtet wird. Vieles, was sonst in Europa und der EU verloren ging, ist in der Gemeinde noch vorhanden. Der Himmel ist hier so einzigartig und klar, dass man hier sogar nach weit entlegenen Sternen greifen kann. Das haben die Studenten versucht und wir hoffen, dass die dargelegten Projektideen vielen Menschen der Gemeinde dienlich werden.

Univ. Lektor, Dipl.Ing. Dr. Meinhard Breiling,
(Leiter der Lehrveranstaltung 261.353 „EU am Ende“)

AUFGABENSTELLUNG UND ZIELSETZUNG

Kooperation mit ARGE Donauländer und Schwerpunkt:
Common Sustainable Economic Activities

Brücken schlagen zwischen der Region **Niederösterreich/Wien und der Region Tulcea**

Kooperation mit SONDAR, dem Nachhaltigkeits- und Bodenschutznetzwerk im Donaurraum, Verein Boden- und Bioenergienetzwerk NÖ-EU, BIENE

Kooperation Nationale Kunstuniversität Bukarest, Univ. für Architektur Bukarest, Ovidius Univ. Constanta, Sfistofca Art Association, Tulcea;

Verwirklichung von Zielen der Donauraumstrategie EUSDR in der Region Tulcea

PROGRAMM

18. September bis 22. Dezember, 2014

1. Block, Einführung:

   18. und 19. September 2014, Start TU Wien mit Vorbereitungsvorträgen

2. Block, Exkursion/Feldarbeit:

   24. bis 1. September 2014, Teil 1: Bukarest, National University of Arts; Workshop (ERASMUS Austausch 24.-27.9.14); Teil 2: Donaudelta, Quartier in Sfistofca, Gemeinde C.A. Rosetti, Donaudelta mit rumänischen Studenten

3. Block, Vertiefung/Unterstützung:

   6. bis 10. Oktober 2014, Vertiefunsworkshops, TU Wien

4. Block, Berichtausarbeitung:

   13. Oktober bis 15. Dezember,

5. Block, Präsentationen:

   6. Oktober, 6. November, 4. Dezember, öffentliche Abschlusspräsentation,
   22. Dezember 2012, Schlusspräsentation TU Wien

Block 1: EINFÜHRUNG

Do, 18. 9. 2014

Veranstaltungsort: Raum 32, Operngasse 11/4, A-1040 Wien

10:00 Vorstellungsrunde

11:00 „EU am Ende“, Ziele der Lehrveranstaltung (M. Breiling); Wissensvermittlung, Einstellung, Fertigkeiten, Erwartete Produkte sind zwei Berichte und dazu vier Präsentationen

1) Gruppenarbeit, „EU Donauraumstrategie und Impulse durch die Feldarbeit in Rumä nien“ bis 24. Oktober 2014, zwei Gruppen, Mögliche Sprachen: englisch oder deutsch!
2) Individualarbeit bis 15. Dezember 2014 , Planung, die der Bevölkerung im Donaudel ta zu Gute kommen kann! Festlegung auf ein Thema mit Ideeskizze bis spätestens 24. Oktober! Mögliche Sprachen: englisch oder deutsch!

13:00 Mittagspause

14:00 bis 16:30, Vorstellung der Region: ein Überblick

14:00 Die Donauregion
14:40 Region Donaudelta
15:20 Diskussion
16:00 Fragen zur LVA, Exkursion

Ende ca. 16:30

Fr, 19.9.2014

Veranstaltungsort: Raum 32, Operngasse 11/4, TU Wien, A-1040 Wien

10:00 Praktiker berichten über Projekte zur Donauraumstrategie

ARGE Donauländer, Arbeitsgruppe Nachhaltigkeit, DI Dr. Erwin Szlezak, Amt der NÖ Landesregierung, Koordinator AG Nachhaltigkeit, ARGE Donauländer, SONDAR Nachhaltigkeitsnetzwerk im Donauraum,www.sondar.eu, www.argedonauländer.at

11:00 Dr. Sonja Jilek, Uni Wien, Koordinatorin LIMES Projekt, Mitorganisatorin der LIMES Konferenz, Bukarest und Ruse. www.danubelimesbrand.org

Ca. 12:30 Mittagspause

14:00 Praktiker berichten über Projekte zur Donauraumstrategie

SOPRO Sozial produziert, der Export einer Idee, „Social Franchising“ für das Donaudelta? Franz Rybaczek, Obmann, BIENE, Nachhaltigkeitsnetzwerk für den Donauraum

15:00 Kunst im Donauraum. Entwicklung eines kombiniertes Kunst- und Friedensprojekt im Donaurraum.
Im Gebiet der Gemeinde C.A.Rosetti befinden sich fünf Dörfer, zwei russisch sprechende Dörfer, zwei rumänisch sprechende und ein ukrainisch sprechendes Dorf.

Ca. 16:30 Ende der Veranstaltung

Block 2: EXKURSION/FELDARBEIT

Individuelle Anreise nach Bukarest bis 24.9. 2014

24. 9. 2014

Kooperation mit der „National University of Arts, Bucharest (UNArte)“ ist Teil einer ERASMUS Kooperation UNArte mit der TU Wien. Übernachtung im Studentenheim der Kunstuniversität Bukarest.

14:00 Treffen in Bukarest, Bezug im Studentenheim Bukarest
Address: Occidentului N. 18, between Piata Romana and Piata Victorii in the center of Bukarest

15:00 Projekte der Nationalen Kunstuniversität in Bukarest

19:00 Eröffnungsveranstaltung Konferenz LIMES in Bukarest oder Tour mit rumänischen StudentInnen durch die Bukarest!

25. 9. 2014

LIMES Konferenzteil Ruse/Bulgarien aktualisiertes Programm www.limesbrand.org
Busreise morgens nach Ruse in Bulgarien und Heimkehr in der selben Nacht!

26.9.2014

LIMES Konferenz Bukarest, siehe aktualisiertes Programm LIMES www.limesbrand.org

27.9.2014

Abreise aus Bukarest, Studentenheim UNArte, Reise ins Donaudelta, Transfer nach Sfistofca
Transfer Bukarest-Tulcea

7:00, Arrival Tulcea

11:30 Boat Tulcea to Periprava

12:30 Trip along the Ukrainian border

18:30 Arrival in Periprava, transfer to Sfistofca

19:15 Arranging overnight facilities with local people

20:00 dinner and welcome to Sfistofca.

Boots, mobile telephones might have poor signals, flash lights, very dark, wet napkins (primitive toilets), sleeping bags

Nightwalk: Stars of Sfistofca, a heaven unpolluted by light!

28.9.2014

Kunst als Mittel zur Regionalentwicklung in C.A. Rosetti , Verschiedene Workshops gehen hier ein:

Land Art Projekte, vorbereitet von Künstlern und Kunststudierenden
Workshop Time Maps www.timemaps.net , die Lebenssituation einer alten Zeit wird rekonstruiert.

Religious heritage of Lipovan people. With priest or deacon of Russian old believer minority from Sfistofca. Traditional Lipovan (Russian Old-believers) customs workshop in Sfistofca (singing, etc.)

Other workshops??

29.9.2014

Kunst als Mittel zur Regionalentwicklung in Sfistofca; Landart Projekte in C.A. Rosetti , Verschiedene Workshops gehen hier ein

Land Art Projekte, vorbereitet von Künstlern und Kunststudierenden

Muncipial planning workshop in C.A.Rosetti town office with mayor. Die Herausforderungen einer Bürgermeisterin – fünf Dörfer einer Gemeinde wollen mehr als überleben. Warum EU Förderinstrumente im Gebiet schwer greifen.

Erkundung der Landschaft per pedes oder mit Pferdewagen!

Ökotoursimusaktivitäten in der Region: Bootfahrten, Pferdewagen, Wandern!

Other workshops to be named!!

30.9.2014

Rückreise Sfistofca – Sulina-Tulcea or longer field research on own initiative in the delta.

11:00 The Danube Delta Institute DDI, Tulcea; Iuliana Nichersu, Iulian Nichersu, Spatial Planning Division of DDI (to be confirmed)

or

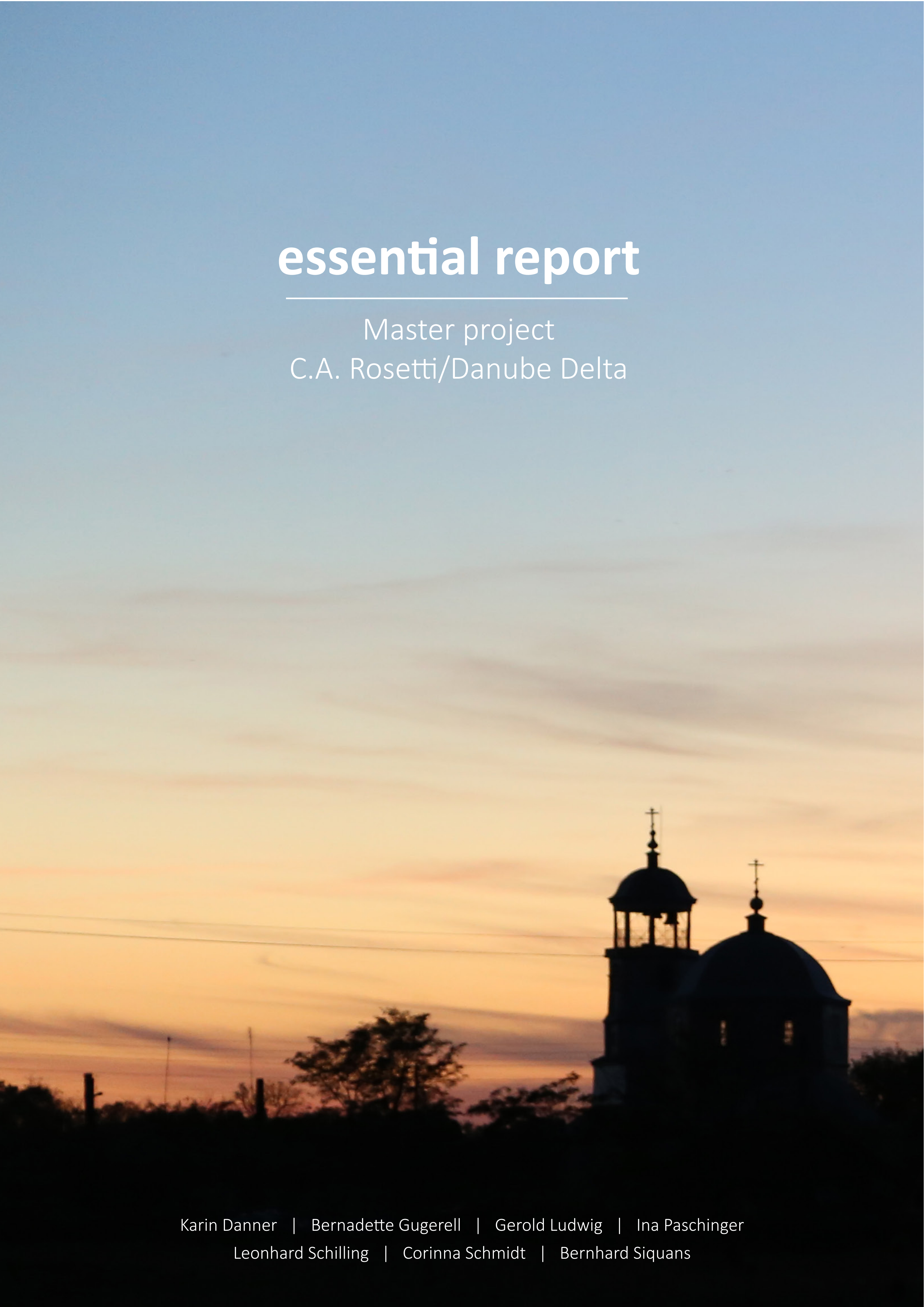
The Danube Delta Biosphere Reserve, Governor Edward Bratfanov, presents projects of DDBI in line withmthe EU Danube Region Strategy (to be confirmed)

Appr. 15:00 Transfer from Tulcea to Bucharest or alternative program!

1.10. 2014
Probably most of us return home on the evening of Oct. 1st, 2014.

ANALYSE DER GEMEINDE

ESSENTIAL REPORT - MASTER PROJECT C.A. ROSETTI / DANUBE DELTA
Karin Danner, Bernadette Gugerell, Gerold Ludwig, Ida Paschinger,
Leonhard Schilling, Corinna Schmidt, Berhard Siquans



essential report

Master project
C.A. Rosetti/Danube Delta

Karin Danner | Bernadette Gugerell | Gerold Ludwig | Ina Paschinger
Leonhard Schilling | Corinna Schmidt | Bernhard Siquans

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I. Introduction

At the end of September 2014 our group of seven students was facing a challenge: Planning in a region under totally different circumstances, as we were normally used to. None of the students has experienced a remote place like Sfiştofca, which is in the municipality of C.A.Rosetti – at least not in the setting of a planning task. But: Challenge accepted!

This document is named “essential report” and is a first step of approaching the quest in doing some research on different topics. Spending time on this rather general overview of the region means on the one hand to process the experience the students made at the site itself and on the other hand to embed this experience in an expanded pool of knowledge.

On the basis of this the single project ideas will be pursued.

II. History of Colonization and Ethnic Composition Today in the Region

By Karin Danner

As Europe's largest remaining natural wetland, the Danube Delta is one of the continent's most valuable locations consisting of large habitat for wildlife and comprising great biodiversity. The region has only been existing for about 12.000 years and is therefore regarded the youngest on the European continent. It is the result of alluvium unceasingly deposited by the River Danube at its mouth. On account of this continuous process the Danube Delta is subject to permanent change. (Kiss 1988:10f)

But not only the region's landscape can be considered unique. Just as landscape in the Danube Delta kept and still keeps changing through the ages, also the peoples inhabiting the area settled and often left again for many different reasons in the course of time.

Owing to its eventful history, Romania, and more precisely the Dobruja (nowadays the eastern part of Romania on the Black Sea coast, 'Dobrogea') has always been a place of ethnic and cultural diversity. Conveniently situated by the river and the Black Sea, throughout the history the Danube Delta continued to be a place of settlement, transit and refuge for the most divergent peoples.

Three major factors persuaded people to settle in the Danube Delta:

- remote areas, that provide shelter from persecution
- proximity to the black sea and Danube river (routes for maritime shipping)
- the abundance of rare natural resources (fish, reed)

(Dobraca 2005:17)

Early settlements in the ancient world and the Middle Ages

Recorded history first noted the Delta under Dacian control before being conquered by the Romans. After invasion by the Goths, the region changed hands many times. Archeological findings also proof that initial settlements can be dated back to the Bronze Age/Iron Age, when the Caraorman and Letea sandbanks seem to have been populated and were used as a transit point by the Greeks from the 5th - 3rd century BC. Scythian and Dacian tribes are mentioned as population of the North-Dobrujan areas in the 8th to 6th century BC and in the perimeters of the Murighiol and Mahmudia villages traces of Getic and Dacian settlements (5th – 3rd century BC) could be found. (DDNI, 2006:110)

Colonization and development of the settled region went from outlying areas (i.e. black sea coast) to the center of the Danube Delta. The first settlements (founded by the Geto-Dacians, then taken by the Greeks and further on by the Romans) remained preserved until the Byzantine Empire and were expanded in that period. (Dobraca, 2005:19)

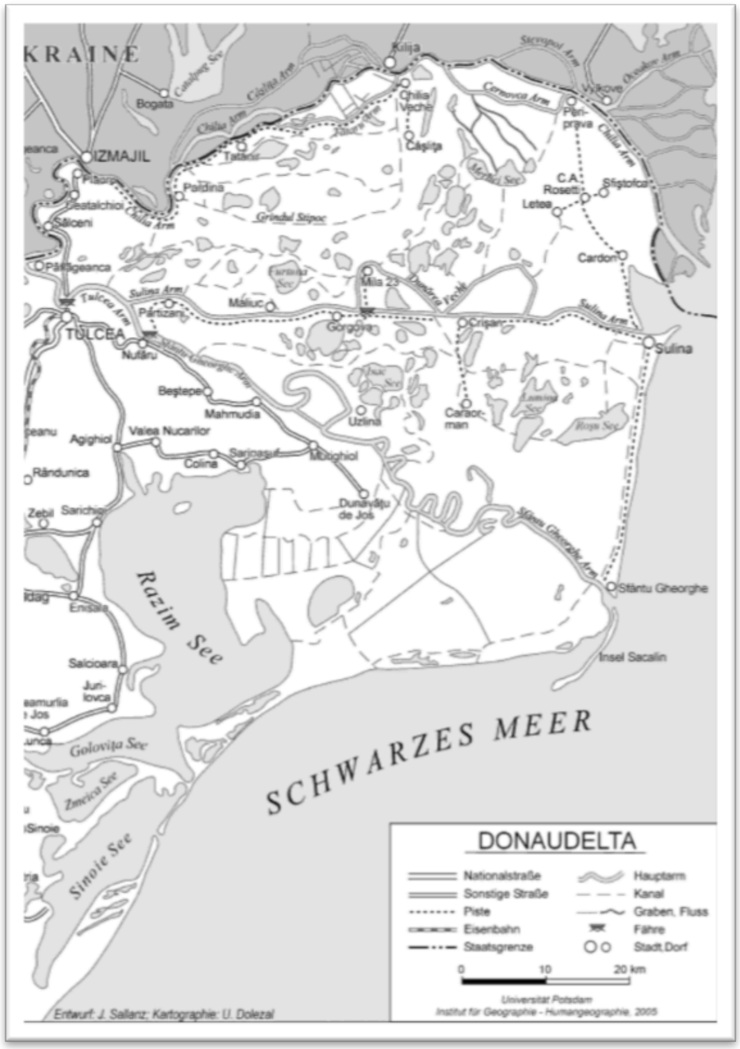

Image 1: Map Danube Delta
Source: Dobraca, 2005:18

The ancient and medieval period was particularly marked by the importance of trade activities in the Danube mouths. To safeguard flourishing trade, traders from Greece, Geneva and Venice already developed sales areas along the Black Sea Coast around the time of 1,000 AD. Those first central cities were first listed on nautical maps: Sulina at around 950 AD, Chilia Veche and Sfântu Gheorghe in the 13th and 14th century AD. Until the 13th century the Danube Delta was alternately ruled by the Byzantines and the Bulgarians and became part of the Ottoman Empire in the 15th century. Thus Turkmens, Oghuz Turks and Cumans started residing in the area.

It was not until the 17th century that the inland areas of the delta (Caraoman and Letea) were inhabited - first by Slavic immigrants and later on by spontaneous settlement of Bessarabic and Transylvanian shepherds. (Dobraca 2005:19)

In the 18th century Lipovans, who emigrated from Russia, settled down in the Delta to flee persecution by the Russian Empire. Also Ukrainians, descendants of Cossacks, who originally settled alongside the River Don and got deprived of military power found refuge in the remote areas of the Danube Delta. Initially settling in the west, they later moved inland. The immigration from the Bessarabic region Bugeac and the Ukranian settlements Vylkove and Kilija substantially contributed to the growth in population in the villages around Letea. This considerably affected the villages Chilia Veche, Periprava and Sfiştofca. (Dobraca 2005:19)

When the Dobruja was annexed to Romania in 1878 populating the area with Romanian natives was systematically carried out by the leading powers. At first, colonies along the Danube branches were founded (Carmen Sylva und Floriile (today: Crişan)). Favours, such as plots of land in the size of 5 hectares, were granted, which encouraged growth of the Romanian population. In the beginning of the 20th century the last settlements were founded along the Sulina channel. (Dobraca 2005:19)

Rumanianization after WWI

On the model of the western world the leading powers in time of Greater Romania (1919-1940) followed the idea of creating a national-state, which meant controlling a closed national territory inhabited by a homogenous group of people. This led to an aggressive policy of Rumanianization. Expropriation, linguistic and cultural unification starting in 1919 resulted in major emigration of the Turks and Tatars. While the percentage of Romanians totaled up to only 32% in Tulcea county in 1878 this number was raised up to 61% until the 1930s (by colonization from Moldova and Transylvania). This idea of a unitary nation-state has been a key concern of Romanian leaders ever since and became an all time priority in the interwar and the Communist periods. (Sallanz, 2005:15f)

When the Dobruja eventually was separated into a northern (Romanian) and southern (Bulgarian) part by signing the Treaty of Craiova in 1940 forced resettlement of population of Bulgarian ethnicity living in Northern Dobruja (61,000 people) to Bulgaria, and the resettlement of ethnic Romanians living in Southern Dobruja to the northern (now Romanian) part of Dobruja was implemented. In this period of time about 100,000 Romanians were forced to leave their homes in Southern Dobruja and other parts of Bulgaria. Ethnic diversity has strongly decreased after WWII in the Danube Delta. (Sallanz, 2005:15f)

Communist Era

It was not until the decades between the 1960s and 80s when further settlement occurred. A government program aiming at the reorganization of the Danube Delta into agricultural land led to a sudden growth in population when workforce for fish-farming, cultivating reed and agriculture as well as military troops arrived in the Danube Delta. At this point in time the population of the Danube Delta reached an all-time high of about 21,000 inhabitants. (DDNI, 2006:119)

Ethnic Diversity Today

In the entire Danube Delta nowadays all of the colonies in the area are marked by immense decrease in population. This is especially drastic in remote villages like Sfiştofca - within the past 30 years the village has lost the majority of its population. (Dobraca 2005:19) This trend can be observed in the entire municipality C.A Rosetti and in general this tendency of decline applies for the majority of the Danube Delta settlements. (Further elaboration on that topic can be read in the chapter “Living Environment”)

Nevertheless there can still be found a range of ethnic diversity in the Danube Delta. A few people continue living there, covering a wide range of ethnic background. Progressing linguistic and societal assimilation, as well as migration from those economically disadvantaged regions to more prosperous areas in Romania or even Europe leads to a cultural homogenization of the area. (Scharr, Gräf 2008:163ff)

Nowadays, alongside the Romanians, who represent the majority of population, the presence of Russian-Lipovans, Ukrainians, Turks, Tatars, Bulgarians, Greeks, Armenians, Macedonians, Hungarians, Roma, Jews and Italians is documented. (DDNI, 2006:116)

Traditions – Handicrafts – Religion

Traditionally people in the Delta worked as fishermen and so did and still do the Lipovans and Ukrainians. When fishing was industrialized and fishing licenses for commercial use started being sold, many men lost their jobs and income. Nowadays some of the Delta inhabitants still keep their tradition of fishing alive but most of them are doing this illegally (without buying the family-fishing license). Some of them even have knowledge about meshing fishing nets in a unique Delta-way but with no possibility of passing that knowledge on to a younger generation.

Especially the Lipovans strongly stick to their traditions and try to keep them alive in daily routine. Speaking Russian, celebrating traditional mass, living in traditional houses - usually painted blue and covered by the typical reed roof, wearing beards and dressing in traditional clothing or singing old Russian songs is their way of celebrating their cultural heritage and creates a tightly knit community.

Image 2: Lipovans wearing traditional clothing sitting in a typical fishingboat
Photo credit: National Archives of Romania

Conclusion

Despite the unfavorable living conditions in the Danube Delta, there have always been people who settled there, leaving their knowledge, language and cultural characteristics behind. The delta is sparsely but diversely inhabited since the 15,000 inhabitants originating from 12 different ethnic minorities, many of them even retaining their old customs. A big variety of people in such remote area and very confined space can definitely be considered unique. This uniqueness of cultural variety is being threatened by difficulties the population is forced to conquer on a daily basis. Unemployment, lack of basic infrastructure, sometimes very harsh and lonely winters that can isolate the area or deterioration of water quality, to name but a few obstacles, make life in the Danube Delta very difficult. Even more since many restrictions (fishing, building houses etc.) are imposed on the inhabitants. Therefore, the Delta is continuously loosing population, many of them due to work migration, people leaving for higher education or simply seeking for better living conditions somewhere else.

The Danube Delta has always dealt with streams of immigration, often people seeking refuge. Since progress did not (could not?) arrive in the area, these streams go the other way, which raises an important issue: Whether to improve the local circumstances and encourage people to stay even in the most remote areas of the Danube Delta, or simply leave some of the delta-villages to their fate and concentrate on developing other centers.

Sources

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Images

Lipovans: Photo Credit: National Archives of Romania. http://www.visitdanubedelta.com/de/gallery/images/history/history-archive-8/

Map Danube Delta: DOBRACA Lucien: Das Donaudelta: Raumstrukturen und Entwicklungsoptionen. In: SALLANZ Josef (Hrsg.) (2005): Die Dobrudscha: Ethnische Minderheiten - Kulturlandschaft - Transformation: Ergebnisse eines Geländekurses des Instituts für Geographie der Universität Potsdam im Südosten Rumäniens. Potsdam: Universitätsverlag. S.18

III. Traditional Architecture and Urban Framework

By Corinna Schmidt

By taking a walk through the rural villages of the sabulous veldts of the Rumanian Danube Delta, nature itself is unmistakeably the essential element and distinctive property in this region. The Rumanian part of the Danube Delta is not only known for its famous various flora and fauna, but also for a region where scattered houses of the rural population seem to be incomparably closer to nature than every other natural based building structure in Europe. Although this profound link to nature does not seem to find his path beyond the surface, as an author from the Igloo's magazine (2008) pointed out: *The lively colours they are painted in and their small decorative technical innovations seem to reflect the need to extract these happy and revealing accidents from the homogeneity of nature, to demarcate, visually and aesthetically, the territory of man from that of the elements.* Scattered buildings because of the mostly comprehensive continuing population decrease during the last decades in the region (especially concerning the north-eastern part of the Dobruja, next to the Ukrainian border) and subsequently occurred abandonment and following decay of houses; proximity to nature because of the nearly area-wide use of local, natural material in terms of house construction for the last centuries.

This chapter of the analysis of the Rumanian Danube Delta is supposed to provide an insight into the regions traditional architecture, with its particular arrangement of housing space, construction method and use of natural material, as well as into an overview of the local settlement history and present urban framework.

Traditional Architecture

Appearance and Background influences

Due to continuous in- and e-migration of different races from Rumania, Ukraine, Russia, Bulgaria, Germany, Greek and Turkey (cf. Excursion report 2009: 101), people themselves are supposed to be influenced in their way of thinking and treating the environment, as well as in their way of living concerning land use, mechanic art and traditions through the last centuries. Of course architecture and constructing method was and still is considered to expose themselves to these various cultural influences.

Within this cultural framework depending on the local ethnic majority, some houses in particular parts of the Dobruja were constructed based on the Ukrainian model, others were constructed mostly based on the Russian model. These models can be basically distinguished by the characterisation of detailed house design. An apparently important principle of the houses' characterisation in the Rumanian Danube Delta is the one-storey building method (cf. Voica 2014a), which was among other things additionally firmly adhered in a building law by the European Union (cf. Voica, 2014b) as well as the commonly used material like clay, reed, wood and sand (ingredient of clay-brick). Another typical attribute are, as already mentioned in the introduction of this chapter, the bright colours of buildings faces, as well as the recessed mainly wooden balconies at the front entrance side of the houses.

Fig. 1.: House in C.S. Rosetti , source: G. Ludwig (28.09.2014) Fig. 2.: Traditional House in the Danube Delta, source: romaniadacia.wordpress.com/2014/03/22/danube-delta/.

In addition to the superficial similarities of urban structure, buildings in the Rumanian Danube Delta feature a particular arrangement of housing space, which is considered as a simple module- structure (Ivanov 2010: 14). The author points out that basically the traditional house and the main functions were scattered in the land because of hygiene reasons, primarily because of the absence of sewage network in such remote areas; 84% of Rumanian villagers have no sewage grid, 85% have their toilet in the backyard and 91% are not connected to natural gas heating grid. The division of living space into 3 basic functions represents a possible interpretation of the above mentioned figures: The night - living area, kitchen and bathroom, which are in most cases completely separated from each other in the plot in order of expressiveness and intimacy positioned relative to the street. The night area is usually located near the primary access perpendicular to the street (ibidem.). Kitchens as well as living areas are mainly located in the background, toilets way behind in the back of the yard, whereas the bathroom normally is located adjacent to the living area and kitchen.

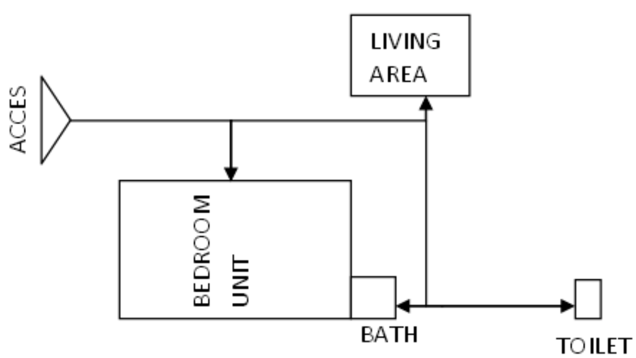

Fig. 3.: Arrangement of living space, source: Ivanov, 2010.

Materials and Constriction method

One of the remarkable characterisation of buildings in the Rumanian Danube Delta is the previous and present way of constructing, as well as the used material. The roof is usually made of crosswise cutted **reed** sticks and needs to be renewed every 15 to 20 years. This plant is the most abundant natural resource available in the region (detailed information about figures in chapter "Structure of the Danube Delta economy"), due to the permanent presence of water, which encourages luxurious growth. Harvesting can be done mechanised as well as in a manual way (cf. Ivanov, 2010: 22). **Clay** and **straw** are used for building clay-bricks as well as for the facade. The unburnt clay and straw brick locally called "Chipric" consists usually of clay and organic material (very often straw) and is supposed to be burned in the sun for about 30 to 60 hours (ibidem.: 19). The second way of using these materials is the mixture of a facades plaster, the so called "Ciamur". *Clay and sand is gathered from a moderate greasy soil, mixed together either water and straw until it has achieved a decent plasticity, after which it is either put into a mold and dried or used on site as a "Ciamur"*, which is about 5 cm thick (ibidem.: 19). In general clay provides multiple advantages: it regulates air humidity, economises, energy, building material and cost of carriage, self-construction is easier, the material is re-usable, it accumulates heath and it protects from irradiation. The disadvantages are for example that clay is no standardised construction material, it disappears during the drying-out process and additionally clay is not water-resistant. **Wood** is rarely available, because of the absence of forest in the region. Ivanov (2010: 21) illustrated that the only forests with a considerable size are protected areas. Therefore wood, or better unfinished tree trunks (found in nature) is sometimes sporadically used for timber frames (ibidem.: 19). Besides these materials, people also used to work with **sand**, the most visible element in this region, which is basically used as mortar and for mixing cement on site. But sand itself as main part of the soil is also forced to be an ingredient of "Chipric".

Within the framework of using almost exclusively natural material, there is indeed low polluting pressure to the environment. Architect Ileana Mavrodin from *Arhiterra* points out that a more widespread use can reduce environmental damage because their construction and upkeep demands low energy consumption. Additionally houses built from clay or cob – a mixture of clay, water, sand, straw and other natural materials – are cheap and easy to build. "Most of the construction materials can be found on site," says architect Ileana Mavrodin. "From digging the foundation, we get the earth needed for the walls, and the vegetal soil is used for the roof." (cf. Ipsnews, 2014).

Due to several restrictions and rules from the European Union, as well as from the Danube Delta Biosphere Reserve people are nowadays supposed to build their houses without using non-local material (cf. Voica, 2014b), which is indeed a challenge, facing restrictions concerning the access to reed and high prices to build a traditional house. One of the oldest building regulations written in form concerning Clay-buildings in Germany and Austria was decreed in 1760 as baronial forestry regulation. Yonder document promoted basically certain fireproofed construction material, after the interdiction of using wood as such material, without even mentioning the simple word clay or loam in order to avoid people's horror (cf. Schneider/ Schwimann/ Bruckner, 1999: 198). Basic ratifying attempts in the last century have been discouraged under the title of "Lehm-bauordnung" in 1944 in Germany and concerned essential regulations for earth constructions. This marked the first attempt to detail rules and thoroughly document building techniques using earth based materials. In 1951 the compendium was included in the German DIN 18951, as a technical stipulation for construction works. After these initiatives until 1956, other norms and regulation projects were elaborated, but were not applied. All pro earth building initiatives suffered in 1971 a saddleback, all the regulations were decreed as obsolete, as well as uneconomic and were retreated (cf. Ivanov, 2014: 17). After an intervention made by the Interior Minister of the federal German state Hesse in 1982, *and after the recent decree of the executive of the same land, these are still valid for approving earth constructions in the absence of technical regulations so that the utilizing mode explained in the old regulations won't have to be checked for every singular case* (ibidem.). Some years ago the Earth Architecture Association in Germany, "Dachverdand Lehm", edited an approved technical compendium respective constructions in earth building since 1998, the rules having recommendation character and being used as such in 11 federal states in Germany (ibidem.).

Conclusion

But for all that, as we experienced during our excursion in the Danube Delta, it did not seem to be clear that the traditional way of building houses is cheaper as the "modern", usual occurring way in Europe of construction. Due to privatisation of land and partly impossibility of use of land, traditional material became partly not affordable for the local population, which was also confirmed by Voica (2014b). Eventually in my opinion we have to ask ourselves what sustainable development means when people are not even able to gather local natural resources from the region. Furthermore old craftsmanship as well as "normal" ways of constructing will maybe get lost.

Urban framework

Overview of the local settlement history

Despite the hard life conditions like the challenging climate conditions and hazards as well as the remoteness of the area, people settled down for different, comprehensible reasons over the last centuries. The first reason was the remoteness itself, indeed appropriate concerning this land, which provided resort. Secondly and thirdly the main reasons for immigration were shipping and uncommon natural resources, such as reed or fish (cf. Sallanz, 2004: 17). So people where on the one hand forced to settle down, but for some it was their simple idea to stay here by choice. Nowadays the Rumanian Danube Delta exhibits a continuing decreasing population number of 170.000, of course unequally distributed to 4 cities and 61 villages in the region (ibidem.).

According to Sallanz (2004: 18) the direct settlement occurred in a spiral way, where borderland was captured at first. Furthermore coastal stripes happened to be populated, where trade flourished step by step. The city of Sulina played an important role during the 10th, 13th and 14th century as a reloading point for different local goods. As a result of the booming coast, the midland (today area of the municipality of C.A. Rosetti) happened to be populated, in the majority of cases with Slavic population. Last colonies were founded in the 20th century (ibidem.: 19) (more to read about this topic in chapter "History of colonization and Ethnic Composition in the Region").

Present urban framework

The villages and the region in general are nowadays indeed characterised by a highly rated spatial isolation, especially due to the lack of modern infrastructure. This concerns especially the spots in the Ukrainian borderland, but not the capital of the region Tulcea. 88,5% of the villages can be understood as small or very-small villages with a local number population less than 500 (Sallanz 2004: 19). These villages are exposed to the already mentioned present decrease of population. A clear example for this is the locality Sfistofca, which lost about half of its population during the last 20 years or Gorgova, where 60% of the people decided to migrate from this village (more detailed information about the demographic process in the region in chapter “Living Environment and Social Structure in the Danube Delta”). On the other hand the city of Tulcea duplicated its number of population through the last decades (ibidem.: 20). Corresponding to this development these villages show a continuing growth concerning abandoned houses and open areas, based on decomposition of former occupied buildings.

An important decision in terms of land use and preserving nature was taken in 1990 where a biosphere reserve was declared by the Government of Romania, which is a supposed to be *a public institution under the coordination of the Ministry of Environment and Forests, responsible for the management of reserve, including the conservation and protection of the existing natural heritage; promote and support the sustainable use of the natural resources; provision of support, based on the results of research, for management, education, training and services* (Sladonja, 2014: Chapter 10).

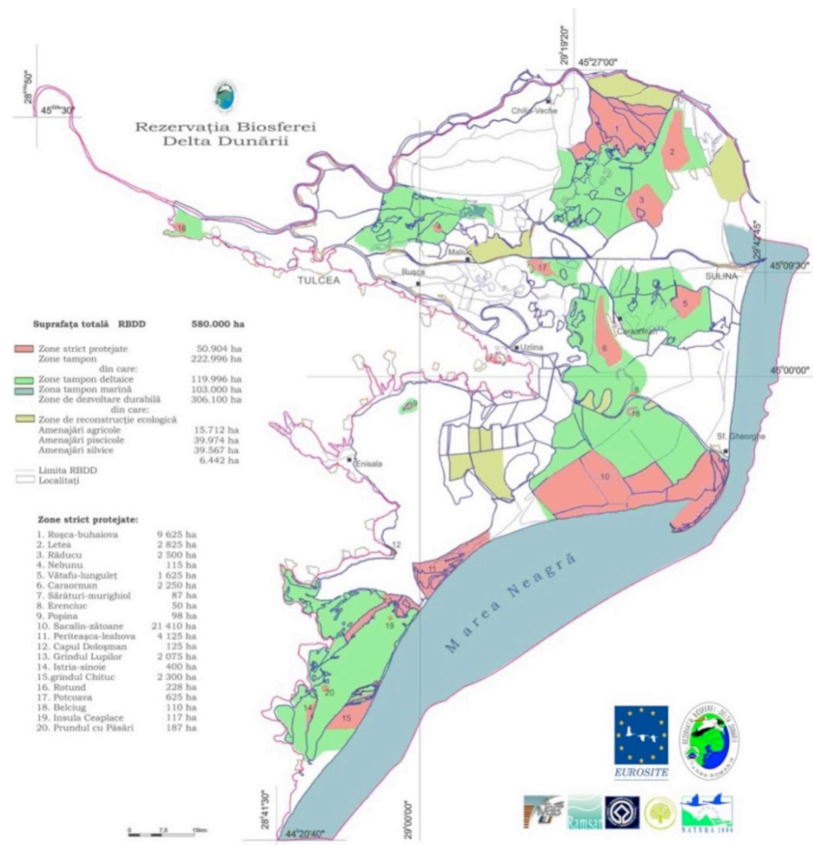

Fig. 4.: Zones of the Danube Delta biosphere reserve, source: www.intechopen.com/books/protected-area-management/be-natur-transnational-management-of-natura-2000-sites.

In terms of the biosphere reserve, the area got divided into different zones which define the convenient use of land. 50,904 ha are strictly protected areas and preserve and protect birds, forests with original aspect, salted lands and some samples with special deltaic landscape (cf. Masterplan, 2006: 6). 222,996 ha are buffer zones (marine buffer zone: 103,000 ha) which surround generally the complete protection zones in order to reduce the economic activity and the anthropic pressure over them and the transition, or economic zones integrates 306,100 ha (ecological restoration: 15,712 ha, agricultural polders: 39,974 ha, fish ponds: 39,567 ha, artificial forests: 6,442 ha) (cf. Sladonja, 2014: Chapter 10) and representing 52.8% of the DDBR area. If we add the 38.5% representing the buffer zone where some economic activities are allowed, it comes out that in only 8.7% of the DDBR area they are forbidden. In the transition zone there are some areals in the dammed precincts proposed for ecological reconstruction, some being abandoned as inefficient, others with the purpose to avoid ecological lack of balance (cf. Masterplan, 2006: 6).

Conclusion

Of course the explained zones to not only preserve nature and natural environment, but also limit the access to nature and natural resources for local population. The human being in general in this region is always kind of supposed to pit himself against the forces of nature (within painting their houses in non-natural colours, etc.), the relationship and link, which is indeed important as a part of the identity of people's minds, is of course adversely affected by this struggle. The question here is if we are allowed, in terms of resilience and sustainability of planning, to develop land, without supporting the people to keep up with this development.

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List of figures

IV. Living Environment and Social Structure in the Danube Delta

By Bernadette Gugerell

As one of the most sparsely populated areas in the European Union, the Danube Delta is struggling with various problems related to its demographic conditions. Emigration, over aging tendencies and the loss or non-existence of basic infrastructure are challenging the region increasingly and apply supplementary pressure on the population remaining. This chapter wants to give an overview of the demographic situation and development of C.A. Rosetti which is known as the most isolated municipality in the Delta. Further on, there will be a short analysis of the social institutions and the relevant stakeholder for the region and the village of C.A. Rosetti.

Timeline

The population in C.A. Rosetti is decreasing since the year of 1990, where data was available for the first time after the fall of the communist regime. Though, this development is characterized by various ups and downs until the year of 2000. Starting from 1.438 in 1990 to 1.222 in 1995, there could be registered again 1.321 inhabitants in the following year of 1996. However since the beginning of the new millennium there can be determined a clear tendency for the population's decline *(see Figure 1).* In the last 14 years, C.A. Rosetti's number of residents has declined from 1.171 to 839 recently.

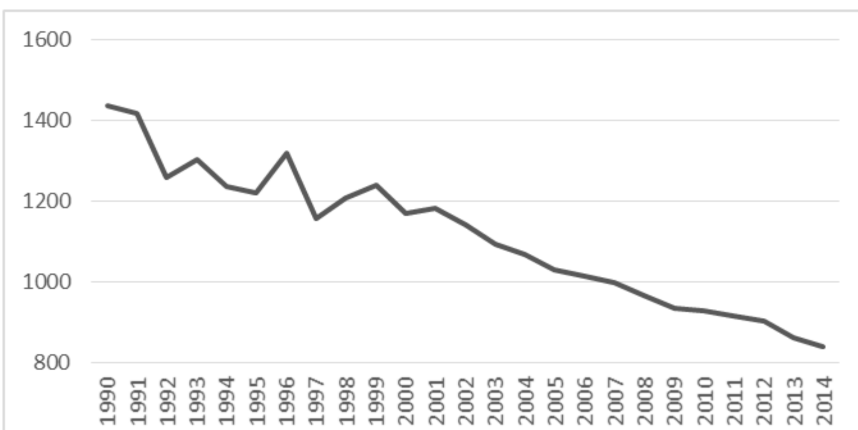


Figure IV-1: Timeline of the population's development in C.A. Rosetti.
Source: National Institute of Statistics Romania, online 2014.

When compared to the trend of the whole Tulcea County, the negative growth of C.A. Rosetti becomes more obvious in a broader context. Until the year of 2014, the Tulcea district has lost on the whole 13% of its population registered in 1990, whereas C.A. Rosetti has experienced a demographic loss of over 40% in the same time period *(see Figure 2).*

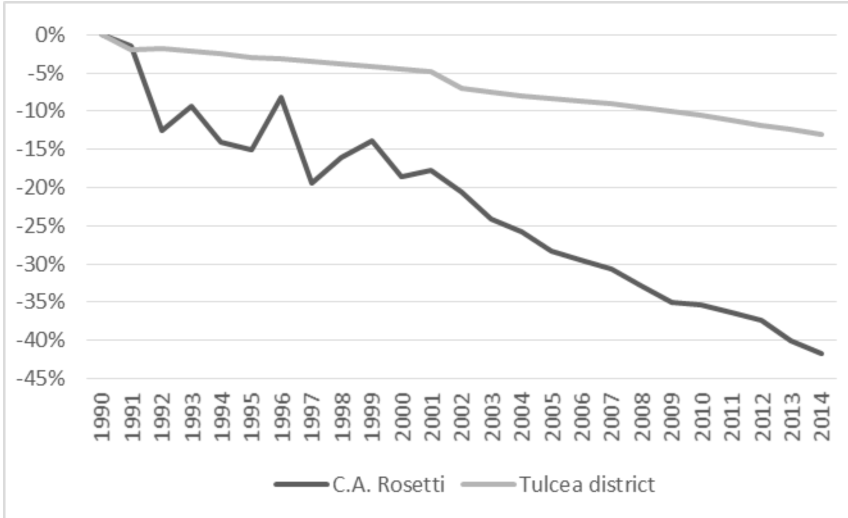


Figure IV-2: Development of C.A. Rosetti's and Tulcea's population in percentage.
Source: National Institute of Statistics Romania, online 2014.

Reasons for this development can be seen in the permanent emigration phenomenon taking place from the inside of the Delta's region to the urban areas like for example the city of Sulina. Another cause for the negative growth is C.A. Rosetti's decreasing birth rate, which was about 12% in 2002 (cf. Danube Delta Institute 2006: 120). The reduction of the number of young people and the consequently decreasing number of marriages can be drawn responsible for this. But there are also forms of temporary immigration happening, registered especially during the summer time. This is the case concerning summer houses that are frequented solely in the warmer season due to the difficulties in winter time. These summer houses are usually located in farming areas and banks of canals and streams. It is further on not a surprising fact that the death rate values exceed the national Romanian average in the hard accessible villages of C.A. Rosetti. There is hardly any medical assistant nor sanitation available. This can be mentioned as further cause for the decline in population. (cf. ibid)

Figure IV-3: The cemetery of Periprava.
Source: Gugerell 2014.

Spatial Distribution

Official data of the analyzed community gathered in 2002 is showing that of all five settlements Letea is the one comprising most of C.A. Rosetti's inhabitants, to be exactly 34%. The next bigger localities are Periprava with 26,46% and C.A. Rosetti with 25,02% of the whole municipality's population. Sfiştofca and Cardon appear to be the smallest villages in the municipality with 11,96% respectively 2,29% of the official residents in the community.

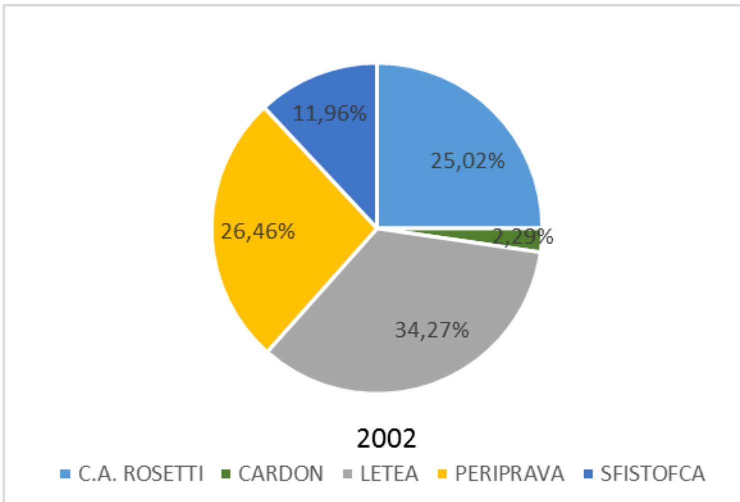


Figure IV-4: Population's spatial distribution in C.A. Rosetti.
Source: National Institute of Statistics Romania, online 2014.

Despite the fact that there are official numbers, governmental expertise is showing other figures. It is estimated that of the 141 people on paper in Sfiştofca, only around 60 are regularly living there. This could be seen as an example for the gap between official data and the real situation in demographic issues. (cf. Interview Hancerenco 2014) *(see Chapter "History of the Region")*.

Demographic structure

Concerning the allocation between different gender, data is showing that there are living more men than women in the area of C.A. Rosetti: 55,30% are male, 44,70% female. In absolute terms 375 women are opposing 464 men in the year of 2014 *(see Figure 5)*.

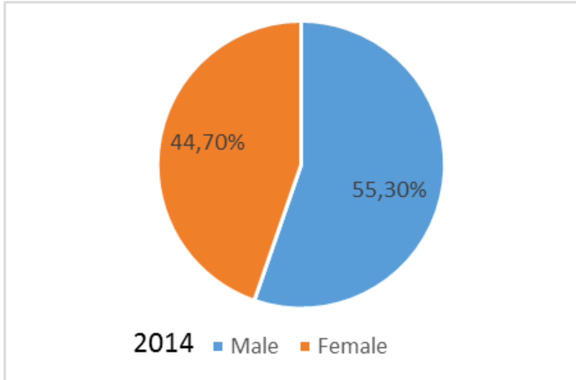


Figure IV-5: Gender-related structure of C.A. Rosetti's population.
Source: National Institute of Statistics Romania, online 2014.

The analysis further reveals that in the year of 2014 the male population's share is on the whole bigger in the age group 0-29 than the women's, 157 to 108. This is also the case in the summarized age group of 30-59, where concrete data for man is 212 whereas for women 131. Only the senior age group, from 60 years on, is dominated by women with 136 females to 95 men *(see Figure 6)*. It seems that there is a little void in the age group 20-29 in the women's range. A cause for this might be the women's emigration due to financial or educational reasons. Maybe also the harsh natural conditions especially for women in the area could be drawn responsible.

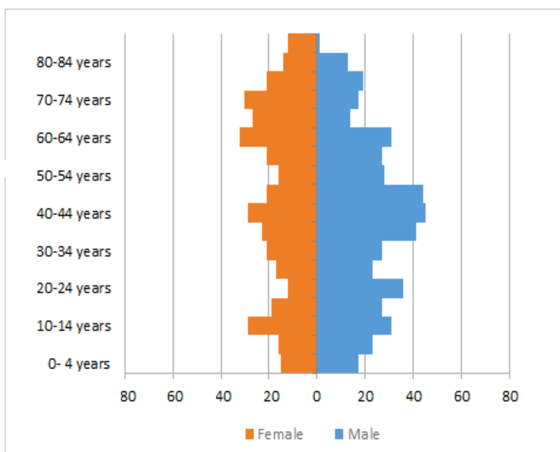


Figure IV-6: C.A. Rosetti's population by gender and age groups 2014.
Source: National Institute of Statistics Romania, online 2014.

The age pyramid of 1993 shows a different picture. Here is a gap visible between the age group 20-24 and 40-44.

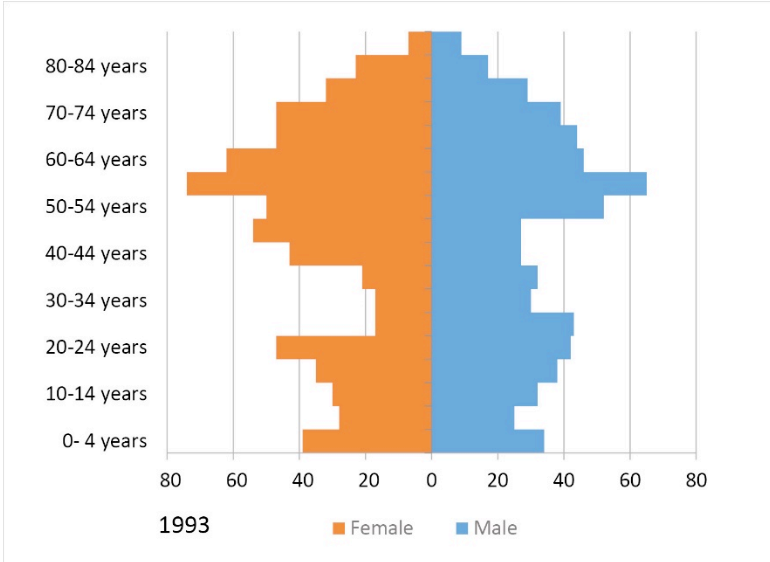
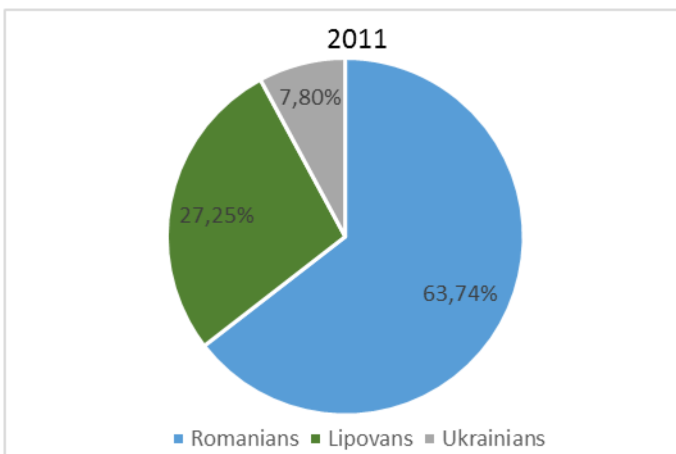


Figure IV-7: Rosetti's population by gender and age groups 1993.
Source: National Institute of Statistics Romania, online 2014.

Ethnicity

Despite its low population density the Danube Delta is home to many different ethnic groups. In C.A. Rosetti the population consists of around 64% Romanians, 27% Lipovans and nearly 9% Ukrainians *(see Figure 8)*.



Year	All	Romanians	Lipovans	Ukrainians
2011	910	580	248	71

Figure IV-8: C.A. Rosetti's population by ethnicity.
Source: National Institute of Statistics Romania, online 2014.

According to the Danube Delta National Institute, the population in C.A. Rosetti can be considered purely Romanian, whereas in Sfiştofca the Lipovans are predominant with a share of 96,3%. In Letea the Lipovans also form a big part of the local population: 37,7%. In general their coexistence is described as peacefully and solidary. There could be determined no concrete conflicts between this nationalities, in spite of the recent military tensions between Ukrainia and Russia. However, the Romanianization tendencies are obvious. Over the last years there even had been closed a Lipovan school, leaving one last Lipovan school in Periprava. The roles of the ethnic groups are manifested: Romanians constitute with over 2/3 the main share of the population whereas Lipovans and Ukrainians are the minorities. It might be a question of time if they will remain the future development since marriages are decreasing and the birth rate is on decline. Nevertheless not only C.A. Rosetti, but the whole Danube Delta is an area where different ethnics yet can live together and share the locality since over hundreds of years in peace (cf. Danube Delta National Institute 2006: 120).

Schools

As stated by the National Institute of Statistics, there is one Romanian education unit in the locality of C.A. Rosetti which comprises primary and secondary education as well as special education (2014 online). Additionally, there is a Lipovan primary school in Periprava according to the mayor Hancerenco (cf. Interview 2014). There are approximately 110 potential school kids living in the whole area but in fact social issues often prevent them from visiting school. Specific reasons for the absence in many cases are the parent's unawareness for the importance of education resulting from alcoholism and its consequences or from financial issues. To latter count the needed support for the work on the domestic farms as well as funding issues. (cf. Interview Hancerenco 2014) However, the school kids transport system is well organized. There is at least one bus picking up the kids from Periprava, Letea and Sfiştofca and returning them home again on a daily basis.

Community associations

Concerning associations of the local community, there could be observed the local chess club and a women's choral society, both operating in Sfiştofca. The choral society occasionally is touring and giving concerts in other cities and villages every now and then. It seems that it represents a social framework particularly for elder women, who want to preserve the traditional Russian-lipovanian and Romanian folksongs in the community. The chess club on the other hand is masculinely dominated

Figure IV-9: The women's singing association of Sfiştofca. Source: Ludwig 2014.

and provides gathering occasions for playing the game in the community centre. There are tournaments held regularly, but it is not clear if communities from the other settlements or even external not local people are involved.

Relevant stakeholder

The concerned stakeholder in the region of C.A. Rosetti can be generally divided into *formally* and *informally* acting. Formal stakeholders are embedded into the administrative and institutional system while operating. The following table gives an overview of the observed and investigated formal stakeholder that have an impact on C.A. Rosetti:

Formal			
Level	Stakeholder	Site	Tasks
International	European Union	Brussels (B)	Administration, legislative and executive of the European Union
	World Bank	Washington D.C. (USA)	Allocation of funds for poverty reduction
	Stockholm Environment Institute	Stockholm/Goteborg (S)	Conducting research for stakeholder i.e. the World Bank for the Danube Delta
National	Romanian Government	Bucharest	Administration, legislative and executive in Romania
	National Administration “Romanian Waters”	Tulcea	Subordination of Waters Management System Tulcea
	Danube Delta National Institute of Research and Development	Tulcea	Research in protected area, coordination of Tulcea Forestry Detour relevant for C.A. Rosetti
	Forest National Department Romsilva	Tulcea	Forest administration
	WWF Romania	Bucharest	Bringing together stakeholder for environmental protection
Regional	Tulcea County Council	Tulcea	Administration, legislative and executive in Tulcea County; Responsible for the RDP “Rural Development Project” in Tulcea (implemented by Romanian Government, funded by loan from World Bank)
	Agriculture and Rural Development Department of Tulcea County	Tulcea	Providing Data about DD for scientifically, economic, tourist purposes, involvement in “Local Activity Plan for Environment 2005”
	Waters Management System Tulcea	Tulcea	Manage underground and surface water resources, monitoring
	County Frontier Police Inspectorate C.F.P.I Tulcea	Tulcea	Surveying the fluvial and maritime frontier, also medicine transport or (water-)rescue activities
	Tulcea Health Department	Tulcea	Implementation of national health programs on local level
	Danube Delta Biosphere Reserve Authority	Tulcea	Managing of natural heritage, monitoring of environmental influences, coordination of Ecological Guard and Control Service, transfer of data to Bird Life International,

			managing National Environment Guard
	Romanian Shipping Authority	Tulcea/Sulina	Supervision of shipping navigation
Local	Local Council of C.A. Rosetti	C.A. Rosetti	Administration of economic, social, ecological issues
	County Frontier Police C.F.P.I	Periprava	Surveying the fluvial frontier Romania-Ukraine

Table 1: Own figure. Sources: Danube Delta National Institute 2006: 13ff. WWF Romania 2014 online.

In contrast, informal stakeholder are operating more independently. The following represent the found amount of them with relevance for C.A. Rosetti:

Informal			
Level	Stakeholder	Site	Tasks
International	Rewilding Europe	Nijmengen (NL)	Managing the "rewilding" of Europe's natural sites
National	Association of Ecotourism in Romania	Brasov	Managing promotion and eco-tourism certificates, connecting different stakeholder
Regional	Salvati Delta	Bucharest	Initiation of activities for the protection of the Danube Delta
	NGO "Vox Deltae"	Crisan	Conducting activities in the Danube Delta for sustainability (gathering of interested people, education through World Learning course etc.)
Local	Chess Association	Sfiştofca	Organization of recreational chess sets and tournaments
	Women's Singing Association	Sfiştofca	Preservation of Russian-lipovan and Romanian folk-songs
	Artist's Association	Sfiştofca/Bucharest	?

Table 2: Own figure. Association of Ecotourism in Romania 2014 online. Danube Delta National Institute 2006: 13ff. Rewilding Europe 2014 online. Salvati Delta 2014 online.

Conclusion

The diminishing population is a major challenge for the whole region of the Danube Delta. C.A. Rosetti is as well facing this problem. On the other hand the still existing schools in the localities of C.A. Rosetti and Periprava shows that there is a chance on behalf of the kids' education and perhaps the future settlement of new families. With the establishment of new homes and the inclusion of young families in the community the shrinking tendencies could be offset, but maybe not fully avoided. If this is required, the social offer for young(er) people, particularly women and families, has to catch up and be prevented from the elder's domination, for example in terms of sportive associations or cultural events. Further on, the lacking sanitary system and medicinal offer can be a major obstacle for the municipality’s development, as it is a basic need for reaching a high age. There could be developed a mobile medicinal service, like for example for dental problems, which could be shared with the whole eastern Danube Delta region. Finally another problem to face might be the declining minorities due to Romanianization – they have to be actively protected and supported in their traditions and culture.

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Images

V. Structure of the Danube delta economy

By Gerold Ludwig

The main sectors of economic in the Danube delta are fishing, agriculture, reed harvesting and tourism. Overall the region is marked with an increasing number of registered enterprises in the economic sectors of aquaculture and commerce (vgl. EUROPEAN COMMISSION 2010:13). In the year 2008 87% of the Danube delta's population who are capable of work were employed, compared to 70,3% in the whole European union (cf. Eurostat, online and EUROPEAN COMMISSION 2010:23).

29% of the working people are working in the agriculture and forestry sector, 15,5% in the industry, trade, construction and services, 15,4% in tourism, transport and communications, 15.3% of the working people are working in the fishing sector (fishing, aquaculture and processing industry), 13,5% public administration, 5,7% in education and culture, and 1,9% in health and 3,6% in other sectors (cf. EUROPEAN COMMISSION 2010:18). These employed people are working mainly in 160 firms (commerce 67 firms, hotels and other facilities 61 firms, 16 restaurants, agriculture 10 firms and fishing 6 firms). Of these 160 companies are 84% located in the tertiary sector (cf. EUROPEAN COMMISSION 2010:13).

Approximately 30% of these people are working in Sulina or Crişan and make these two cities the most important economic centers of the delta (cf. EUROPEAN COMMISSION 2010:16). Sulina had an even more important role in former times. It was a hub for goods which came by sea but it lost this role more and more. Nowadays there are new canals through the delta and the means of transport changed. Due to the fall of the city, the surrounding villages lose inhabitants and importance for economy (cf. BRANDNER 2007). These developments seem to just affect Sulina and its surroundings. Overall the numbers of companies increased over the last 5 years by 25%. (cf. EUROPEAN COMMISSION 2010:13). Thanks to this economic upturn Pardina, as the only location, was able increase their total number of inhabitants. They had such an intensive development of their agriculture that they attract people from other, poorer areas in Romania or within the delta, for instance Sulina. (cf. EUROPEAN COMMISSION 2010:7)

Fishing

Fishing is one of the main pillars of the economy in the Danube delta. During our visit in the community of C.A. Rosetti we heard often that it got really complicated to get allowance to fish after the delta became a biosphere reserve. They also mentioned that they are not allowed to catch a lot of fish. Only with an industrial licence, which is quite expensive, they would be permitted to catch more.

According to the European Commission there are just five kind of licences. These are permits for family fishing, boats and ships, commercial fishing, professional fishermen and one for fishermen associations and research institutes.

People who are owner of the family permit are allowed to catch everyday 3 kg of fish by using 2 rods, 2 grillnets or 2 pots. These rules were introduced to "secure a living standard for the inhabitant" and they are only awarded for the local population. With the sport fishing permit for example, people are allowed to catch an amount of fish up to 5 kg but they are not allowed to use other tools than rods (cf. EUROPEAN COMMISSION 13f).

This rules were changed several times and are more relaxed now. When the Danube delta biosphere reserve started, it was quite impossible to fish but after a few changes in the years 2001, 2008 and 2010 people were allowed to fish again. Over the last years the demand for family permits fell from 2134 in the year 2006 to 839 in 2009. On the other hand the demand for the other permits went up. The reason for that was a change of the association which issued the permits. In former times the Danube Delta Biosphere Reserve (DDBRA) decied to reduce the numbers of permits. Since 2005 their follower, the National Authority for Fisheries and Aquaculture (NAFA), issued an unlimited amount of permits (cf. Graphic 9, EUROPEAN COMMISSION 2010:15).

At the moment it seems like the fishing for business is on a high level, 40% (6% of the employed people) of the inhabitants of the Danube delta are working as fisher or in a fishing related sector but overall it is on a very low rate (cf. EUROPEAN COMMISSION 2010:13). These people are just the normal employed people, actually there is no data available how many self-employed fishermen are working in this region. In 1921 approximately 350 tons of black roe were harvested and till 2000 the rate dropped to 9 tons in Romania. Fishing in international and internal waters dropped in a high percentage as well (cf. TUDORANCEA 2006:401f).

The fishing efficiency in the Danube delta is also linked to a geographical location. The main part of fishing is in the southern part of the delta because there the Danube River is slow and deep. In the northern region a lot of anadromous fishes left the area because of several interventions, like river regularization or stone deposits along the banks, close to Sulina. (cf. TUDORANCEA 2006:401). Another disadvantage is a lack of valuable, in an economic point of view, fish species and that caused a "qualitative decreasing of fishing fund" (cf. STIUCA NICHERSU 2006:123).

Furthermore there are no companies in the Tulcea Trade Register Office which could manage the fish processing (cf. EUROPEAN COMMISSION 13).

Agriculture

Like fishing, agricultural production is one of the main sources of income for local people.

In the year 2010 there are 20% more agricultural companies than 5 years before. They cover nearly 13% of the dry area which is about 61,500ha. This amount is about twice as high as in 1950 (cf. TUDORANCEA 2006:402 and EUROPEAN COMMISSION 2010:18). Unfortunately the natural conditions for agriculture in the Danube delta are not very good and they limit the potential of considerable growth. Only 15% of the area could be used and the soil is quite sandy and salty. There is no bigger livestock farm for intensive breeding even if the local people would prefer livestock but just very small scale. Main locations for them are in the community of C.A. Rosetti and in Caraorman (cf. EUROPEAN COMMISSION 2010:18-23).

Reed

Reed Harvesting in the floodplain started in the year 1907/1908. Between 1930 and 1940 reed was exported mainly to England as a raw material for the paper industry. After the Second World War they started to build flow regulations for fishing and started reed harvesting on a big scale. Nicolae Ceaușescu tried to breed a special reed with a higher percentage of cellulose. The overall harvest was at 300,000 t in the winter 1956/1957, later went down to 85,000 t (1960/61), and again up to 280,000 t in 1964/65. Satellite pictures show us that there are 330,000 t reed on 66,000 ha today. Because of bad infrastructure the reed harvest is about 70,000 t every year. Many areas are not accessible anymore and so it is not possible to harvest reed there. There are regions where no harvest took place during the last 10 years (cf. TUDORANCEA 2006:403).

Inside the Danube delta reed is mainly used as fire material and for building (cf. DDBRA Online)

Tourism

According to our observations the income through tourism is very unequally spread in the region. The region of Sulina and the community of C.A. Rosetti are not frequently visited by tourists. There is just one bigger hotel which is operated by a Frenchman. But in Crișan, which about 20km away from Sulina, are a lot more tourists. Overall the capacity of beds for touristic purposes was about 2,750 (in the whole Danube delta) in the year 2009. In the same year 71,550 people visited the Danube delta with 125,891 overnights in total. That is 10% lower than 2008 but it is not really significant because it is just from one to another year (cf. EUROPEAN COMMISSION 2010:18).

A main problem which prevent the rise of numbers of tourists is that some villages still suffer from a massive lack of infrastructure. They do not have water supply or sewage systems.

Conclusion

As mentioned in the analysis from the economy is quite ambivalent, depending on the parts of the Danube delta. Overall the economy is based on the pillars of tourism, reed harvest, fishing and tourism. All of them have more potential which is not really used. In the far Northeast the tourism is underdeveloped, maybe due to a lack of infrastructure which means that there is no water supply or sewage systems. There are a lot of areas covered with unused reed and also the sectors of fishing industry and agriculture are are very old fashioned and small. Only in one part, the village of Pardina, has a rising number of inhabitant and it happens because of a growing and stable economy. So if the Danube delta is using their potentials they could have a stronger economic growth.

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VI. Mobility and Infrastructure

By Ina Paschinger

This chapter aims to give an overview to the actual standards of infrastructure facilities and mobility systems due the research field of the municipality C.A. Rosetti and the Danube Delta.

Road conditions due the Danube-Delta

Due the Danube delta road conditions are different from the remaining landscape of Rumania. The official traffic ways end at the beginning of the Danube delta.

While in the rest of the country streets are paved with asphalt, roads through the delta are tracks without supported underground and pavement. Although the roads are simple, the circumstance that there are still differences in their conditions can´t be denied.

Within the region of C.A. Rosetti the villages are located in an area of ~35 km diameter. As a result of the poor state of the streets and the arrangeable transport vehicles in the area, travelling times increase.

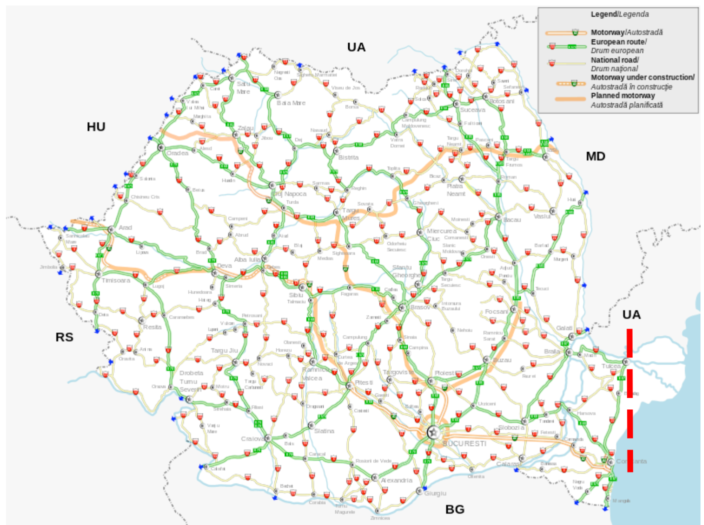

Image 3: Official Street network of Rumania – ending at the doorway to the Danube-Delta, Wikipedia

Image 2: Street in Letea along the channel, Own Image

Image 1: Street in Sfistofca along the channel, Own Image

Start	Mark	Distance	Time (average temp 50 km/h)
Letea	Sfiştofca	7,30	~ 15 min
	Periprava	17,70	~ 58 min
	C.A. Rosetti	4,40	~ 7 min
Sfiştofca	Periprava	17,70	~ 1 h 2 min
	C.A. Rosetti	3,90	~ 11 min
Periprava	C.A. Rosetti	13,80	~ 52 min
Sulina	C.A. Rosetti	19,40	~ 26 min
	Sfiştofca	22,20	~ 33 min
	Letea	22,40	~ 29 min
	Periprava	32,70	~ 1 h 16 min

Tab.1: Average travelling time through the municipality of C.A. Rosetti (tempo 50 km/h [e.g. car]), Own illustration

Waterways

Supplying the delta due waterways goes back far in history. In ancient times, for example, the port city of Sulina was settled by sea-travelling people and became one of the most important commercial cities in the Black Sea region. In the 20th century the seat of the Danube commission (until the year 1938) uses to be in Sulina, recently the importance of international trade city was reduced as a result of expansion to other trade routes. Currently, main economic revenue is recorded due summer season.

Waterways and side channels were once major transport routes, which needed to be maintained regularly to navigability. Until the 1960s political prisoners have performed the maintenance (bearing Periprava / Ultima Frontiera Hotel). Later this task was taken over by agricultural companies, which mostly do not exist anymore. This is a reason for the low attraction and limited potential uses of waterways.

The harbor city Sulina and the village Periprava are the only places with direct connection to the main town Tulcea. The only way to get there is to take one of the daily ferries. These two places have a special status as “key” to the rest of the country, main transport routes are the waterways through the Delta. The table displays the current schedule of the local ferries. The traffic density of the ferries is also one reason, among others why inhabitants of the Danube Delta are leaving the region.

REGULAR FERRY SCHEDULE:		
Route	**Departure Days**	**Departure Time**
Tulcea - Periprava	Fri.	1:30 pm
Tulcea - Sulina	Mon. Wed. Fri.	1:30 pm
Tulcea - Sf. Gheorghe	Wed.	1:30 pm
Periprava - Tulcea	Sun.	6:00 am
Sulina - Tulcea	Tue. Thurs. Sun.	7:00 am
Sf. Gheorghe - Tulcea	Thurs.	7:00 am

Tab.2: Ferry Schedule (www.romaniaandmoldova.com)

The municipality C. A. Rosetti has a traffic-island status. All cars and other materials are embarked via Periprava and Sulina. The main functions of these harbor cities consist in general supply of the local people in the delta with nourishments, furniture (kitchen, sofas, etc.) and construction materials. (Movement of goods is charged per kilogram!).

Pic. 5: Movement of goods from Tulcea to Sulina (own photograph)

Water supply and environmental policy

At the lower Danube most of the cities take the drinking water out of the Danube, for example even the citizens of Tulcea receive the water from the river. There are water treatment plants which need to be extended. Liquid waste processing systems and purification plants are very rare, the villages and cities located in the Danube delta lead their wastewater either directly into the river or into the soil. This is also a reason for the mainly insufficient status of the water quality along the Sulina canal. Most villages within the municipality of C.A. Rosetti and the Danube delta aren't connected to any water supplying systems. The locals receive water by collecting rainwater and from their own wells. Recently the village residents in the area around C.A. Rosetti are confronted with the circumstance of their groundwater getting salty. This may have different reasons, but the problem is getting more serious.

Another particular item of environmental development is the circumstance of waste management. Through the Delta region there were built waste disposals, but it seems that the litter problem is not solved at all. Most of the scattered trash, in the fields and along the streets, is plastic material. Accordingly to this fact the public's spirit for ecologic material flow should be enhanced.

Most investments in the next years will probably be needed in the sector of environmental development.

Energy supply

The local residents of the research field C.A Rosetti are provided with electricity by the established power supply system leading from Tulcea through Sulina into the region. According to statements of local inhabitants from Sfiştofca and C.A. Rosetti the standard of the supplying system is sufficiently dimensioned to their issues. Failures emerge in case of storms or sometimes in rough winter seasons, those disturbances used to be solved within 2 – 3 hours.

To tap new resources, solar or on-shore wind power would be alternative ways to enhance the independence of the Danube Delta and to accommodate the Delta to European standards.

Social infrastructure – provision of medical care

The standard of medical supply within the Danube delta is very poor; the next hospital is located in Tulcea, which is just reachable by boat or by helicopter. The transport to medical institutes is barely affordable, as a fact of this circumstance locals don´t receive adequate treatments (state of the modern medicine).

To improve the situation of health care, the establishment of mobile medical services may be useful. In order to implement this project, a thorough investigation should be carried out. If there is a school doctor in the community whose services could perhaps be extended to the rest of the population. Perhaps we might suggest a mobile service for routine medical examinations (which it perhaps as a school doctor already exists and can be extended to senior citizens).

Conclusion

The conditions in the Danube Delta differ in almost all areas of supply from the remaining country. These circumstances are usually of historical and geographical origin.

The biggest challenges for spatial planning will be to strengthen and align the current standards in infrastructure and mobility facilities to those of the European Union. The legal situation to obtain grants and funding for (re-)building roads or water systems is not optimal for the local population; it often lacks on information how grant applications are provided. Another problem is the plight of exploring the status of ownership. Although the end of communist system in 1989 about 30 years ago, many certificates of property rights were not given to the owners or got lost.

An official mapping in the sense of a basic book could remedy to facilitate access to funding possibilities.

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http://upload.wikimedia.org/wikipedia/commons/thumb/3/37/Romania-drumuri.svg/800px-Romania-drumuri.svg.png Picture 1 - Road System of Rumania

Street in Letea and Sfiştofca ; Picture 2 & 3 (own photographs)

http://romaniaandmoldova.com/rmwordpress/wp-content/uploads/2009/11/ndobrogearegionmap.gif - Picture 4 - Main routes into the Danube delta

Picture 5: Movement of goods from Tulcea to Sulina (own photographs)

VII. Asset Nature

By Leonhard Schilling

Landscape in Progress

The shape of the Danube Delta is the result of forces affecting the surface of the earth for thousands (in the Case of Danube Delta for about 5.000 to 7.000 years) (Ştiucă et. al, 2006: 46) of years. One could say that every landscape has its own dynamics and thus is permanently being reshaped so it would not be anything special. The Delta of the Danube River is an area where those changes caused by natural processes can be described as particularly obvious and determining.

Erosion and Sedimentation

Primarily it is an interaction between river and sea influencing the look of the landscape and the life of man and nature. This game is played in various forms. The River brings a plenty of sediment in form of silt and sands building large fluvial sandbanks in the zone where the Danube divides into the three Delta-Branches, Chilia, Sulina, Sfantu Gheorge. Further all along the banks of the three channels and in the area of the mouth alluvia cause a growing of place. As a second factor the Black Sea plays an important role. Strong maritime currents together with winds and waves effect a sedimentation of material. Subsequently, the coastal landscape is influenced by emerging sand banks. (Ebert, S. et al., 2007, 10f) The energy of the Danube River and the Black Sea constantly appeal on the shape of the delta landscape. The millions tons of material being eroded and accumulated by the diverse forces lead to an average annual growth of about 40m and also locally to an impressing shrinkage of the coast line. (MRDT 2010, 7) (ESA, online)

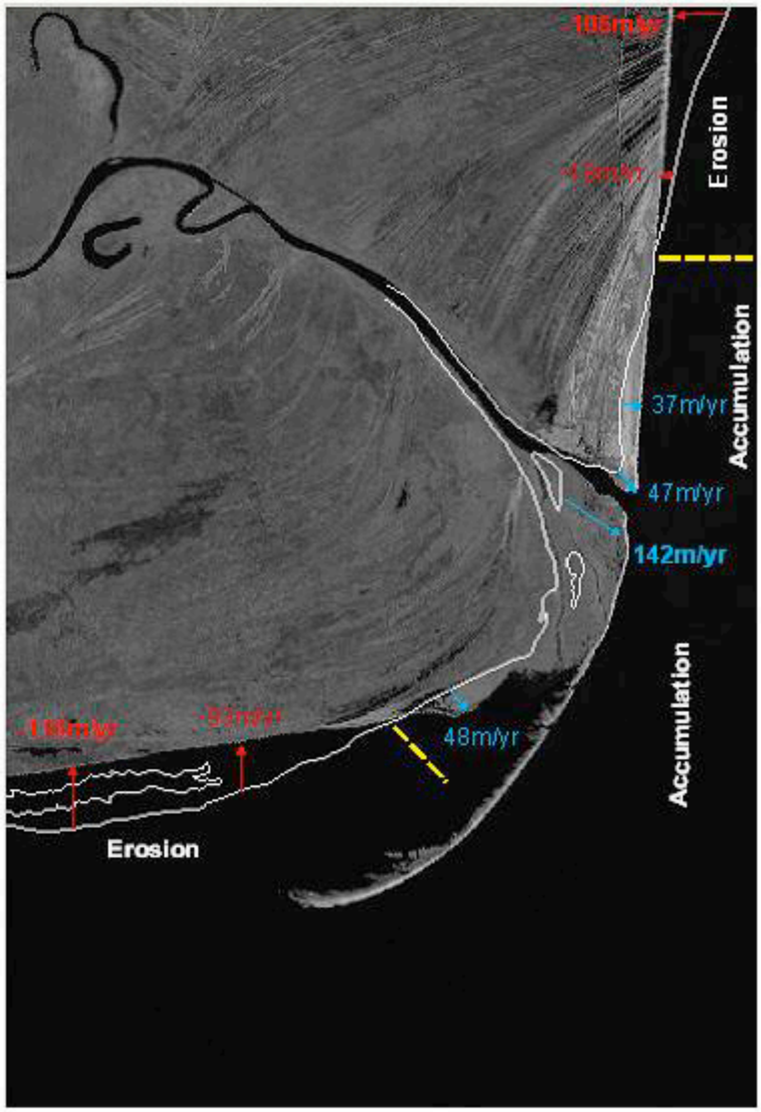

Abbildung 3: Dynamics at the mouth of the Sf. Gheorge-Branch of the Danube

Floods have an impact on landscape. The runoff regime of the Danube river basin respectively the weather situation determines the water level and finally the flooding of the numerous lakes behind the riverbanks. Floods can occur in a different periodicity – once in a century, annually etc. and can also last for a different length of time - some last days long, some only for a few hours. In the past the main Branches and Channels were embanked and dykes were established for traffic, economic and security reasons. Until these interventions the flooded area was about 95% of the whole delta. Nowadays, due to human actions only about half of this amount is flooded.

Salinisation

Due to the proximity of the Black Sea an essential factor concerning the growth of vegetation is Salt. The amount of salt concentrated in the soil provides special conditions for certain vegetation. When the precipitation (Niederschlag) is lower than evaporation (Verdunstung) the concentration of salts in the groundwater increases in especially in the upper levels of the soil. On the other hand Salt gets carried away through the flooding when water enters the areas behind the river banks. The rhythmic inflow and outflow in those hinterlands regularily influencing the concentration of salts and nutrients can be seen as "breathing". (Ebert, S. et al., 2007: 11).

The effect of salinisation has an important impact on the natural vegetation - further the natural landscape – but has a significant influence on human activities in agriculture too. In the Village of C.A.Rosetti people are concerned about those processes. It is getting dryer (the annual precipitation is already low; see climate) and in order to this the plants can't stand the higher concentration of Salt in the soil. Wine as it is grown by some people in Periprava is generally used to dry conditions as building up roots reaching deep into the ground. However, the concentration of Salt is increasing in these soil horizons and conditions are getting worse (Winegrower in Periprava, 29.9.2014).

Vegetation

The main vegetation types are reeds, forests, wetlands (moores, swampy fields, rush marshes (Feuchtwiesen), meadows and agricultural sites. Gallery forests are characteristic for the riverbanks where conditions are not too wet because of the relatively high elevation. The tree vegetation traces the river courses across the landscape. (Ebert, S. et al., 2007: 12) But also the marine levees (Naturdeiche durch die See geschaffen) are potential habitats of forest development. For instance in the area of C.A.Rosetti the Letea Forest has a marine levee as its basis.

Outstanding for the Daube Delta comprises the largest connected area of reed. It counts about 1800 km². Reed grows behind the riverbanks in the wetlands with its lakes and rush marshes. The soil is too wet for building up trees so reed becomes the dominant form of vegetation. It can be found as those huge reedbeds or as floating islands consisting of different aquatic plants mixed up with organic remains and soil (Ebert, S. et al., 2007: 10ff)

Climate

The following data is not directly available for Sfiştofca. The representative survey point is Sfantu Gheorghe. The exact period of observation is not mentioned in this survey (while the survey is of 2006).

- *Sunshine:* The annual duration of Sunshine rises from east in Tulcea with 2.260 hours of sunshine to the west in Sfantu Gheorge with 2.502 of theoretically possible 4300 hours. Vienna has an average annual sunshine of 1936 hours.

- *Air temperature:* The annual average air temperature rises from east to west too with Tulcea (11.0°C) to Sulina (11.5°C). The warmest month is July (average 22°C) the coldest is January (average 0°C). The absolute maximum was on the 20th of August with 37.5°C in 1946 and the absolute minimum was on February 9th, 1929, with -25.6°C. In general the oceanic influence of the sea causes mild temperatures.
- *Precipitation:* The average precipitation in Sulina is – like in the whole Danube Delta region – low an lies at 313mm per annum. In respect to Sulina Vienna has 664mm average precipitation a year.
- *Humidity:* Because of the numerous sources of evaporation in the Delta the annual average values are around 75%. In Sulina the value of Humidity amounts 84%
- *Wind:* The predominant directions of wind is north (Sulina 18.5% of all directions) and south (Sulina 16.7%). (Ştiucă et. al, 2006: 101f)

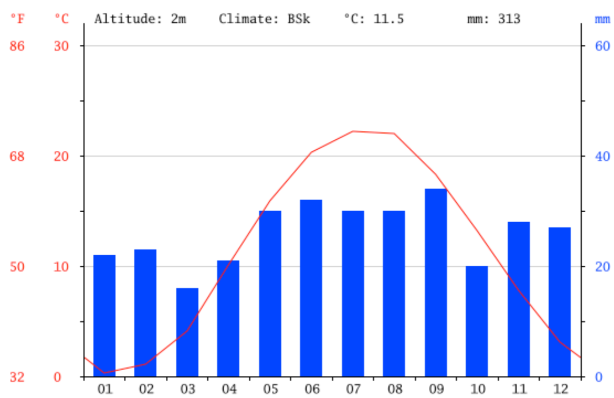

Abbildung 4: Climate Diagram Sulina

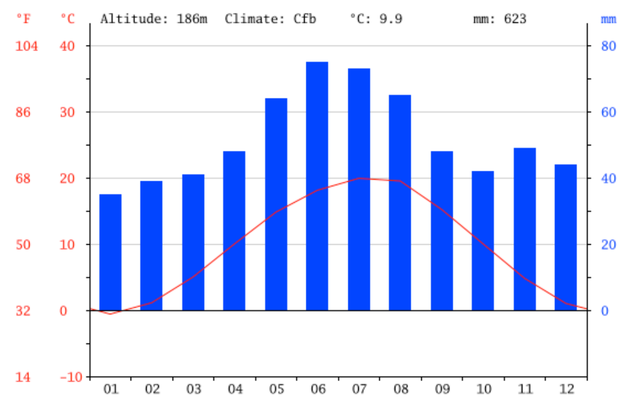

Abbildung 5: Climate Diagram Vienna

Types of Landscape

Why all those mentioned processes, conditions and functions lead to an outstanding landscape which is an important capital to deal with for the people in the Danube Delta. To get a better overview over the landscape there will be introduced different types of landscape in the Delta based on morphology and ecosystems. The investigation concentrates on the area in and around the municipality C.A.Rosetti where the most types are represented. The main types are running waters (Fließgewässer), stagnant waters (stehende Gewässer), swampy and regularly inundated surfaces (sumpfige und regelmäßig überschwemmte Oberflächen), and river ridges/river banks (Strombänke) barrier beaches resp. marine levees (Strandwälle bzw. Naturdeiche), cultivated areas (agriculture, forestry, fishfarming).

The *runnig waters* as ecosystem refers mainly to the three arms of the Danube (Chilia, Sulina, Sfantu Gheorge) as well as to the main and lateral channels (Haupt- und Nebenkanäle).

Particularly in the latter phyto- and zooplancton serves as food for many creatures in the waters from worms an larvae to fish like caprs (Karpfen) and sturgeons (Stöhre). Pollution of these waters is a problem which leads to declining fish populations.

Meaningful for C.A.Rosetti are the Branch of Chilia and the Sulina Channel. Further channels lead to Letea (Cnalul Mageard) and Sfisfoca resp. Cardon. The latter connects the Sulina arm and the Chilia arm via a short track over the Black Sea (Golful Musura). The Chilia Channel is the youngest and longest (120km) and transports the highest amount of water (56%) and alluvia. At the mouth of the Chilia arm there is an annual growth of 40-80m through sedimentation of alluvia. The Sulina Channel was shortened in the middle of the 19th century for the reasons of shipping.

The *stagnant waters* are characterised mainly by underwater and floating flora. Known for the numerous lakes, ponds and small canals which are often silty (schlammig) the landscape of stagnant waters can be found in the western parts of the Delta. The area in the west of C.A.Rosetti with Lakes named Merhei, Matita, Babina etc. comprises a typical plants like water lilies – often near the shore of the ponds but all floating. Fauna is also very rich for example the catfish (Wels) and the pikeperch (Zander) are ones of many species living in those areas. This type of landscape occupied 31,260 ha (9,3%) in 1964 and after the draining, after some agriculture and forest facilities creation, in 1990 summed up only 25,800 ha (8%).

Swampy and regularly inundated surfaces occur in close connection with the latter type of territory. It often consists of the different variations of reed hence fish come here to copulate. The surrounding seems a good place for the young fish to develop. Also birds use these places to nest. Representative birds would be the pelicans, swans ducks and herons (Reiher). Mammals also live in those territories: E.g. the otter, muskrat (Bisamratte), or more and more rarely wolves. The number of bird species is reported to be 325 thereof 159 are not breeding in the delta only visiting on the journey to anywhere else on the planet.

River ridges/river banks are the area of willows (Weiden). Similar to most b*arrier beaches resp. marine levees* the larger river banks were used for agricultural activities so the tree populations got stubbed (gerodet). At the marine banks Oak forests developed like in the first and most popular protected site of the Delta the Letea Forest situated in the area of C.A.Rosetti. Those marine levees which occupy the biggest part of C.A.Rosetti municipality area make up 8% of the Delta area while the riverbanks count 6% of the area. Rosetti is one of few areas where sand banks with marine origin can be found and it is one of the areas of stable ground for building up settlements and running activities like farming.

In the 70s of the last century the cultivation of large areas of the Delta was task of an own institution. The economic activities gained more and more importance so the vision was a productive delta. Today one can find *cultivated areas* of the past – some are still in use some are on the way back to nature. However, great changes happened and the the ecosystems suffered by the construction of large facilities for agricultural activities and fish farming. Fish farming for example led to unbalanced water ecosystems. In 1991 facilities covered about 30% of the Danube Delta surface.

(Naturefriends Internationale Map, 2009; MRDT, 2010: 20f; Ştiucă et. al, 2006: 96ff)

Between Use and Protection – Institutional Surrounding

As seen in the last lines the balance between human activities and natural processing is not easy to find and to keep. The consequence of the happenings in history is a new awareness of the natural environment the actual asset of the Danube Delta. Thus many people think of an alternative way of living with nature and not against it simultaneously taking advance of the resources it offers. Some thoughts got institutionalized respectively some institutions foster new ways of thinking.

Danube Delta Biosphere Reserve (DDBR)

Belonging to the UNESCO Man and Biosphere Program which pursues a use-and-protection-approach of nature conservation the Danube Delta got a biosphere reserve in 1998. The area of the reserve also covers Ukrainian land. Seven Years before the Romanian part of the delta got declared a UNESCO World Natural Heritage. To manage all activities around protection of the DDBR the Administration of the Danube Delta Biosphere Reservation was founded in 1990. (DDBR, online)

Nature Friends International

The organization declared the Danube Delta to the "landscape of the year 2007 to 2009". In this frame NFI started many activities. Aim of these activities was to promote a compatible way of tourism in the Danube Delta. NFI carries on the thoughts of Man and the Biosphere and tries to find ways of implementation. For instance there was an education program established where local people of the delta could participate to get tourist guides. Another approach was – under steadily networking efforts - to find innovative ways of economic action in the field of reed harvesting. Concerning tourism the establishment of small pensions were pursued in another education unit. NFI also implemented education programs in schools to raise the awareness for environmental issues among the youngest Delta inhabitants. (NFI, 2009)

Challenges and Potentials

The landscape of the Danube Delta is highly dynamic. That means a permanent change of shape but also a permanent change of the conditions, which people have to cope with if they want to live in this area. The impact of natural the natural force by river and sea is a determining factor in the delta. History comprised also a heavy impact of man. People tried to tame those forces transforming the delta to a productive entity promising high economic gains. In the meanwhile (25 years) minds changed and the topic of "how to make a living of man and nature – not against it". Exploring the asset of nature – the dynamics and high biodiversity – and trying to take advantage of that capital while not harming it could be described as a (new) way of institutional consciousness?!?

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VIII. EU funds and their role for the Romanian Danube Delta

By Bernhard Siquans

The system of European funds contains a variety of funds and programmes. For this short overview only those will be discussed which are relevant for the regional development of the examined Romanian Danube Delta. At the moment the European Union faces the end of the programme period 2007-13 which was extended until the end of 2014 and hence equipped with more money. Due to this fact this text provides a short retrospect on the previous programme period and gives a forecast on the coming period 2014-20. Both periods are being reviewed on their relevance for the Romanian Danube Delta. Furthermore the Danube Region Strategy, which was established in 2011, is introduced very briefly.

The objectives and funds of the programme period 2007-13

The most important EU funds in relation to regional development are the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesian Fund (CF). These funds which are categorized under the objective „economic, social and territorial cohesion“ are among the financially strongest EU Funds together with the European Agricultural Fund for Rural Development. In the programme period 2007-13 the fund consisted 349,9 billion Euros[1] and so claims over 35 per cent of the overall budget (cf. Europäische Kommission [a], online).

For the programme period 2007-13 the main objectives of the European regional policy were (1) convergence, (2) regional competitiveness and employment and (3) territorial cooperation. The objective *convergence* pursues the aim of supporting those member states which are least developed in the matter of competitiveness and employment. In particular this means NUTS-2 regions[2] which show a lower GDP per capita than 75% of the EU average (cf. Europäische Gemeinschaften 2007: 13f.). In preparation for joining the European Union Romania divided its territory into eight NUTS-2 regions. All eight of them are convergence regions and consequently are entitled to gain more (financial) support by the European Union. The money for these regions are not only provided by the ERDF and the ESF but also by the CF.

Within the scope of the objective *regional competitiveness and employment* all regions of the European Union which are not eligible by the objective *convergence* are supposed to be supported. All the money is provided by the ERDF and the ESF. Due to the fact that Romania

1

This sum was increase to 355,2 billion Euros due to the extension of the programme period for the "transition year" 2014.

2

NUTS is the short form for the french term „Nomenclature des unités territoriales statistiques" and describes the division of member states' territory into comparable spatial units. This allows a harmonisation of statistic data in the EU, the preparation of analysis and a better coordination of the European regional policy (cf. Europäische Kommission [b], online). The examined area (district Tulcea) is part of the NUTS-2 region South-East.

as a whole is eligible by the objective *convergence* this objective is irrelevant for funding (cf. ibid.: 18f.).

European Territorial Cooperation (ETC) aims to strengthen cross-border and transnational cooperation. The eligible regions are border regions (cross-border cooperation) or regions for transnational cooperation, both defined and selected by the European Union. In any case these regions already have to be eligible for one of the first two objectives. So the ETC is just an additional funding possibility. For Romania the defined cross-border regions are along the borders to Serbia and Bulgaria. For our examined area these regions are not relevant. Even though the Danube Delta crosses borders to Moldavia and Ukraine, it is not eligible in that case because neither are the neighbouring countries member states of the European Union nor are there any third country agreements. However, within the scope of transnational cooperation South-East-Europe was defined as an eligible area. Romania as a whole is part of this transnational region (cf. ibid.: 20ff.).

Results and insights of the programme period 2007-13

In the previous period 19,2 billion Euros were scheduled under the objective *convergence* and additional 455 million Euros under the objective *European Territorial Cooperation* for Romania. The national framework plan defined five thematic priorities: (1) development of basic infrastructure in line with European standards, (2) increasing the long-term competitiveness of the Romanian economy, (3) development and more efficient use of Romania's human capital, (4) building an effective administration capacity and (5) promoting balanced territorial development (cf. European Communities 2007: 64f.).

During the programme period it was perceived that Romania struggles to achieve the named priorities because of basic requirements. In the year 2013 a strategy report of the European Commission about the cohesion policy noted, that the application for funds by Romania proceeded very slowly and that there is a high risk of losing big parts of the designated money and by that not achieving the intended aims (cf. Europäische Kommission 2013: 11). On the basis of this report some newspapers reported that Romania's amount of called funds were just 14,7% of the budgeted money. No other member state called a smaller amount of funds (cf. Handelsblatt 18.04.2013, online; Spiegel 18.04.2013, online). At the beginning of 2014 there were still two thirds of the money not called. The European commission sees the reasons especially in administrative barriers, missing knowledge and frequent change of administrative staff (cf. Gillert 2014; Puchinger 10.10.2014).

In the data base of the European Commission there is only one implemented project to be found for the examined area: "Extension and the rehabilitation of water and wastewater systems in Tulcea county". For this project 113,8 million Euros have been invested, a share of 80% funded by the European Union. 106.000 of about 200.000 people living in Tulcea county are supposed to benefit directly from improved water services (cf. Europäische Kommission [c], online). A field study of the author in September 2014 in the commune C.A. Rosetti showed that until now there are still whole communes (each consisting of several villages) without canalisation and running water. Villagers told about projects where water pipes have been started to get installed but the water system was never finished.

Beside this project funded by the Regional Development Fund there have been some touristic projects which where financially supported by the European Union like the Resorts Ultima Frontiera Periprava and Puflene in Murighiol (cf. Ministry of Communications and Information Society, online).

The EU programme period 2014-20 and its importance for the Danube Delta

The new multiannual financial framework for the period 2014-20 is the first one which provides less money than the overall budget of the previous period. The overall budget for 2007-13 provided about 994,1 billions Euros. In comparison the new overall budget for 2014-20 provides about 960,0 billion Euros which is about 3,4% less than in the previous period. The (unchanged) pillar „cohesion policy“ is budgeted with 325,1 billion Euros and hence 8,5% less than in the previous period (2007-13: 355,2 billion Euros) (cf. Europäische Kommission [d], online).

In order to work on a common base there are partnership agreements made between the European Union and its member states. In these documents the member states describe their main aims and how they plan to fulfill them. The Danube Delta seems to have an important role in the new partnership agreement between Romania and the European Union. It is stated that "the wetlands of the Danube Delta support only a narrow economy and a sparse population" and the main characteristics of these less developed regions are "low levels of GDP per capita, reduced share in the national GDP, unemployment, limited transport infrastructure, relative lack of opportunities" (Ministerul Fondurilor Europene 2014: 3). In conclusion of this small analysis one of the main objectives for rural areas like the Danube Delta is to maintain the population within these areas (cf. Ibid.: 425). As one of the alterations in the period 2014-20 Integrated Territorial Investments (ITI) is introduced. The aim of ITI is to implement strategies such as the Europe 2020 Strategy etc. into territorial needs of the member states. Thus member states gain the possibility to draw on funding from different priority axes of multiple Operational Programmes. The European commission lists three key elements of ITI: (1) a designated territory and an integrated territorial development strategy, (2) a package of actions to be implemented and (3) governance arrangements to manage the ITI (cf. European Commission [e], online).

In the partnership agreement Romania points out that it wants to establish the ITI instrument with priority in the Danube Delta Biosphere Reserve. For this task an Inter-ministerial working group has been established where all relevant stakeholders from different levels are involved. Romania collaborates with the World Bank to establish the Danube Delta Integrated Sustainable Development Strategy (cf. Ministerul Fondurilor Europene 2014: 430).

In a first diagnostic report the following main challenges for the development of the Danube Delta were identified:

- Sustainable economic development requires access to markets, infrastructure, a workforce and some scale economies, all rather constrained in the Danube Delta area
- Meeting contemporary nature-based tourism demand joint destination management, developing the attraction portfolio of the region, and investing in visitor infrastructure

- The commercial fishery is currently important for employment, but recreational fishing has good development potential
- Agriculture is expected to remain the main occupation and income generating activity for the rural population in the Danube Delta area
- Poor accessibility has posed significant challenges to improving the living standards of residents in the core Delta, both for health and education as well as for basic public services
- Environmental protection underpins livelihoods and economic development opportunities, especially fisheries and nature-based tourism
- Biodiversity is largely maintained by the current protection efforts but ecological systems show decline
- The institutional structure for managing the Danube Delta Biosphere Reserve territory is complex and insufficiently coordinated which might hinder conservation efforts.

(Ministerul Fondurilor Europene 2014: 430f.)

It seems that Romania wants to put a focus on the Danube Delta by implementing the new instrument ITI for the period 2014-20. As the new period has not started yet it remains to be seen how this efforts will work out and how the programme faces the named challenges. At least it has to be honoured that Romania starts to tackle the situation in the Danube Delta where, so far, people feel left out from the promised improvements since Romania joined the European Union.

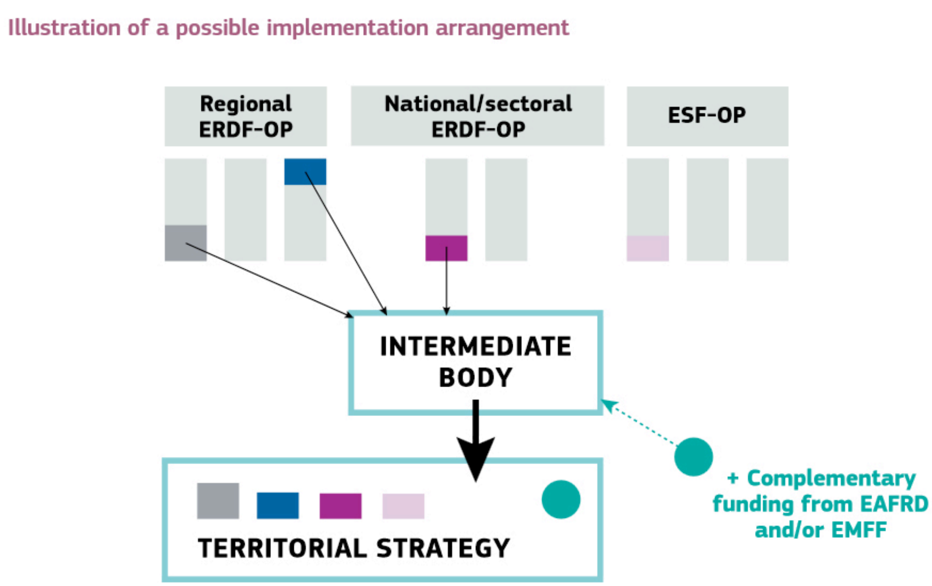

Figure VIII-10: ITI - Illustration of a possible implementation arrangement (© European Commission).

The Danube Region Strategy and its relevance for the Danube Delta

The Danube Region Strategy (EUDRS) was established 2011 as the second macro-regional strategy after the European Strategy for the Baltic Sea Region. From the well in the black forest to the black sea the strategy includes 14 countries and 115 million people living in this area. The overarching goal is a better coordination between all important stakeholders in the region and the creation of synergistic effects. In order to achieve these aims the EUDRS does not create new funds or structures but tries to use existing ones more effective through more collaboration. The EUDRS is structured in four pillars with eleven priority areas. The four pillars are: (1) connect the region, (2) protecting the environment, (3) strengthening the region and (4) building prosperity (cf. Austrian Conference on Spatial Planning, online).

There are no additional funds available for this strategy but as mentioned earlier there is no shortage of money. Rather than a lack of money, Dr. Kurt Puchinger – the Viennese coordinator for the EUDRS – points out that the task is how to get hold of the money. So another aim of the EUDRS is to maximize the calls for funds as well as remember the member states of their responsibilities regarding the European money and hence the European community (cf. Puchinger 10.10.2014).

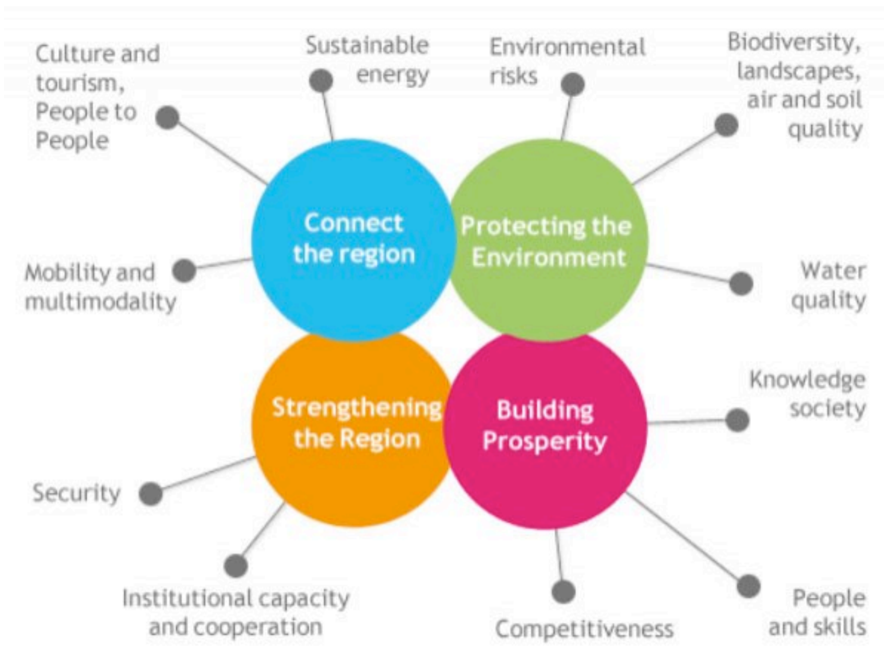

Figure VIII-11: The four priorities of the Danube Region Strategy (© Danube Region Strategy).

As mentioned before the lack of calls for funds is a huge issue in the Danube Delta as well as in whole Romania. The EUDRS' 14 member states include states like Germany and Austria, which are on top in matters of calling their assigned EU money. On the other side there are states like Romania, which is on the very bottom of this ranking. If the EUDRS manages to improve this situation by enhancing the communication and collaboration between these states the EUDRS could make a huge difference for Romania as well as for the Danube Delta itself.

The success, of course, has to be measured by looking at the amount of Romania's called EU money next programme period and in particular by looking at implemented projects in the Danube Delta.

Conclusion

Romania is a member of the European Union since 2007, the start of the former programme period. As mentioned above this period did not have a big impact for the Danube Delta. Most of the designated funds were not called and in the whole Tulcea region just one project got EU funds. The reasons for that are seen in a lack of knowledge and awareness for EU funds, burocratic barriers and an insufficient administration.

For the coming programme period the new established instrument ITI (Integrated Territorial Investments) has a big potential for the Danube Delta region. Romania chose the Danube Delta as the territory for the ITI. Due to that face there is a hope that much more money and as a result much more projects are getting implemented in the period 2014-20. The Danube Region Strategy could also contribute to this development by supporting the necessary coordination and cooperation between the relevant member states. But until the new period has its operative start next year we have to remain curious.

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IX. Potentials & Risks

In conclusion of the previously analyzed subject areas the most conspicuous potentials and risks of the Danube Delta area are summarized below:

Potentials/Opportunities

+ ITI as a new instrument for the programme period 2014-20
+ there is enough money available
+ Danube Region Strategy addresses lack of calling the EU money
+ multi-ethnic population
+ existing school in C.A. Rosetti
+ sense of community → ethnic groups
+ knowledge of traditional handicraft
+ dynamic of the landscape
+ biodiversity
+ awareness for co-existence of nature and mankind
+ (knowledge of) ecological construction techniques
+ potential of the resource reed

Challenges/Risks

- decrease in population
- very few employment opportunities
- limited access to natural resources
- almost no EU projects in the Danube Delta in the period 2007-13
- lack of knowledge for calling EU funds
- insufficient administration
- lack of networks for young people and women
- isolation of ethnic groups
- dynamic of the landscape → huge interventions in the landscape
- lack of technical infrastructure
- lack of legal instruments
- stagnancy of tourism

As many remote areas in Europe, the Danube Delta has to deal with some major issues, one of them being a trend that can be noticed throughout the last decades: migration movements follow a recognizable pattern: from rural to urban. This ongoing process can be observed in most Danube Delta villages and seems to be the result of the unfortunate combination of very low living standard (lack of basic infrastructure and health services, …), very few educational/job opportunities and maybe even the lack of networks for young people (and women) in most communes in the area. Despite these and many more deficiencies, not a big percentage of the available EU funds were taken in the last years to implement ideas and doing so achieving improvements in the area. A lack of knowledge of how to call EU funds and insufficient administration slows down progress.

With these topics representing severe threats to the region - amongst some others, there is also much potential in the area that offers a lot of possibilities to build on. There IS a lot of money available, more and more EU strategies focus on the area and seem to acknowledge the problem of leftover funds. Also a rich biodiversity (already well known), resources such as reed and a dynamic landscape are only some of many potentials of nature in the area. But also people's knowledge of traditional handicrafts, ecological construction and nature, their sense of community and even their multi-ethnic background could be identified as big potentials.

Elaborating on just a few of the above-mentioned opportunities and threats in this chapter, we will focus on some of these potentials in our individual work.

STUDIERENDENPROJEKTE

LEARNING CENTER C.A. ROSETTI - GROWING IDEAS IN THE COMMUNITY

Karin Danner

Learning Center

C. A. Rosetti

- GROWING IDEAS IN THE COMMUNITY

Draft on an idea to improve rural life in the

Romanian Danube Delta

TU Wien
260.353 Projekt EU am Ende
Betreuer: Meinhard Breiling

The following text is the final product of the course 260.353 Projekt EU am Ende which included a field trip to the Romanian Danube Delta, research on the region and additional lectures on the subject. It is supposed to be considered a draft of a project proposal that describes a general idea on how to help a community in a remote rural area.

Author: Karin Danner 0846438

CONTENTS

ABSTRACT

People are the most significant factor in strengthening the empowerment of a community. An empowered community is independent, capable of analyzing its own problems and finding the solution for their problems without being dependent on outsiders. A community is always a social space with a lot of resources (knowledge, traditions,...). It is crucial that communities have the possibility and ability to identify their own value and assets, as well as to recognize and define their own problems but also to autonomously make use of those 'possessions'.

The best method to acquire new abilities is through learning. People should be offered conditions to learn skills and gain knowledge that would maybe even motivate them to take efforts in improving their lives. Building on the concept of bottom-up approached development, the learning center targets mainly at the individual education of locals but also at enabling and encouraging locals to active participation and cooperation.

Facilitating such possibilities requires an institution that offers education. Implementing a Learning Center step by step in C.A. Rosetti can have such a positive effect. Particular attention should be paid to an ethical approach and the value of the importance of culture, traditions and art of the region and its inhabitants by encouraging the locals/giving them an opportunity to pass on these traditions. With this focus it also contributes to the survival and promotion of local community culture.

THE COMMUNITY C.A ROSETTI + CURRENT SITUATION IN THE AREA

C.A. Rosetti is a municipality located in the outermost part of the Romanian Danube Delta at the Ukrainian border and the Black Sea. It consist of the five villages C.A. Rosetti in the center of the area, Periprava, situated further north at the Chilia Channel of the Danube, Letea located west of C.A. Rosetti, Sfistofca east of C.A. Rosetti and Cardon, a village further south with only a few inhabitants. Currently the commune's population is 839 with a tendency to fall. Therefore the current situation in the municipality is a difficult one. All of its five villages are experiencing severe decline in population, for which many different reasons can be listed: very harsh living conditions in winter, lack of basic infrastructure, only few possibilities of employment, bad accessibility of the area, … .

As a result of this emigration tendency certain groups of people are being left behind in the area: at this juncture a large proportion of the population is over 40 (mainly men), only a few inhabitants are children or young adults.

A special characteristic of the area is its ethnic diversity. Despite its low population density, the Danube Delta in general and also the commune C.A. Rosetti is populated by a variety of ethnic groups. Native Romanians inhabit only two out of the five villages of C.A. Rosetti (C.A. Rosetti, Cardon). Lipovans, descendants of Russian immigrants mainly live in Periprava and Sfistofca and Ukrainians are a big part of Letea's population. Besides the Romanian language these ethnic groups still speak their native languages and also practice their traditions, which poses a unique resource of the area.

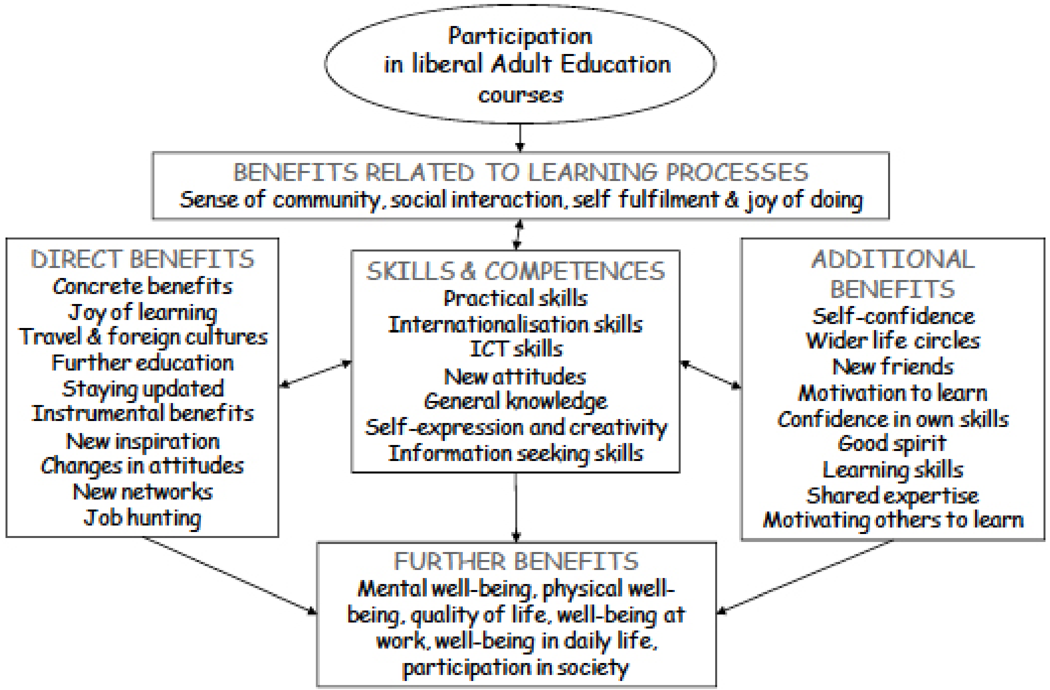
Nevertheless, the progressive population decline is being used as an excuse by the government to not invest in the development of the area, which leaves the community in a downward spiral of shrinking, further unemployment and the (for some people) resulting effects such as hopelessness, depression and/or alcoholism. Therefore, people have to fend for themselves to change something.

A COMMUNITY LEARNING CENTER – ORIGIN OF THE IDEA

The idea ‘Community Learning Center’ C.A. Rosetti further originates in several observations in the area and also some insight in the course of the research to the area:

A big share of the community still is between the age of 30 and 50. These are people, that are often willing (sometimes also forced) to stay in the area and also still very motivated to change something in their lives. (Besides the financial aspect) to do so unfortunately they sometimes lack proper knowledge to put these ideas into practice. Yet, the possibility to acquire this knowledge is not available for a lot of the people there, since the remote location of the municipality does not easily allow attending training courses on a regular basis. This often leaves the community’s members ‘paralyzed’, which even more leads the commune’s development to stagnate and thus contributes to the downhill trend of the municipality’s development.

Proceeding on these assumptions and observations, the idea of empowering people by offering informal education for grown ups was created.



WHAT ARE THE BENEFITS OF ADULT EDUCATION?

A study on the benefits of lifelong learning (BeLL), carried out by different organizations in the EU and funded by the European Commission showed that adult learners experience numerous benefits from, as it is called there, 'liberal' adult education.

Data gathered from 10 different countries showed that people detect several positive outcomes of informal education. Establishing these positive outcomes of adult learning based on the learners' perception of their benefits the results showed that people feel healthier and seem to lead healthier lifestyles.

People also build new social networks and experience improved wellbeing. Moreover, adults who participate in liberal adult education see this as a way to improve their lives. The study also shows that participants in informal adult education courses perceive multiple benefits, which go beyond the individual level, showing benefits also on a communal and societal level. The BeLL research further demonstrates that people benefit from adult learning despite their social background. However, one of the most relevant results of the research is that lower educated people benefit more from their participation in adult learning. (DIE, 2014) As shown above, adult education is not just a means of improving people's vocational possibilities, it is incredibly important for people's physical and mental wellbeing, confidence and spirit. Education is important on so many levels, which is why it is so important to give people the possibility to learn, but also to pass on personal knowledge to others.

WHAT BENEFITS WOULD THE COMMUNITY LEARNING CENTER PROVIDE?

The Community Learning Center should be a place that provides informal learning on a local level. It should ensure diverse provision of education that is closely linked to the life of the community and organized based on the community's needs. It should offer new experiences, skills and knowledge and ought to bring people in the same situation together.

Taking the current situation of C.A. Rosetti into consideration the Community Learning Center should therefore serve as:

- A facility that offers access to technology and information
- A teaching and learning center that enables people to improve their skills
- A discussion forum for sharing ideas and solving problems
- A facility that enables cooperation and creativity
- A cultural center that focuses on interethnic exchange, nature and peo ple's knowledge as unique resources

SPACE FOR INDIVIDUALITY

The Learning Center is supposed to provide a safe environment for all the members of the community. A main focus of the center is on the provision of components that give people the opportunity to enrich their individual lives. Although community learning also aims at strengthening the sense of the community, the people's individual needs and wishes must have a place at the center. Using the Learning Center's infrastructure for individual purposes, choosing a variety of courses to improve their own personal skills and knowledge or simply finding an inspired space there that boosts their creativity. All of these things should be a part of the community center to have the output and benefits adult learning can offer.

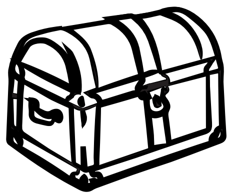
SPACE FOR COMMUNITY

Since the Learning center is supposed to be a very social space community life should have a place to unfold there. Celebrating the achievements of the educational offers and offering a space for community should implement the center as a community area, where community life gets visible. The space can be used for community meetings or other kinds of social events. Exchanging knowledge about traditions, spending time together, meeting people of other ethnicities and age groups should strengthen the sense of community.

SPACE FOR COOPERATION

By furthermore providing an environment that encourages cooperation, people should find a place that is a 'fertile ground' for innovation and helpful setting for meeting and joining with people who have similar motivation and ideas. The basic idea behind that is, that a strong sense of community can be used by the people to realize ideas in groups because different people bring in different perspectives, knowledge, skills or experience which can make a project more innovative, stable and thus more successful. Moreover, collaborative work usually means a different scale of how big a project can be realized right from the beginning and if several people are pulling in the same direction the chance of making it a success is much more likely.

WHAT PRINCIPLES SHOULD THE LEARNING CENTER FOLLOW?



PEOPLE EMPOWER THEMSELVES

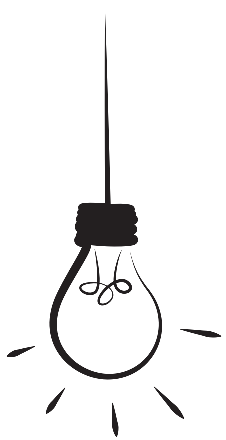
By attending courses, forming groups and exchanging knowledge the locals empower themselves to change perspectives in their lives.

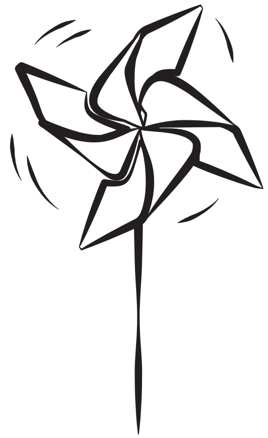
NURTURING A STRONG SENSE OF COMMUNITY

Facilitating a space that everybody can use, inviting everyone to work together and be a part of it, the Learning Center's offers should strengthen the community life, make it more visible and thus bring people closer together.

RECOGNISING COMMON RESOURCES AS A 'TREASURE CHEST' OF POSSIBILITES

A focus within the Learning Center should be on reminding people how valuable the resources that surround them are. Wildlife, people's knowledge and their lifestyle are a unique combination that offers big potential that is worth focusing on.





LEARNING FROM EACH OTHER

The right teacher contributes to a comfortable environment that makes learning relaxed, which is why if possible, locals should be teaching the residents. Apart from the usual teaching a main focus is set here also in passing on traditional knowledge to other, under the paradigm of preserving this knowledge but also making it available for other to use.

GROWING IDEAS IN THE COMMUNITY

Being creative is always easier in a group rather than alone. A creative sphere should be the fertile ground for people's ideas.

ACTING COLLABORATIVELY TO SET SOMETHING IN MOTION

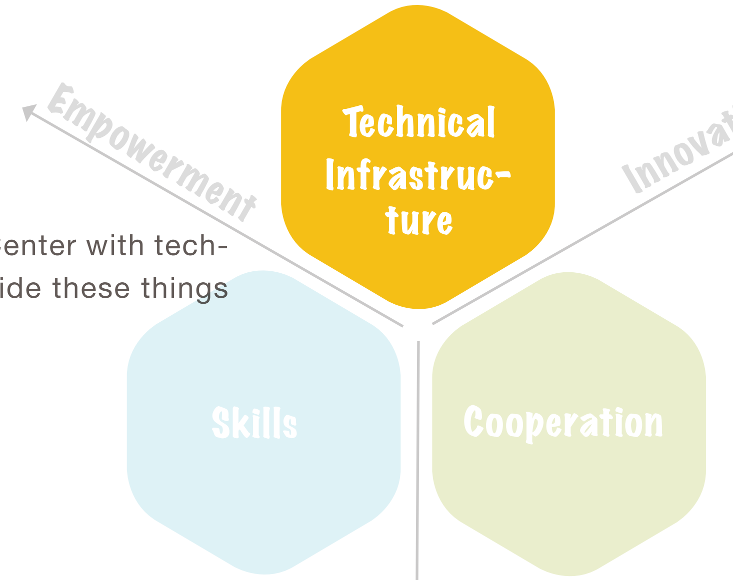
Often, one person alone could not realize the best ideas. Encouraging people to act cooperatively, bundling a variety of skills and assets could make it easier to put ideas into action and eventually starting change.

3 CORNERSTONES

To make the gain of the above-mentioned benefits of adult learning possible and ensure advantages for a big part of the community, the Learning Center' s concept sets three different priorities. These priorities form the cornerstones of the Learning Center and offer the following contents:

OFFERING TECHNICAL INFRASTRUCTURE

As a basic offer and a first step to offering information is to facilitate the Community Learning Center with technical infrastructure such as computers and Internet connection. Why it is so important to provide these things show the following facts.



ACCESS TO INFORMATION

By providing this infrastructure people can independently reach a big amount of information, which can be helpful in all parts of their lives.

CONNECTING PEOPLE

Since the precarious employment situation in the area worsened in the course of the years after ‘89 several people had to leave the area to search for a job somewhere else. Since the general prospects of getting a job in Romania haven’t been good over the last two decades many of these people even ended up taking a job abroad. This often meant leaving family members behind. Those distances between the people make it difficult and moreover very expensive for many families in the villages to stay in contact with their family members abroad. Especially for children it means a hard time to not be able to talk to one of their parents for a long period of time. Providing Internet connection would offer families a cheap method that gives them the possibility to (re)connect with their family members abroad.

REACHING THE REST OF THE WORLD – BROADCASTING IDEAS

Even if people have creative ideas and motivation to realize them, a problem seems to pose the fact that there is often no way for them to make those ideas visible to other people. Nowadays a lot of business is carried out via Internet. Most of the people do not own a computer or have Internet connection at home (or even somewhere close). Creating access to the Internet in the Learning Center would mean for individuals but also for groups (collaborations) to reach the rest of the world very easily and use this opportunity to advertise them and their ideas. Simple examples for this could be advertising guesthouses, selling locally produced products, offering tours through the area, etc .

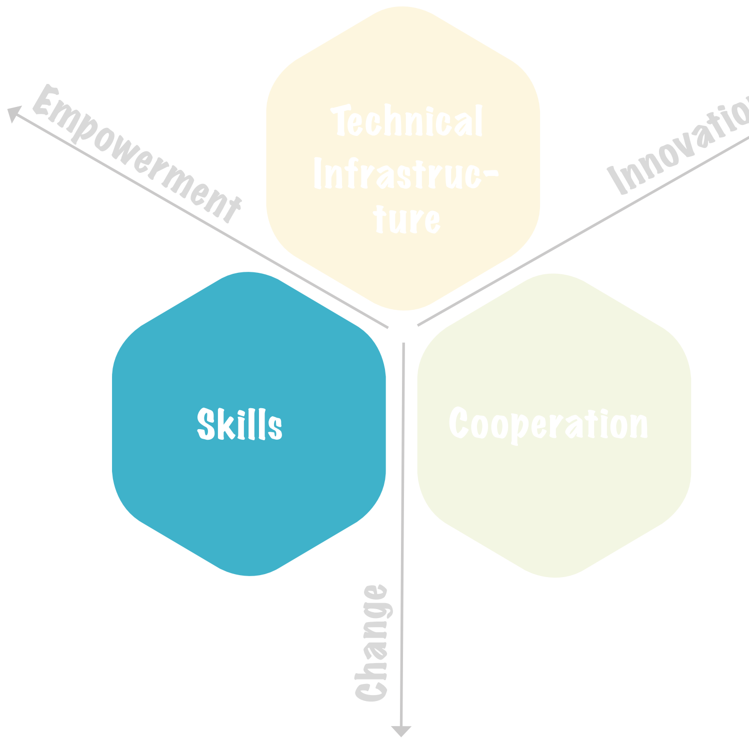
In general everyone should be encouraged to use the possibility of the offered technology, even if not wanting to be involved in the courses or workshops.

SKILLS/ OFFERING A VARIETY OF COURSES:

A big part of the concept will be dedicated to the skills-improving offers of the Learning Center. People will hopefully perceive this possibility of educating themselves as a way to enrich their lives. As initially mentioned, it is important to focus on the actual needs of the community. Hence, an assessment of what the community's (knowledge-) needs are is necessary in the beginning phase of the Learning Center's creation.

Since the acquisition of different kinds of knowledge require different amounts of time, within this part of the concept diverse forms of knowledge-transmission will be offered.

Additionally, emphasis will not just be put on receiving knowledge but also on passing on knowledge from locals to other locals.



Vocational Skills

By attending language courses, courses on how to use the technical infrastructure, etc. people's vocational prospects can be improved.

Personal Skills/ Life Skills

Additionally obtaining skills by attending courses/lectures and workshops in different fields such as culture, sports, health, etc. can be a gain in people's personal life.

PSYCHOSOCIAL HEALTH SUPPORT

Since there are some serious social/health problems arising in the area (alcoholism, depression, difficult family situations) offering psychosocial health support could be an addition to the educational offers of the Community Learning Center. Troubled people/ families tend to exclude themselves from the community but nevertheless should have the opportunity to find support in dealing with their situations.

RECEIVING KNOWLEDGE

By educating themselves people expand their general knowledge, get more confident, get inspired and can improve their abilities. People should have the possibility to receive education from different fields that affect different parts of their lives. Not only should vocational training be a part of this set of courses but also training on personal and life skills.

In general these offers should be a way of expanding different skillsets of the individuals but also the community.

If possible, the people who teach should be local residents. For some topics, this might not always be possible, which is why non-residential teachers will be teaching, giving lectures and holding workshops too. If possible this teaching staff should come from towns or villages close-by (eg. Sulina). Another way to provide teaching staff would be by means of organizing volunteer programs (see ‘financing’).

PASSING ON KNOWLEDGE

Furthermore, within this part of the Learning Center it is important to include locals not just as learners but, and that it also very important, as teachers. There is big knowledge potential in the area about traditional culture, handicrafts or architecture. Thus a central portion of the educational part of the Learning Center focuses on the preservation and usage of traditional local knowledge. Besides giving lectures, classes and workshops on classic topics that could improve people’s vocational opportunities, locals should especially be teaching their unique knowledge in courses but also practice it in workshops.

METHODS OF TRANSMITTING KNOWLEDGE

(WEEKLY) COURSES

Based on the established needs of the community several courses will be offered weekly over a longer period of time that aim at building up persistent knowledge.

This kind of knowledge transmission mainly addresses the improvement of vocational skills (language courses, computer courses), since acquiring those skills usually requires some time. Another big issue that could be tackled somehow is the lack of health-infrastructure in the municipality. With no doctor present at all times, in cases of emergencies it often takes a very long time to get people to a medical facility. Offering first-aid-classes could empower the community members to improve sick people's chances in case of minor emergencies.

Possible Courses could be on:

Nature --> tourist guides

Didactics --> for people who want to give seminars (eg. for tourists)

INFORMATION MEETINGS

Other information might not require a similar amount of time to transmit. For this purpose also one-time held meetings about singular topics will also take place in the community center. Funding for projects, microfinance, etc. could be topics to address within such information meetings.

Further possible information meetings could be on:

Farming (subsidence farming, alternative products,..)

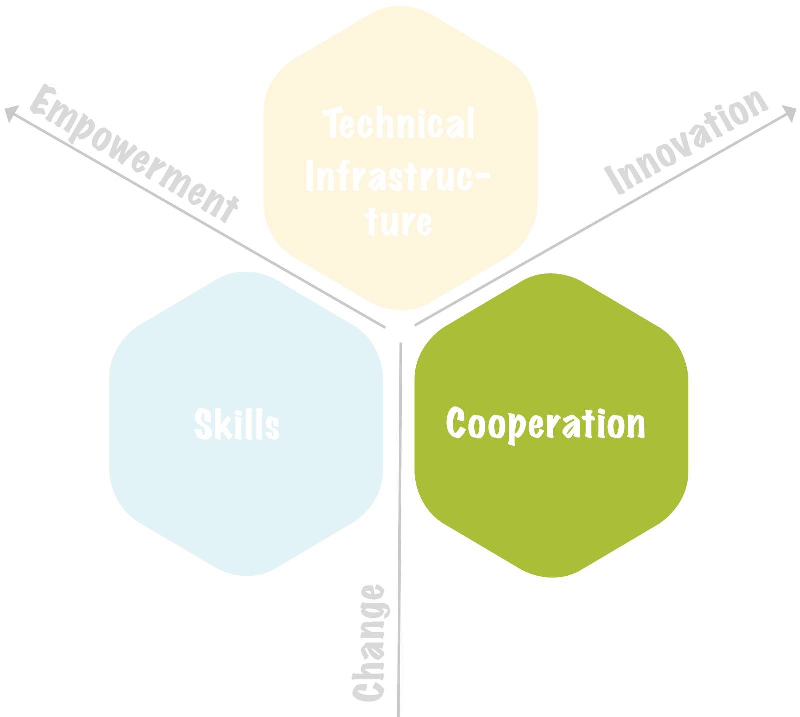
WORKSHOPS

Especially for practicing or acquiring new skills in (traditional) handicrafts, music, arts, etc. a 'hands-on approach' often shows to be the best method. Particularly regional-specific knowledge can be transmitted effectively this way. Very unique knowledge such a riding horses without a saddle, meshing fishing nets the 'Danube Delta'-way, etc. can be offered by the locals. A connection to the Sfistofca Art Association should be established here too, on the one hand to transmit knowledge outwards from the locals to the Art Association, but also to gain new knowledge, provided by the Art Association.

ENCOURAGING AND ENABLING COOPERATION (AND CREATIVITY!)

Mobilizing community strength for action means to encourage cooperation and mutual help amongst people who are willing to use their combined abilities to set ideas in motion. Therefore, besides enabling C.A. Rosetti's population to work on their personal education, importance will be placed on the encouragement of setting up cooperative work between inhabitants. Working in a cooperative environment and manner is much more efficient and successful than everybody doing their own thing. Therefore, (physical) space for people who are willing to join with others in realizing business ideas but also people who are motivated to work on community events (eg.) should be offered. Also the Learning Center should provide an environment that supports and encourages creativity and working collaboratively. People can use the creative space to act collaboratively for change.

Besides offering the physical space that makes meetings possible also different methods such as workshops, Think Tanks, etc. should be offered. Firstly to establish people's ideas, bring people with similar goals together and also trigger people's creativity. In the course of time, depending on resources, willingness of people and necessity, cooperation can be translated into action on different levels.



People

LOCAL COOPERATION

Combining their knowledge with their newly acquired skills and the usage of the provided technological Infrastructure could result in innovative ideas and would be an ideal outcome within this section on the local level.

Art Association

University of Bucharst

NATIONAL COOPERATION

There are a lot of ties that link the C.A Rosetti villages with other villages in the Danube Delta Area. Similar traditions, lifestyles, habits but also challenges within their communes. For several reasons (cultural, etc.) knowledge exchange on a continual basis or a step to collaborative work with other villages in the area (eg. enlarging production volume of farming products) might be an option. However, this is an optional development that has to develop itself over time and be addressed by the locals.

On another national level there should also be established networks and cooperation with education facilities such as the University of Bucharest. Already existing ties to the area and the Art Association should be strengthened and taken care of by both parties to gain benefits on both sides.

Neusiedlersee Schilf

INTERNATIONAL COOPERATION

An even further and also more difficult step would be cooperating with associations abroad. Yet, there would be plenty of reasons to establish these ties. The area's wildlife (nature, animals) and people's knowledge about it, general knowledge about traditional crafts (reed roof Neusiedlersee Schilf, clay architecture) but also social and cultural ties (parts of families in Ukraine, religion, etc.) could be reasons for (re)establishing connections to other countries that might be a useful development for the community but also individuals (bringing families together).

AFFECTED AREA / TARGET GROUPS OF THE LEARNING CENTER

Since the commune is situated in a rather secluded area, C.A. Rosetti with all its villages will be the main region to be affected by the learning facility. Mainly grown ups (+ young adults) are the target group of the educational offers, nevertheless the facility's infrastructure (computers, space) will be accessible for every member of the community. Also working with children will be a part of the knowledge exchange. In general everyone should be included in the Learning Center.

LOCATION

The location of the center poses a critical point in the planning process. Since everyone should have access to the Center, people's mobility, however, is not high, there must be considered different options.

In general the main Learning Center with full equipment should be in the commune C.A. Rosetti. Since it also is the geographical center of the area, people from all the surrounding villages will be able to get there in around the same time.

Additionally a bus service bringing people there and back should be set up or privately organized carriage/carpools established (as soon as attendees for courses are fixed).

If people realize they need some technical infrastructure in their village too, branches of the Learning Center with extra computers can be set up in the villages around C.A. Rosetti too. Courses however should mainly be held in the main Center, to make it a fixed point of community in the minds of the people.

PROCESS OF IMPLEMENTATION

A crucial part in the creation of such a center is always the contribution of community members. By starting such a facility together, putting effort in it the awareness of the center will be heightened. Therefore the community itself should make a major contribution in setting up the Learning Center (perhaps with the help of experienced organizations) . Everyone should be able to use the facility no matter if they simply want to make use of the equipment, want to educate themselves or also want to get involve in cooperative ideas. (Maybe by an initial input from 'outside') Starting with several basic courses, the project should be fully taken over and continued by locals over the years.

STEP1: LEARNING CENTER REPRESENTATIVE(S)

Also posing a crucial factor in setting up and successfully running a Learning Center, is the person in charge of managing the institution. He/She/They should fully support the idea and be willing to put some time and effort into the project. The person(s) should learn how to manage a Learning Center, either on their own or by attending a training program. Their task also is to try to make community members recognize the importance of having a Learning Center and encourage them to participate in courses as well as arranging courses and employing/organising teaching staff.

STEP 2: INSTALLING THE LEARNING CENTER

As a next step the Learning Center Representative(s) find(s) a location for the Center within the community. For that existing buildings such as the community's town hall or school can be used. As for the municipality C.A. Rosetti its geographical center is the village C.A. Rosetti. Making sure most of the commune's inhabitants have equal distances to reach the place this poses as the best place to install the facility. Rooms in the new mayor's building would be a possibility.

ALTERNATIVE:

BUILDING A LEARNING CENTER FROM SCRATCH

An alternative to finding a place that could be used for the facility would be building the Learning Center from scratch. This would raise the awareness of the project even more. Furthermore, the building could be constructed the traditional way houses are built there. Building a house together for community purposes would make people grow together strongly and might establish first ties for cooperation.

STEP 3: PROVIDING BASIC EQUIPMENT

The facility's representative furthermore provides the Center with basic items such as tables, chairs, cabinets, book-shelves, black-board,... etc. The learning climate is important in facilities like this. This has several consequences regarding the requirements of an environment that will be conducive to adult learning. The physical environment should make the adults feel at ease. Furnishings and equipment should be adult-sized and comfortable; meeting rooms should be arranged informally and should be decorated according to adult tastes.

STEP 4: PROVIDING THE CENTER WITH TECHNICAL EQUIPMENT

As a major factor for the access to a whole lot of information, the provision of the Learning Center with technical equipment such as computers, as well as an Internet connection is essential.

STEP 5: ESTABLISHING THE NEEDS OF THE COMMUNITY'S MEMBERS

With regard to the aged, adult education, activities should be designed to help acquire and extend vocational but also personal skills. Since people there know best, what they could need and to slowly make them be aware of the possibilities the Learning Center could offer, the communes inhabitants should agree on one or two courses and one workshop that will be held in the community center as a start. Courses like English , First-Aid or workshops doing handicraft would be a good start for the beginning.

STEP 6: LEARNING CENTER FESTIVAL

To raise the awareness and visibility of the center, there should be a festival organized to show and make people get in contact with the facility. Interested people should have the opportunity to give their propositions for courses or workshops and sign in to courses as well.

CONSTANT ASSESSMENT OF NEEDS

STEP 7: EMPLOYING TEACHING STAFF

Depending on the needs and wishes of the community for certain educational offers, it has to be established, if there are people in the community that could provide teaching lessons. If there is no person available to provide knowledge teaching staff from close-by should be employed.

STEP 8: ORGANISING BUS SERVICE /CARRIAGE-, CARPOOLS

To give everyone an opportunity to participate in classes and workshops people should have the possibility to be picked up by drivers from their villages.

STEP 9: INSTALLING FIRST WEEKLY COURSES AND WORKSHOPS

As already mentioned, based on the needs of the community individual courses should be started as soon as enough people

STEP 10: OFFERING A BROADER VARIETY OF COURSES

The courses offered in the community center should promote the possibilities that could be obtained and used by people for their working but also leisure life. Thus people should continually be encouraged to think about the skills they want to obtain and make suggestions for courses to be offered.

STEP 11: ENCOURAGING PEOPLE TO OFFER COURSES & WORKSHOPS THEMSELVES

At this point of time several people of the community might be teaching already. To give other people also the possibility to teach (maybe also under the paradigm of intergenerational learning and passing on traditional knowledge) people should be made aware constantly, of how valuable their (traditional) knowledge is in courses, etc. .

STEP 12: FURTHER POSSIBLE DEVELOPMENTS OF THE CENTER

As a possible outcome of this encouragement in cooperation, workshops for motivated community members and knowledge exchange on different levels ideas for developing the area, business cooperation, ideas for locally produced items,... can be established.

Further steps would therefore be to connect those developments (if needed and desired by the people of course) with national or even international organizations for the purpose of knowledge exchange, business relations or also (re)establishing family/social/cultural ties.

SIMPLE EXAMPLE OF AN OUTCOME

Tourist concepts

Jointly developped idea by different peole who each take care of different parts of the concept + sharing the benefits of the outcome.

- Building a camp
- Offering rides on vans / carriages
- Selling products (handicraft, honey, vegetable,)
- Offering knowledge to people (tourist concept)
    - Seminars on building houses the ‚natural way'
    - Seminars on how to fish the traditional way (making nets, ...)
    - Tours through the danube delta (thematic; flora, fauna, ...)
    - ......

POSSIBILITIES OF FUNDING

Starting as a very small project the facility will not require large scale investments (equipment or highly trained teachers) because already existing buildings and materials can be used. However, there are several options for funding adult learning, improving vocational skills or even social cohesion, which are all part of the Learning Center.

POSSIBLE SOURCES FOR OBTAINING FUNDS:

ESF – European Social Fund

The ESF invests in people, with a focus on improving employment and education opportunities across the European Union. It also aims to improve the situation of the most vulnerable people at risk of poverty. For the 2014-2020 period, the ESF will focus on four of the cohesion policy's thematic objectives:

- promoting employment and supporting labor mobility
- promoting social inclusion and combating poverty
- investing in education, skills and lifelong learning
- enhancing institutional capacity and an efficient public administration

Via different programs such as Erasmus + and its Key Action 2 Strategy that addresses the following activities:

- Projects addressing the acquisition of basic skills and the provision of learning in later life
- Improving the accessibility of learning opportunities for adults
- Developing strategic cooperation between AE providers and local authorities

there can be applied for those funds. (EU, 2014)

ITI - Integrated Territorial Investment

A special opportunity for the Danube Delta in general is a new instrument of the European Union that allows EU Member States to combine investments from several priority axes of one or more Operational Programmes for the purposes of multi-dimensional and cross-sectoral intervention. Romania has set its priority of this instrument on the Danube Delta, which (Essential Report, 2014)

HUMAN RESSOURCES

If not covered by the general funds of the learning Center implementing a volunteer program could be a possibility to bring new life and knowledge to the community. Volunteer work is highly promoted all over the world and provides the unique opportunity show young people the Danube Delta life but also learn from them. Especially the European Voluntary Service Program funded by the EU or the Peacecorps program already are very active in working voluntarily in Romania. These services provide people to go abroad and engage in social, cultural or environmental work for up to two years.

CONCLUSION

A Learning Center would definitely be an enrichment to the community life of C.A. Rosetti. The multiple effects of learning could trigger significant change in people's life or simply enrich it. By learning, people empower themselves and are therefore more in control of what life 'throws at them'. By spending time together maybe even working on joint ideas and including all the members of the community, the villages grow together and make community life more visible again which contributes to a pleasant atmosphere in the life of the commune. Through the concepts of partnership and trust (cooperation of citizens), sharing responsibilities, even by people becoming connected to services and activities (teaching) but also the individual development, the center should become an institution of creativity and inspiration for the locals.

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Photographs: Gerold Ludwig, Karin Danner
Illustrations: Karin Danner

HERBS & HONEY - SUSTAINABLE FARMING OF HERBS AND HONEY IN C.A. ROSETTI
Bernadette Gugerell

C.A. Rosetti
Herbs&Honey

Sustainable farming of herbs and honey in C.A. Rosetti

Building up an organic farming, marketing and sales cooperative on a local basis.

Project proposal

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LVA 260.353
WS 2014/15

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Index

1. Project profile

C.A. Rosetti Herbs&Honey: Building up an organic farming, marketing and sales cooperative on a local basis.	
Objectives	- establishing sustainable organic farming of herbs and honey in the municipality - generate a form of long-time occupation - create a regional brand to increase the level of the municipality's awareness inside and outside of the region
Description	The project aims to give an impulse for the future agricultural usage of the surface of the municipality of C.A. Rosetti to enable a new economic, social and ecological perspective of the rural region. By the cultivation of herbs and honey within a local cooperative and the subsequent marketing and sales activities, there should be ensured a sustainable and resilient path of development.
Target area	- Municipality of C.A. Rosetti
Target group	- Population of C.A. Rosetti
Project partner / Stakeholder	- Local administration - Planning team with spatial planning specialists from Austria and Romania - Local farmers & households - Interested other inhabitants - Various public and private stakeholder concerned with organic farming and beekeeping like associations and NGOs
Project Costs (Inves-tments)	- ~35.000€
Financing	- Crowdfunding: ~10.000€ - Crowdlending: ~5.000€ - EU Funding: ~20.000€

2. Introduction

The municipality of C.A. Rosetti is situated in the region of the Danube Delta in the north of the town Sulina and between two of the three main canals of the Danube in the Delta. Basically, it consits of 5 different villages: Periprava in the north, Letea in the west, Sfiştofca and Cardon in the east and the village of C.A. Rosetti in the middle. It is located in one of the most remote areas within the European Union and therefore threatened by severe emigration of people. Lacking suitable occupation opportunities and education are the main reasons for this negative development.

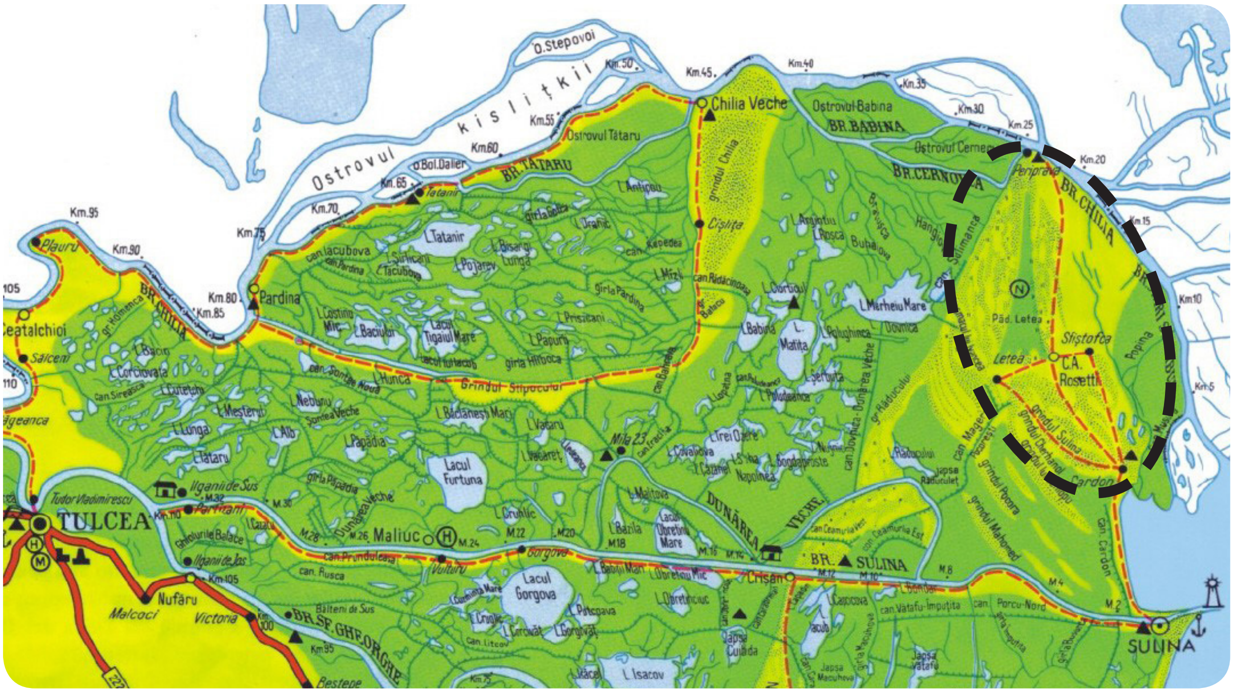


Figure 1: Map of C.A. Rosetti in the context of Tulcea and Sulina.
Source: Marius Voica 2014.

To face these problems, the project *C.A. Rosetti Herbs&Honey* is trying to install occupation, regional awareness and organic farming methods in the municipality through the establishment of an agricultural production, marketing and sales cooperative for herbal products and honey. This project outline aims to give an impression of the possible procedure and emphasis for the idea and should be seen as proposal. First, there will be given an overview on the current situation for organic agriculture and cooperatives in peripheral area as well as on the special preconditions in C.A. Rosetti. Then the project description is being presented including main objectives, functional structure, possible project partners, the implementation plan and financing possibilities. Finally, the possible threats and effects through the realization of the project which give an outlook on the possible development of the municipality are enlisted and described.

3. Project background

3.1. The role of agriculture for the Sustainable Regional Development

According to the *European Commission*, the objective of EU funding programs for peripheral areas is inter alia to support rural regions in their capability of agricultural production, the preservation of the present natural ressources as well as the security of employment *(cf. 1999 in Knickel 2002: 36)*. Thus, agricultural development and specialization can empower peripher regions and enable spatial and social trickling down effects. It can be a chance for a regional society. Its functions are variable, but can be summarized as follows:

+ income security and employment
+ environmental protection and biospherical diversification
+ living environment and recreation qualities
+ basic supply
+ cultivated landscape and regional identity

(cf. Knickel 2002: 38f)

Despite its opportunities and chances, agriculture in developing regions tendentially is more vulnerable to changes because of local preconditions. The *United Nations* have defined four major challenges which are worth considering in this contenxt:

+ *Small producers*
The agricultural structures of developing regions often are operating at rather small scale. Therefore the producers are vulnerable to unexpected price changes and dispose of smaller quantities of produce for sale as well as amounts of capital. On the other hand thus they are much more resilient and able to react to transformations in a flexibel way.

+ *Spatial dispersion*
The geographical immobility of land has an influence on the spatial dispersion of agricultural production areas. This can cause higher monetary and time costs in transport, travel and information bound factors.

(cf. United Nations 1991: 17f)

+ *Seasonality*
Due to seasonality of the agricultural production, the output time is dependent on seasons and in Europe usually takes place once at a particular time of the year. special demands in labour and machinery rental markets are preexisting. Also the eventual need for credit to bridge gaps between receipts and expentidures is a factor that has to be calculated.

+ *Risk and uncertainty*
The agricultural sector itself is characterized by various risks which especially affect lower-income and agriculture dominated economies. Yield and market prices are embbed into the globalized market and therefore can change unforeseenly, for example due to weather and speculation. Output prices therefore can vary.

All four topics do apply for the municipality of C.A. Rosetti, due to its structural weakness. In the project, they have to be taken into consideration for they can be a true threat for its realization and/or for its longterm existence in future.

3.2. Organic agriculture in Romania

The conciousness for organic agriculture and farming has spread world wide, as well as the consumption of organic produced food products is increasing. It can be assumed that the usage of the concept is also increasing the value of a product. Globally, in the year of 2006, there were 31 millions of hectares in more than 120 countries farmed with the sustainable farming method. The organic farming of herbal products is described with 0,5% of the total size of all organic farmed available surface in Europe. *(cf. Adam et al. 2009: 525f)*

In Romania, the total organic agricultural area is 288.261 hectares which are allocated of 15.423 organic operators. Since 2004, an inspection and certification organisation called *SC Ecoinspect* is operating. In cooperation, there have been several control bodies established. Farmers which use organic methods, can receive a conversion subsidy after the Governments's decision 759/2010 from the year of 2010. One risk for the project could be that there is yet little awarness of customers for organic quality products in Romania. *(cf. IFOAM online 2014)*

Figure 2: Romanian label for organic produced products.
Source: http://www.madr.ro/docs/agricultura/agricultura-ecologica/ae2009.jpg, 11.12.2014.

3.3. Framework of agricultural cooperatives in Romania

According to Dincu et al., „Agricultural cooperatives can be a significant pillar of the development of the Romanian economy [...]" *(2013: 372)*. They often build up a structural framework in which products and services are establisehd which otherwise would be unavailable and help enabling small agricultural structures since they prevent monopoly processing of agricultural products. Through established services, the farmers have access to technical, legal and economic know-how and due to its organizational structure, even small family farms can contribute and thus benefit from a cooperative. Besides, applying for EU funds is easier and more efficient within the framework of a cooperative. The different functions of cooperatives can range from interest representation, purchasing, selling and marketing to credit services. *(cf. Dincu et al. 2013: 374f)* In general, there can be distinguished three basic principles when talking about cooperatives:

+ *The User-Owner Principle*: The cooperative is owned by the people who use it.
+ *The User-Control Principle*: The cooperative is controlled by the people who use it.
+ *The User-Benefits Principle*: The benefits generated by the cooperative accrue to its users on the basis of their use.

(cf. Dunn et al. 2002: 1)

Dunn et al. further conclude: „A cooperative is a business that is owned and controlled by the people who use its services and whose benefits (services received and earnings allocations) are shared by the users on the basis of use." *(ibid)*

The Romanian context concerning cooperatives is heavily shaped by its recent history. There have been disbanded a lot of agricultural cooperatives (*cooperativa agricola de productie)* which operated in the socialist system during 1991-92 and their land has been converted in private these days. Nevertheless there are still existing many informal farmers' associations due to their econmic security framework. They are preferably organized within at a smaller scale. *(cf. Gardner et al. 2006: 8ff*)

3.4. Social preconditions in C.A. Rosetti

Population loss

The municipality of C.A. Rosetti has lost until this day over 40% of its population since the year of 1990. The number of locals has diminished from 1.438 to 839 recently. Many people are leaving the village for job opportunities in the next bigger cities like the close-by Sulina or Tulcea. The population development of the whole Tulcea district involving the whole Delta Danube Region is negative aswell, but during the last 24 years the loss added up to 13% which is not as dramatic compared to C.A. Rosetti's. There particularly are employment and education opportunities lacking which might be the major cause for the problem.

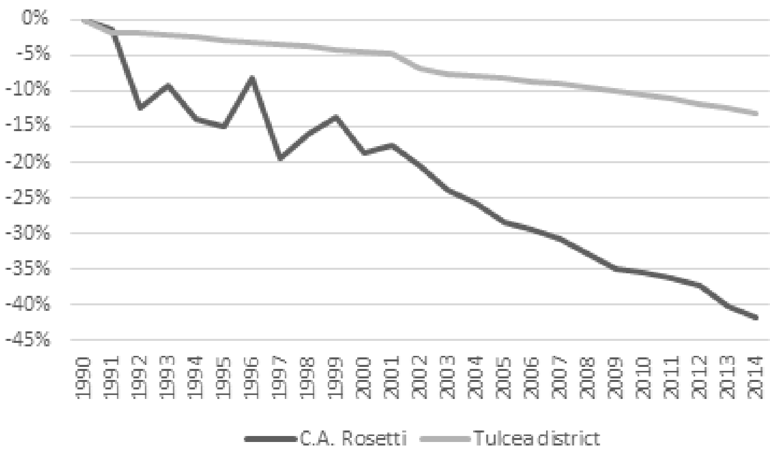


*Figure 3: Development of C.A. Rosetti's and Tulcea's population in percentage.
Source: National Institute of Statistics Romania, online 2014.*

Inoccupation

Since there could be registered a constant population loss, the occupation opportunities are scarce. The younger generation has no perspective and no impulse to stay in the municipality. Still existing sectors in the Danube Delta are fishing, agriculture, reed harvesting and tourism. But there is a big amount of people retired and in the field trip there could be observed a strong usage of alcohol by the inhabitants. It can be assumed that there are lacking opportunities to be able to contribute in a meaningful way to the collective consciousness and self-awareness.

Summarizing, there can be said that the municipality's persisting is and will be to a great extent dependent on the provision of basic employment occasions.

3.5. Agricultural preconditions in C.A. Rosetti

In the Danube Delta, the concept of organic agriculture is already widely spread, even though rather unknowingly. Nearly every household has an own little garden attached which empowers the local population to cultivate vegetables, fruit, herbs and flowers by themselves. Especially the elder population is capable of planting and taking care of this cultural landscape element alongside their ancient and traditional knowledge. Though, agriculture is in general not conducted on a large scale in the region. But this might be an attractive advantage for the realization of small scale projects like cooperatives because the structures are more manageable compared to big ones. The usage of pesticides also never happened to evolve extensively which can be considered a big advantege since it leaves a largely untreated natural site.

Why herbs?

It can be assumed that herbs like chamomile, yarrow and sea buckthorn are growing since centuries in the area around C.A. Rosetti as wild plants. Also, usage of this herbs is in general very common in the whole Danube Delta. Locals use savagely growing herbs for tea and wellness purposes like sauna . They thus have a wide knowledge about the methods of preparation and their health effects. The harvesting of herbs and honey also is enlisted as potential and chance for the local population by the *WWF-Danube Carpathian Programme Office (cf. online 2003: 6)*. This local ressource has potential for a small scale cultivation by households and farmers.

Figure 4: Chamomile.
Source: http://www.howtogrowstuff.com/wp-content/uploads/chamomile1.jpg, 23.11.2014.

Figure 5: Yarrow.
Source: http://t1.gstatic.com/images?q=tbn:ANd9Gc-Qez4SnAWcdcmteGooRnFIj0ybztfwTmnug_gXZa-2WlC64FNXuD, 23.11.2014.

Figure 6: Sea buckthorn.
Source: http://ionevoxxi.files.wordpress.com/2014/01/sea-buckthorn.jpg?w=600&h=401, 23.11.2014.

Why honey?

The establishment of an organic agricultural framework could also be used for the concept of beekeeping. The wide and unaffected landscapes in the sourroundings of the municipality are able to provide the best natural nutriment for bees there is - maybe in whole Europe. Bees are an endangered species nowadays due to conditions brought up by industrial agriculture and environmental challenges. Their dying process is discussed heavily in science and also in the media. Since there are plenty of savagely growing plants, the conditions have potential for keeping them and cultivating organic honey in C.A. Rosetti. Additionally, bred bee colonies could be sold and exported in whole Europe by the cooperative, as there is constant need for healthy and organically kept ones. All in all, beekeeping constitutes an important contribution for active environment protection and is a chance for the rural areas' future. It can be learned easily by everybody and helps preserving the cultural landscape as well as the natural balance of the ecological system. *(cf. Lang 2014: 125f)* Thus, it can be considered a chance for the people in C.A. Rosetti.

Figure 7: Bee on a blossom.
Source: http://upload.wikimedia.org/wikipedia/commons/5/5b/Biene_Weide.JPG, 13.12.2014.

Figure 8: Bee entering the beehive.
Source: http://upload.wikimedia.org/wikipedia/commons/2/27/Bienenstock.JPG?uselang=de, 13.12.2014.

Figure 9: Honey jar.
Source: http://upload.wikimedia.org/wikipedia/commons, 13.12.2014.

4. Project description

The suggested project aims to build up an agricultural marketing and sales cooperative for herbs and honey: the *C.A. Rosetti Herbs&Honey Cooperative*. Therefore it was planned to realize the organisatory framework, the concrete conzeptualization for the way from the production to the disposal through the working groups and a bassin of potential project partner. Further on, there have been formulated the single steps which need to be taken for proper realization. By this, it is envisaged to create a framework, where individual housholds, farmers, elder persons as well as the young generation of C.A. Rosetti are benefitting and have a chance to be employed. They should be stimulated to stay in the municipality and therefore should be accompanied to do so by the local administration, who should be the central coordinator for the cooperative together with a planning team.

4.1. Main objectives

The project's main emphases are to install respectively pursue the concept of organic farming in the area, to ensure jobs which can help the community in a financial as well as social way and to generate a regional brand to merchandise the locally produced products as well as to form a regional identity for the inhabitants:

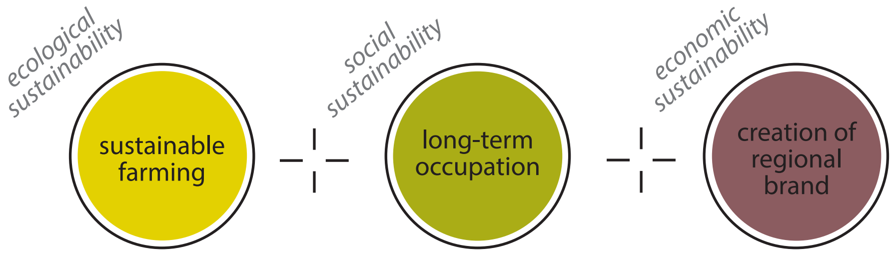


Figure 10: The main objecitves of the project.
Source: Own account.

Summarizing, C.A. Rosetti Herbs&Honey Cooperatives is pursuing the following main objectives:

+ applying the concept of **organic farming** for ecological sustainability
+ creating not only jobs but **long-term occupation opportunities** to generate social sustainability
+ **creating a regional brand** – the *C.A. Rosetti Herbs&Honey Cooperative* - to ensure the value added to the products stays in the region and to generate economic sustainability

Additionally, the project can be able to achieve the following specific goals:

+ building up a project many people of **different age and ethnic groups** can contribute to and work together
+ supporting C.A. Rosetti's **social, natural as well as economic resilience**
+ enabling a **participatory process** of cooperation using the concept of Buttom-Up processes
+ **preserving the natural ressources** by maintaining the (agri-)cultural landscape
+ **conservating the ancient local knowledge** about herbs and their effects for body and mind

4.2. Functional structure

The 5 major core domains of the C.A. Rosetti Herbs&Honey Cooperative can be devided into the herb growing, the beekeeping, the processing, the marketing & sales and the logistics body. Each one of them contributes to the success of the project and to different extend to the main objectives. The herb growing and the beekeeping domain are ensuring sustainable farming as well as long-term occupation. Latter is also achieved by the processing, whereas marketing & sales as well as the logistic domain are not only creating the long-term occupation but are also mainly involved in the establishment of the regional and identifying brand C.A. Rosetti Herbs&Honey.

The concrete description of each working field is enlisted in the following table:

	herb growing	beekeeping	processing	marketing & sales	logistics
achievement of objectives					
tasks	- preparation of seeds - cultivation of seedlings - plantation maintenance	- maintenance of honey production - quality control	- drying of plants - bottling of honey and packaging of herbs - warehouse guidance	- development of products - marketing - public relations - contact to sales partner	- transport relations of products to the exterior - transport of goods
occupation opportunities	- farmer - collector - harvest hand - botanic specialist	- beekeeper	- warehouser - drying and quality supervisor - packer	- product developer - communicator for sales partner - customer service - finance supervisor	- logistic supervisor - driver - communicator for sales partner

Table 1: Overview of rage of functions of the C.A. Rosetti Herbs & Honey Cooperative.
Source: Own account.

herb growing

sustainable farming

long-term occupation

Proposed herbal plants for cultivation

Since the soil in the area of C.A. Rosetti is poor, sandy and oversalted, the choice which plants are being cultivated is an important one. The following herbal plants would have potential for beeing cultivated under this circumstances:

+ Sea buckthorn (*Hippophae rhamonides)*
+ Camomile (*Matricaria recutita)*
+ Yarrow (*Achillea millefolium)*
+ Coneflower (*Echinicea purpurea)*
+ Common marygold (*Calendula officinalis*)

Their exact suitability should be examined by the assigned botanic specialists team in the first year of the project, since the perfect plant species could not be determined within the scope of the project outline.

Harvest quantity and income per hectare

The harvest quantity of camomile is indicated with 300 to 900 kg blossoms per each hectare and the prices for the selling product are fluctuating between 1,50-3,00 €/kg in Germany *(cf. Adam et al. 2009: 543)*.

Seeding material

Concerning the acquiring of seeding material, there have to be considered patent rights for certain breeds. There are existing for example two official breeds of the Marigold or *Calendula officinalis,* which are protected by an EU certificate and therefore have to be bought from certain companies when used for commercial purposes. One of them is the breed *Carola.* It is distributed exclusively since 2006 by the Dutch company *Plant Research International B.V. (cf. Adam et al. 2009: 615)*

Cultivation method

Organic farming using the way of permaculture and humus soil is planned as cultivation method for the herbal plants and basically is necessary for the creation of the brand and the concept of *C.A. Rosetti Herbs&Honey*. Since cattle breeding is very common in C.A. Rosetti, there is enough dung available which can be transformed into humus on compost heaps. For the growing of the young plants, there has to be made up an appropriate organizational management method. In contrast to the method of direct seeding, the nursing of young plants in a protected surrounding like a polytunnel, is more promising since the risk of the plants' demolition in an early stage is prevented. For this purpose, the investments should also comprise a ~ 9m long polytunnel.

Figure 11: Example for nursing of plants in polytunnel. Source: http://upload.wikimedia.org/wikipedia/commons-/e/ec/Polytunnel%2C_but_with_netting_-_geograph.org.uk_-_1274787.jpg, 14.12.2014.

After the nursing, the young plants can be distributed to the farmers and can be planted outside. The austrian company Sonnentor is recommending to use the fields rotationally and grow the same type of herbal plant on the same field only every 3 years *(cf. Gutmann 2008: 40)*. Supplementally, there is planned to set up a sample field in Sfiştofca since there are plenty of abandoned parcels of land available. It should comprise about 1ha, be maintained by the local administration, the planning team and interested farmers and inhabitants jointly and contribute to a major awareness for organic farming and the project.

Harvesting

The harvest should primarily be operated by hand, possibly with the help of agricultural accessoires. There should be two different forms of harvesting:

+ *Harvesting of cultivated herbs like Camomile, Yarrow, Common Marygold, Coneflower*
  The farmers can harvest on their own fields and then bring the cropped quantity to the warehouse guidance, where it will be weighed and recorded.

Figure 12: Example for the manual harvest of camomile in the hungarian Puszta.
Source: Adam et al. 2009: 551.

+ *Harvesting of wild grown herbs like Sea buckthorn*
  For this method of havesting herbal and aromatic plants in their natural habitats, sustainable collecting practices have to be used to prevent endangering the local ecosystem. There is a certification for wild plant collection which is made out by the *IMOswiss AG*, the *Institute of Marketecology*, an internation third party certification body. To obtain this certificate, the organic quality of the wild crops has to be proved by the documentation of all activities around the collection. From the collection area to the scale of the products, everything has to be documented in detail. The *IMO* already is an active stakeholder in Bosnia-Herzegovina, giving away certificates to six wild collection companies. From this 6 companies, 2 of this IMO certified companies have been nomitated for the *FairWild* certification progamm. This is an even stricter form which can be compared to that of fair traded coffee and supplementally requires the setting up of a democratic structure which respresents the collectors. *(cf. Schindler online 2014)* This structure can be given through the *C.A. Rosetti Herbs&Honey Cooperative*. Especially for the elder population, this form of harvesting could be a good occupation possibility and income source since they have the knowledge about the herbal plants and also could pass it over to the younger generation in the form of seminars and walks in the natural area around C.A. Rosetti.

After the harvest respectively collection of herbs they should be brought to the processing area: the warehouse in Periprava. There could be organised the collection of the herbs from every involved farmer in the harvesting period so that not everybody has to bring the raw products to the warehouse individually. The schoolbus and touristic drivers could be included for this task.

beekeeping

sustainable farming | long-term occupation

Qualification course for beekeeping

Before the beekeeping can be realized, there has to be a special training for the interested farmers. The first training for the qualification for beekeeping should be conducted by the *Association for Beekeeping in Romania* and should take place right after the first participatory event in Sfiştofca. Then, regular trainings once a year should refresh the knowledge. If there already are inhabitants keeping bees, they could be assigned as co-trainers supplementary to the *Cursuri de calificare.*

Beekeeping

After the qualification course and the acquisition of the bee colonies and bee hives depending on the number of interested farmers and households, there should be implemented the regular beekeeping activity. There is a bee species domestic in Romania which could be used therefore - the Apis Melifera Carpatica. According to Lang, it is vital and resilient, even for the hard winter period *(cf. 2014: 96)*. For the keeping of the bees there could be used traditional and natural straw beehives.

Figure 13: A traditional beehive made out of straw containing the the combs. Source: http://upload.wikimedia.org/wikipedia/commons/d/dc/Tchetoere_strin.jpg?uselang=de.

Harvesting the honey

The best harvest times for honey are in Romania between June and August *(cf. Lang 2014: 19)*. The harvested honey can be brought to the warehouse in Periprava, where it can be extracted from the honeycumbs with a machine and then filled in jars.

processing

long-term occupation

Eco-Warehouse

A simply built warehouse should contain the raw, dryed and cut product of herbs and honey as well as the packed up and ready to be delivered products. It should be constructed out of wood (i.e. from used shipping pallets), cob and reed and therefore should create ideal climatic conditions inside through its insulation qualities - without using any cooling technology. There could be used synergies with the project of Corinna Schmidt in the building phase. The best logistic position for this facility would be in Periprava, due to its location next to the northern branch stream of the danube and its port.

Figure 14: Ortophoto of Periprava and the suggested location of the warehouse.
Source: Marius Voica 2014, own adaption.

Figure 15: The warehouse's possible framework architecture.
Source: http://assets.inhabitat.com/wp-content/blogs.dir/1/files/2012/04/6-Pallet-Architecture-Jellyfish-Theatre-537x357.jpg

Warehouse guidance

It is important that the people entrusted with the custody know how to communicate between the herb growing, honey farm and logistics working group as well as the others occupied in processing. When the harvest is coming to the warehouse, the people assigned for the warehouse guidance have to keep a record of the harvested quantity as well as quality per farmer.

Drying of the herbs

The harvested herbs have to be dryed before they can be packaged, cut and sold. Therefore as task there is also the drying suggested. The *Sonnentor* company has used in its early days an old decommissioned bus with a strong vehicle heater to accomplish the drying *(cf. Gutmann 2008: 17)*. For C.A. Rosetti the reusage of an old boat could be an option for this purpose. It could be renovated and - if not existing - a heater driven by solar panels could be built inside.

Figure 16: An abandoned shipwreck in Sfiştofca which could be re-used.
Source: Bernhard Siquans 2014.

Cutting of the herbs

For the quality of the herbal products, the size of the herbal leaves and blossoms is vital. The larger they stay in the processing, the better the quality should be since the essential oils can rest in the plant components *(cf. Gutmann 2008: 20)*.

Honey extraction

After the honey harvest, the honey has to be extracted from the honeycombs. Therefore there has to be purchased a honey extractor for the warehouse.

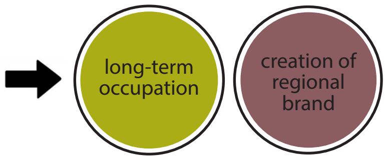
Packaging

For selling the products, they have to be packed up appropriately. For the herbs there could be used paper packaging with little viewing panels, whereas for the honey glass packaging is envisaged. For the latter there could be ultilized synergies with the glass artists from the *Sfiştofca Art Association* as well as locals that know how to use the glass engraving machines and want to participate.

Figure 17: Possible packaging option for herbal products.
Source: https://www.josbinder.at/mediapool/contentimg/teeverpackungen.jpg, 14.12.2014.

Figure 18: Possible design option for honey glasses.
Source: Breiling 2014.

The filling process is dependent on the product - the herbs can be packed up by hand using a scale. This could be an occupation possibility especially for the elder population of C.A. Rosetti. Local community centers could be used for this purpose. Further on, for the honey filling process there has to be a honey filling machine acqui-red.



The marketing working group should realize the product development, communication with sales partner as well as the public relations to advertise the regional brand. Its realization contributes to the objectives long-term occupation and the creation of a regional brand.

Product development

The development of the herbal and honey products is going to take place in two different categories:

+ The original *C.A. Rosetti Herbs&Honey* products which are going to be sold with the logo. The herbal product line should comprise organic teas whereas the honey products pure organic honey.

+ The intermediate products which will consist of the raw herbal and honey products. They should be sold when production surpluses will occur or when there are favourable contracts available. In this case, the cooperative would be the supply firm for other companies and the brand is faded into the back-ground.

Communication with sales partner

For sale activity outside of the region, it is important to maintain the contact to the (possible) sales partners. The marketing working group should arrange new sales partner and at the same time ensure the contact to already acquired partner, in cooperation with the logisitics group. There should be sales partner which resell the original product, as well as those which are purchasers for the intermediate product.

Possible sales partner could be:

+ *Bio Romania Market*
  The original products could be sold on the sales homepage of the *Bio-Romania Association:*
  http://www.bio-romania-market.ro/

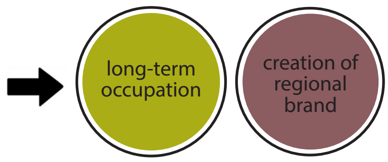
+ *Organic Joy*
  This company has specialized on the development of herbal products. They could be a possible purchaser of the raw product.
  http://www.organicjoy.ro/

+ *Sonnentor*
  The Austrian company *Sonnentor* is selling herbal products and also honey. For production surpluses, it could be a project partner for buying the raw product of *C.A. Rosetti Herbs&Honey*.
  http://www.sonnentor.com

+ *Organic & Health Shops in Tulcea and Bucharest*
  If possible, the original herbal and honey products should be delivered to health shops in the bigger cities of eastern Romania.

+ *Beekeeping and Research Institute Online Shop*
  The online shop of the *Beekeeping and Research Institute of Romania*, short *B.R.D.I*, could also be a potential sales opportunity for the original honey products.
  http://www.icdapicultura.ro/en/online_shop.html

logistics



Product transport

The logistics team should first of all bring the raw product from the farmers to the warehouse. This task could be operated by the school bus and touristic drivers. The transport of the manifactured products to the sales partners should then be operated weekly, beginning with year 2 of the implementation plan. Therefore the products have to be brought to the Periprava port by the warehouse guidances, where they can be loaded on boats to get shipped. On the way back to C.A. Rosetti there can be transported ordered goods like the raw material for packaging, if it can be organised. By this, ressources like gas and time can be saved.

Representing the brand on the outside of the region

Every now and then, the process of the delivering should be accompanied by one marketing & sales assistant to ensure the contact to the sales partner. The person should represent the brand of *C.A. Rosetti Herbs&Honey* and make an inquiry about the contentment with the products.

4.3. Involved stakeholder

The stakeholder concerned with the project can be separated into formal public and private. The first category comprises official institutions and governments whereas the latter rather combine NGOs and private associations respectively population groups. They are summarized in the following table:

Public			
Level	***Stakeholder***	***Site***	***Role in C.A. Rosetti Herbs&Honey Cooperative***
International	European Union	Brussels (B)	- Funding provider - Potential project partner in coordination
	IFOAM International Federation of Organic Agriculture Movements	Bonn (G)	- Project partner in coordination - Project partner in cultivation methods
National	Romanian Government	Bucharest	- Funding provider - Legislative framework
	Ministry of Agriculture and Rural Development	Bucharest	- Project partner in coordination - Project partner in cultivation methods
	University of Architecture and Urbanism	Bucharest	- Project partner in processing
	NARDI National Agricultural Research and Development Institute	Bacău	- Potential project partner in cultivation methods - Scientific expertise
	Bio @gro Organic Agriculture e-Service System	(digital)	- Project partner for information about funding, legislative framework and cultivation methods
Regional	Tulcea County Council	Tulcea	- Legislative framework
	Agriculture and Rural Development Department of Tulcea County	Tulcea	- Potential project partner in cultivation methods - Scientific expertise
	Danube Delta Biosphere Reserve Authority	Tulcea	- Coordination of objectives with Biosphere Reserve framework
Local	Local Council of C.A. Rosetti	C.A. Rosetti	- Funding provider - Essential project partner in coordination

Private			
Level	***Stakeholder***	***Site***	***Role in C.A. Rosetti Herbs&Honey Cooperative***
International	Sfiştofca Art Association	Vienna	- Project partner in coordination
National	Association of Ecotourism in Romania	Brasov	- Potential project partner in marketing
	Bioterra Organic Farmers Association of Romania	Cluj	- Potential project partner in coordination
	NGO A.R.A.D. Organic Farmer Association for Sustainable Agriculture	Cluj	- Potential project partner in herb growing
	EcoR Partner - Resource Centre for the Promotion and Marketing of Organic Products	Bucharest	- Potential project partner in marketing
	Bio-Romania Association	Bucharest	- Potential project partner in coordination
	Asociatia Crescatorilor de Albine din Romania - Association for Beekeeping in Romania	Bucharest	- Potential project partner in beekeeping
	Beekeeping Research and Development Institute B.R.D.I.	Bucharest	- Potential project partner in beekeeping
Regional	NGO „Vox Deltea“	Crisan	- Potential project partner in herb growing and beekeeping
Local	Chess Association	Sfiştofca	- Project partner in processing: packaging
	Women's Singing Association	Sfiştofca	- Project partner in processing: packaging
	Sfiştofca Art Association	Sfiştofca	- Project partner in processing: packaging and product development
	Touristic Drivers	C.A. Rosetti	- Potential project partner in logisitics
	Schoolbus Drivers	C.A. Rosetti	- Potential project partner in logistics
	Local farmers and households	C.A. Rosetti	- Essential project partner in herb growing, beekeeping and processing

Table 2: Overview of involved stakeholder for the C.A. Rosetti Herbs & Honey Cooperative.
Source: Own account.

C.A. Rosetti Herbs&Honey

4.4. Implementation

The project should be implemented within 2 years. The first year is the organizational and testing phase. The planning team has to be assembled by the local administration and the necessary basic insvestments have to be done. For the testing phase which should be supervised by a small team of specialists, there should be assigned the first interested local farmers. Thereafter, an evaluation of this testing phase should take place, before additional farmers in the 2nd participatory process can be incorporated.

Year I

January

- Handing over concept to Local Administration & assembling planning team
- Accession of *Bioterra* (Organic Farmers Association of Romania) and the *Association for Beekeeping in Romania*
- Applying for EU funding and setting up the Crowdfunding and -lending profiles

February

- Organization phase of 1st participatory process
- Acquiring the surface for the sample field in Sfiştofca (clarification of potential parcels and their property state)
- Building up the warehouse in Periprava and the appendant polytunnel

March

- Assign botanic specialists to examine soil quality and possible herbal breeds for cultivation (in cooperation with NARDI National Agricultural Research and Development Institute, Agriculture and Rural Development Department of Tulcea County and Bioterra Organic Farmers Association of Romania) as well as specialists for beekeepin to examine appropriate locations for beehives
- Acquiring seeding material & propagation of seedlings for herbal plants

April

- 1st participatory process in the municipal building of C.A. Rosetti: presentation of the concept & signing of interested farmers for testing phase
- Official foundation of the *C.A. Rosetti Herbs&Honey Cooperative*
- Setting up the drying plant next to the warehouse in Periprava (i.e. by renovating old boat)
- Acquiring honey extractor and filling machine as well as bee colonies and beehives

May

- *Phase 1* seminars for herbal specialist education and beekeeper education (in cooperation with A.R.A.D. Organic Farmer Association for Sustainable Agriculture and Association for Beekeeping in Romania)

June - October

- Cultivation testing phase to be supervised by team of botanic specialists and beekeeping specialists & documented by planning team

November - December

- Search for potential sales partner

C.A. Rosetti Herbs&Honey

Year 2

January - March	° Evaluation process ° Organization phase of 2nd participatory process
April	° 2nd participatory process in the municipal building in C.A. Rosetti: presentation of the outcomes of the testing phase as well as the concept & signing of interested farmers for production season
May	° *Phase 2* seminar for herbal specialist education and beekeeper education (maybe in cooperation with A.R.A.D. Organic Farmer Association for Sustainable Agriculture and Association for beekeeping in Romania)
June - October	° First production season: regular meeting opportunity with planning team once a week in Letea, Periprava, Sfiştofca and C.A. Rosetti & regular contact with team of specialists
November - December	° Regular contact with potential sales partner ° Delivery phase

4.4. Financing

Options

+ *Crowdfunding: 10.000€*
  This form of funding can be a financing option for the *C.A. Rosetti Herbs&Honey,* with the potential to raise 10.000€. The concept of *Crowdfunding* is based on the concept of *Crowdsourcing* and basically a form of online collaboration where people can contribute by means of financial aid to suggested projects worldwide *(cf. Howe 2008:)*. They either are based on the principle of donations (donation-based crowdfunding) or offer the contributors something in exchange (rewards-based crowdfunding). According to the European Commission, there have been raised 735 million euros with this method in Europe to help realize some half a million European projects. *(cf. European Commission online 2014)* On www.kickstarter.com, the leading platform for projects which search to be crowdfunded, there could be found an appropriate reference example for *C.A. Rosetti Herbs&Honey:* The *Ariadne Pure Organic Honey* from Washington, USA could raise over 6.000$ in 15 days in the year of 2013[1].

+ *Crowdlending: 5.000€*
  Crowdlending is a form of *Crowdfunding* where private microcredits are given away by private investors. The loans have to be repaid with the agreed upon interest within a pre-declared time period. *(cf. WKO online 2014)* The platform www.kiva.org is providing a service which connects project developer and investors to get individual projects financed.

+ *Microinsurance*
  Since the most important component of *C.A. Rosetti Herbs&Honey* is organic agriculture, it bears the financial threat of crop failures. To lower this risk anticipatorily, there should be taken out insurances by means of using the concept of *Microinsurances*. In cooperation with Gerold Ludwig's project there should be figured out how it would be possible to safeguard the project.

1 See: https://www.kickstarter.com/projects/1874931887/ariadne-pure-organic-honeys-and-honey-spreads/description.

+ *European Structural and Investment Funds 2014-2020: 20.000€*

Competitiveness, convergence and cooperation are the three main cores of the Eu's Structural and Investment Funds ESIF[1] of the European Union, which have an important impact on investments. For the upcoming period, there have been formulated five funding priorities for the national authority of Romania, whereof three have relevance for the proposed project:

- Improving human capital through higher employment and better socia inclusion and education policies
- Promoting economic competitiveness and local development
- Optimising the use and protection of natural ressources and assets

(cf. European Commission online 2012: 3ff)

The local amdinistration of C.A. Rosetti can make an application for funding within the *National Program for Rural Development 2014-2020*, where the national priorities have been incorporated within the funding priorities. There is i.e. a package of measures for the conservation and maintenance for biological agriculture in rural areas, which includes 236,1 mil euros and could be convenient. *(cf. Ministry of Agriculture and Rural Development online 2014: 10)* Support for the application process could be given through the *Operational Programme Technical Assistance* and its homepage www.poat.ro.
Another option would be a financing opportunity through the instrument of the *Integrated Territorial Investments ITI* within Cohesion Policy. It is a more flexible instrument for „the implemenation of parts of programmes in a cross-cutting manner" and has the ability to implement integrated actions within EU funding. But therefore, it is first necessary to built up national structures like an appropriate governance structure and a designated management body. *(cf. European Commission online 2012: 17)*

Costs

herb growing		beekeeping		processing		marketing & sales		logistics	
1 polytunnel ~10m	3.000€	10 beehives	300€	building simple wooden warehouse	18.000€	1 computer	~500€	1 used commercial vehicle	4.000€
seeding material for 1ha (2,5 kg needed)	~5.000€	10 bee colonies	700€	500 honey glass packages	~500€				
2 seminars	sponsored	2 seminars / qualification courses	sponsored	500 herbs cardbord packages	~500€				
sample field	-	1 filling machine	1.000€						
		1 honey exractor	200€						
	8.000€		**2.200€**		**19.000€**		**500€**		**4.000€**
Total investment costs: ~35.000€									

Table 3: Overview of investment costs for the C.A. Rosetti Herbs & Honey Cooperative. Source: Own account.

1 Summarizes the European Regional Development Fund ERDF, European Social Fund ESF, Cohesion Fund CF, European Agricultural Fund of Rural Development EAFRD and the European Maritime and Fischeries Fund EMFF.

5. Conclusion

The project *C.A. Rosetti Herbs&Honey* not only has the ability to change the local inhabitants' perspective on their local ressources and their future, but could also contribute to a mitigation respectively even reversion of the municipality's recent negative development. At the same time, there can occur considerable problems within the realization process, especially due to the structural weakness of the whole Danube Delta region. The following two chapters are giving an overview on both.

5.1. Potential threats to the project

Because of its peripheral location and general state as developing area, the project is threatened by various potential problems which can be categorized into fundamental issues based on the given conditions and on the other hand into threats which can occur during the phase of implementation. The first three are basic fundamental threats whereas the last two concern C.A. Rosetti and the realization of the project.

+ *Further salination of soil through increasing sea level of the Black Sea*
  A major threat for the succes for the growing of herbs is the condition of the soil in the area. It is characterized by increasing salination and therefore the appropriate plants for the cultivation have to be chosen carefully and in advance. Therefore, a special team of botanics should conduct an investigation at the beginning of the project to minimize the danger of the obstacle.

+ *Lacking knowledge and human ressources for funding applications in rural areas of Romania*
  As reported by the mayor of C.A. Rosetti, the human ressources for funding purposes are scarce, similar to the concrete knowledge about it. A general lack of interest for the position of community assistant is further showing the untrust towards Romanian politics by its population, especially in rural areas. According to her, there is more politics than policy going on and this is discouraging many people. But to develop the project, the chance of participation has to be taken by all involved stakeholder, above all the inhabitants.

+ *Risk and uncertainty as a result of climate dependency and a globalized agricultural market*
  The vulnerability of the agricultural sector itself is characterized to a great extent by uncertainties. Sudden price changes on the international market are not uncommon nowadays and have effects on local farmers. Additionally, appropriate climate conditions are a basic need to be able to economically rely on agriculture as income opportunity. But due to climatic change and its already noticable consequences for the natural ressources, agricultural expectations have to be more flexible than ever. Crop outputs can vary and there has to be found a way to deal with this like with using microinsurances.

+ *Communication problems due to the spatial structure of C.A. Rosetti*
  The spatial dispersion between the individual villages of C.A. Rosetti constitutes a major obstacle for the ongoing operation of the cooperative. Especially since the farming structures are conducted on a small scale, there are many different stakeholder which have to find a way to work together and organize themselves constantly for a project success. For now, the process has to rely on simple organization and arrangement through mobile phones and regular meetings. A future solution for this could be an online platform for communication matters but therefore the establishment of further internet connections in the region would be necessary.

+ *Dependency on planning team*
  In the end, the success of the whole project is indeed dependent on the planning team and its collaboration with the local administration. It should accompany the process and eveluate the testing phase in the first year. Participants can be professionals from spatial planning from Austria and Romania. If it is not working as expected, a failure of C.A. Rosetti Herbs&Honey cannot be fully preemted.

5.2. Effects

If the project would be launched and implemented as suggested, the effects of the project affected various spheres of life for the inhabitants of the municipality C.A. Rosetti.

near-term (within 5 years)

+ employment for all aging groups
+ new form of cooperation through cooperative
+ cultural landscape benefits from organic farming

First of all, as near-term effect, there would be implemented a form of employment possibility for all aging groups. The elder generation has a wide knowledge of herbal plants in the area which would be useful for the whole cooperative and which the younger generation could learn of. Secondly, there would be developed a new cooperation possibility and „heart" for the municipality which requires regular communication and meetings. The inhabitants would have to cooperate and pull together which would enhance their community sentiment and their regional consciousness. Further on, the establishment of conceptual organic farming would have a positive influence on the cultural landscape of the region and thus contribute to the objectives of the *Danube Delta Biosphere Reserve*.

intermediate-term (within 10 years)

+ establishment of the regional brand *C.A. Rosetti Herbs&Honey*
+ increasing level of awareness for C.A. Rosetti outside of the Danube Delta
+ new perspectives for tourism
+ chance for more policy and participation

The intermediate-term effects would be on the one hand the final establishment of the regional brand. Through increasing sale figures, the popularity of the herbal products and the honey will augment. On the other hand, new perspectives for tourism are going to evolve. The tourists will know C.A. Rosetti better and can inform themselves in advance about the cooperative for example. Furthermore, The project can constitute an opportunity for more self-awareness, vertical cooperation as well as knowledge transfer concerning funding possibilities.

long-term (within 20 years)

+ improvement of the living quality in C.A. Rosetti through better income
+ immigration of interested families
+ trickling down effect on whole region

Finally, the long-term consequences will be noticed approximatly after 20 years. The first crucial effect will be the improved living quality in the municipality, triggered by the better income and the increasing level of infrastructure the community can afford through the tourism. This is attracting new families which also aim to live in close communion with nature and maybe want to be part of the cooperative. The whole region sourrounding C.A. Rosetti will be prospering again.

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6.3. List of figures

6.4. List of tables

C.A. Rosetti
Herbs&Honey

OPEN UP NEW ECONOMIC HORIZONS

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Open up new economic horizons

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December 2014

Contents


Open up new horizons for
C.A. Rosetti

1 Introduction

1.1 Impressions of C.A. Rosetti

During our fieldtrip to the community of C.A. Rosetti, which is in the northeast of the Danube delta, I got a lot of impressions about the daily life of the inhabitants. This region is characterised by migration and so it is a region with a rapidly shrinking population. It is like in the other parts of the region, all of them are affected by migration. Only in Pardina the population is growing due to an economic upswing in the agriculture sector [cf. European Commission, 2010, p.7]. In the community of C.A. Rosetti particularly women and young people are leaving this area because of a limited perspective. Due to this shrinking processes nowadays only 839 people are living in the community in comparison to 1438 in the year 1990 [cf. Recensamantul populatiei si al locuintelor, 2014, online]. But not all villages in the community of C.A. Rossetti are affected by this trend in the same way. C.A. Rosetti itself, Periprava and Letea are still functional villages with many inhabitants. Sfiştofca on the other hand is a village with rarely children or young people, few residents, many degenerate or left buildings and a high rate of alcohol addicts.

Due to this fact the main target group for my project will be young people, women and people who have the motivation to upgrade the community of C.A. Rosetti through economic skills. The project "Open up new economic horizons" should help to get wealth in this remote area by empowering the people to utilize their economic skills.

1.2 Microfinance for the community

To gain economic growth, you have to invest money and if you do not own this money, you have to get a loan. So if you want to gain economic growth in the Danube Delta you have to support the (small) enterprises to satisfy their demand for (small) loans. A very good example for that is the story of Jeni and Dumitru Dimache. They are located in Sfântu Gheorghe and received a microloan from Rewilding Europe (http://www.rewildingeurope.com). With this loan they were able to improve their accommodation and purchase equipment for developing professional wildlife guiding as well as equipment for promoting their idea [cf. Rewilding Europe, 2014, online]. Thats exactly one thing that the credits from the project "Open up new economic horizons" should enable.

As mentioned before this paper should have a focus on the community of C.A. Rosetti and according to our visit, there are no big enterprises so the supporting loans do not have to be huge. Therefore small amounts like microcredits should fit perfectly. Currently there is a big market it Romania for micro-credits. 90% of the of the Romanian enterprises are micro-enterprises and because of their spread in the remote areas of Romania they are often not able to get a loan from a bank. According to some estimations there is a demand for about 700 million Euro [cf. Carboni, 2010, p. 306]. That is exactly where the project "Open up new economic horizons" should tie up.

2 Microfinance

Microfinance is not a very common term. In general linguistic use only the term microcredits is used. But microcredits are just one subsection of microfinance, next to microinsurance, microsavings and agricultural finance. The following sections should give an overview about the different types of microfinance.

2.1 Microcredits

According the Council of the European Union microcredits are a very good way to support or launch small and medium sized companies, help poor people, women and ethnic minorities [cf. Zdrahal-Urbanek, 2007, p 9.]. First forms of microcredits where established in Europe at the middle of the 19th century in Ireland as "loan funds" and in Germany by Raiffeisen. More famous became the version of Muhammad Yunus who founded the Grameen Bank in Bangladesh in 1976. For that he was awarded with Nobel Prize in 2006 [cf. Sütterlin, 2007, :39-42].

There are different ways how to manage microcredits. You can give money directly to individual people or manage the allocation via a group. These groups can be smaller, up to 5 or 10 people, or they could act like a community bank with more people. Group loans are easier to manage because people are responsible for the other members of the group. Due to this fact, the projects which are aided, have to be well designed, because all members want to minimize theh risk of a credit non-payment. Also the interests for the loans are higher if they are just for a single person.

Usual terms for microcredits start at three month up to a year. There are also microcredits projects with terms up to three years, especially for agriculture or loans for housing projects. Therefore it would be nearly impossible to pay back the loan faster because of the high value of the credit [ct. Ledgerwood et al., 2013, p. 213]. How loans are paid back depends on the financial backers. There are models including interest with a payment every week, fortnightly or monthly payment. Some Models offer an "all together" payment at the end of the repayment term.

2.2 Microinsurance

According to Ledgerwood et al. (2013) poor people are very often unprotected against risks like illness, crop failure, natural disasters or other perils. In the worst case these perils can destroy every prosperity which was created with the before mentioned microcredits. Of course the people could overbear the situation if they have savings but afterwards they would also lose them. Because of that people could act in a very careful way and try to avoid every kind of risk. To protect the people against these threats it is necessary to support the low-income people with the possibility of microinsurance. Hence some companies are offering this service for a few years. One of the major challenges to implement microinsurance is that a lot of people have to overbear the prejudice against this form of insurance. Many of them do not see any sense for paying for an intangible product which can not be claimed for sure [cf. Ledgerwood et al., 2013, p. 252]. Due to that reason some assurer made insurances obligatory if people want a microloan. By that approach the assurer want to ensure that their offer is profitable [cf. Ledgerwood et al., 2013, p.139f].

2.3 Microsavings

Microsaving is another way for poor people to get financial services. It is like a normal saving account but the people who use it, save usually less money. It could support people, together with microinsurance, for sudden threats like mentioned before, but it could also make people more independent in the future when they want to make major investments. Some financial backers also make the microsaving obligatory for people who get loans to minimize their risks. It could also be a possibility for the inhabitants to save money which could circulate as credit again [cf. Armendáriz and Morduch, 2005, 150f].

Easier access to financial support

3 The Project - Microfinance in Community of C.A. Rosetti

3.1 Target of the Project

The project should offer a perspective for the inhabitants of C.A. Rosetti by offering tools to improve their economic situation.

3.2 Financial Backers for the project

The main reason for the strong grow of the Romanian economy has been domestic consumption during transition of the Romanian economy. In some years the number of household loans increased by nearly 90%. At the start of the microcredit period in Romania all of the contributors were part of non-governmental organizations . Nowadays there are approximately over 20 companies (and still a fast growing market) which are offering microcredits, not all of them are NGOs. They have in common that their maximum loan is lower than 25.000 Euro. Microcredits in Romania are for everyone, not like in other parts of the world just for people who do not get a loan on a usual way. The only differences between the companies are how they offer their product: social oriented, social and commercial and just commercial oriented [cf. Carboni, 2010, p. 306f].

3.2.1 European Union

The European Union itself does not have a direct offer for microcredits for individuals or businesses. They just provide loans and guarantees for vendors. According to graphic 1 these loans and guarantees are used by banks, financial institutes and other providers for microcredits [cf. European Commission, 2014]. Hence the only way to finance new entrepreneurs in Romania with money from the EU is via other Romanian financial institutes. Among those are Banca Transilvania, UniCredit Leasing and others. A full list is available at: `http://europa.eu/youreurope/business/funding-grants/access-to-finance/`

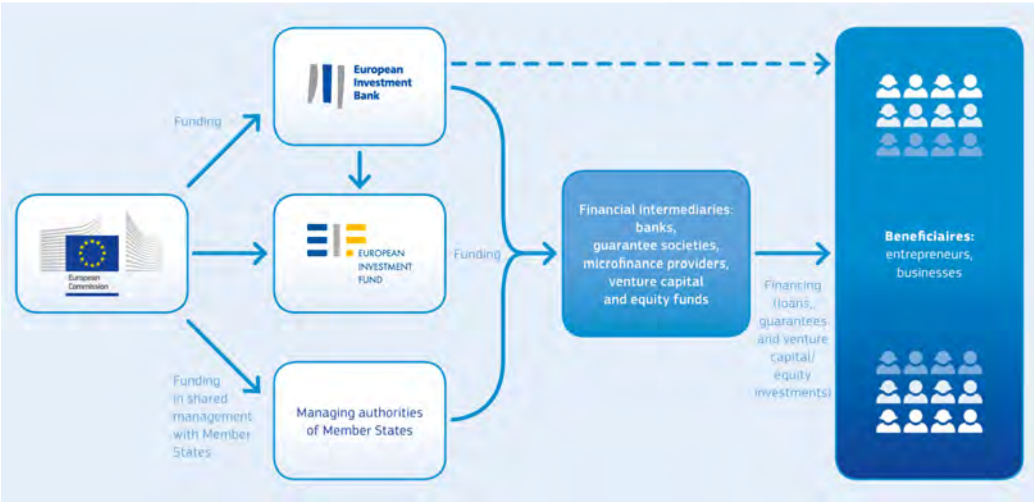

Figure 1: Model of the EU funding for microcredits (©http://europa.eu/youreurope/business/funding-grants/access-to-finance/)

3.2.2 State of Romania

The Romanian Government is supporting MFI (Mirco Financial Institutes) through developing a legal framework for microfinance sources and assistance with law 240/2005 which should support SME (Small and Medium Entrepreneurs) Agencies. It was launched by the Romanian Government, the European Comission and the European Bank for Reconstruction and Development as well as local commercial banks. It was created to support people in remote areas with little access to finance [cf. Carboni, 2010, p.320].

3.3 Potential Partners for the project

3.3.1 Non-Governmental Organization

This chapter should show a short overview for potential partner who already have knowledge with microfinance. First section are NGOs who are working in Romania, the second section are crowd funding platforms.

Figure 2: Opportunity Microfinance Romania (©http://opportunity.ro/en)

OMRO - Opportunity Microfinance Romania is working in Romania since 1995. Nowadays they are funding projects mainly in the western and central parts of Romania but the Danube Delta could be a first step to the east of Romania. Currently they dispense 17.855 loans and created more than 22.000 jobs. Their main target is to empower people with services in agriculture and services which create an output. The range of the amount of credit is normally up to 18.000 RON (approx. 4000 Euro) [cf. Opportunity Microcredit Romania, 2014, online]. This amount for instance would be already enough for the two people in Periprava who are building a new house for accommodate tourists. We met them during our field trip.

Figure 3: Integra Romania (©http://www.integraromania.ro/)

Integra Romania is another NGO, which provides since 2000 support in microfinance. Their main focus is also on rural areas but especially women in rural areas. In Addition they are offering courses for financial education. By the gained knowledge in the scopes of business budget and/or family budget they want to fight financial and social exclusion of adults [cf. Integra Romania, 2014, online].

FAER - Foundation for the Promotion of Agriculture and Regional Economy is focusing on entrepreneurial development and education too. The target borrowers are rural farmsteads, small sized agricultural enterprises and rural tourism lodgings in regions with limited access to a banking system [cf. Post Privatisation Foundation,, 2014, online] and [cf. Carboni, 2010, p.314].

Figure 4: FAER - Romania (©http://www.postprivatizare.ro/english/)

Rewilding Europe Capital is financing enterprises who are contribute in one or the other way rewilding. At the moment they are not only financing in Romania but as mentioned in chapter "1.2 Microfinance for the community" they did already some lending of credits in the Danube delta. Their Terms are between three and five years with an interest rate of 5%–8% [cf. Rewilding Europe, 2014, p.]. With their knowledge and their focus on rewilding, they seem to be a highly interesting partner for the project "Open up new economic horizons".

Figure 5: Rewilding Europa (©http://www.rewildingeurope.com)

Other NGOs offering MFI-Services in Romania are:

- ROMCOM Microfinance - Target: Entrepreneurs and SMEs in rural areas; http://www.romcom.ro/
- LAM Foundation - Target: Loans for farmers or entrepreneurs in rural areas; http://www.lamromania.ro
- Open Society Foundation - Target: Micro business for small- and micro enterprises

3.3.2 Community Based Credits

For credit institutes, micro financing is quite risky. Because of that they lend the money sometimes only if the recipient can offer a guarantee of payment for the loan. Otherwise they will charge high interests to minimize their venture [cf. Zdrahal-Urbanek, 2007, p. 10]. To offer a good financial solution for the community of C.A. Rosetti this project should also offer a second way to empower the inhabitants through microfinance: Community Based Credits.

There are a lot of different models for Community Based Credits, like peer-to-peer lending and social lending. This project should focus on the two mentioned models because they are the cheapest. In addition they could act as a social interface, so that people get to know more about the Danube delta. Both models is a direct way for people or groups to lend money. It is not very risky for the financier because it usually it is saved by a venture capital lender who is acting in the background.

To make sure that people in the Danube delta know about these possibilities, social lending organisations have to have "Field Partners" who inform the inhabitants.They maybe could choose the enterpriser or the borrower. Within this project the Community Learning Center or the Sfiştofca Art Association could handle the part of the Field Partner. Another peer-to-peer lending option could be a stake within the supported enterprise, so that people lend their money and become a stake holder of it afterwards.

3.4 Structure of the Project

3.4.1 Starting Time and Duration

The project could start immediately after a short preparation period which is caused by searching for partners, locations, financial backers and so on. If the project itself acts as financial supporter for other projects, like "Community learning center", "Productive Spaces", "C.A. Rosetti Herbs & Honey" it will depend on their start. As mentioned before it has to start before the other projects because of the longer lead time. The duration of the project is not limited. It should help the people in the region of C.A. Rosetti as long as possible or as long as they need it.

Get ready to enter new markets with unique products

3.4.2 Strengthen the Community trough microcredits

A positive output from the project should be a stronger and better educated community. The basis for this lies in the character how microcredits (and other products) are provided. To manage this it is necessary to explain the different way or organizing microcredits: individual, group of 5-10 people or community bank. The project should not aim for the individual microcredit version because they are risky for the defaulter and the bank. The defaulter could do with the money whatever he/she wants. He/she could spend it only for consummation or he/she could fail because he/she does not have enough knowledge for a good placement of the investment. Also the bank will demand higher interests for the loan because of the missing guarantee of payment.

In order to strengthen the community I would prefer the second or third way. These kinds of microcredit could strengthen the community through solidarity, responsibility and and confidence. The first step for a group credit is to define how large a group should be. For this project it could be approximately five members for each group. Within this model all group members are liable for credits from the others, this increase the moral for paying back the money. Also projects have to be well elaborate to get an authorisation from the other bailsmen. To make sure that people understand this way of group loaning they should get a lot of information and training before. Therefore the project should use existing knowledge which is provided by one of the NGOs from chapter "3.3.1 Non-Governmental Organization" or by Karins project, the "Learning and Communication Center in C.A. Rosetti". Otherwise the training could take place in the community building in Sfiştofca or the uprising location of the Sfiştofca Art Association. If this version is not trustful enough or the inhabitants of C.A. Rosetti do not want it, it is possible to use the second version of group credits. It is a small community bank and usually it is also a good alternative for remote areas without a bank. To gain as much members as possible and provide a bank service to them, the community bank should act in the whole area of C.A. Rosetti. It should be managed by one of the social institutes from chapter 3.3.1 or other experts like bank managers, brokers or social workers. They should act as supervisor to teach and manage the other working groups. Afterwards the Community bank is launched together by all members (supported by experts, mentioned above). The hierarchy structure of the community bank have to be flat to minimize the risk of a concentration of power.

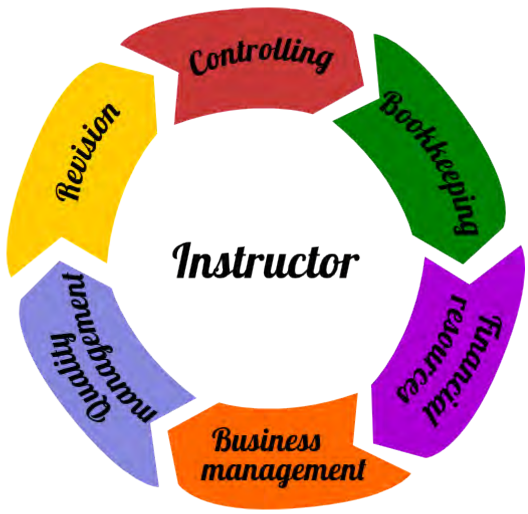

Figure 6: Function of Community Bank rotation cycle

All members should be part of a task force which have different duties and responsibilities. Groups for controlling, revision, bookkeeping, financial resources etc. are necessary. To empower people with different skills the members of the different groups have to rotate these functions regularly (as you can see in graphic 6).

3.5 Scope of Application

3.5.1 Agricultural Finance

Agriculture is a source of rural employment and is part of food security in C.A. Rosetti. Microcredits for this sector should increase the ratio of input to output. A higher ration should make the community more independent from foreign products. Usually they are more expensive because the price for the complicated transport is added. Another field for microloans is trying to widen the portfolio (organic honey and herbs, local food for restaurants,...) of agricultural products to utilize market niches. To facilitate that, also investments in storage possibilities are necessary because of market fluctuations. Credits should also support employees in agriculture sector facing price risks which are caused by a lack of market knowledge and limited market access.

3.5.2 Accommodation

Microfinancing should offer the people in C.A. Rosetti a possibility to get new financing opportunities for building up or upgrading guesthouses or other touristic infrastructure. For this purpose the loans have to be designed for a long term because the value of the loans will be located in the higher sectors and the turnover is slower than in usual ventures.

For all kinds of credits its obligatory that the project is feasible. Furthermore the project needs a detailed formulation and the money should be used only for it. Loans can increase under certain circumstances. Before the group has to agree according to credit history of the recipient

Create possibilities for improving guest houses

3.5.3 Insurance

Micorinsurance should protect the people in the community from unpredictable hazards. It should be optional for every inhabitant, but mandatory for all who get a microcredit. This obligation should minimize the risk of credit default by illness, crop failure or other hazards which would also harm the other members of the community. As mentioned before they act as a guarantor for the microcredits.

The project should offer different kinds of insurances like health insurance, household insurance, multi-peril crop insurance and others which are useful to minimize the risks and improve quality of life and standard of living.

3.5.4 Microsaving

Microsaving should access to a saving account for the inhabitants of C.A. Rosetti and the remote villages surrounding it. In the future it could support people to get more or less independent from credits which they have to pay back with interests. If the micorsaving project has a lot of consumer the community could get partly rid of financial backers because they could lend the money to each other (with lower interests).

3.5.5 Others

The project "Microfinance in Community of C.A. Rosetti" is not mentioned to be strictly managed like above mentioned. It should develop further and adapt to the needs of the inhabitants. The vision is that the idea spreads to other communities in de Danube delta and should be adapted if needed. It should support entrepreneurs to develop their ideas, to implement them and improve the lives of the people in the Danube delta.

3.6 Further action within this project

This project was created after three days in the affected area of C.A. Rosetti. Caused by that it is just a draft for a microfinancial project and have to be developed in many ways. I wish I could stay focused on this part and help my colleagues thereby building up their projects. First steps for finalising will be a clear information about the detailed legal situation in Romania and get inclusion of expert knowledge.

4 Register

List of Figures

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WASSERVERSORGUNG IM DONAUDELTA

Ida Paschinger

WS2014 – LVA 260.353
P3 – EU am Ende

Wasserversorgung im Donaudelta

Paschinger Ina
MatrNr. 0427579

[PROJEKTVORSCHLAG ZUR ETABLIERUNG EINER TRINKWASSERVERSORGUNGSANLAGE]

Projektvorschlag zur Sicherstellung der Wasserversorgung mit qualitativ hochwertigem Trinkwasser für die BewohnerInnen der Gemeinde C.A. Rosetti im rumänischen Donaudelta. Durch die Etablierung der technischen Anlage sollen sich für die Deltagemeinde im Sinne einer soziologischen und ökologisch nachhaltigen Entwicklung neue Wege zur Wiederbelebung der ehemaligen Wirtschaftskraft eröffnen.

INHALTSVERZEICHNIS

EINLEITUNG

Im Rahmen der Lehrveranstaltung „260.353 P3- EU am Ende“ der Studienrichtung Raumplanung und Raumordnung fand im September eine Exkursion nach Rumänien statt. Reiseziel der Exkursion war die Gemeinde C.A. Rosetti im Donaudelta. Nach einer 4-tägigen Feldstudie innerhalb der Kommune wurde die Rückreise nach Wien angetreten. Der erste Teil der Arbeit bestand darin, in einer Gruppenarbeit die derzeitige Situation in einem Analysebericht darzustellen. In dem zweiten Teil der Lehrveranstaltung soll von jedem der teilnehmenden Personen ein Einzelprojekt ausgearbeitet werden, dass der weiteren sozialen und ökonomischen Entwicklung der Gemeinde C.A. Rosetti zugutekommen soll.

<u>Persönliche Stellungnahme</u>

Während meines Aufenthaltes in der Region, musste ich jeden Tag feststellen wie mühsam die Bewohner Regenwasser sammeln und aufkochen um den Verbrauch für den täglichen häuslichen Bedarf sicherzustellen. Während unserer Gespräche mit den Bewohnern der Dörfer Periprava und Sfistofca, wurde uns immer wieder die Problematik der zunehmenden Versalzung der örtlichen Brunnenanlagen erörtert. Im Rahmen meiner Recherche für den Analysebericht stieß ich auf Berichte und Interviews von Technikern, die sich mit der Thematik der Wasserqualität im Donaudelta befassten und den allgemein schlechten Zustand der Gewässer anprangern. Auf diese Weise erschloss sich für mich die Möglichkeit ein Projekt im Bereich der Wasserversorgung zu erstellen.

Die Nachfolgende Arbeit soll ein Konzeptvorschlag sein, mit dem Thema der Installation einer Wasserversorgungsanlage in der Gemeinde C.A. Rosetti. Inhaltlich wird der zeitliche Planungsablauf sowie die Kalkulation der Kosten mit Finanzierungsmöglichkeiten beleuchtet. Zusätzlich werden die Akteure mit deren Aufgabenfeldern beschrieben, ohne deren Beteiligung das Projekt nicht abgewickelt werden kann. Abschließend werden mögliche zukünftige Entwicklungen, die aus Etablierung einer Trinkwasseranlage angeführt.

TEIL 1

WASSERVERSORGUNG

Unter Wasserversorgung werden Maßnahmen zur Bereitstellung von Trink- und Betriebswasser sowie das Einrichten von Systemen zur Wasser Ver- und Entsorgung verstanden. Aus technischer Sicht sind betrifft dies den Bau und Betrieb von Anlagen

- zur Gewinnung und
- zur Aufbereitung

von Wasser. Wasser kann aus Brunnenanlagen, Quellen oder oberirdischen Gewässern gewonnen werden und wird innerhalb einer Region über technische Versorgungssysteme (Wasserleitungen, Hochbehälter, Pumpstationen, etc.) zu Verbrauchereinheiten geleitet.

Bei der Wasseraufbereitung müssen im Wesentlichen zwei Aufgaben erfüllt werden. Zum Einen muss das gewonnene Wasser auf Schadstoffe untersucht und gegeben falls gereinigt werden, und zum Anderen können dem Wasser Stoffe hinzugefügt werden um qualitativen Standards gerecht zu werden. Die Aufbereitung stellt einen wesentlichen Verfahrensschritt bei der Produktion von Trinkwasser dar. Die Aufbereitungsverfahren können wie nachstehend beschrieben gegliedert werden:

- mechanische Aufbereitung
- physikalische Verfahren
- chemische Verfahren
- ***Membranverfahren***[1] (z.B.: Nanofiltration, Osmose)
- biologische Verfahren

Aus organisatorischer Hinsicht müssen entsprechende Strukturen für die Abwicklung der oben genannten Maßnahmen geschaffen werden. Dies können Einzelpersonen, Unternehmen oder juristische Personen sein.

Innerhalb der Europäischen Union wurden in den Mitgliedsstaaten besondere Konstruktionen zur Gewährleistung der öffentlichen Wasserversorgung eingeführt. In Österreich beispielsweise übernehmen diese Aufgaben die Wassergenossenschaften und Wasserverbände.

[1]Später wird in dem Kapitel zur Projekterstellung noch genauer auf das Aufbereitungsverfahren der Osmose eingegangen und wo das Verfahren zur Anwendung kommt.

In Rumänien liegt die Kompetenzverteilung bei der Regelung und Erstellung von Wasserver- und Entsorgungssystemen ebenfalls bei den öffentlichen Stellen.

Während die Wasserversorgung in städtischen Bereichen sich an den europäischen Qualitätsstandards annähert, können in den ländlichen Regionen keine großen Erfolgsergebnisse bei der Etablierung von Versorgungssystemen verzeichnet werden. Ein Großteil der Landbevölkerung entnimmt das Trinkwasser noch Großteils aus ungeschützten Brunnen und Kanälen. Im sanitären Bereich weisen die ländlichen Regionen, vorwiegend rudimentäre Infrastruktureinrichtungen auf.

Der Bau von Wasserver- und Entsorgungssystemen wird auf Basis der kommunalen Abwasserrichtlinie und Wasserrahmenrichtlinie der Europäischen Union geregelt. Der Bau und die Inbetriebnahme konventioneller Versorgungsanlagen sind kostenintensiv und von den kleinen ländlichen Gemeinden nur schwer zu bewerkstelligen. Nachhaltige, Lösungen sind dringend nötig.

WASSERVERSORGUNG – GESETZLICHE GRUNDLAGEN AUF EUROPÄISCHER EBENE

Die Versorgung mit Trinkwasser, stellt weltweit eine große Herausforderung dar. Innerhalb der europäischen Union werden bestimmte Standards an die Mitgliedstaaten gestellt.

Gesetzliche Grundlage innerhalb der Union ist die im Jahr 2000 erlassene Wasserrahmenrichtlinie 2000/60/EG des Europäischen Parlaments und des Rates. Ziel ist die Schaffung eines Ordnungsrahmens für Maßnahmen der Gemeinschaft im Bereich der Wasserpolitik.

Mit Blick auf die gesetzlichen Regelungen der Wasserpolitik werden in diesem Kapitel vor allem zwei Zielsetzungen der Gemeinschaft innerhalb der Wasserrahmenrichtlinie (kurz WRRL) besonders hervorgehoben:

„(1) Wasser ist keine übliche Handelsware, sondern ein ererbtes Gut, das geschützt, verteidigt und entsprechend behandelt werden muss. (RICHTLINIE 2000/60/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES/ Seite 4)

(4) Die Nachfrage nach Wasser in ausreichender Menge und angemessener Güte steigt permanent in allen Anwendungsbereichen; dies bringt die Gewässer der Gemeinschaft unter wachsendem Druck. Die Europäische Umweltagentur…..hingewiesen, die Gewässer der Gemeinschaft sowohl in qualitativer als auch quantitativer Hinsicht zu schützen. (RICHTLINIE 2000/60/EG DES EUROPÄISCHEN PARLAMENTS UND DES RATES/ Seite 4)“

Die unter Punkt (1) und (4) angeführten Zielvorstellungen, unterstreichen den Stellenwert von qualitativ hochwertigem Wasser als natürliche Ressource und schützenswertes Gut.

Neben Begriffsbestimmungen und Regelungen zu Verwaltungsvereinbarungen innerhalb einer Flussgebietseinheit werden unter Artikel 4 der WRRL vor allem die Umweltziele in Bezug auf die Umsetzung in der Bewirtschaftung von grundsätzlichen Maßnahmenprogramme zur Sicherung bei Oberflächengewässern, Schutzgebieten und bei Grundwasser festgelegt.

TRINKWASSER

Trinkwasser ist eine natürliche Ressource und ein für die verschiedenen Produzenten unverzichtbares Gut bei der Produktion wirtschaftlicher Güter.

Die Basis für die Anforderungen an die Trinkwasserqualität wurde auf Europäischer Ebene in der eingangs erwähnten Wasserrahmenrichtlinie sowie in der EU-Richtlinie 98/83/EG geregelt. Diese definiert weitgehende Qualitätskriterien für den Trinkwasserbereich wie z.B.:

- Hygienische Anforderungen
- Desinfektionsmaßnahmen
- Aufbereitung
- Überprüfung und
- Beurteilung

Als Trinkwasser ist jedes Wasser definiert, das zum Trinken, Kochen, zur Zubereitung von Speisen und Getränken oder bei der Bewässerung von landwirtschaftlichen Produkten Anwendung findet.

Grundsätzlich handelt es sich bei Trinkwasser um Süßwasser mit einem hohen Reinheitsgrad. Durch geeignete Maßnahmen im Rahmen der Wasseraufbereitung soll das Wasser von unerwünschten Veränderungen geschützt werden um potentielle Gefährdungen der Gesundheit zu vermeiden.

In den meisten der europäischen Länder wird Trinkwasser fast zu Gänze aus geschützten Grundwasservorkommen gewonnen. Dabei wird das Wasser entweder aus Brunnen (künstlich hergestellte, vertikale oder horizontale Öffnungen in der Erde) oder natürlichen Quellen gewonnen. Die Beförderung des Grundwassers erfolgt meist mit Pumpen.

Bei der Errichtung eines Brunnen entscheiden der Abstand des Grundwasserspiegels von der Geländeoberfläche und die geologische Beschaffenheit des Bodens welcher Typ von Brunnen gebaut wird. Besonders geeignet ist der Bohrbrunnen, der durch den Ausbau eines vertikalen Bohrloches errichtet wird, und sich für nahezu alle Grundwassererschließungen eignet.

(TRINK)-WASSERVERSORGUNG IN RUMÄNIEN

Die Situation um sauberes Trinkwasser ist weltweit sowie auf auch innerhalb der Europäischen Union grundverschieden. Es gibt Länder mit reichhaltigem Wasserangebot wie beispielsweise Österreich oder wasserärmere südlich gelegene Mitgliedsländer wie Spanien oder Griechenland.

In Rumänen gibt es vor allem bei der Versorgung von qualitativ hochwertigem Wasser unterschiedliche Maßstäbe.

Während in den urbanen Gebieten Aufbereitungsanlagen und Versorgungssysteme errichtet wurden findet man in den ländlichen bzw. peripheren Regionen kaum technische Versorgungseinrichtungen. Beispielsweise wird im Donaudelta das Wasser für den häuslichen Gebrauch aus Brunnenanlagen bzw. den Wasserkanälen entnommen. Aufgrund der Wasserknappheit wird von den Bewohnern auch Regenwasser gesammelt und aufgekocht um beispielsweise das Geschirr zu spülen.

Im Jahr 2009 wurde von der Europäischen Union die analytische Studie „Flash Eurobarometer on water“ in Auftrag gegeben. Dabei wurden EU-Bürger zu Themen der Wasserwirtschaft befragt.

Vor allem bei den Themen betreffend Wasserqualität lag Rumänien an vorletzter Stelle, bei Fragen der Quantität zur Wasserversorgung schnitt der Schwarzmeerstaat nicht sehr überzeugend ab.

In beiden Punkten wurden die Problematik der Qualität und Quantität von über 75% der Bevölkerung als ungenügend bewertet. 60% der Befragten gaben an, dass sich in einem Zeitraum von 2004 bis 2009 der Qualitätsstandard verschlechtert hat.

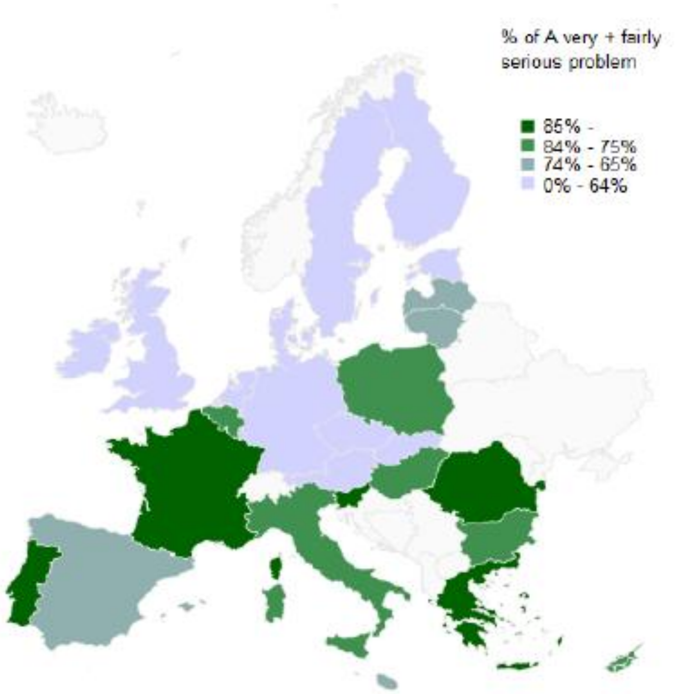

Abb.1.: Darstellung der Wasserqualitätstandards innerhalb der europ. Union im Jahr 2009 (Quelle: Flash Eurobarometer on Water, S.12)

Neben Fragen zu Wasserqualität und –quantität wurde auch ermittelt ob die Bevölkerung bei Fragen zu Umweltproblemen bei Gewässern und Küstenlagen informiert wird, wurde diese von fast 70 % verneint bzw. als ungenügend bewertet.

AUSGANGSLAGE IM DONAUDELTA – GEMEINDE C.A. ROSETTI

In einem ersten Analysepapier der Studentengruppe der TU-Wien wurde der IST-Zustand innerhalb der Region von C.A. Rosetti in den verschiedenen Umweltbereichen bereits eingehende dargestellt, daher wird in dieser Arbeit auf den Bereich der Grundlagenforschung nicht mehr im Detail eingegangen. Es sollen nur noch einmal die Kernpunkte der Analyse überblicksmäßig dargestellt werden, die bei Entscheidung für die Entwicklung eines Pilotprojektes im Bereich der Wasserwirtschaft ausschlaggebend waren.

VERSALZUNG

In der Region wurde bei Interviews immer wieder die zunehmende Versalzung des Grundwassers aus den örtlichen Brunnenanlagen angesprochen. Innerhalb der Region scheint die Problematik der Wasserversorgung an verschiedenen Ebenen stattzufinden. Während in der kleinsten Gemeinde Sfistofca bereits der Großteil der Brunnen Salzwasser liefern, ist man in der Ortschaft Periprava erst auf das Problem aufmerksam geworden.

Ein älteres Ehepaar, gab uns eine Wasserprobe aus dem hauseigenen Brunnen. Zwar war das Wasser noch nicht so salzig wie in den Brunnen von Sfistofca, jedoch war der salzige Geschmack eindeutig vorhanden.

FEHLENDES ÖRTLICHES VERSORGUNGSSYSTEM

Die Bewohner in den Gemeinden sehen der Wasserversorgung sehr kritisch gegenüber, da bereits vor Jahren seitens der rumänischen Regierung begonnen wurde ein Wasserversorgungssystem zu etablieren jedoch, wahrscheinlich aufgrund der explodierenden Kosten, wieder abgebrochen wurde.

FEHLENDE WASSERAUFBEREITUNGSSYSTEME

Städte an der unteren Donau entnehmen das Trinkwasser meist aus dem Fluss bzw. aus den zahlreichen Flussnebenarmen und pumpen das Wasser durch Aufbereitungsanlagen um es dann in das städtische Versorgungsnetz einzuspeisen.

In den Gemeinden im Donaudelta ist diese Art der Aufbereitung nur schwer bis gar nicht möglich, da die erforderlichen Rahmenbedingungen noch nicht eingeleitet wurden.

Schlechte Wasserqualität

Die fehlenden Aufbereitungssysteme bzw. Versorgungsnetze sind mitunter ein Grund für die schlechte Wasserqualität der Donau in ihrem unteren Flussverlauf. Einerseits werden Abwässer unbehandelt in den Fluss eingeleitet und zusätzlich „landet" jede Art von eingeleiteter Verunreinigung aus dem oberen Flussabschnitt im Donaudelta am Weg zur Mündung in das Schwarze Meer.

Rudimentäre Wasseraufbereitung

Aufgrund der schlechten Wasserqualität und der zunehmenden Versalzung des Grundwassers greifen die Bewohner im Donaudelta auf veraltete bzw. rudimentäre Mittel der Wasseraufbereitung zurück.

Um Wasser für den häuslichen Gebrauch zu sichern, wird Regenwasser gesammelt und aufgekocht um Keime und Bakterien abzutöten. Restliches Wasser wird aus den Kanälen mit Eimern zu den Häusern getragen um es für die Bewässerung der Gartenpflanzen zu nutzen. Derzeit ist die einzige weitere Möglichkeit Wasser zu beziehen über den Ankauf von Wasserflaschen (3 oder 5 Literflaschen) oder der Hausbrunnen (bei akzeptabler Wasserqualität).

Fehlende Finanzmittel

Eine weitere Problematik bei der Planung bzw. Ausführung der technischen Einrichtungen ist die finanzielle Situation der peripheren Kommunen. Die Gemeinde in C.A. Rosetti verfügt nicht über genügend Eigenmittel um den Bau zu finanzieren. In einem längeren Gespräch mit der Bürgermeisterin von C.A. Rosetti, wurde uns erklärt, dass sie in den meisten Fällen bei der Einreichung bzw. Beantragung von Fördermittel scheitert, aufgrund fehlender Daten oder ungenügend formulierten Anträgen.

Ein **kurzes Beispiel** an dem veranschaulicht wird, welchen Einfluss Wasser auf die verschiedensten Lebensbereiche der einzelnen Personen nimmt:

Verschlechtert sich die Wasserqualität gedeihen die Pflanzen schlechter und die ersten Ernteausfälle zwingen Landwirte sich neue Beschäftigungszweige zu suchen, bzw. im Extremfall werden die Bewohner gezwungen ihre Heimat zu verlassen um an anderen Orten Arbeit zu suchen.

Schlussfolgernd zu den oben angeführten Eckpunkten und dem Beispiel, wird die Notwendigkeit von qualitativ hochwertigem Wasser als Grundlage für ein gesundes Leben ersichtlich. In weiterer Folge erschließt sich so auch die Begründung für ein Projekt, welches ein Lösungsvorschlag sein könnte um das Versorgungsproblem der Bevölkerung mit Trinkwasser zu lindern.

Warum die Entscheidung für ein Projekt in der Wasserversorgung?

Für die Entwicklung eines Pilotprojekts im Bereich der Wasserversorgung sprechen einerseits die bereits erwähnten Eckpunkten der vorangehenden Analyse, und anderseits soll das Projekt den Versuch darstellen, im Sinne der Nachhaltigkeit, die ökologische Ressourcen im Donaudelta für die nachfolgenden Generationen zu erhalten.

Durch die Investition in „nachhaltige" technische Einrichtungen sollen die Siedlungsstrukturen im Donaudelta gestärkt werden um so den BewohnerInnen bei der Entwicklung von selbstständigen Projekten eine Grundlage zu schaffen. Mit ausreichendem Zugang zu qualitativ hochwertigem (Trink-)Wasser soll ein Grundstein gelegt werden um beispielsweise in weiterer Folge Bewässerungsanlagen zu bauen, damit ehemals landwirtschaftlich genutzte Flächen wieder vitalisiert werden. In weiterer Folge könnte die Gemeine C.A. Rosetti mit der wiedergewonnenen Möglichkeit der Selbstversorgung die Wirtschaft wieder ankurbeln (z.B.: durch Weiterverkauf eines Teiles der Ernte).

Die Bevölkerungsentwicklung in der Donaudeltagemeinde ist in den letzten Jahren rückläufig. Mit dem erleichterten Zugang zu hochwertigem Trinkwasser soll die Abwanderung der BewohnerInnen in den städtischen Raum verhindert bzw. eingedämmt werden um das Aussterben der des kulturellen Erbes zu verhindern. Vor allem die Abwanderung der jüngeren Bevölkerung, ist problematisch da die örtliche Handwerkskunst wie beispielsweise das Knüpfen von Fischernetzen in Vergessenheit gerät.

Mit der Etablierung einer Wasseraufbereitungsanlage kann eine ausreichende Trinkwasserversorgung für die Gemeindemitglieder und deren Gäste zu gewährleistet werden. Zusätzlich können verschiedenen Krankheiten, hervorgerufen durch verunreinigtes Wasser, vorbeugend vermieden werden. Die Ausführung eines Infrastrukturprojekts im Bereich der Wasserwirtschaft kann somit auch als präventive Gesundheitsmaßnahme bewertet werden.

Ein Wasserversorgungsprojekt könnte somit die Unabhängigkeit der Gemeinden fördern und mit der Errichtung einer mechanischen Wasserversorgungsanlage wird Hilfe zur Selbsthilfe gegeben.

TEIL 2

PILOTPROJEKT – WASSERAUFBEREITUNG IM DONAUDELTA

Im Folgenden soll das Konzept für ein mögliches Pilotprojekt zur Wasserversorgung in der Gemeinde C.A. Rosetti vorgestellt werden. Dabei handelt es sich um eine Versorgungsanlage, die den BewohnerInnen im Donaudelta den Zugang zu qualitativen Trinkwasser ermöglichen bzw. erleichtern könnte.

ZIELE

Ziel des Projektes ist es nicht, ein Versorgungssystem nach städtischem Vorbild zu planen, da weder die finanziellen Mittel noch die technischen Mindestanforderungen für die Errichtung eines derartigen Infrastrukturprojektes in der Gemeinde gegeben sind. Verbunden mit den erheblichen Kosten, die ein derartiges Vorhaben mit sich bringt, wäre es in dieser Region bereits vor der Ausführung zum Scheitern verurteilt.

Vielmehr soll der das Projekt ein Vorschlag sein, der die Sicherstellung von qualitativem Trinkwasser, über eine Brunnenanlage mit technischen Hilfsmitteln, für die Bevölkerung gewährleisten könnte. Die Errichtung einer Trinkwasserversorgungs- und Aufbereitungsanlage ist als Initialprojekt angedacht, das den Grundstein legt um in den nächsten Jahren schrittweise ein Wasserversorgungssystem in der Gemeinde C.A. Rosetti zu etablieren.

TRINKWASSERAUFBEREITUNG UND -VERSORGUNG

Unter Berücksichtigung der naturräumlichen Lage, kommen für die Trinkwasserversorgung in der Gemeinde C.A. Rosetti nur Niederschlags-, Oberflächen- oder Grundwasservorkommen in Frage. Während der 4-tägigen Feldstudie in der Donaudeltagemeinde C.A. Rosetti, und den zugehörigen Dörfern C.A. Rosetti, Sfistofca, Periprava und Letea wurde von den Einheimischen immer wieder die Problematik der zunehmenden Versalzung der hauseigenen Brunnen angesprochen.

FUNKTIONSWEISE DER ANLAGE

Im Rahmen des Projektes „EU-am-Ende“ wurde mit dieser Arbeit der Versuch gestartet ein nachhaltiges Konzept zur Trinkwassergewinnung und -aufbereitung zu erstellen. Die Versorgungsanlage soll vor allem zwei Aufgaben erfüllen:

1. Eine automatisierte Gewinnung von Wasser aus Grundwasservorkommen und

2. die Filtration des Grundwassers zu trinkbarer Qualität.

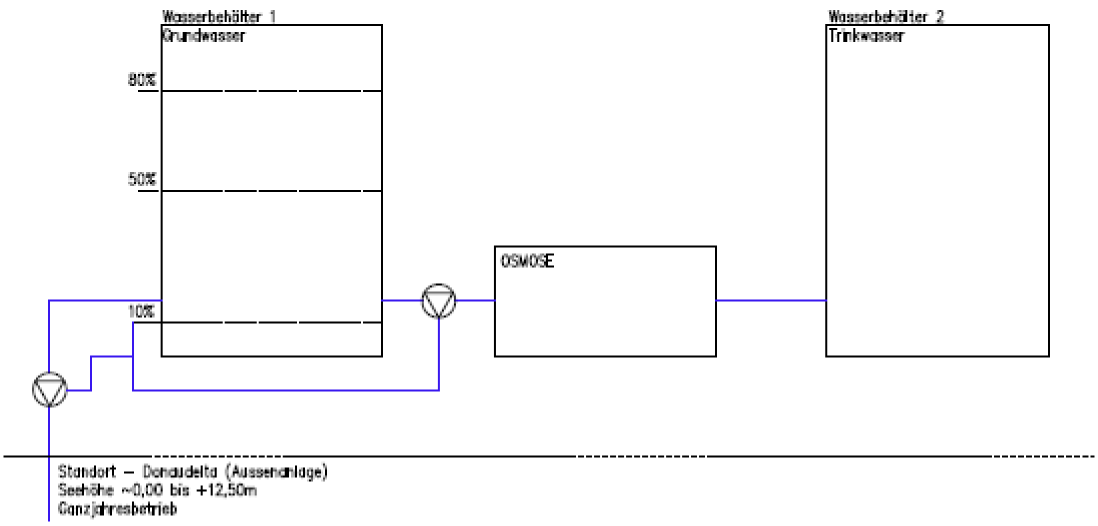

Abb.2.: Schematische Darstellung einer Trinkwasserversorgungsanlage (eigene Darstellung)

Das aufbereitete Wasser soll dann in einem zweiten Wassertank gesammelt werden und steht somit den Bewohnern der Gemeinde als Trinkwasser für den täglichen Bedarf zur Verfügung, laut Empfehlungen der WHO werden etwa 50 – 100 Liter pro Person und Tag benötigt.

Schätzungen zufolge sind innerhalb der Gemeinde C.A. Rosetti derzeit ca. 800 Personen mit Hauptwohnsitz gemeldet. Bei einem durchschnittlichen Tagesverbrauch von 75 Litern pro Tag und Person sollten also 60.000 Liter Wasser (Beinhaltet Trinkwasser und Haushaltsverbrauch) für die Bevölkerung zur Verfügung stehen. Da die Versalzungsproblematik jedoch innerhalb der Region nicht gleichmäßig verteilt ist, wird die Ausführung einer Versorgungsanlage mit geringerer Leistungskapazität ausreichend sein. Vor allem in den Gemeinden mit höherer Bevölkerungszahl ist die Versalzungsproblematik der Hausbrunnen noch nicht so weit fortgeschritten ist wie es beispielsweise in der Gemeinde Sfistofca der Fall ist. *(Näheres im abschließenden Kapitell des 2. Teiles „Beispielhafte Darstellung einer Anlage“)*

Ausschlaggebend für den Umfang der Trinkwasseraufbereitungsanlage ist die Qualität des gewonnen Rohwassers, bevor die Planung der technischen Anlage gestartet wird ist es notwendig eine Wasserprobe zu entnehmen und diese in einem Labor zu analysieren, damit für den Endverbraucher die Sicherheit der Wasserqualität gewährleitstet werden kann.

Zusätzlich muss die Anlage jährlich überprüft werden um Veränderungen im Grundwasser zu messen und die technische Einrichtung kann somit gegebenenfalls auf die veränderteren natürlichen Bedingungen neu adaptiert und eingestellt werden. Für diese Überprüfung ist es ausreichend eine Wasserprobe zu entnehmen und diese in einem Labor testen zu lassen.

HERAUSFORDERUNGEN UND MÖGLICHKEITEN

Bei der Realisierung des Projekts ist es wichtig die BewohnerInnen der betreffenden Gemeinde bereits in der frühen Projektphase der Planung und später bei der Umsetzung zu beteiligen, da nur so Akzeptanz innerhalb der Bevölkerung geschaffen und eine leistbare bzw. bezahlbare Servicestruktur aufgebaut werden kann. Zudem ergibt sich durch die Beteiligung die Gelegenheit bereits bei der Errichtung der Anlage Aufgaben an Personen einer technisch interessierten Zielgruppe zu verteilen um diese so auf die spätere Betriebsführung und Wartung der Anlage zu schulen. Die Errichtung einer Wasseraufbereitungsanlage kann als Maßnahme nur nachhaltig wirken, wenn die lokale Bevölkerung bzw. Gemeindeverwaltung das eingeführte System dauerhaft und eigenständig betreiben kann und die eingeführte Arbeitsweise beibehalten wird.

Die Errichtung der Anlage soll als Grundlage für eine nachhaltige Entwicklung in der Region stehen, daher ist bei der Planung unbedingt zu berücksichtigen, dass Verbrauchsmaterialien Wartung und Betrieb auf lokaler Ebene organisiert und bezahlt werden soll. Bei der Lage für die Entnahmestelle, ist der Anschluss an das bestehende Wegenetz zu beachten, es soll ein möglichst zentraler Platz gewählt werden, der für den Großteil der Bevölkerung leicht zugänglich ist. Die Trinkwasserverteilung kann ohne Leitungssystem gestaltet werden, da durch die örtliche Festlegung der Anlage sich die Möglichkeit neuer Beschäftigungsstellen als Wasserlieferant erschließt.

Technische Anlagen zur Wasserversorgung müssen somit zahlreiche Kriterien erfüllen um allgemeinen Mindestanforderungen zu genügen. Vor allem in peripheren Ortschaften, wie jene im Donaudelta stellt die Errichtung einer Trinkwasseranlage eine große Herausforderung dar. Die Risiken externer Einflüsse müssen berücksichtigt werden. Im Donaudelta beispielsweise wurde in den letzten Jahren eine zunehmende Zahl an extremen Wetterereignissen wie Fluten und Kälteeinbrüchen, als mögliche Begleiterscheinungen des Klimawandels, verzeichnet.

Die technische Anlage sollte also robust sein und möglichst mit den verfügbaren technischen, personellen und finanziellen Mitteln der Gemeinde langfristig genutzt und gepflegt werden können.

PROJEKTABLAUF

Neben den technischen Aspekten sind nichttechnische Maßnahmen wie Bewusstseinsschaffung, partizipative Planung von technischer Ausführung und Servicestruktur, Öffentlichkeitsarbeit und die Zusammenarbeit des Planungsteams mit der lokalen Administrationsstelle ein wesentliches Fundament für das Gelingen des Versorgungsprojektes.

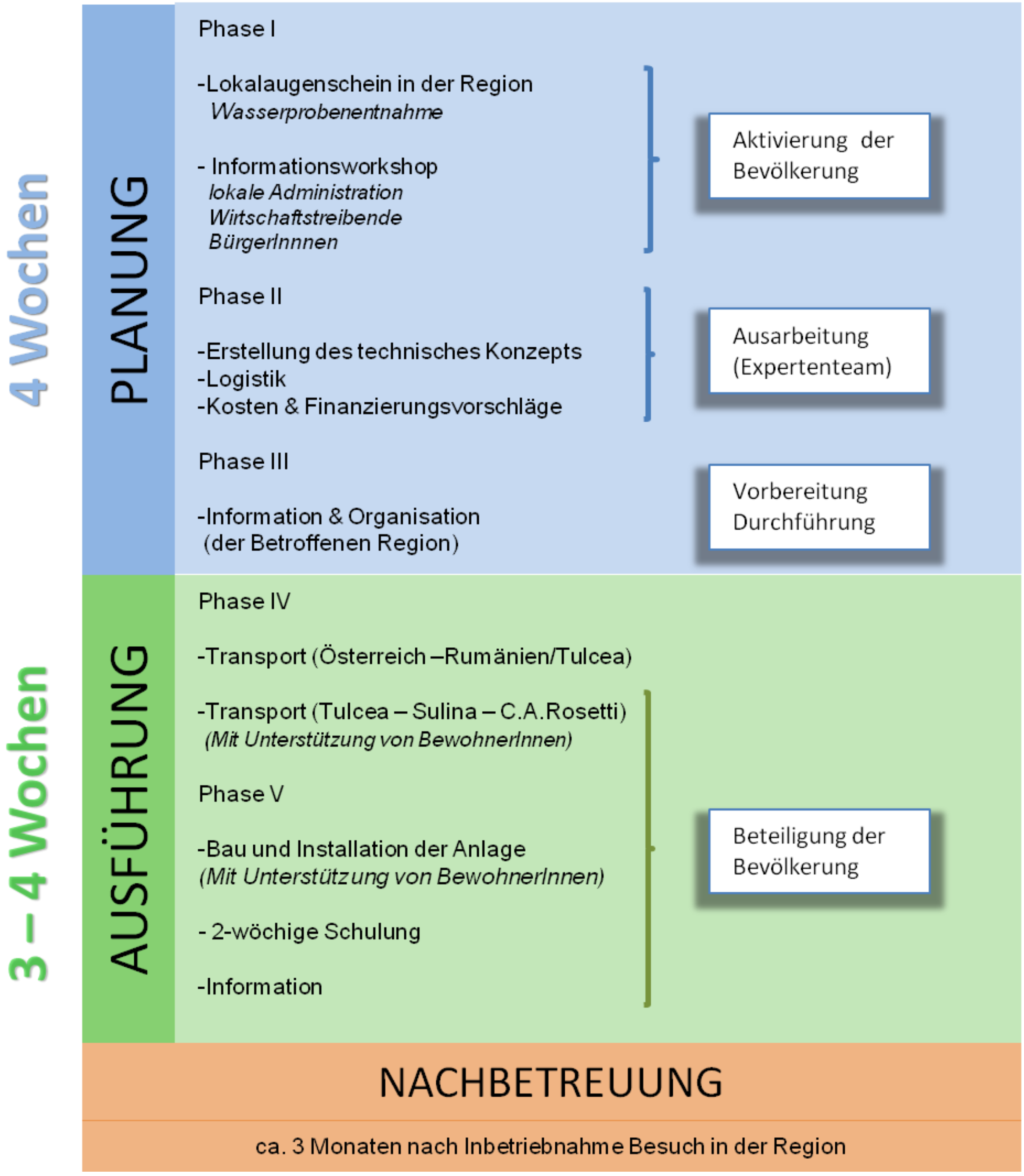

Abb.3.: Planungsablauf zur Projektdurchführung (eigene Darstellung)

Der Planungsablauf wird in drei Abschnitte eingeteilt, wobei Planung und Ausführung die Hauptabschnitte darstellen.

Der Planungszeitraum sollte max. 4 Wochen in Anspruch nehmen. Dabei werden die einzelnen Phasen der Planung verschieden gewichtet. Ein wesentlicher Bestandteil der Planung sind Beteiligungsverfahren und Information der betroffenen Zielgruppe im Donaudelta und die Wasserprobenentnahme um später die technische Konzipierung der Versorgungseinrichtung gemäß den örtlichen Gegebenheiten bewerkstelligen zu können. In einer zweiwöchigen Planungsphase werden die technischen Komponenten zusammengestellt und die Kosten für Beschaffung und Transport ermittelt. Abschließend werden die Entscheidungsträger innerhalb der Region informiert und gleichzeitig mit der Aufgabe der Zusammenstellung eines „Arbeitsteams" beauftragt. Dieser Schritt ist für den Projektfortschritt in der Ausführungsphase entscheidend.

Die Ausführungsphase kann entweder direkt an die Planung angeschlossen werden, oder mit etwas zeitlichem Abstand eingeleitet werden. Zeitliche Verschiebungen könnten sich aufgrund des Startpunktes der Planung ergeben. Die Beteiligung der Bevölkerung bei Transport und Aufbau der Anlage, ist unbedingt notwendig, da nach einer 2-wöchigen Einschulung und einer Informationsveranstaltung die Anlage von Ortsansässigen weiterbetrieben werden soll.

Nach einer 3-monatigen Anlaufphase werden von dem Planungsteam (wenigstens ein Planer und ein Techniker) mit einem Dolmetscher in die Deltagemeinde reisen, um eventuelle Fragen zu technischen Problemen zu klären. Zudem soll der Besuch auch eine Kontrolle sein, um die BewohnerInnen zu ermutigen, weitere Aktivitäten in Angriff zu nehmen.

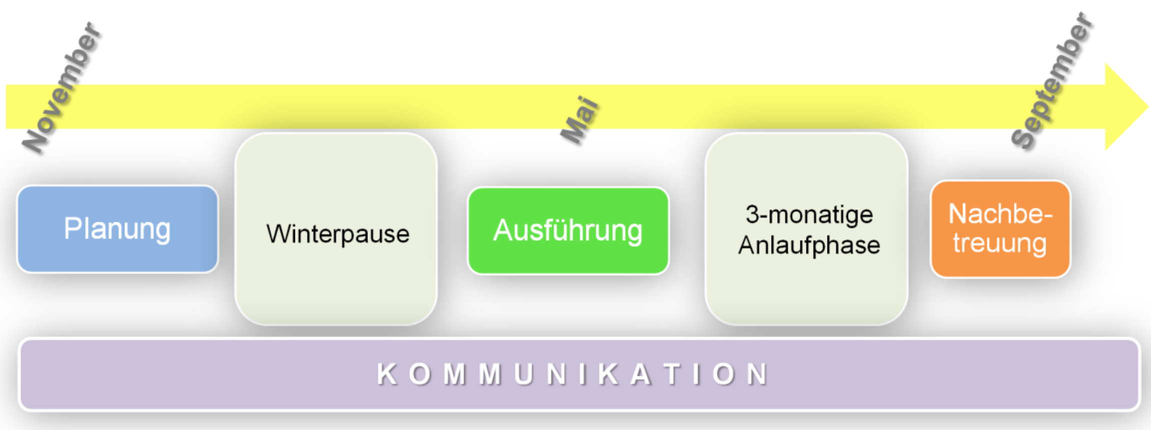

Abb.4.: Zeitlicher Rahmenvorschlag für den Planungsablauf (eigene Darstellung)

Um die Selbstständigkeit der Gemeinden in C.A. Rosetti zu fördern, wäre eine konstante Kommunikation (beispielsweiser per Post bzw. per Online-Sitzungen) über einen längeren Zeitraum sinnvoll, da durch Einfluss von außen neue Ideen innerhalb der Bevölkerung entstehen können.

Logistik

Der Transport von Österreich über die Hafenstadt Tulcea in die Planungsregion zeigt verschiedenen Liefermodalitäten auf. Die Anlieferung der Anlage sollte wenn möglich über einen Hilfstransport mit Unterstützung sozial engagierter Betriebe oder Organisationen stattfinden. Für den Straßentransport der Versorgungsanlage ist die Mithilfe der BewohnerInnen aus der Deltagemeinde entscheidend, um die Umladung der Anlage in den Hafenstädten Tulcea und Sulina bewerkstelligen zu können. Von Sulina aus soll die Anlage mit den ortsüblichen Transportmitteln und verfügbaren motorisierten Lastfahrzeuge nach C.A. Rosetti transportiert werden.

Beteiligte Akteursgruppen

Bei der Umsetzung zur Etablierung der Trinkwasseranlage sind verschiedene Akteursgruppen beteiligt. Vom Planungsbeginn soll die Bevölkerung der Deltaregion in das Projekt einbezogen werden.

BewohnerInnen & lokale Administration

Die Hauptakteure bei der Realisierung sind somit die BewohnerInnen der Gemeinde und die lokale Administrationsstelle. Der Aufgabenbereich liegt innerhalb der Gemeinde in der Organisation von Arbeitskräften und Personal zur Beschaffung, dem Aufbaubau und der Inbetriebnahme der Anlage. Zudem ist die lokale Administration (z.B.: BürgermeisterIn) die Schlüsselstelle zur Kommunikation nach außen.

Planungsteam (Planer & Techniker)

Das Expertenteam übernimmt die organisatorischen Aufgaben. Darunter wird einerseits die Zusammenstellung der Anlage in Zusammenarbeit mit Technikern verstanden und andererseits die Finanzierung. Der Transport in die Zielregion wird von dem Expertenteam begleitet um in weiterer Folge den Aufbau der Anlage in der Region zu begleiten und die Schulungen für die weitere Inbetriebnahme der Trinkwasserversorgungsanlage abzuhalten.

KOSTEN UND VORSCHLÄGE ZUR FINANZIERUNG

Bei Einwilligung in den Projektvorschlag von Seiten der lokalen Administration und der Bevölkerung umfasst ein Teil der Planungsarbeit die Kalkulation der zu erwartenden Kosten und die Bewerkstelligung der Finanzierung.

<u>Zuteilung der Kosten:</u>

Einmalige Kosten (Finanzierung über Förderungen/Online-Spenden-Portal)

- Planungskosten *0 €*
  (gemeinnützige Arbeit von Planern & Technikern)

- Wasseraufbereitungsanlage ~ 25.000 €
  - Technik Pumpanlage
    (Geräte/Material/..)
  - Filteranlage

- Transport – nach Möglichkeit via Hilfstransport ~ 0,00 €
  (von AUT bis RO – C.A.Rosetti)

- Basispaket – Spendensammlung ~ 0,00 €
  Wassertank & Glasflaschen von Firmen
  (zur mobilen Verteilung innerhalb der Gemeinde)

GESAMT <u>~ 25.000 €</u>

Wiederkehrende Kosten (Finanzierung durch Gemeinde) ~ 5.000 € /Jahr

- Betriebskosten
  - Wartung & Zubehör
    (notwendige Geräte für Wartung,…)
- Personal
  - Anlagenbetreuung (2 Personen)
  - Wasserlieferung (2 Personen)
    (Mit Wassertank & PKW oder Pferdefuhrwerk und Glasflaschen)

Die oben angeführten Kosten sind Abschätzungen, vor allem im Bereich der jährlichen Kosten für die Gemeinde wird mit einem monatlichen Gehalt von ca. 100 €/Person gerechnet, und somit eine Großteil auf die neu geschaffenen Arbeitsplätze fällt.

Finanzierungsmöglichkeiten:

Die Anlage sowie der Transport und ein Basispaket sollen zu 100 % über externe Akteure finanziert werden.

Bei dem Basispaket handelt es sich um handelsübliche Trinkwassertanks und Glasflaschen. Letztere können an der Aufbereitungsstelle abgefüllt werden und gegen einen geringen Preis (Service für Lieferung und Pfand) an die Haushalte verteilt werden. Daraus könnten sich Einnahmequellen für die Gemeinde ergeben um die Wartung und die Personalkosten zu finanzieren.

Für die Anlagenfinanzierung sowie den Transport sollen Spenden gesammelt werden. Dabei sollen vorwiegend Firmen, Privatpersonen und Vereine angesprochen werden, deren Interesse in der Entwicklung von nachhaltig gestalteten Infrastrukturen liegt.

Adressaten könnten sein:

- **Firmen mit Schwerpunkt Umwelttechnik**
  (Vertriebsfirmen von Osmoseanlagen, Solaranlagen,…..

- **Konzerne**
  (Energie AG / Verbund / ….)

- **Vereine**
  (Feuerwehren / Rotes Kreuz / …)

- **Privatpersonen**
  (über Postwurf bzw. Informationsabende in Gemeinden)

- **Online Spendenportale**
  (Bsp.: http://www.stifter-helfen.at/ - österr. Online Spendenportal für gemeinnützige Organisationen)

BEISPIELHAFTE DARSTELLUNG EINER TRINKWASSERAUFBEREITUNGSANLAGE FÜR DIE DELTAGEMEINDE

Eingangs wurden die technischen Eigenschaften der Trinkwasseraufbereitungsanlage bereits angeführt und die Notwendigkeit der Ausstattung einer Trinkwasserversorgungsanlage für die kleine Dorfgemeinschaft Sfistofca angedeutet. Die Trinkwasseranlage sollte daher unbedingt den Tagesbedarf dieser kleinen Gemeinde abdecken und zusätzlich technisch dahingehend ausgestattet sein noch weitere BewohnerInnen im Donaudelta mit Trinkwasser versorgen zu können.

ERFORDERLICHE TRINKWASSERMENGE

Derzeit wohnen in Sfistofca etwa 30 Personen, deren Trinkwasserversorgung, im europäischen Vergleich rudimentär bzw. nicht vorhanden ist. Bei einem Verbrauch von 3 Litern pro Person wären für das Dorf daher täglich in etwa 100 Liter Trinkwasser erforderlich.

Laut Angaben der Bürgermeisterin der Deltagemeinde C.A. Rossetti wohnen etwa 800 Personen in der Gemeinde, ein Großteil der Bevölkerung wohnt hauptsächlich an den Wochenenden in den Dörfern und es wird angenommen, dass ein erheblicher Teil der gemeldeten Personen bereits in eine der Hafenstädte übersiedelt ist und nur noch im Melderegister der Gemeinde aufscheinen. Aufgrund dieser Tatsache und den geführten Interviews mit den Bewohnern der 5 Ortschaften innerhalb des Gemeindegebiets zur derzeitigen Situation der Wasserqualität der häuslichen Brunnenanlagen, wird angenommen, dass ein Bevölkerungsanteil von etwa 50 % mit Trinkwasser versorgt werden sollte.

Durch die Konzipierung einer Versorgungsanlage mit der Kapazität einer täglichen Pumpleistung von 1,50 m^3 Wasser, könnten also wenigstens knapp 500 Personen mit Trinkwasser versorgt werden.

Vorerst wird die Anlage zu dem Zweck der Trinkwasserversorgung der Bevölkerung ausgerichtet. Im Zuge der Etablierung eines Wasserdienstes (als mögliche Einnahmequelle für die Gemeinde), dessen Hauptaufgabe die Wartung der Anlage und die Versorgung der Bewohner mit Trinkwasser ist, könnte sich die Möglichkeit ergeben nach einiger Zeit eine zusätzliche bzw. die bestehende Anlage zu erweitern und mit höherer Pumpleistung mehr Wasser aufbereiten zu können um einen Teil für landwirtschaftliche oder touristische Zwecke zu verwenden. Ob diese Erweiterung möglich sein wird, ist vor allem stark von der Mitwirkung und Beteiligung der Gemeinde während und nach Projektausführung abhängig. Nur mit engagierten Gemeindemitgliedern wird die Wasserversorgung innerhalb des Gemeindegebiets möglich sein.

Um eine Anlage wie sie in Abb.5 dargestellt wird betreiben zu können, müssen bestimmte technisch erforderliche Punkte erfüllt werden.

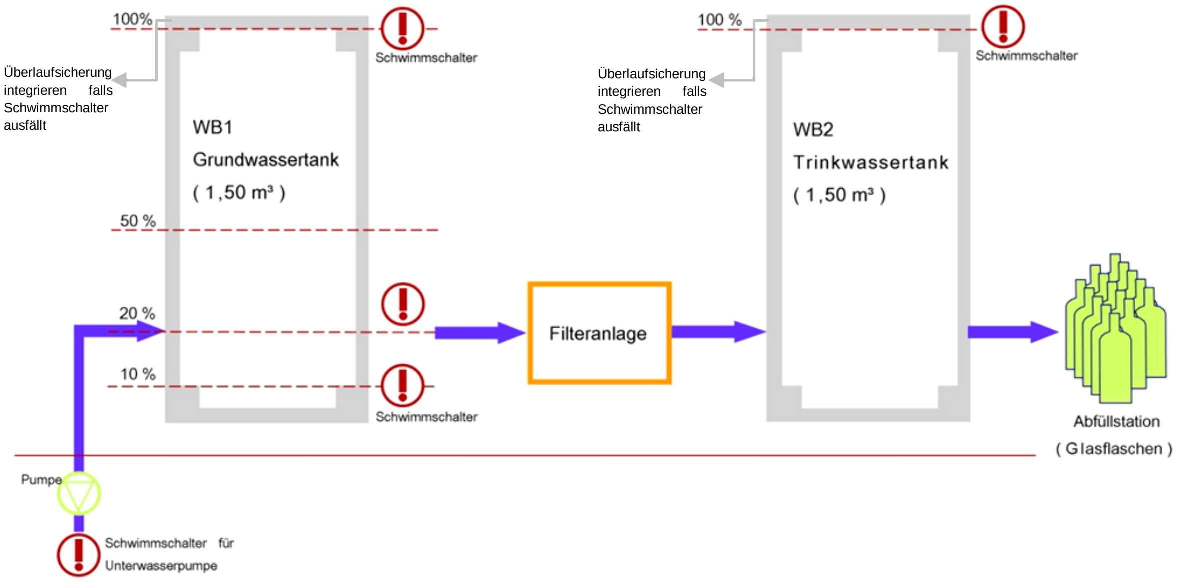

Abb.5.: Wasseraufbereitungsanlage – Technische . Zusammenstellung (eigene Darstellung)

Für die Grundwasserbeförderung aus dem Brunnen bzw. Boden in den ersten Wasserbehälter, sollte eine Pumpe gewählt werden, die jedenfalls die erforderliche Trinkwassermenge und das Abscheidewasser für die Osmoseanlage liefert. Beispielsweise könnte eine Strombetriebenen Wasserpumpe mit einer Leistung von 600 Watt gewählt werden, diese Pumpleistung würde in etwa für eine Brunnentiefe von etwa 20m ausreichen. Die Pumpe muss lediglich in den Brunnen gesetzt werden und liefert in weiterer Folge die erforderliche Wassermenge für die Trinkwasserversorgung. Allenfalls zu beachten ist, dass man für 1 m³ Trinkwasser je nach Wirkungsgrad der Osmose etwa 1,60 bis 1,70 m³ Brunnen bzw. Grundwasser benötigt.

Bevor das Grundwasser in den ersten Wasserbehälter eingeleitet wird, sollte ein Filter (z.B.: mit Aktivkohle) eingebaut werden. Trinkwasserfilter verhindern, dass Fremdpartikel und Verunreinigungen von außen über die Rohrleitungen in den Wasserbehälter gelangen. Wichtig bei der Installation ist, dass der Filter regelmäßig gereinigt werden muss.

Um einen reibungslosen Ablauf der Anlage gewährleisten zu könne, sollten insgesamt 4 Schwimmschalter zur Steuerung der Versorgungsanlage eingebaut werden, die sich auf den ersten und zweiten Wasserbehälter aufteilen.

Aufteilung der Schwimmschalter in Wasserbehälter 1 (WB1):

- 10 %-Marke die Osmoseanlage wird abgeschaltet und wird somit vor einem Trockenlauf geschützt
- 20 %-Marke die Unterwasserpumpe schaltet sich
- 100 %-Marke die Unterwasserpumpe schaltet sich ab, da der Wassertank voll ist

Im zweiten Wassertank (WB2) wird ein Schwimmschalter benötigt, der bei der 100 %-Marke angebracht ist, und bei unterschreiten dieser Wassermenge, schaltet sich die Osmoseanlage wieder ein, um die Versorgung mit Trinkwasser gewährleisten zu können.

Für die technische Steuerung könnte beispielsweise eine Siemens Logo verwendet werden, da es sich dabei um eine selbstprogrammierbares Steuerungsmodul handelt und relativ einfach selbst programmiert werden kann.

Eventuell könnte auch noch ein Trockenlaufschutz für die Unterwasserpumpe installiert werden, dabei handelt es sich um einen Schwimmschalter im Brunnen, der die Aufgabe erfüllt ein Signal an die Pumpe im Brunnen zu schicken damit diese sich abschaltet sollte der Brunnen kein Wasser mehr führen.

TEIL 3

PROJEKTBLATT

Themenschwerpunkt	Wasserversorgung Planung und Ausführung ca. 25.000 € Betriebskosten ca. 5.000 €/Jahr
Kurzbeschreibung	Projektvorschlag zur Sicherstellung der Wasserversorgung mit qualitativ hochwertigem Trinkwasser für die BewohnerInnen der Gemeinde C.A. Rosetti im rumänischen Donaudelta. Durch die Etablierung der technischen Anlage sollen sich für die Deltagemeinde im Sinne einer soziologischen und ökologisch nachhaltigen Entwicklung neue Wege zur Wiederbelebung der ehemaligen Wirtschaftskraft eröffnen.
Zielregion	C.A. Rosetti Gemeinde im Donaudelta (RO) mit ~ 800 EW
Zielgruppe	Bevölkerung der Gemeinde C.A. Rosetti
Akteure	***BürgerInnen der Zielregion*** ***Planungsteam*** (Technik und Planung)
Planungszeitraum	**1 Jahr** 
Finanzierung (Teilfinanzierung)	***Anlage mit Basispaket & Transport*** Finanzierung von außen mit Spenden und Fördergeldern ***Zubehör für Wartung und Personal*** Finanzierungsaufgabe der Gemeinde (Mikrokredite und Fördergelder – EU und Rumänien)

AUSSICHTEN FÜR ZUKÜNFTIGE ENTWICKLUNGEN

Abschließend sollen die in den verschiedenen Kapiteln bereits angesprochenen Entwicklungsmöglichkeiten für die BewohnerInnen der Deltagemeinde dargestellt werden, die sich durch die Installation einer Trinkwasserversorgungs- und Aufbereitungsanlage ergeben könnten:

- **Nachhaltige Ökonomie**
    - Förderung der Unabhängigkeit
      Trinkwasser aus der Region um die Wassertransporte aus Tulcea bzw. Sulina vermeiden zu können
    - Wiederbelebung der ehemaliger landwirtschaftlicher Nutzflächen
      Mit sauberem Wasser können Pflanzen in Beeten und Hochbeeten versorgt werden
    - Durch Etablierung einer neuen Anlage könnten neue Geschäftszweige geschaffen werden

- **Stärkere Infrastruktur**
    - Grundlage für zukünftigen Ausbau der techn. Infrastruktur
      Mit der Anlage könnte ein erster Schritt getan werden, um später ein Wasserversorgungsnetz aufbauen zu können

- **Gesundheitliche Vorteile**
    - Vermeidung von Krankheiten durch verunreinigtes Wasser

- **Sozialkultur stärken und erhalten**
    - Mit der Investition in Infrastrukturelle Einrichtungen werden die Lebensbedingungen in der Region erleichtert und Teile der jüngeren Bevölkerung könnten damit von der Abwanderung in urbanere Regionen abgehalten werden

QUELLENANGABEN

Europäische Wasserrahmenrichtlinie (WRRL) (Stand 17.11.2014) http://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32000L0060: Richtlinie 2000/60/EG des Europäischen Parlaments und des Rates vom 23. Oktober 2000 (72 Seiten)/ zur Schaffung eines Ordnungsrahmens für Maßnahmen der Gemeinschaft im Bereich der Wasserpolitik

WECF Women in Europe for a Common Future / Pressemitteilung – Runder Tisch 18.03.2010 in Sofia

WASH & VENRO – Postionspapier 2012 / Verband Entwicklungspolitik deutscher Nichtregierungsorganisation Robert Gensch (German Toilet Organization e. V.; Roland Hansen (Malteser International) Stefan Reuter (Bremer Arbeitsgemeinschaft für Überseefor-schung und Entwicklung e. V.), Stephan Simon (Welt- hungerhilfe e. V.), Claudia Wendland (Women in Europe for a Common Future e. V.)

Flash Eurobarometer on water – Analytical Report / März 2009 im Auftrag der Europäischen Kommission ´

Microbiological water quality oft the Danube River – Assessment results oft he Joint Danube Survey (JDS) oft he International Commission fort he Protection oft he Danube River (ICPDR); Dr. Gerhard G. Kavka, Institut für Wassergüte, Bundesamt für Wasserwirtschaft, 1220 Wien

Essential report / Master project / C.A. Rosetti / Analysebericht Studentgruppe 2014 (Danner, Gugerell, Paschinger, Schilling, Schmidt, Siquans)

http://www.pumpmakers.com / Solarpumpen

http://www.danube-region.eu/ - Donauraumstrategie (17.10.2014 – 17:00 Uhr)

http://groupspaces.com/MobilityRail-Road-Air/ - Donauraumstrategie, Priorität 1B – Mobility Rail-Road-Air (17.10.2014)

http://www.distancebetween.info (20.10.2014) – Wegberechnung

http://www.aurora-magazin.at/gesellschaft/rum_schneider_frm.htm - Meerträubchen und Wüstenrenner – Franz Wagner (01.01.2007) / Aurora-Interview mit Donau-Auen-Expertin Prof. Dr. Erika Schneider

http://www.geschichteinchronologie.ch/welt/wasser-u-grundwasser03-versalzung.html - Grundwasserversalzung (Stand 18.10.2014)

http://www.stifter-helfen.at/ / Online Portal für gemeinnützige Organisationen um Spenden für bestimmte Projekte zu sammeln

https://www.bwt.at/de/Produkte/Haustechnik/Wasserfilter/Seiten/default.aspx / Aktivkohlefilter für Wasseraufbereitung

http://www.osmosetechnik.com/umkehr_osmoseanlagen/ / Datenblätter für Osmoseanlagen

http://at.grundfos.com/products/find-product/sp.html / Wasserpumpen zur Versorgung der Wasserbehälter

http://de.wikipedia.org/wiki/Logo_%28SPS%29 / Steuerung für die Wasserversorgung

http://de.wikipedia.org/wiki/Bimetallrelais Überwachung Stromaufnahme Unterwasserpumpe

Die technische Konzepterarbeitung der Anlage erfolgte über Konsultation und Interviews mit technischem Fachpersonal.

Interviews mit Bewohnern und der Bürgermeisterin während des 4-tägigen Aufenthaltes im September 2014 in der Gemeinde C.A. Rosetti

PRODUCTIVE SPACES - SMALL SCALE AGRICULTURAL COOPERATIVE IN C.A. ROSETTI
Leonhard Schilling

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Productive Spaces

small scale agricultural cooperative
in c.a. rosetti | danube delta

Productive Spaces

A small scale farming cooperative in the municipality of C.A.Rosetti in the Romanian Danube Delta

Vienna
November 2014

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Inhalt
Content

Aufgabe und Positionierung

Ein Projekt in C.A.Rosetti im rumänischen Donaudelta. Planung mit Perspektiv(e)losigkeit?!

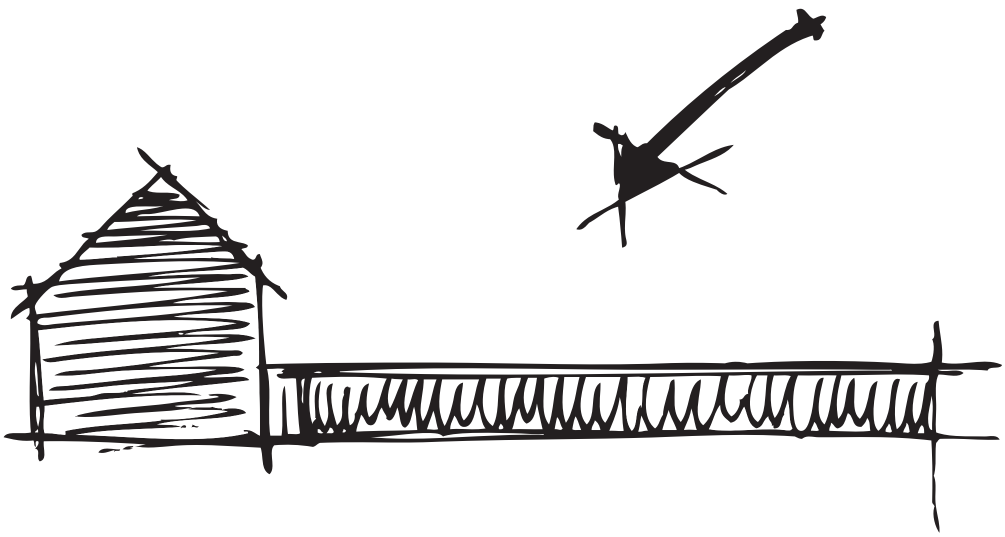
C.A.Rosetti. Eine Gemeinde im rumänischen Donaudelta. Am Ende der Welt. Am Rand der EU. Einen Tag lang dauerte die Reise von Bukarest in das Dorf Sfiştofca. Und beschwerlich ist sie- die Reise ans Ende. Und dann ist man da. Wird aufgenommen von einem alleinstehenden Mann, Vasili. Knapp über 50 Jahre ist er und er scheint einer der Jüngsten zu sein. Überlässt uns sein ganzes Haus für unseren Aufenthalt in C.A.Rosetti. Er und Sandu, bei dem wir immer zu Essen bekommen, sind die zwei, die wir am besten kennenlernen von denen, die es in dem Dorf noch gibt. Sie sind nett, freuen sich, dass wir da sind, bekochen uns, verbringen Zeit mit uns und Sandu bietet uns sogar einen Saunagang in seiner eigenhändig erbauten Lehmhaussauna an. Wir lernen sie aber auch anders kennen. In der Früh schon der erste Schluck Schnaps. Am Abend, wo sie meist bei bester Laune sind, ist der Spiegel am höchsten. In Vasilis Garten wuchert Gestrüpp. Arbeit haben beide keine.
Es scheint als wären diese zwei Männer keine Ausnahme in der Gemeinde. Die Lage ist trist. Perspektiven werden weder gesehen, noch gesucht. Nur das Ausland und der Tourismus sind Ankerpunkte in den Vorstellungen einzelner Menschen, die uns die gegenwärtige Situation geschildert haben.
Es sind großteils alte Menschen, die man auf den Straßen sieht. Rentner. Oft nur mehr Männer, denn die Frauen sind auf und davon, als der Alkohol zur Dauerlösung wurde. Wenige von den jüngeren haben Arbeit. Viele gehen weg. Eine der wenigen Optionen. Dass hier was fehlt, ist an den vielen verfallenen Häusern, den vielen ungepflegten Gärten abzulesen. Eine Schule existiert- noch. Kinder gibt es also. Viele? Eher nicht. Was hier zu fehlen scheint, sind nicht nur die Menschen sondern auch die Perspektiven. Niedergang und Neuanfang wird der Masterkurs betitelt. Eher Niedergang oder Neuanfang. Niedergangszenarien zu entwerfen wurde ganz klar in Erwägung gezogen aber doch fallen gelassen. Warum? Ich kann es nicht sagen. Vielleicht ein zu heißes Eisen?!? Der Neuanfang ist also die gewählte Richtung.
Viele Gedanken, viele Gespräche innerhalb unserer Studentengruppe waren die Folge, als wir uns der Aufgabe stellten, Projektideen für die Gemeinde zu finden. Nahezu unmöglich. Es ist nicht nur die Situation, die es uns nicht leicht machte zu klaren Gedanken zu kommen. Es waren und sind die Wissenslücken, die ein Vorankommen erschweren. Wir haben glücklicherweise die Chance gehabt ein paar Gespräche zu führen und das hat Eindruck hinterlassen. Es ergibt sich ein Bild. Ein mögliches. Aber vieles bleibt vermeintlich verborgen. Wie C.A.Rosetti sozial tickt, mit welcher Haltung die Menschen dieser Situation der Perspektivlosigkeit begegnen- und das ist eine essentielle Information- kann nicht durch ein paar wenige Gespräche und Erzählungen eingeschätzt werden. Ob die Menschen noch für etwas Pathos haben, woran sie festhalten können, ob irgendwo eine Quelle existiert, an der Motivation entspringt oder entspringen könnte, war für uns nicht möglich herauszufinden. Wir stützen uns auf Erzählungen und Eindrücke, die vielleicht richtiger sind als wir glauben.
Was soll da noch gehen in C.A.Rosettis Dörfern? Das kann ich mit dieser Projektidee nur vorschlagen nicht verordnen. Es war mir- und meinen KollegInnen- die Begrenztheit fremder Ideen immer bewusst. Ich kann keine Idee entwerfen und der dortigen Community überstülpen. Ideen ohne Überzeugung der AkteurInnen taugen nichts! Eigentlich müssten wir alle noch ein paar Mal nach C.A.Rosetti reisen und mit den Menschen dort gemeinsam die Ideen entwickeln. Die Menschen zu provozieren, über ihre Zukunft und die ihrer (wenigen) Kinder nachzudenken. Wollen und sollen Perspektiven für C.A.Rosetti gesucht werden? Das sollten eigentlich die BewohnerInnen entscheiden und nicht wir mit unseren Projekten.
Doch wie wird man all diesen Umständen und Ansprüchen mit einer Projektidee gerecht? Für mich war und ist klar. Dies ist ein Vorschlag. Eine Idee und kein zur Einreichung fertiges Dokument. Um diese Idee zum Stadium der Einrei-

chung für Förderungen etc. zu bringen, müssen die Menschen aus C.A.Rosetti in irgendeiner Weise mitreden können. Aus diesem Grund und Gründen der Wissenslücken bleibt folgend einiges offen. Zumindest ist das die Intention. Das Projekt selbst? Möglichst einfach. Einfach in den Mitteln. Einfach in den Prinzipien. Einfach in der Umsetzung. Einfach klingt einfach. Ist es aber ganz und gar nicht. Spätestens wenn es um die Umsetzung geht, tun sich unweigerlich Hürden auf, die einem Einfachheit verwehren. Jedoch am Papier soll alles möglichst einfach gestrickt sein. Möglichst mit den verfügbaren Ressourcen gedacht. Mit der Intention auf die Lebensweise der Menschen Rücksicht zu nehmen.
Das ist das, was ich tun kann. Aus der gegebenen Situation, der Ausgangslage, heraus mit dem Wissen, das ich habe, meiner Überzeugung und meinem Zugang entsteht eine Idee, der es potentiell möglich ist, eine oder mehrere neue Perspektiven aufzuspannen. Auch wenn es Träume bleiben mögen.

die Idee
the Idea

Wie einleitend schon angesprochen - die Situation in C.A.Rosetti ist trotz kleiner Lichtblicke sehr trist. Perspektivlosigkeit umschreibt die Situation noch immer am passendsten. In dieser Umgebung Perspektive zu schaffen scheint fast unmöglich. Immer wieder werden Gedanken verworfen, weil sie nicht für umsetzbar gehalten werden. Was muss eine Idee können, um in C.A.Rosetti nur einen Hauch einer Chance zu haben?
In vier Bausteinen wird eine Idee für ein Projekt erörtert, deren Prinzipien so gestrickt sind, dass auch wider des vielen Nicht-Wissens angesichts der Gegebenheiten meinerseits und angesichts der Perspektivlosigkeit ein Funktionieren möglich sein kann. Warum ich dieser Idee eine Perspektive einräume, erläutere ich im letzten Punkt des Kapitels.

It is not easy to work with conditions like in C.A.Rosetti. It seems like there is no perspective, despite some few little rays of hope. To raise perspectives in a surrounding of lacking prospects is a big challenge. Again and again potential ideas get dismissed because there is doubt about their suitability. But what must a idea be able to in C.A.Rosetti? In the following chapter an idea will be presented in its basic four principles. Although many missing links in my knowledge about the life and the situation and although the lack of prospect there, this ambitious idea could work somehow. Why so, I will explain in the last point of the chapter.



...ein Stückchen Land...
...a piece of land...

DER GARTEN
the garden

Der Garten. Er ist fester Bestandteil der ländlichen, rumänischen Kultur, ein wichtiges Element des Lebens auf dem Land. Liefert dieses Stückchen Land, in nächster Nähe zur heimatlichen Kochstelle gelegen, doch einen beträchtlichen Anteil von dem, was die Menschen zum täglichen Leben brauchen.
Ist die Kultur des Nahversorgers „Garten“ zwar auch in unseren, österreichisch-westlichen Breiten als Rudiment vergangener Zeiten zu finden, so ist die Bedeutung dieses Stückchen Landes hier mittlerweile eine deutlich andere, als in den peripheren Gebieten Rumäniens. Und wahrlich, die Lage unserer Projektgemeinde C.A.Rosetti ist geradezu ein Paradebeispiel für das, was FachkollegInnen, wissenschaftlich, als peripher bezeichnen würden. Der Weg dorthin ist nicht nur für den Menschen lang und beschwerlich, sondern auch für das von ihm verzehrte Nahrungsmittel. Es liegt die Annahme nahe, dass die kulturelle Tätigkeit des Selbstversorgens hier besonders ausgeprägt ist.
Nun, genau festzustellen ist dies basierend auf unserem viertägigen Aufenthalt in C.A.Rosetti nicht, aber besinnend auf unser exploratives Umherschweifen in den Orten C.A.Rosettis, hat der Garten meines Erachtens als Nahrungsmittellieferant an Bedeutung eingebüßt. Wagt man einen Blick über die für Rumänien so typischen, die Dorfstraßen säumenden Holzzäune, so ergibt sich ein ambivalentes Bild. Das Gros der Gärten wuchert vor sich hin oder dient als Lagerstätte für diverse Dinge vom Autowrack bis zum Stroh. Nur noch einige wenige Gärten scheinen - fast schon pro forma - Verwendung zu finden. Viele der Häuser sind bereits verlassen, aber selbst dort, wo noch Leben vermutet wird, liegen die Flächen brach. Und das nicht geschuldet der Jahreszeit, denn Ende September (zum Zeitpunkt unserer Exkursion) könnten durchaus noch Zeichen der Bewirtschaftung zu erkennen gewesen sein.
Wenn auch dieser Eindruck ein falscher wäre, würde diese Tatsache das Projekt in seinem Funktionsprinzip nicht grundsätzlich in Frage stellen. Jedoch änderte sich in der Argumentationslinie und im Design des gesamten Projektes einiges. So sei hier noch einmal explizit darauf hingewiesen, dass die folgenden Überlegungen auf diesem oben dargelegten, zeitlich begrenzten Eindruck fußen. Nicht auf einer vertiefenden, nachvollziehbaren und fokussierten Vor-Ort-Recherche, welche aus Gründen von Zeit und Kosten in dieser Lehrveranstaltung nicht durchgeführt werden konnte. Für eine Implementierung des Projekts wäre eine solche nochmalige, fokussierte Analyse als Vorbereitung unerlässlich.
Wie auch immer dieser Eindruck zu werten ist, selbst wenn es nicht der realen Situation entspräche, der Garten wird Basis der folgenden Gedanken, der Projektidee sein. Dieses Stückchen Land, das die letzten Häuser in Sfiştofca, Letea, C.A.Rosetti und Periprava umgibt, soll nicht nur wieder Nährboden für Pflanzen, sondern auch für Perspektiven sein...

...liefert Früchte...

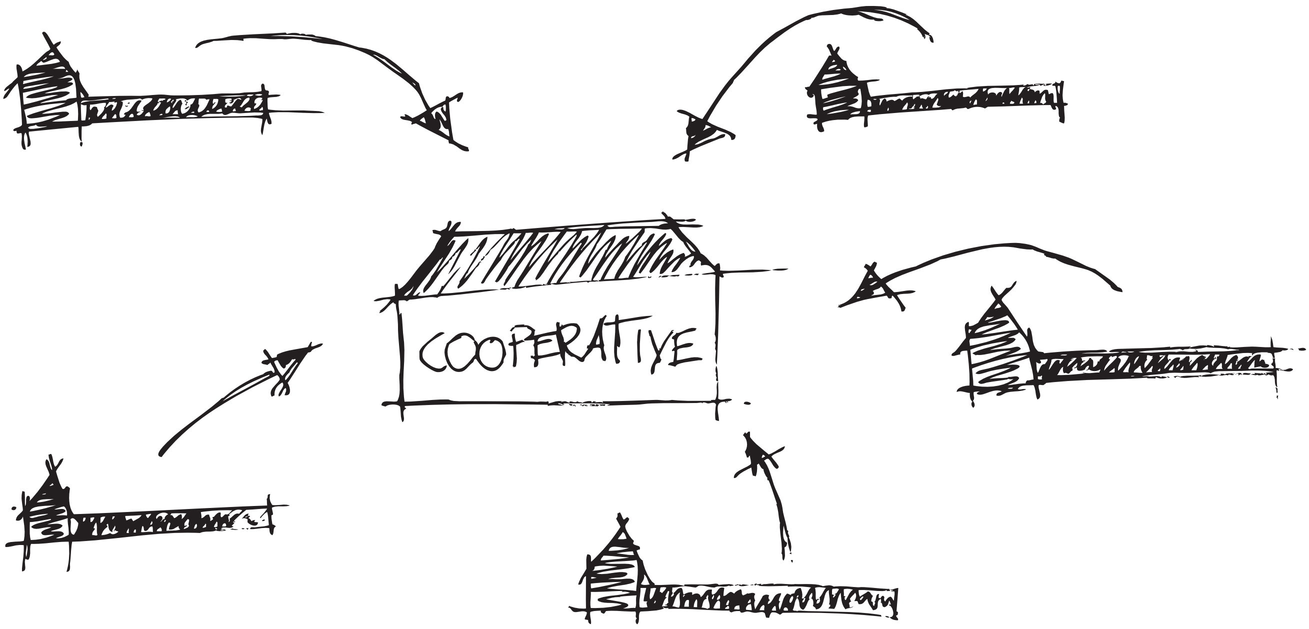
...cultivated...

DIE HÄNDE IN DER ERDE
the hands in the soil

Diese Gärten - was geschieht nun mit ihnen? Die Antwort liegt nahe. Die Erde wird kultiviert. Gehegt und Gepflegt wollen und sollen die Pflanzen werden, die schlussendlich den Nutzen bringen sollen. Ob Kohl oder Kürbis, ob Kraut oder Rüben, ob Karotten oder Knoblauch- egal was hier angebaut wird, die Menschen C.A.Rosettis werden mit dem Projekt ermutigt, dem ihrigen Stückchen Land wieder Lebendigkeit zu verleihen. Dabei geht es nicht um Kosmetik oder Beschäftigungstherapie, sondern um das ernsthafte Wirtschaften mit eigenem Grund und Boden. Ein Wirtschaften mit einfachsten Mitteln, keine hochtechnisierten Landwirtschaften. Ein Tun, das dem dortigen Lebensstil entspricht. Mit Grabgabel, Spaten, Rächen und der bloßen Hand wird aus der Erde die Frucht gezogen.

Die Hände in die Erde und alles funktioniert. Das klingt sehr einfach. Im Prinzip ist es das auch. Hinter diesem Prinzip stehen aber einige zwangsläufige Überlegungen die im Zusammenhang mit der Nutzung der Gärten im Rahmen des Projekts berücksichtigt werden sollten. Das sind teils technische Fragen die sich mit dem Pflanzenbau beschäftigen. Beispielsweise welche Pflanzen für die Bedingungen (Boden und Klima) und für die Weiterverwendung im Projekt geeignet erscheinen. Oder mit Welchem Ertrag gerechnet werden kann bzw. wie viel Fläche durchschnittlich zur Verfügung steht? Aber es sind auch soziale bis sozioökonomische Themen, die sich durch eine vom Projekt initiierte Nutzung der Gärten stellen. Sind die Menschen in C.A. Rosetti überaupt bereit sich in diesem Projekt zu beteiligen? Was erwarten sie sich von der Idee? Warum sollten sie die nicht oder wenig genutzten Flächen auf einmal wieder nutzen (wollen)? Zahlt es sich ökonomisch aus, Energie und Zeit zu investieren? Soweit ich dazu im Stande bin werde ich auf die technischen und die sozialen/prozessualen Fragen in den folgenden zwei Kapiteln eingehen und diese zumindest nochmals gesondert ansprechen und im Projekt berücksichtigen.

Dieser zweite Bauteil der Projektidee ist also die Nutzung der Gärten zum Anbau von Nutzpflanzen bzw. Gemüse. Würde das Projekt hier enden, wäre es nichts anderes, als die scheinbar nicht mehr attraktive Subsistenzwirtschaft wieder etablieren zu wollen. Aber das Projekt hat noch zwei andere Elemente, welche die Nutzung der Gärten in einen völlig anderen Kontext stellen.

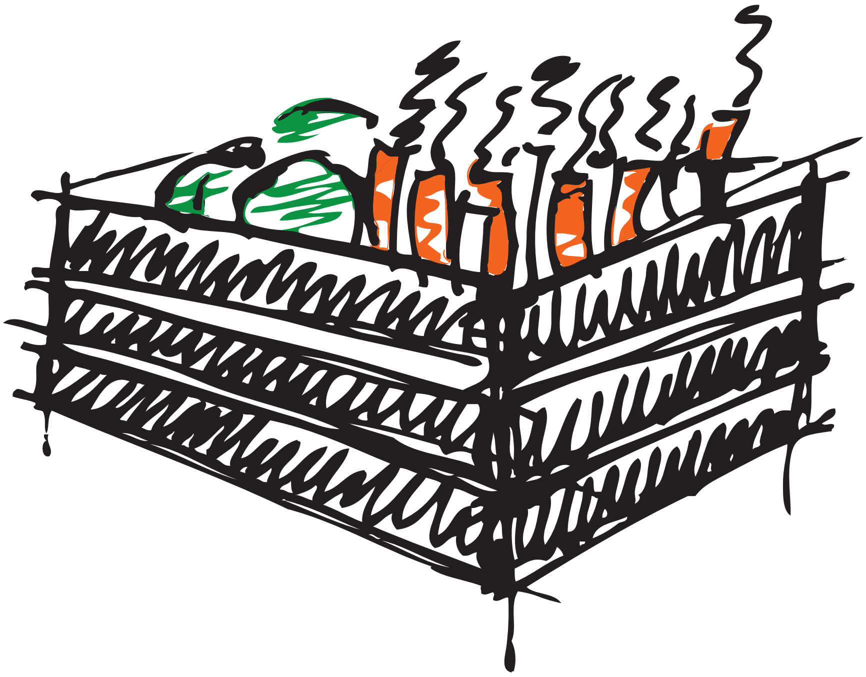


...die geerntet werden...

...together...

DIE GEMEINSAME ERNTE
the common harvest

Die Früchte sind reif. Die Ernte ist fällig. Doch was passiert mit Gemüse, Obst und Co? Hier kommt das Herzstück bzw. die Drehscheibe ins Spiel- die Genossenschaft. Jeder Gartenbewirtschafter und jede Gartenbewirtschafterin aus der Gemeinde C.A.Rosetti kann ihren Ertrag in diese Kooperative einbringen. Dort werden in den entsprechenden Räumlichkeiten die Rohstoffe gelagert, um anschließend vertrieben zu werden. Die genossenschaftlich erzielte Menge an gelieferten Rohstoffen erreicht damit eine kritische Größe und kann dadurch zu einem adäquaten an entsprechende Abnehmer ausgeliefert werden. Eine gewisse Größe eines produzierenden Betriebs ist nicht nur für die Preisbildung, sondern auch für das „auf dem Markt gehört werden" eine wesentlich bessere Ausgangssituation. Durch die Organisation der Menschen in einer Kooperative gelingt es auch besser Kontakte zu Geschäftspartnern zu knüpfen und diese zu pflegen, aber auch der gesamte logistische Aufwand, der in C.A.Rosetti nicht unerheblich ist, wird optimiert.
Zum kooperativen Wirtschaften gehört nicht nur ein verbesserter Eintritt in den Markt durch die kritische Masse sowie ein adäquater, guter Auftritt auf dem Markt durch die kollektive, effizientere Organisation. Im Gegensatz zum Einzelkämpfer, der seine Kriterien selbst aussucht, kommen in der Kooperative gemeinschaftlich erarbeitete Kriterien sowie Steuerungs- und Organisationsmechanismen zum Zug. Das sind nicht nur Qualitätskriterien, welchen die geernteten Früchte genügen müssen, es sind auch die Abstimmung der Sorten bis zu den Zeitplänen für die Ernte, denen sich die Genossenschaftsmitglieder unterwerfen. All dies festgeschrieben in den Statuten. Die Form der Kooperative verlangt also einen Mehraufand an Zeit und Energie, der aber durch die verbesserte Position als Subjekt im Markt belohnt wird.
Für die Vermarktung stehen zwei Möglichkeiten zur Debatte. Entweder die Kooperative vermarktet die Rohstoffe oder sie verarbeitet diese und bringt diese dann auf den Markt. Je nachdem welcher Strategie gefolgt wird, kommen auch unterschiedliche Pflanzen zum Einsatz. Aber auch der Anfangs notwendige Mitteleinsatz variiert mit der gewählten Strategie.
Nicht zu vergessen ist in der Kooperative der Aspekt der Gemeinschaft. Ohne hier etwas schön reden zu wollen- ich spreche von Möglichkeiten- , kann sich durch das gemeinsame Wirtschaften auch an der einzelnen wie an kollektiven Perspektive etwas verändern. Allein die Idee gemeinsam zu verfolgen, die Hoffnung und die eigene Energie darauf zu verwenden das Projekt zum Gelingen zu bringen, startet einen sozialen Prozess, der motivieren und bestehende Motivation bestärken kann.
Sich zu organisieren und das Angepflantze gemeinschaftlich zu ernten, zu sammeln bzw. zu verarbeiten mag eine nette Idee sein. Aber ohne Abnehmer oder die Abnehmenin für die Rohstoffe/Produkte kein Mehrwert. Der Frage der Geschäftspartner widmet sich der vierte Baustein des Projekts.



...regionale Abnehmer finden...

...for a new perspective...

DAS REGIONALE GESCHÄFT
the regional market

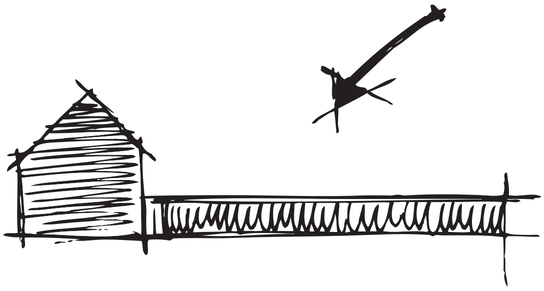
Wer sollen nun die Abnehmer von Gemüse und ähnlichen landwirtschaftlichen Erzeugnissen sein? Die Antwort variiert je nach Art des Produktes. Hier sei zunächst zwischen Handelspartnern bei Rohstoffen und denselben bei fertigen Produkten bzw. Vorleistungen unterschieden.

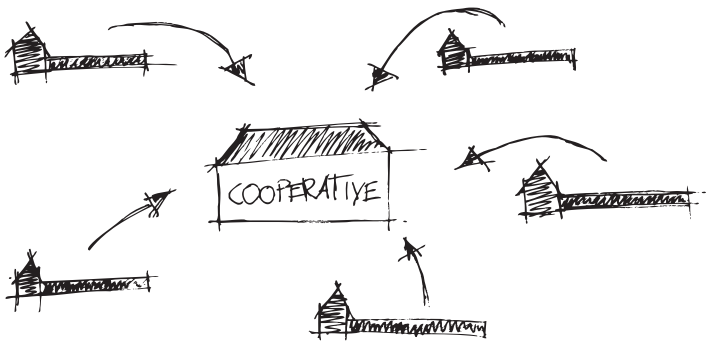
Beim Handel mit den Erzeugnissen spielt die Distribution, die Verteilung bzw. die Lieferung eine wesentliche Rolle - egal, ob Rohstoff oder weiter verarbeitetes Produkt. Im Donaudelta mobil zu sein (und die Erzeugnisse zu liefern) bedeutet in vielen Fällen sehr viel Aufwand. Um diesen Aufwand möglichst gering zu halten, ist der Gedanke, die Rohstoffe und Produkte möglichst in der eigenen Region anzupreisen, naheliegend. Welche Betriebe und Personen hier als Handelspartner in Frage kommen, hängt davon ab, was geliefert wird und wird demnach nach obig aufgeführtem Muster (Rohstoffe oder Produkte) unterschieden.

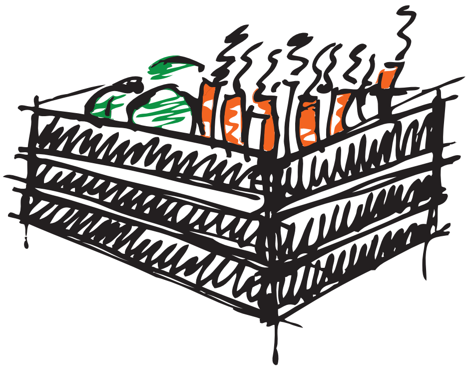
Bei Rohstoffen wie Feldfrüchte (z.B. Gemüse) ist die Gastronomie bzw. Hotellerie mit einem saisonal schwankendem aber hohen Bedarf potentieller Nachfrager. Die Gastronomie und das Hotelgewerbe- im Gegensatz zur Gastfreundlichkeit- ist in den Orten C.A.Rosettis sehr spärlich ausgeprägt. Handelspartner werden in diesem Umkreis wenig zu finden sein. Fällt der Blick etwas weiter über die Grenzen C.A.Rosettis, zeichnet sich eine wesentlich höhere touristische Lebendigkeit in den prädestinierten Orten an den Mündungsarmen ab. Besonders die Orte Sulina und Crișan am mittleren aber auch das ca. 50 km entfernte Sfantu Gheorge am südlichen Arm sind mit den dort in hoher Zahl ansässigen Tourismusbetrieben relevant. Hier sitzen die potentiellen Handelspartner, die vermutlich selbst ihre Rohstoffe per Wasserweg über weit längere Strecken von 70 bis 100 km aus dem Hauptort Tulcea anschaffen müssen.

Die in der Genossenschaft weiter verarbeiteten Produkte könnten je nach Art unterschiedlich Vertrieben werden. Zum einen können hier ebenso die vorher erwähnten Betriebe der Tourismusbranche Ansprechpartner sein, welche die verarbeiteten Erzeugnisse z.B. in ihre Speisekarte einbauen oder direkt an die Touristen verkaufen. Prädestiniert für einen Vertrieb wären auch die Biosphärenparkzentren oder die Fährschiffe. Eine Direktvermarktung in den Orten C.A. Rosettis stellt eine weitere Möglichkeit des Vertriebs an Tagestouristen dar. Detailfragen zu diesem Baustein werden im folgenden Kapitel behandelt.

Für die Handelspartner in der Tourismusbranche hält diese Variante des Bezugs von Rohstoffen einen Attraktivitätsfaktor bereit, denn Regionalität scheint sich in diesem Wirtschaftszweig als essentieller Bestandteil der Destinationsimages zu etablieren. Diese Handelsbeziehung wäre somit für beide Seiten ein Vorteil...




COOPERATIVE



DIE IDEE - EINE REKAPITULATION

the idea - a summary

Ein Stückchen Land - Der Garten
Der Garten eines jeden Bewohners, einer jeden Bewohnerin der Gemeinde C.A.Rosetti ist Grundlage des Projekts. Da jeder der BewohnerInnen über so ein Stückchen Land verfügt, ist für jeden und jede die Voraussetzung gegeben bei dem Projekt mitzutun. Auch rechtlich steht der Nutzung des eignen Grundes nichts im Wege. Auch ein schuleigener Garten wird als Bindeglied zwischen Wirtschaften und Bildung Teil der Produktionslandschaft sein. Die einzige Hürde stellt vermeintlich die Motviation der potentiellen Teilnehmenden dar. Eine klare Ausgangslage.

Die Hände in der Erde - Die Bewirtschaftung
Die Bewirtschaftung erfolgt nach Maßstäben, die einerseits selbst gesetzt sind, andererseits durch die Regeln der Genossenschaft vorgegeben sind. Die GärtnerInnen entscheiden selbst, wie viel sie an Fläche/ Produkten, Energie und Zeit zum Projekt beitragen möchten. Sie müssen aber den Statuten der Kooperative folge leisten und sich an den Vorgaben der Organisation orientieren. Dies reicht von der Auswahl der Pflanzen über die Ernte bis zum finanziellen Aspekt.

Die Gemeinsame Ernte - Die Genossenschaft
Es wird die Ernte zusammen getragen. In der Genossenschaft wird sie gelagert und für die Verarbeitung oder den Verkauf fertig gemacht. Die Form der Genossenschaft bietet viele Vorteile- gerade für die Situation in der sich die Gemeinde C.A.Rosetti befindet. Das betrifft nicht nur ökonomische, sondern soziale wie kulturelle Aspekte. Ökonomisch bringt die Kooperative höhere Produktionsmengen und damit ein geringeres Marktrisiko bzw. ein verbessertes Auftreten auf dem Markt. Stabilität ist ein Kennzeichen dieser Organisationsform. Aus soziokultureller Perspektive wird eine demokratisch gesteuerte Plattform der (alltäglichen) Verständigung etabliert. Durch Bildungsmaßnahmen und Austausch mit anderen Kooperativen wird für ein weiteres Bestehen der Genossenschaft gesorgt und die Zukunftsaussichten der einzelnen Mitglieder verbessert.

Das Regionale Geschäft - Regional Wirtschaften
Die verarbeiteten Produkte bzw. die geernteten Rohstoffe gehen- so die Idee- zu Abnehmern in der Region. Je näher der Abnehmer, desto besser. Wichtige potentielle Handelspartner stellen die Tourismusbetriebe in Sulina, Crișan aber auch in Sfantu Gheorge dar. Gelingt es, mit ihnen zu kooperieren ist zumindest der saisonale Absatz gesichert. Über dieses regionale Geschäft bleibt die Wertschöpfung in der Region und es wird dem immer bedeutsamer werdenden Trend der Regionalität im Tourismus nachgekommen.

Warum?
Mit dem Ziel Perspektiven zu schaffen, will das Projekt mit den einfachsten Mitteln Chancen zur Erwerbstätigkeit und Bildung schaffen. Einfache Mittel? Ja. Garten, Werkzeug, Wissen und Motivation. Eigentlich braucht es nicht mehr. Dementsprechend schnell lässt sich so ein Projekt umsetzen- es könnten in der nächsten Saison schon die ersten genossenschaftlichen Pflanzen sprießen. Die Prinzipien sind einfach. Die Größte Herausforderung wird der Prozess- der Aufbau und die Organisation der Kooperative mit dem entsprechenden Wissenstransfer sein. Potentielle Partner für den Austausch von Know-How existieren viele. Allein sie ins Boot zu holen ist die Aufgabe.
„Productive Spaces“ ist kein Spaziergang, ist aber mit seinen einfachen Prinzipien ein möglicher Weg zu neuen Perspektiven.

die Details

getting closer

Im vorherigen Kapitel ging es darum die Prinzipien des Projekts zu verstehen. Die folgenden Erläuterungen widmen sich teils schon angerissener Fragen, deren Beantwortung für ein vertieftes Verständnis dieser Idee notwendig ist.
Im Aufbau des Kapitels wird die viergeteilte Struktur der Bausteine beibehalten. Wenn auch viele Themen auch für andere Teile relevant sind, soll diese Vierteilung Schwerpunkte liefern und die Übersicht erleichtern. Das Spektrum der zu klärenden Fragen geht von Zielgruppen und Akteuren über eine Menge von technischen Angelegenheiten bis zu notwendigem Know-How, welches für das Projekt gebraucht wird.

The last chapter was about understanding the foundamental principles the idea is based on. Now it is the time to devote to questions, some were raised before, which are essential to answer for a further understanding of the project.
You will find the chapter structured in those familiar four parts of latter. Of course there are topics belonging also to each other part but in relation to a better readability and setting a focus this division will be carried on for this chapter. The topics treated range from targeted actors over a plenty off technical issues to know-how needed in certain situations.

DER GARTEN
the garden

Die Gärtnerinnen und die Gärtner
the gardeners

Viele Menschen in C.A.Rosetti haben kein Erwerbseinkommen. Die älteren BewohnerInnen beziehen eine sehr niedrige Rente. „Productive Spaces“ will zumindest die Chance liefern, Einkommen zu generieren, wenn auch die Aussicht auf den großen Gewinn unrealistisch erscheint. Primär ist das Projekt für diese Zielgruppe gedacht. Menschen aus C.A.Rosetti, die es wagen wollen mit ihrem eigenen Stückchen Land ihre meist aussichtslose finanzielle Lage ein wenig aufzubessern.
Dazu gehört nicht nur Mut und die dazugehörige Motivation, sondern auch die Bereitschaft gemeinsam zu arbeiten. Was damit gemeint ist, sind die Regeln, die für das Wirtschaften in der Kooperative substanziell sind, zu akzeptieren. Die Chance mitgestalten zu können, aber auch die Inkaufnahme verschiedener Kriterien die Arbeit und Produkte betreffend. Sowohl auf den eigenen Erfolg zu achten, als auch das Gelingen des gesamten Unternehmens im Fokus zu behalten.
Das klingt Angesichts der Situation sehr ambitioniert und vielleicht nicht den Gemütern der BewohnerInnen in dieser Situation entsprechend. Dennoch kann das Projektziel eine gewisse Verlockung, eine Chance auf Aussicht, sein. Wie das Projekt Schritt für Schritt implementiert und die Idee behutsam an die Menschen aus C.A.Rosetti herangebracht werden kann, wird im folgenden Kapitel erklärt. Niemand kann wissen, ich kann es auch nicht einschätzen, ob und wie die Menschen auf diese oder andere Projektideen reagieren würden. Ob Missmut oder Desinteresse herrscht oder allein die Tatsache, dass etwas passiert, schon als treibende, motivierende Kraft wirkt. Das ist eine Unsicherheit mit der dieses Projekt - die Strukturierung des Ablaufs zu Rande kommen muss. Aber dazu später noch einmal - es geht hier eigentlich um die Menschen, die an diesem Projekt teilhaben und einen wie auch immer gearteten Gewinn daraus ziehen können sollen.
Jeder Mensch ob alt und gebrechlich, ob jung und unerfahren oder zweifelhaft und distanziert. Jeder von den BürgerInnen C.A.Rosettis kann bei diesem Projekt mitmachen. Vier Dinge sind wichtig zu erwähnen. Der Zugang zu einem Gartengrundstück (1) ist dabei Voraussetzung, wobei ich, meiner Beobachtung nach, nicht der Auffassung bin, dass dies zu einem herausfordernden Problem werden könnte. Ist diese Einschätzung falsch, können Einrichtungen, wie eine Gartenbörse, in der nicht-bewirtschaftete Gärten auf einem schwarzen Brett angeschlagen sind und potentielle Gärtner zu nutzbaren Flächen kommen. Grundsätzlich sind wirklich alle (2) eingeladen teilzuhaben. Das heißt, zumindest im Endausbau sollen BürgerInnen aus allen Orten - Sfiştofca, Letea, C.A.Rosetti und Periprava (und Cardon) - teilhaben können. Aus Gründen der Gerechtigkeit steht die Überlegung nahe, ob nicht Menschen ohne Erwerbstätigkeit denen mit regelmäßigem Einkommen vorgezogen werden sollten. Diese Überlegung käme aber nur zum Tragen, wenn z.B. Obergrenzen für die Produktion wegen Fehlens von Abnehmern eingeführt werden müssten etc. Eine bis jetzt noch nicht zu Sprache gekommene Facette des Projekts ist der Schulgarten. Er spricht besonders die junge Generation (3) an, welche für die Zukunft eines solchen Projekts unentbehrlich ist. Die genaue Rolle und Funktion wird im folgenden Punkt erläutert. Nicht zu unterschätzen ist die Einstellung der BewohnerInnen (4) bzw. deren Begeisterungsfähigkeit als wesentliches Element für jedes wie auch immer geartetes Projekt. Dies ist weiter oben schon angesprochen worden und wird, wie schon angekündigt, wesentlicher Punkt der Prozessplanung sein.
Also, jeder und jede (1) soll mitmachen dürfen und braucht dazu Zugang zu einem Stückchen Land (2). Eine besondere Funktion/Rolle bekommen die jungen BewohnerInnen (3) unter den Gärtnerinnen und Gärtnern. Die Implementation im Sinne einer sozialen Etablierung (4) ist eine sehr generelle Frage, die aber gerade beim Punkt der Stakeholder nicht fehlen darf.

Der Schulgarten und seine Rolle

the school garden and its funktion

Eine etwas andere Stellung unter all den im Rahmen des Projekts entstehenden Produktionsflächen nimmt ein besonderer Garten ein. Der Schulgarten. Er ist nicht bloß Garten im grundsätzlichen Sinne des Projekts, also Produktionsfläche. Nein. Ihm sind ein paar mehr Funktionen zugeschrieben. Durch dieses Element des Schulgartens berücksichtigt das Projekt in der Einbeziehung der Kinder und Jugendlichen C.A.Rosettis, die junge Generation, welche für mögliche zukünftige Entwicklungen der Gemeinde eine wichtige Rolle spielt. Der Aspekt einen Schulgarten zu etablieren steht ebenso vor dem Hintergrund Bildung. Bildung wird hier mehrdimensional aufgefasst - das heißt sie geht über den normalen Schulunterricht hinaus und kann in Verbindung mit der Institution „Genossenschaft" zum Wissensspeicher werden. Als weitere Funktion könnte diesem Schulgarten eine Pionierfunktion im Rahmen des Projekts zugeschrieben werden. Der Schulgarten soll einer der ersten Anker für das startende Projekt sein.

Die junge Generation

Angesichts der Lage in der Gemeinde C.A.Rosetti kommt der heranwachsenden Generation eine umso wichtigere Funktion zu. Die Kinder und Jugendlichen entscheiden in ihrem späteren Handeln wie und ob sich die Situation in den Dörfern weiterentwickelt bzw. verändert. Sollte die hier elaborierte Idee tatsächlich in der einen oder anderen Weise Umsetzung finden, kann dessen potentieller Erfolg auch dazu führen, dass die Kinder nach ihrer Schullaufbahn wieder zurückkehren oder erst gar nicht weggehen (müssen)? Um auch in der Frage zukünftiger Lebenswege Chancen zu eröffnen, ist es wichtig auch die Jüngsten ins Boot zu holen- ihnen Aufmerksamkeit zu widmen. Der Schulgarten spannt den jüngsten eine von vielen möglichen Perspektiven auf.

Bildung

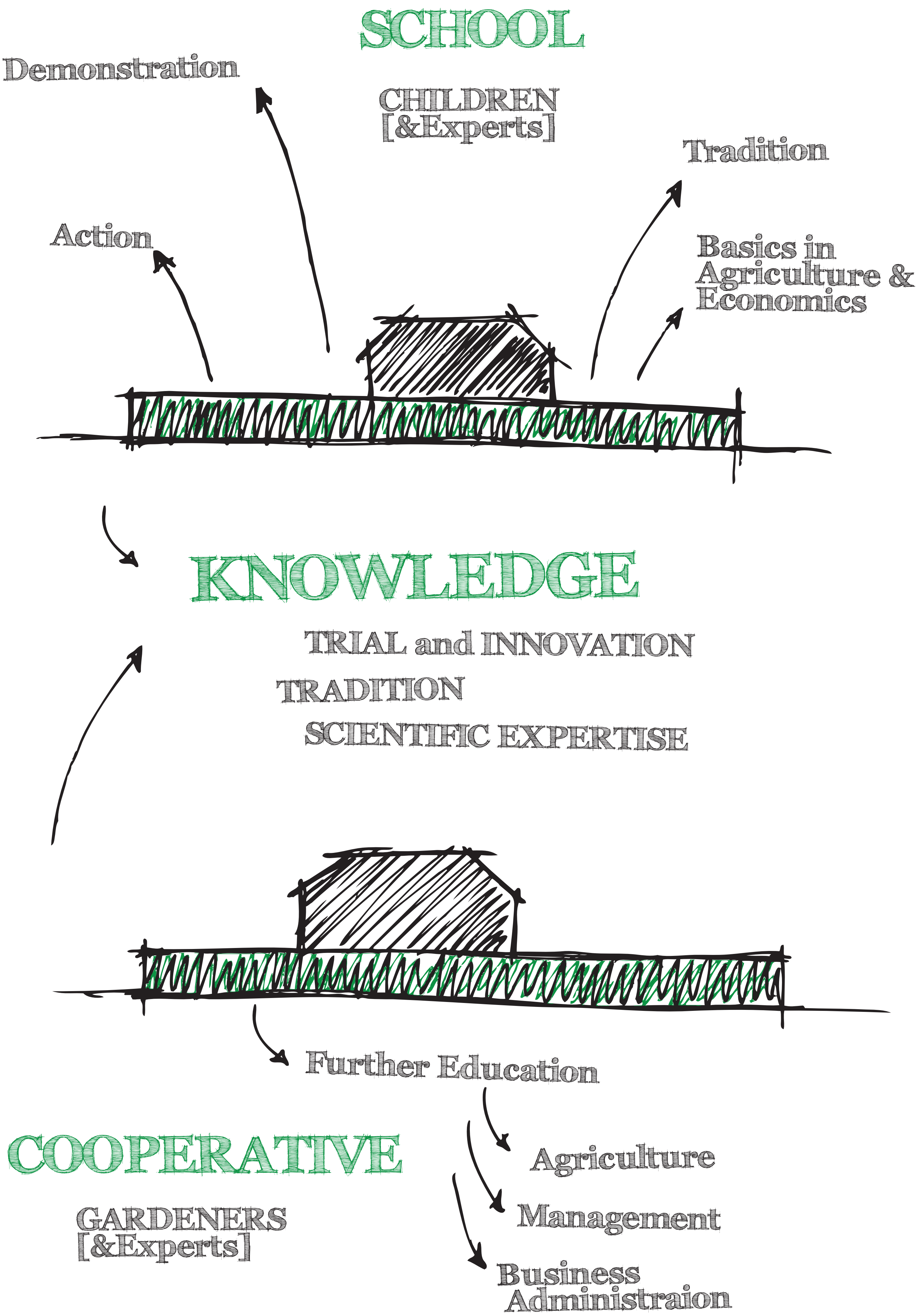
Was kann er, der Schulgarten? In ihm wachsen die Pflanzen, so wie in jedem anderen Garten, der Teil des Projekts ist, auch. Daneben ist er Objekt bei der schulischen Wissensvermittlung. Es ließe sich an dieser Stelle ein ganzes Kapitel zu den Vorzügen und Nachteilen eines Schulgartens zusammenstellen. Ein langes Spiel von pro und contra unterfüttert durch Luftgütemessungen im Klassenraum bis hin zu den neuesten Forschungserkenntnissen in der Disziplin der Neurologie. Das soll hier entfallen und kann in einem konkreterem Umsetzungsstadium des Projekts erfolgen. Zudem findet sich die Schule C.A.Rosettis in einem völlig anderen Kontext wieder, als jene in Deutschland oder Österreich für die solche Argumentationen und Studien verfasst wurden. Hier sind jene Aspekte des schulischen Gartens hervorzuheben, die für das Projekt wichtig scheinen. Das sind meiner Ansicht nach vier Elemente, vier Talente, des Gartens, welche von essentieller Bedeutung sind.

Erstens (1) ist er lebendiges Anschauungsobjekt für den Unterricht. Wenn es darum geht die Theorie auf die Praxis umzulegen, kann das Theoretische, im Klassenraum vermittelte, überprüft und ausprobiert werden. Warum ist das für dieses Projekt wichtig? Die Schülerinnen und Schüler lernen im grünen Klassenzimmer. Eine willkommene Abwechslung im Unterricht und zugleich eine Konfrontation mit Landwirtschaft, mit einer Form traditionellen Lebens. Die Aktivität im Schulgarten bedeutet eine Auseinandersetzung mit der eingenen Umwelt im natürlichen und kulturellen Sinne.

Das bringt mich zum zweiten Punkt. Ist es nicht nur die Sensibilität für die eigene Umwelt und die Wahrnehmung dieser als Ressource. Ebenso werden traditionelle Arbeitsweisen, wenn man so möchte traditionelles, landwirtschaftliches Handwerk (2) vermittelt. Dies ist eine Möglichkeit das personengebundene Wissen über die Tradition der Subsistenzwirtschaft in einem generationenübergreifenden Austausch weiterzugeben. Gepaart mit dem schulisch vermittelten, naturwissenschaftlichen Wissen ergeben sich für die Bewirtschaftung neu kombinierte Wissenspools. An dieser

Stelle gehe ich von der Annahme aus, dass Traditionen die Landwirtschaft betreffend existieren. Diese Kombination verschiedener Wissensquellen soll auch noch eine dritte Schiene zugeschaltet werden. In dieser Schiene sind experimentelle Pflanzungen enthalten- Was könnte wachsen? Gepaart mit fachlicher Expertise. Dies erfolgt in Zusammenarbeit mit der Kooperative und externen Wissensträgern und stellt eine späte Ausbaustufe des Projekts dar. Die dritte Wissensschiene wird weiter unten nochmals erläutert.
Ein Drittes, das der Schulgarten zum Projekt beiträgt, ist in der Idee desselben impliziert. Lernen bei (3) praktischem Tun. Die Schülerinnen und Schüler werden zu Produzenten. Sie kümmern sich um die Pflanzen genauso wie die anderen Beteiligten. So wird neben dem Wissen auch das tatsächliche Handwerk vermittelt. Die Theorie wird hier gleichsam in der Praxis getestet.
Es bleibt nicht nur bei botanischem und handwerklichem Wissen und Handeln. Die Kinder und Jugendlichen werden in die Rolle der Wirtschaftenden (4) vollends eintauchen, was bedeutet, dass sie wirtschaften lernen. Soweit in den jeweiligen Altersstufen möglich, wird das ökonomische Rüstzeug vermittelt und ausprobiert. Der Schulgarten wird mit dieser Facette Teil der Kooperative und erwirtschaftet ein Zubrot. Wem dies zugute kommt- den SchülerInnen oder der Schule- ist Aushandlungssache. Für den Aspekt des Wirtschaftens sind aber neben den rechnerisch-ökonomischen Kompetenzen weitaus andere erforderlich. Die SchülerInnen sind aufgefordert Verantwortung zu übernehmen, gemeinsam oder einzeln Entscheidungen zu fällen.
Das Tun im Schulgarten soll und kann nicht nur im Schulunterricht erfolgen. Diese Ansicht erwächst der Erfahrung, die wir in C.A.Rosetti gemacht haben, dass nicht alle Kinder zu Schule gehen können bzw. nicht alle Kinder die Schule besuchen dürfen. Aus welchen Gründen auch immer- auch ihnen soll ermöglicht werden am Projekt teilzuhaben, ob im oder außerhalb des Unterrichts.
Zusammengefasst-Was kann der Schulgarten leisten?
* Vermittlung: Die gebräuchlichen, traditionellen Mittel der Bewirtschaftung von Boden unter den dortigen Verhältnissen.
* Vermittlung: Lernen von naturwissenschaftlichen Zusammenhängen v.a. aus der Biologie.
* Vermittlung: Beschäftigung mit wirtschaftlichen Themen. Grundzüge der Buchhaltung, Handel, Tourismus, Agrarwirtschaft etc.
* Vermittlung: Aneignung neuer Methoden unter Anleitung fachlicher Experten in Kooperation mit der Genossenschaft und deren Mitgliedern.
* Vermittlung: Lernen beim Tun. Wissen das in Hand und Fuß übergeht.
* Stärkung der (jungen) Community: Gemeinsam für etwas Verantwortlich sein, sich auch mit den „Großen“ austauschen und für die Ernte auch fiskalische Gewinne zu erwirtschaften.

Die Verbindung mit der Kooperative - Wissensspeicher
Für eine spätere Ausbaustufe des Projekts gibt es die Idee eines Wissensspeichers. Der Wissensspeicher wird gespeist von Versuchen aus erxperimentellen Pflanzungen, also Wissen aus Innovation, von vorhandenem, personengebundenem, traditionellem Wissen und von Expertenwissen aus Beratungen.
So können Versuchspflanzungen u.a. in Begleitung von Fachpersonen erfolgen, die genau wie die GärtnerInnen daran interessiert sind, unter den gegebenen Bedingungen möglichst stabilen (und hohen) Ertrag zu erzielen. Da die Bedingungen für agrarische Tätigkeiten im Delta doch sehr speziell und dadurch herausfordernd sind, könnte das auch für ForscherInnen ein interessantes Experimentierfeld für Pilotpflanzungen im Rahmen ihrer Forschungstätigkeit sein. Diese forschungsbasierten Pflanzungen haben in ihrer Priorität jedoch Nachrang. Wichtig ist es, an den Punkten, bei denen herkömmliche, traditionelle Methoden nicht mehr greifen die Expertise von Fachpersonen hinzuziehen zu können, um Lösungen zu erarbeiten.
Der Wissenspool ist somit durch das Aufeinandertreffen von verschiedensten Personenkreisen geschaffen. Die Koope-


SCHOOL
Demonstration
CHILDREN
[&Experts]
Tradition
Action
Basics in
Agriculture &
Economics
KNOWLEDGE
TRIAL and INNOVATION
TRADITION
SCIENTIFIC EXPERTISE
Further Education
COOPERATIVE
Agriculture
Management
GARDENERS
[&Experts]
Business
Administraion

rative bzw. auch die Schule mit ihrem Schulgarten sollen Orte dieses Wissensaustausches werden. Die junge Generation bekommt sowohl Zugang zu altem Wissen, zu Grundlagenwissen aus der Schule und auch zu aktuellen Entwicklungen in der Kooperative, die durch die GärtnerInnen unter bedarfmäßiger Beratung von Experten forciert werden. Ob und wie das Wissen festgehalten werden soll, ist eine Frage der Aushandlung. Es spräche nichts dagegen, das Wissen personengebunden zu belassen...

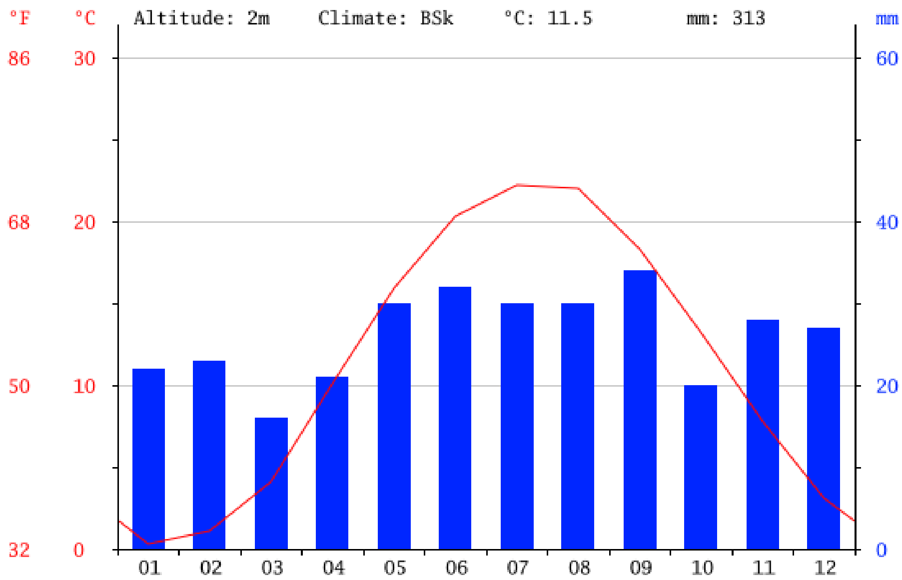
Pionier

An dieser Stelle sein kurz vermerkt, dass die Schule samt Schulgarten eine Pionierfunktion übernehmen wird. Die Schülerinnen und Schüler sind am ehesten für Projekte zu motivieren, sie profitieren davon in wissenstechnischer und sozialer Hinsicht, sind vermutlich am wenigsten voreingenommen und können Anreiz für andere BewohnerInnen sein. Wie genau sie Anfangs eingebunden werden und welche Rolle sie einnehmen werden, wird im Prozesskapitel eruiert.

DIE BEWIRTSCHAFTUNG
cultivating those spaces

Bedingungen für den Landbau
gowth condidtions in the area

Auf die Bedingungen für den Landbau möchte ich an dieser Stelle sehr kurz eingehen. Einerseits gilt es die Situation vor Ort zu überprüfen, denn Standortbedingungen variieren von Dorf zu Dorf. Nicht nur das. Die Analyse basiert auf kleinmaßstäbigem Kartenmaterial und ist daher sehr ungenau. Klar ist über diese Art von Analyse grundlegendes zu erkennen, aber wie es für die Gärten wirklich aussieht, kann dadurch nicht eruiert werden. Andererseits ist zu den Bedingungen sehr ausführlich im angesprochenen „Essential Report" zu lesen.
Kurz gefasst: Wir befinden uns in C.A.Rosetti auf einer sehr alten marinen Sandbank. Das verheißt nichts gutes für die Landwirtschaft. Jedoch ist die Ausbildung einer fruchtbaren Humusschicht vorhanden und einige Gärten sind bewirtschaftet - und das augenscheinlich erfolgreich. Der Boden gibt also was her. Wie viel? Das muss, wie gesagt, vor Ort überprüft werden.
Ein anderes Problem ist der verhältnismäßig wenige Niederschlag (siehe Diagramm). Er beträgt nur ca. die Hälfte von dem in Wien. Jedoch sind die Gemeinden umgeben von Süßwasser, das eine Lösung verspricht. Die gute Nachricht ist, dass die Niederschlagsmengen relativ gleichmäßig übers Jahr verteilt sind.
Ein weiteres Problem, das auftreten könnte ist die Versalzung des Bodens. Das Meer ist recht nahe gelegen, wodurch der Einfluss des Salzwassers in manchen Situationen (z.B. Trockenheit) zu ebendieser Versalzung kommen kann. Dies betrifft aber nur tiefwurzelnde Pflanzen. Die Weinbauern, haben speziell über diese Versalzung in Trockenperioden gesprochen. Da aber im Projekt wenig tiefwurzelnde (schon gar nicht so Tief wie der Wein) Pflanzen zur Verwendung kommen, ist dieses Problem eher peripher.



Bodenverbesserung

Welche Möglichkeiten gibt es aber die Böden bei Bedarf zu verbessern? Ich bin zwar kein Fachmann, aber zwei Möglichkeiten fallen mir sofort ein. Kompost als die eine. Hochbeete als die andere.

Kompost zu erzeugen ist grundsätzlich sehr einfach. Ein Komposthaufen kann in jedem der Gärten angelegt werden und je nach Menge organischen Materials erweitert oder reduziert werden. Wie sehr die Praxis des Kompostierens in C.A.Rosetti durchgeführt wird, kann ich nicht so genau sagen. Zumindest kann ich mich nicht an einen Komposthaufen erinnern. Die freilaufenden Pferde und Kühe produzieren Mist, den man auch zur Kompostierung verwenden kann.

Hochbeete zu bauen ist schon ein wenig aufwändiger und verlangt den Einsatz verschiedener Baumaterialien, was wiederum zusätzliche Kosten bedeutet. Die Vorteile die so ein Hochbeet bringt, machen diese aber schnell wieder wett. Durch die erhöhte Lage ist die Bewirtschaftung bequemer und gerade für altere Leute daruch nicht so mühsam. Weiters erwärmt sich der Boden in den Hochbeeten schneller und früher im Jahr, wodurch das Pflanzenwachstum begünstigt und der Zeitpunkt der Aussaat nach vorne verschoben wird. Auch Schädlingen wie Wühlmäusen oder Maulwürfen kann man dadurch besser Herr werden, indem man einfachen Maschendraht am Boden des Trogs befestigt.

Eine weitere Idee der Bodenverbesserung wäre Flussschlamm zur Düngung zu verwenden. Inwieweit das ein Beitrag zur Düngung sein kann, weiß ich nicht. Vorsicht ist geboten hinsichtlich umweltschädlicher Stoffe im Schlamm - also zuerst untersuchen und eine Testfläche betreiben.

Auch der Niederschlag ist nicht besonders in C.A.Rosetti. Neben der Möglichkeit, das Regenwasser in Tonenn oder Zisternen zu sammeln, kann auch das Flusswasser genommen werden. Das ist nur in den Dörfern möglich, welche nahe zu einem Kanal oder einem Mündungsarm liegen. Das sind alle außer C.A.Rosetti selbst. Für die Entnahme ist aber eine Pumpe vonnöten die wiederum Kosten verursacht - ob Strom oder Verbrennungsmotor. Dieses Flusswasser kann auch in einigen Behältnissen gesammelt werden, so könnte z.B. eine Pumpe für alle Dörfer verwendet werden.

So haben die verwilderten Gärten wieder eine Chance zu gedeihen. Aber wie lang braucht es, um einen Garten wieder zu starten? Das kommt darauf an. Es bedarf zur Bodenverbesserung sicher einige Zeit, aber grundsätzlich sollte damit ein Jahr vor der Bewirtschaftung begonnen werden.

Pflanzen und Produkte
suitable plants and products

Folgend führe ich Pflanzen an, die im Rahmen dieses Projekts als passend empfunden werden. Bei der Auswahl habe ich auf die Eignung für den Absatzmarkt Wert gelegt Die Verhältnisse in C.A.Rosetti sind jedoch mitgedacht so gut es geht. Es finden sich auch Pflanzenbeispiele, die für andere Bedingungen gemacht sind, als diese in C.A.Rosetti. Dabei berücksichtige ich auch ganz bewusst die Wintersaison, da die Winter in C.A.Rosetti nicht allzu kontinental ausfallen, steht die Überlegung im Raum auch Winterkulturen anzulegen. Dies sind nur Vorschläge, was wirklich wirtschaftlich kultiviert werden kann, zeigt erst der Blick des Fachmanns auf den Boden vor Ort.

Bohnen

Saat: nach dem letzten Nachtfrost; letzte Saat ca. drei Monate vor dem ersten Frost
Ernte: ca. zwei Monate nach der Saat
Bdingungen: lehmiger, kein sandiger oder toniger Boden (muss vorher gedüngt werden)
Produkte: getrocknete Bohnen; eingelegte Bohnen

Erdäpfel

Saat: nach dem letzten Frost, ev. auch im Herbst
Ernte: ca. drei Monate nach der Pflanzung
Bedingungen: lehmiger Boden, keine Staunässe,

Karotten
Saat: nach dem letzten Frost; Spätsommer
Ernte: ab Juni; November
Bedingungen: lockerer, nährstoffreicher, krümeliger Boden
Produkte: eingelegter Salat

Knoblauch
Saat: Frühling, Herbst
Ernte: Juli; bei wärmeren Verhältnissen auch schon früher
Bedingungen: sparsam Wässern, kein nasser Boden
Produkte: eingelegt (auch die Sprosse)

Kürbis
Saat: später Frühling, Frühsommer
Ernte: Spätsommer bis Herbst
Bedingungen: Boden mit guter Drainage; regelmäßige Bewässerung
Produkte: eingelegte Salate

Rote Rüben
Saat: Frühling, Herbst
Ernte: nach ca. 8 Wochen; können auch im Winter geschützt in der Erde bleiben (bis -18 °C)
Bedingungen: feuchter, nährstoffreicher Boden, nicht zu viel Lehm und Sand;

Spinat/Mangold
Saat: Frühling; Herbst
Ernte: sechs bis acht Wochen nach der Saat
Bedingungen: kühl; leicht saurer Boden; feucht, nicht durchnässt

Tomaten
Saat: März (Mai)
Ernte: Juni, Oktober
Produkte: Mus

Weißkohl
Saat: April, Juni; August, Oktober
Ernte: Juni, November; März
Bedingungen: lehmiger, nährstoffhaltiger; viel Niederschlag

Zucchini
Saat: Mai
Ernte: nach sechs bis acht Wochen
Bedingungen: lockerer, humusreicher Boden

Zwiebeln
Saat: Februar, März/April; August
Ernte: August, September; Juni, Juli
Bedingungen: leichter, durchlässiger, tiefgründiger Boden

Gerade für die Bedingungen, wie sie in C.A.Rosetti herrschen, wäre der Anbau von Kräutern naheliegend. Diese Option wird auch von mir gesehen, jedoch hätte ein Anbau von Kräutern Auswirkungen auf das Projekt. Der regionale Absatzmarkt, der Bedarf, für Kräuter ist, regional gesehen, nicht so groß, wie für andere landwirtschaftliche Güter. Um hier die Kräuterrohlinge zu vermarkten, müssten weitere Transportstrecken in Kauf genommen werden. Da ich versuchen möchte mit dem Geschäft möglichst regional zu bleiben, wird ein großangelegter Kräuteranbau weniger in Betracht gezogen. Jedoch kann jederzeit auf die Art der Bewirtschaftung zurückgegriffen werden. Mit dem Anbau von Kräutern beschäftigt sich auch das Projekt von Bernadette Gugerell in diesem Masterkurs.

DIE GENOSSENSCHAFT
the cooperative

Im ersten Kapitel wurde bereits über die Idee der genossenschaftlichen Organisation der GärtnerInnen geschrieben und deren Vorteile argumentiert. Folgend widme ich mich der Kooperative vor allem von der organisatorischen Seite und möchte Prinzipien für die Gründung und den Betrieb der Genossenschaft aufwerfen. Zu einer Genossenschaft gehört, sofern im Landesrecht existent, die rechtliche Einbettung die eng mit der organisatorischen Komponente verwoben ist. In Ermangelung meiner Kompetenzen im rumänischen Genossenschaftsrecht, das laut Recherchen dort als solches gar nicht existiert, muss ich hier auf mögliche Wissenspartner bzw. Beispiele verweisen. Umso mehr werden die Fragen der Funktionsprinzipien und organisatorischen Erfordernisse im Vordergrund stehen.

Prinzipielles

Die unter diesem Punkt folgenden Überlegungen unterstreichen nochmals, warum die genossenscahftliche Organisation für das Projekt und die Situation in C.A.Rosetti große Vorteile bereithält. Was kann die Genossenschaft? Was kann sie für das Projekt? Diese Fragen sollten durch die nachstehenden Zeilen beantwortet werden.
Die International Cooperative Alliance definiert den Begriff Genossenschaft. Für das Verständnis in diesem Projekt wichtig, ist demnach eine Genossenschaft eine *selbstständige, freiwillige Vereinigung* von Menschen. Menschen die mit dieser Vereinigung nicht nur *ökonomische* Bedürfnisse befrieden. Neben diesen stehen ebenso *soziale und kulturelle* Anliegen und Vorstellungen. Das alles wird in einem *demokratischen* Unternehmen vereint, welches im Eigentum der Gemeinschaft steht. Diese Definition enthält alle Prizipien, die eine Genossenschaft ausmachen.
Allen voran steht das ***Förderprinzip***. Im Gegensatz zu herkömmlichen Unternehmen, deren Hauptzweck das Verwerten von Kapital und die Erwirtschaftung von Gewinn sind, steht bei der Koooperative die Förderung der Mitglieder im Geschäftsfeld der Kooperative im Vordergrund. Die Genossenschaft ist also ein autonomes Unternehmen, das in erster Linie für seine Mitglieder da ist, unabhängig von Dritten. Das heißt nicht, dass die Mitglieder keine ökonomischen Absichten haben- es ist auch ökonomisches Handeln, das eine Genossenschaft auszeichnet. Auch wenn der Terminus Selbsthilfe umstritten ist, in diesem Kontext scheint er adäquat.
Zweites Prinzip ist das der ***Identität***. Es meint die Vereinigung sonst unterschiedlicher Rollen in einer Person. Normalerweise fallen die Rollen von Kapitalgeber, Abnehmer und Lieferanten auseinander. In der Genossenschaft in C.A.Rosetti ist das Mitglied Kapitalgeber, Lieferant (der landwirtschaftlichen Produkte) und Abnehmer (die Genossenschaft nimmt dem Mitglied diese Produkte ab) zugleich (diese sind ident).
Ein weiteres grundlegendes Prinzip ist das der ***Demokratie.*** Egal wie viel der Anteil an der Genossenschaft beträgt, egal welche Position, egal wie viel Erfahrung, jedes Mitglied hat eine Stimme, die bei der Generalversammlung zählt. Dazu gehört die Rechenschaftspflicht der gewählten Vertreter im Vorstand gegenüber der Mitglieder. Demokratisches Prinzip heißt auch Offenheit und Freiwilligkeit.
Jeder und jede kann mitmachen, wenn die mit der Mitgliedschaft verbundenen Verantwortungen wahrgenommen werden. Eine solche Verantwortung bedeutet die ***wirtschaftliche Mitwirkung***- der Verbleib eines Teil von erwirtschaftetem Kapital in der Genossenschaft für Deckung diverser Kosten sowie für die Weiterentwicklung der Unternehmung. Wirtschaftliche Mitwirkung bedeutet Selbstverantwortung und Selbstverwaltung, denn alle Mitglieder sind Teilhaber am kooperativen Unternhemen.
Im Genossenschaftswesen spielt die ***Bildung und Wissensaustausch*** eine wesentliche Rolle. Nicht nur über finanzielles Einkommen profitieren die Mitglieder, sondern auch durch die von der Genossenschaft gewährleisteten Bildungsmaßnahmen. Die Mitglieder, Oragane in den Gremien, also die Vertreter, die Angestellten bekommen Möglichkeiten zur Aus- und Weiterbildung, um die Weiterentwicklung der Genossenschaft voranzutreiben. Wissensaustausch bedeutet

Kooperation mit anderen Genossenschaften bzw. Organisation zu deren gegenseitigem Nutzen.
Die *Regionalität* garantiert Überschaubarkeit, Kundennähe, höhere Beweglichkeit und damit strategische Wettbewerbsvorteile. Das Wissen über die Region ermöglicht kürzere Entscheidungswege und -zeiträume. Ein wesentlicher Faktor dabei sind der persönliche Bezug und dadurch die soziale Kontrolle der Prozesse.
Das Prinzip der ***Solidarität*** spricht bestimmte Werte an, die bei dem Betrieb einer Genossenschaft grundlegend sind. Viele dieser Werte sind aus den obig genannten Erläuterungen herauszulesen. Sie verleihen dem Unternehmen in Zeiten der Gründung (wenn das Committment da ist), bei sozialen Konflikten oder wirtschaftlichen Turbulenzen hohe Stabilität.

Organisatorisches
Hier greife ich Inhalte großteils vorweg auf, denn viele organisatorische Bereiche sind für die Gestaltung eines Prozesses relevant und sind im folgenden Kapitel, eingebettet in einen zeitlichen Ablauf, besser zu verstehen. Dennoch sollen hier grundlegende Aspekte, die für Organisation und Gründung einer Genossenschaft wichtig erscheinen, dargelegt werden.

Wichtigstes Element der Genossenschaft sind ihre ***Mitglieder***, also die Menschen, die das Unternehmen zum Leben erwecken und am Leben erhalten. Im Kapitel „Die Gärtnerinnen und die Gärtner“ schon angedeutet, hat die Motivation für und die Überzeugung vom Projekt „Kooperative“ eine immense Bedeutung. Immerhin muss ein individueller Gestaltungsspielraum zu Gunsten des kollektiven Handelns aufgegeben werden. Das ist das Kapital, das eine Genossenschaft im Grunde erst funktionsfähig werden lässt. Die Motivation ist wichtig, um dieses Unterfangen erst zu starten. Die Überzeugung jedes einzelnen Mitglieds sichert den Fortbestand der kollektiven Unternehmung. Wie mit diesen beiden Determinanten sozialen Handelns, die über Erfolg oder Fall des Projekts entscheiden, umgegangen werden soll, ist Teil des Prozessdesigns. Jedoch sind diese Determinanten nicht planbar. Lediglich die Mittel, die Personen, die im Prozess eingesetzt werden und die Idee selbst, können Motivation und Überzeugung fördern. Die innere Haltung, die Einstellung zur Gegenwärtigen Situation, ein Kondensationskeim für Begeisterung - wie auch immer man es nennen mag- muss als Grundvoraussetzung für das Projekt vorhanden sein.

Das bedeutet auch, dass ***Schlüsselpersonen*** gefunden werden müssen, die das Projekt von Anfang an mittragen, die andere Überzeugen können. Diese Menschen sind Kondensationskeim in personam. Sie sind für die Gründung einer Genossenschaft insofern relevant, als dass sie die Menschen zusammenbringen und deren Vertrauen haben. Diese Akteure sind potentielle Ansprechpartner betreffend wichtiger Postenbesetzungen im Rahmen der Organisation einer Kooperative. Sind doch Aufgaben der Buchhaltung, Koordinierung, der Pflege von Kontakten zu Handelspartnern und ein Wissensaustausch zu bewältigen. In Genossenschaften ist es üblich einen Vorstand zu wählen, der einen Vorsitz hat- für Vorschläge oder die Durchführung und Vorbereitung der Wahlen sind diese Schlüsselakteure ebenso wichtig. Es gibt somit viele ***Aufgaben*** und die dazugehörenden Posten, die bekleidet werden müssen- hierbei sind Personen von besonderer Motviation und Wirkung enorm wichtig.

Ein weiteres wesentliches Element einer Genossenschaft ist die ***Satzung***. Dieses zentrale gemeinsame Regelwerk wird gemeinsam entwickelt und speziell in der Anfangsphase immer wieder adaptiert. Die Inhalte reichen dabei von grundlegenden Dingen, wie Zielen und Interessen der Kooperative und deren Mitegliedern über die Kriterien, die Mitglieder in ihrer Arbeit erfüllen müssen, den Legitimationsverfahren für Entscheidungen bis zum Management und den dazugehörigen Arbeitsaufgaben. All dies ist die Reinform eines intensiven Diskussionsprozesses in dem Interssen formuliert, Konflikte ausgetragen und Kompromisse ausverhandelt werden. Die Vorarbeit für die Statuten ist intensiv, zeit- und energieaufwendig, aber notwendig für eine gemeinsame Basis des Unternehmens.

Da diese Seiten lediglich die Ausarbeitung einer Projektidee bedeuten, zähle ich hier nicht alle notwendigen Inhalte genossenschaftlicher Statuten auf, zumal die Inhalte von den Gründern im Rahmen des Prozesses selbst bzw. Vorschläge zu diesem Zeitpunkt von einem Projektpartner/-begleiter mit entsprechendem Know-How kommen sollten.

Bildung und Wissensausatausch bedeuten in einer Kooperative, wie sie in diesem Projekt gedacht ist, zweierlei. Zum einen die Bildung und der Wissensaustausch, um die für die Führung einer Genossenschaft nötigen Kompetenzen zu erlangen. Zum anderen hat Bildung und Wissensaustausch den Sinn, dass die Organisation, vornehmlich aber die agrarwirtschaftliche Tätigkeit optimiert wird.
Diese Optimierung erfolgt idealerweise in Zusammenarbeit mit Know-How Lieferanten, die aus ihrer Erfahrung oder aus ihren Forschungen in diesem Bereich Wissen weitergeben können. Im Bereich der Agrarwirtschaft geht es dabei um die Frage, welche Pflanzen für die genossenschaftliche Tätigkeit Potential hätten. Das kann allein durch Beratung passieren, aber auch durch gemeinsames Try & Error, indem Experimentalpflanzungen durchführt werden. Dabei kann der Gewinn auch auf beiden Seiten liegen. Da C.A.Rosetti mit sehr speziellen Bedingungen für das Pflanzenwachstum aufwarten kann, ist es für potentielle Forschungsprojekte, die mit sandigen oder ev. salzigen Boden arbeiten relevant.
Ersteres ist beim Aufbau der Kooperative unerlässlich. Grundlegendes Know-How in Bereichen wie Management, Buchhaltung, Verhandlung und Marketing ist notwendig, damit eine Genossenschaft funktionieren und die Geschäfte mit ihren Kunden professionell abwickeln kann. Dabei geht es darum, die grundlegenden Handfertigkeiten und Wissensbereiche zu vermitteln, die in einem gewissen Zeitrahmen erlernbar sind. Weiteres kann nach der Gründungsphase bei der Weiterentwicklung der Kooperative vertieft werden.
Bei Bildung und Wissensaustausch wird noch ein dritter Aspekt angesprochen, der die Vernetzung mit anderen Kooperativen betrifft. Erfahrungsaustausch mit anderen Unternehmungen ähnlicher Art, schürt neue Ideen, bringt Lösungen für etwaige Probleme, motiviert und führt zu Weiterentwicklungen innerhalb der Genossenschaft und bei deren Mitgliedern.

Im Prozess zur Bildung der Genossenschaft muss über die ***räumlichen Grenzen*** sowie die ***tatsächlichen Räumlichkeiten*** entschieden werden. Ohne eine Entscheidung hierfür vorwegzunehmen, hier ein paar Überlegungen dazu. Es können unterschiedliche Varianten für die räumliche Abgrenzung der Genossenschaft gewählt werden. Eine Variante (1) wäre die Etablierung mehrerer Genossenschaften in jedem der Orte Sfiştofca, Letea, C.A.Rosetti und Periprava. Die andere Variante (2) sieht eine Genossenschaft für die gesamte Gemeinde C.A.Rosetti vor. Bei beiden Varianten könnte im Prozess eine stufenweise Ausweitung auf alle Orte erfolgen. Lediglich würden in der ersten Variante vier unterschiedliche Organisationen existieren. Für geeigneter halte ich die zweite Variante. So ist die Chance höher, eine größere Anzahl von Mitgliedern für die Gründung anzusprechen. Diese Form könnte auch hinsichtlich der Logistik einfacher sein.
Bei den Gedanken für die Räumlichkeiten greife ich mehr oder weniger vor. Es gilt Räumlichkeiten ausfindig zu machen oder zu schaffen, in denen der genossenschaftliche Betrieb untergebracht werden kann. Das bedeutet nicht nur Raum für Lagerung, Logistik und eventuelle Produktion, sondern auch Räumlichkeiten für die Versammlung der Mitglieder und für ein Büro in dem die administrativen Tätigkeiten erfolgen. Nun stellt sich wieder die Frage, ob in jedem Ort ein Lager existieren soll oder nicht- dies ist wiederum vom tatsächlichen Fortschritt und der Aushandlung bei der Entwicklung der Kooperative abhängig. Ich kann an dieser Stelle nur einen Vorschlag machen. Bei den Recherchen vor Ort ist mir das alte Schulgebäude in Sfiştofca aufgefallen, das leer steht. Es hielte zumindest genug Platz für die Anfänge einer Genossenschaft bereit.

REGIONAL WIRTSCHAFTEN
accessing the regional market

Kunden - Abnehmer im regionalen Geschäft
meeting the regional demand - potential customers

Die Verbundenheit mit der Region steht im Vordergrund, wenn es darum geht zu überlegen, wer die Partner im Handel, die Kunden, sind. Allein das Argument des Transports spricht für Kunden, die möglichst nahe gelegen sind. Ein weiterer Grund für den regionalen Fokus ist die Förderung von regionalen Wertschöpfungsketten. So profitieren nicht nur die Menschen aus C.A.Rosetti, sondern auch weitere Akteure in der Region.
Eine mögliche Gruppe potentieller Kunden sind die Betriebe in der Branche des Tourismus. Dieser Wirtschaftsbereich ist im Donaudelta sehr konzentriert in den Orten Sulina, Crișan und Sfantu Gheorge zu finden. Dort befinden sich Hotels und Restaurants, in welchen die Besucher des Deltas nächtigen bzw. verköstigt werden. Sie müssen, vermutlicherweise, ihre Rohstoffe über weite Transportwege aus der Kreishauptstadt Tulcea besorgen. So wäre eine Zusammenarbeit zwischen der Genossenschaft und den Tourismusbetrieben von bilateralem Gewinn. In einem raschen Überblick der touristischen Betriebe, die in diesen drei genannten Orten im Donaudelta zu finden sind, ist erkennbar, dass die Anzahl der potentiellen Kunden ausreichend ist. Dies ersetzt jedoch nicht die genaue Analyse der Branche.
Schon vor oder während des Gründungsprozesses der Genossenschaft müssen diese Betriebe angesprochen werden, um sie als Schlüsselakteure von dem Projekt und der Zusammenarbeit zu überzeugen, die Produktion auf ihre Bedürfnisse abzustimmen und die Preise zu vereinbaren. Zwei wichtige Punkte die es zu eruieren gilt, sind die von den Küchen der Betriebe benötigten Mengen und die Arten der Produkte, die für die üblichen Gerichte gebraucht werden.
Doch wäre eine direkte Vermarktung von Produkten ebenso in Betracht zu ziehen. Sind die Menschen in den Orten des Deltas, an denen keine Selbstversorgung mit Gütern des täglichen Bedarfs möglich ist, doch genauso auf Produkte angewiesen die zumindest aus Tulcea stammen. Um diese Gruppe von Ortansässigen aber auch Touristen regional zu bedienen, könnte in einer späteren Ausbaustufe ein Marktstand/Geschäftslokal z.B. in Sulina entstehen, in denen Rohstoffe, aber auch von der Genossenschaft verarbeitete Produkte für diese Kundengruppen zu erstehen sind.
Für die verarbeiteten Produkte, wie Marmeladen, Muse, Salate oder eingelegtes Gemüse wäre auch ein Ab-Hof-Verkauf bzw. ein Marktstand für die touristischen Punkte in der Gemeinde C.A.Rosetti denkbar.

Die Sache mit dem Transport
distribution in a river delta - a challenge

Die Frage wie die Rohstoffe von den GärtnerInnen zur Kooperative und von dort zu den Kunden gelangen ist eine, deren Beantwortung über die Durchführbarkeit des Projekts entscheidet und wahrscheinlich das meiste des Startkapitals in Anspruch nimmt.

Von den GärtnerInnen zur Kooperative
Es gibt sehr wenige Transportmittel für den Landweg, wie ich beobachtet habe. Wo auch immer die Genossenschaft ihr Lager hat, wird für die meisten der GärtnerInnen der Landweg unausweichlich sein. Eine Lösung des Problems fahrender Untersätze liegt in der Koordination und dem Teilen der vorhandenen Ressourcen. Es gibt Menschen, die

ein Pferdefuhrwerk zu ihrem Eigentum zählen können, es gibt andere die ein Auto besitzen (u.a. Pritschenwagen zum Transport der Touristen), wieder andere haben sogar einen Traktor mit Anhänger. Durch gezieltes, koordiniertes verleihen der Fahrzeuge bzw. Anbieten von Transportdiensten untereinander kann diese erste Etappe gemeistert werden. In einer den regelmäßigen Plenarsitzungen oder andere Kanäle (Schwarzes Brett, Genossenschaftskoordinator) können Transportmöglichkeiten geteilt und koordiniert werden.

Von der Kooperative zu den Kunden

Der zweite Transportweg muss zwangsweise über den Wasserweg erfolgen. Die Waren auf dem Landweg bis nach Sulina zu transportieren und dann via Boot weiter zu verbreiten macht wenig Sinn. So fällt der Blick auf die möglichen Wasserwege direkt in C.A.Rosetti. Es gibt zwei Kanäle die ins Gemeindegebiet führen. Einer nach Letea, der andere nach Sfiştofca. Es sollen diese Kanäle nicht mehr in Takt sein und Bedarf an Baggerungen für deren Befahrbarkeit exisiteren. Zumindest von dem in Letea ist sicher, dass er befahrbar ist, denn im Laufe der Erkundungtouren konnte ich beobachten, dass ein Touristenboot diesen befahren hatte. Wie es mit dem in Sfiştofca bestellt ist, kann aus jetziger Perspektive nicht gesagt werden. Es ist also zumindest ein Weg nach Letea auf dem Wasser zu bewältigen- die Infrastruktur ist benutzbar.

Woher nun die nötigen Transportmittel nehmen? Falls jemand der BewohnerInnen C.A.Rosettis ein motorisiertes Boot besäße und bereit wäre Transportdienste zu leisten, wäre die Sache für den Anfang ein Fortkommen des Projekts gesichert. Früher oder Später müsste aus dem Kapital der Genossenschaft ein solches Transportmittel angeschafft werden. Ohne ein Spezialist für Wasserverkehrswesen zu sein, behaupte ich, dass die Kapazität einer einfachen Motorzille anfangs ausreichen würde, was auch nicht all zu hohe Anschaffungskosten (5000 bis 8000 Euro) bedeuten würde. Dabei halten sich die Transportkosten im Vergleich zum Landweg äußerst gering.

Eine weitere Option des Transportes wäre die Abholung bzw. Transportdienste seitens der Kunden, die vermeintlich mehr Kapital bzw. ein Boot besitzen.

Die Wahl der Transportwege ist außerdem entscheidend für den Standort von Lagerstätten, in denen die Produkte gesammelt werden. Daher kommen lediglich die Orte Sfiştofca und Letea in Frage, wobei in Sfiştofca schon ein altes Schulgebäude als potentielles Lager gesichtet wurde.

KNOW-HOW-TRANSFER
potenital partners in knowledge

Damit eine Umsetzung der Idee erfolgen kann die in diesen Seiten ausgebreitet und festgehalten wird, braucht es einiges an Wissen, das ich als Raumplaner nicht besitze. Selbst wenn ich zu diesem Zeitpunkt schon all die notwendigen Kenntnisse hätte, wären sie in diesem Dokument fehl am Platz. Es geht hier primär um die Idee, einen Gedanken, der aus den (wenigen) Eindrücken der örtlichen Situation entspringt. Eine Idee, die adäquat auf die Situation reagieren will. Deshalb sind hier keine pädagogischen Konzepte, keine Musterstatuten und keine Bodenuntersuchungen dokumentiert, sondern die essentiellen Themen angerissen, um als Leitfaden bei den nächsten Schritten zu dienen. Als Fahrplan, Checkliste für die Umsetzung. Teil dieser grundlegenden Vorarbeiten ist auch, den Bedarf an bestimmten Dingen zu bedenken. Folgend möchte ich festhalten, welchen Bedarf an Know-How es bei der Umsetzung bzw. dessen Vorbereitung gibt. Dafür werde ich für verschiedene Themen potentielle Projektpartner aufzählen und Platz für händische Ergänzungen lassen.

Partner im ***agrartechnischen Bereich*** liefern Wissen über den Umgang mit den gegebenen Bedingungen in C.A.Rosetti. Dies betrifft die Beratung in Sachen Boden und Bodenverbesserung, Pflanzen und deren Ansprüche sowie den Bereich der Bewirtschaftung und Pflege der Gärten. Mögliche Wissenslieferanten wären:

- Arche Noah (Saatgutvermehrung, Sortenvielfalt, alte Sorten, Boden, Pflege,...)
- Bio Forschung Austria (Biologischer Landbau, Boden, Pflanzen, Pflanzenschutz,...)
- ....
- ....

Die Funktionsweise einer ***Genossenschaft*** ist im Prinzip einfach, aber die organisatorischen und rechtlichen Aspekte bei der Gründung und dem Betrieb sind nicht so einfach umzusetzen. Deshalb werden in diesem Bereich Partner gebraucht:

- landwirtschaftliche Gensossenschaft in Cornesti (Siebenbürgen); seit 2005 unterstützt von der Organisation Oikokredit; Erfahrungslieferant in allen Bereichen von Recht bis Organisation
- Oikokredit; eine Finanzinstitution, die im Genossenschaftswesen viel Erfahrung hat
- ....
- ....
- ....

Die ***Bildung*** hat im Projekt eine ganz besondere Bedeutung. Speziell für die ***Schule und den Schulgarten*** sind Ansprechpartner von Nöten. Es ist herauszufinden, ob die örtlichen Pädagogen das öko- bzw. agrarpädagogische Rüstzeug haben, um den SchülerInnen das Wissen um den Garten und die Ökonomie vermitteln zu können. ***Erwachsenenbildung*** ist im Konzept der Genossenschaft ein Thema. Vielleicht können die Schullehrer nach entsprechender Qualifizierung auch zu Akteuren in Erwachsenenbildung werden? Im Bedarfsfall ist es sicher nicht schlecht Partner zur Beratung in Bildungsfragen zur Hand zu haben:

- Hochschule für Agrar- und Umweltpädagogik, Wien-Hietzing, http://www.agrarumweltpaedagogik.ac.at/
- Ökokreis Verein zur Förderung biologischer, ökologischer und sozialer Initiativen, Ottenschlag, http://www.oekokreis.org
- ....
- ....

Die ***Sfiştofca-Art-Assotiation*** spielt eine besondere Rolle. Ambitionierte KünstlerInnen vereinigen sich gerade, um dieses Dorf, ja die gesamte Gemeinde auf etwas anderen Wegen zu begegnen. Auch wenn das Projekt „Productive Spaces" in seinen Prinzipien weit von dem weg ist, was gemeinhin als Kunst bezeichnet werden kann, so ist die Umsetzunges ein sozialer Prozess, der losgetreten wird. Diesen Prozess zu begleiten, das kann Kunst sein, das kann mit künsterlischen Zugängen geschehen. Und gerade als diese Prozessbegleiter sehe ich die Menschen in der Sfiştofca-Art-Assotiation.

der Prozess
getting things done

In diesem Kapitel verdeutlicht ein Prozessdesign eine mögliche Vorgehensweise in diesem Projekt. Ein Projekt existiert nicht nur in sich und für sich. Es löst soziale Prozesse aus, wird in diesem Kapitel selbst als Prozess begriffen. Diese Auffassung eines Projekts als Prozess scheint essentiell für jede Art von Vorhaben in einem planerischen Kontext.
Die Gedanken, welche folgend Eingang finden werden, widmen sich Akteuren, der Art und Weise von Kommunikation im Projekt sowie deren zeitliche und räumliche Verortung. Nur mit diesen Überlegungen kann ein Projekt überprüft und realisiert werden.

The following chapter comprises a possible strategy for the implementation of the project. A project is not only a single idea elaborated on a certain number of pages. A project is a social process itself and should be understood as an impulse which releases diverse other processes. This understanding of planning as a social process is essential in many further planning tasks.
In the next pages there will be a process designed taking into account the different actors, the use of communication in its variety and the setting of time and location.

DREI ETAPPEN ZUM ZIEL
the three steps

Es ist nicht einfach angesichts der Wissenslage, in der wir Studierenden uns zum Zeitpunkt der Ausarbeitung der Projektidee wiederfinden, Gedanken für die Umsetzung niederzuschreiben. Vieles ist dabei möglich. Je nach unterschiedlichen Annahmen, die hier getroffen werden müssen, sieht ein operationaler Plan, ein Prozessplan, unterschiedlich aus. Das bedeutet für die Planung des Prozesses die Konfrontation mit Unsicherheit. Deshalb sei hier am Anfang klar gestellt, dass ich diesen Prozess als Beispiel verstehe, wie in einer Umsetzung vorgegangen werden könnte. Dies ist und kann zu diesem Zeitpunkt, mit der aktuellen Wissensgrundlage keinerlei fixer Plan sein. Dabei habe ich versucht diesen möglichst flexibel zu gestalten, damit auf etwaige Änderungen der Rahmenbedingungen (Wissen, beteiligte BewohnerInnen und PartnerInnen, Finanzierung,...) möglichst einfach reagiert werden kann. Dabei gilt: Je genauer die Überlegungen sind, desto eher werden diese wieder von Änderungen betroffen sein. Je grober die Aussagen sind, desto flexibler können die Punkte gehandhabt werden, aber präzise Aussagen können nicht getroffen werden. Ich möchte hier, so gut es geht, die Balance zwischen diesen Ebenen finden.

Für das vorliegende Prozessdesign sind, wahrscheinlich sehr optimistisch, drei Jahre veranschlagt. Diese drei Jahre sind ungefähr gleichbedeutend mit den drei Prozessphasen, die hier, wie folgt, grob zusammengefasst werden. Die Prozessphasen sind auch in der Grafik gekennzeichnet. Bei dem zeitlichen Rahmen wird ganz konkret schon ab dem baldig beginnenden Jahr 2015 angesetzt.

Das 1. Jahr - Die Sondierung

In der ersten Phase ist es wichtig den Rahmen für das gesamte Vorhaben zu setzen. Dabei kommt der Analyse der Situation im Hinblick auf das Projekt erhebliche Bedeutung zu. Diese Analyse Beinhaltet nicht nur die vertiefende Untersuchung der natürlichen Gegebenheiten für das Pflanzenwachstum, sondern auch ein erstes Sondieren von potentiellen GärtnerInnen, Kunden und Ansprechpartnern vor Ort. Die Analyse ist also eng verbunden mit der Herstellung erster Kontakte vor Ort in informellen Gesprächen um die Interessenslage und Motivation abzuklären. Zu dieser ersten Phase gehört ebenso, die Finanzierung zu organisieren. Grundsätzlich investieren bei einer Genossenschaft die Mitglieder ihren Beitrag, jedoch braucht es sowohl im Vorfeld des Projekts und speziell als Starthilfe der Genossenschaft ein gewisses Budget. Aussagen über das nötige Budget können erst getätigt werden, wenn der Rahmen bzw. die Möglichkeiten für das Projekt einigermaßen klar erscheinen, deshalb kann in diesem Dokument nur sehr schwer über konkrete Kosten gesprochen werden. Eher über Finanzierungsmodelle.
Esentiell- und das ist einer der ersten Schritte- ist der Kontakt und das Gewinnen von Projektpartnern. Sowohl in Rumänien als auch in Österreich. Diese sind von Bedeutung, weil sie entsprechendes Know How für die Analyse mitbringen und damit bei der Rahmensetzung einen wesentlichen Beitrag leisten. Mit Hilfe dieser Partner entstehen im Idealfall mehrere Testflächen, in denen Möglichkeiten der Bepflanzung ausprobiert werden. Einer dieser Testflächen ist dabei für den Schulgarten vorgesehen. Dabei wird in Zusammenarbeit von den Lehrkräften vor Ort und entsprechenden, externen Partnern von Anfang an die pädagogische Arbeit mit den SchülerInnen verfolgt. Es sind die möglichen Präferenzen der Hotels bzw. Restaurants auszuloten, damit gezielt für dieses bestimmte Angebot getestet werden kann.

Das 2. Jahr - Raum für den Test

Am Anfang der zweiten Phase sind die beteiligten AkteurInnen ihrer Möglichkeiten durch den geschaffenen Rahmen bereits bewusst. Dementsprechend kann mit einer breit Angelegten Beteiligung bzw. Information begonnen werden. Dabei geht es nicht darum, das Projekt den potentiellen Akteuren aufzuoktroyieren, sondern von der Möglichkeit, Teil dieses Vorhabens zu werden und dessen Werdegang mitzugestalten. Klar ist dabei, dass gewisse Rahmen schon

gesetzt sind und nur mehr schwer beeinflussbar sind (bspw. Finanzierung). Da im zweiten Jahr ein Testbetrieb etabliert wird, werden dafür Interessenten gesucht, die in ihren Pilotgärten einen Betrieb simulieren, wie er im Falle einer Genossenschaft durchgeführt werden würde. Das beinhaltet den Anbau, die Ernte und die Lieferung an die Kunden. Dieses Testjahr dient der Sammlung von Erfahrungen, die am Ende von allen Beteiligten reflektiert werden, um Veränderungen bzw. Optimierungen voranzutreiben.
Der Schulgarten wird schon die zweite Saison bewirtschaftet. Diesmal werden nur mehr punktuell Externe Fachpersonen hinzugezogen, denn für die Pädagogen in C.A.Rosetti sind für die Wintersaison zwischen erstem und zweitem Jahr Fortbildungen geplant. Auf dem Programm steht dabei das fachspezifische Grundlagenwissen der Agrarwirtschaft, sowie die pädagogischen und didaktischen Mittel für diesen speziellen Bereich.

Das 3. Jahr - Die Genossenschaft wird gegründet
Die dritte Phase beginnt direkt nach Beendigung der Tätigkeiten in den Pilotgärten. Nach einer Reflexion kann die Gründung einer Genossenschaft angestrebt werden. Noch im 2. Jahr beginnen die Vorbereitungen der konstituierenden Sitzung. Bis es aber soweit ist, muss breit angelegt informiert werden. In einzelnen Veranstaltungen/Zusammentreffen in den einzelnen Ortschaften können sich die potentiellen Genossenschafter positionieren, sich eine Meinung bilden. Dabei werden die Gärtnerinnen der Pilotgärten eine wichtige Rolle mit der Vermittlung ihrer Erfahrungen übernehmen. Ob dann eine kritische Masse an GärtnerInnen gefunden werden kann und das entsprechende Commitment da ist, entscheidet darüber, ob es zu einer Genossenschaftsgründung kommt. Es müssen dabei viele Dinge in einzelnen Treffen geklärt werden. Von zu besetzenden Posten, Führungsrollen (auch bezüglich der Vorstandswahlen), Mitgliedsrechte und-pflichten, Finanzierung bis zu technischen Dingen der Distribution. Pünktlich zum Anfang findet die konstituierende Generalversammlung mit der Beschlussfassung der genossenschaftlichen Statuten statt. Damit kann das erste Jahr im offiziellen Betrieb begonnen werden. Es wird laufend Zusammenkünfte geben, die für den Austausch und Lösung etwaiger Probleme gedacht sind. Dies mündet in einer Reflexion am Schluss des Jahres.
Der Schulgarten wird in dieser Phase sein drittes Jahr laufen und der Genossenschaftlichen Tätigkeit immer etwas voraus sein. Hier wird nämlich schon Neues ausprobiert und Herkömmliches verbessert.

Varianten des Projekts
Wie Anfangs beschrieben, soll das Projekt in seinem Design möglichst flexibel sein. Die Grundidee war die einer Genossenschaft und macht in dieser Verfasstheit bezogen auf die Situation im Donaudelta auch am meisten Sinn. Was aber, wenn aus bestimmten Gründen (keine Zustimmung seitens der Projektpartner, Fehlen der Finanzierung, Wachstumsbedingungen, etc.) das Projekt Einschränkungen erfährt? In diesen Fällen heißt dies: Reagieren können. Darum bestehen Möglichkeiten das Projekt zu verkleinern bzw. umzugestalten.
Die *Maximumvariante* von Genossenschaft und Schulgarten wird als Standard gesehen und wird in diesem Papier, soweit möglich, ausgeführt. Deshalb entfällt an dieser Stelle eine Erläuterung der Maximumvariante.
Ein *mittlere Möglichkeit* wäre, die Pioniergärten und den Schulgarten ohne Einbettung in eine Genossenschaft zu betreiben. Die Frage, ob in dieser Variante Kunden zu bedienen wären oder die Flächen „nur“ mit dem Ziel der Selbstversorgung zu bewirtschaften wären, bleibt offen.
Eine *Minimumvariante* stellt der Betrieb eines Schulgartens mit der Vermittlung der entsprechenden Inhalte im Unterricht dar. Sie kann entsprechend des aktuellen Prozessdesigns etabliert werden. Der Mitteleinstatz ist wesentlich niedriger, als im Vollausbau Projekt. Es wären Partner für das agrarpädagogische Wissen und für Budget für entsprechende Werkzeuge notwendig. Die Kinder sind jener Teil der BewohnerInnen C.A. Rosettis, der am ehesten für gewisse Aktivitäten zu motivieren ist. Deshalb wird dieser Variante aus jetziger Sicht am meisten Umsetzungssicherheit zugeschrieben.

1st Step - Exploration

ACTION	RESULTS
* analysis	* fixed financing
* first dialogues	* fixed partners
* finding partners	* realistic foresights
* Kick-Off Schoolgarden	* informal discourse

2nd Step - Testing

ACTION	RESULTS
* first official Event	* decision for/against cooperative
* testing cultivation	* results piloting
* testing the sale	* results experiments
* further education teachers	* first experience
* first financial transactions	* broad reflection

3rd Step - Cooperative

ACTION	RESULTS
* creating vision	* vision/strategy
* passing statutes	* statutes
* large scale gardening	* intensive dialogue
* large scale sale	* broad reflection
* distribution	* large scale experience

SONDIERUNG - DAS I. JAHR

DIE ANALYSE

Wie ein Projekt starten, wenn noch Wissenslücken vorhanden sind, die geschlossen werden wollen? Als Grundlage für einen Projektstart dient eine vertiefende Analyse der Lage. Kein umfassender Scan ist im Kern des Interesses, vielmehr ist es ein fokussiertes Erheben, ein Beantworten von offenen Fragen, die für das Projekt essentielle Bedeutung haben. Diese Analyse bezieht sich auf dingliche Sachverhalte, möchte aber auch bei den künftigen Beteiligten ansetzen und diese ein erstes Stückchen aktivieren bzw. deren Möglichkeiten abtasten. Informelle Gespräche sind in dieser Analyse genauso enthalten wie Bodenbegutachtungen. Mit der Analyse ist möglichst bald zu beginnen. Das bedeutet, dass schon am Anfang des ersten Jahres (ideal schon 2015) damit begonnen werden kann, notwendige Dinge in Erfahrung zu bringen. Nun ist es so, dass es Fragen gibt, welche am besten Vor Ort geklärt werden können. Deshalb ist zu berücksichtigen, dass die Untersuchungen teilweise gebündelt erfolgen müssen. Das bedeutet eine entsprechende Vorbereitung von dem was vor Ort und was nicht vor Ort geschehen muss.
Was muss ich eigentlich wissen, um das Projekt „Productive Spaces" starten zu können? Was ist für eine Rahmensetzung essentiell? Folgend sind einige Fragen bzw. Punkte aufgeführt, die vor Projektbeginn in der ersten Phase zu klären sein werden. Dabei sind die Punkte, die vor Ort geklärt werden sollten, gekennzeichnet:

<u>AkteurInnen und Kommunikation (Vor Ort)</u>
Was hält die Menschen noch in C.A.Rosetti? Was ist die Quelle ihrer Motivation nicht einfach wegzugehen?
Was können Quellen für Motivation sein? Gibt es verschiedene Gruppen von BewohnerInnen, welche unterschiedlich motiviert sind (bspw. Männer, Frauen, Jugend, bestimmte Dörfer,...)?
Hätten sie unter bestimmten Umständen Interesse an einem Projekt teilzuhaben? Könnten sie sich vorstellen sich aktiv einzubringen?
Wie könnte man die Menschen im Projekt ansprechen? Welche Kanäle für Kommunikation gibt es? Gibt es regelmäßige Treffen? Schwarze Bretter? Gottesdienst? Pfarre? Gemeindeversammlungen? Minimarkt?

<u>Partner (nicht unbedingt Vor Ort)</u>
Gäbe es einen potentiellen Partner für die Projektleitung? Einen Partner, der den Prozess begleitet und koordiniert (zumindest Anfangs)?
Welche Partner bzw. welches Wissen ist im Projektverlauf von Nöten?
Welchen Beitrag können diese Leisten? Wie sieht es da mit der Finanzierung aus? Gibt es auch ehrenamtliche Arbeit?
Müssen sie vor Ort in C.A.Rosetti arbeiten oder können sie auch Leistungen von außerhalb anbieten?
Gibt es entsprechende Partner in Österreich oder Rumänien (Sprache!)?
Welche Partner haben Know-How in Sachen Finanzierung - sind in entsprechende Netzwerke eingebunden? Gibt es Partner mit entsprechendem eigener Budgetausstattung?

<u>Finanzierung (nicht vor Ort)</u>
Welche Fördertöpfe stehen zur Verfügung? Welche Thematiken und welche Fördertöpfe spricht das Projekt an?
Welche Kosten müssen grob gedeckt werden?

<u>Schule (Vor Ort)</u>
Haben die PädagogInnen Interesse? Können diese den Betrieb eines Schulgartens vorstellen?
Welches Wissen und welche Fähigkeiten haben sie diesbezüglich? Brauchen und wollen sie Weiterbildung bzw. Unterstützung?

Was wird im Unterricht zu diesem Thema gelehrt? Gibt es Anknüpfungspunkte?
Sind Flächen für die schulische Bewirtschaftung vorhanden?

<u>Gärten (Vor Ort)</u>
Wie sind die Rahmenbedingung für das Pflanzenwachstum? Der Boden? Niederschlag? Sonne?
Welche Verbesserungsmöglichkeiten gibt es bei potentiellen Problemen gibt es?
Welche Pflanzen würden gedeihen? Was sind deren Anforderungen?
Wie ist die Situation entstanden, dass die Gärten nicht mehr genutzt werden?
Welche traditionellen Wirtschaftsweisen gibt und gab es bezgl. der Gärten? Welches Werkzeug verwendeten und verwenden die Menschen für die Bewirtschaftung?

<u>Markt (Vor Ort)</u>
Wie ist die Struktur der touristischen Betriebe? Wie viel Betriebe für eine potentielle Zusammenarbeit gibt es?
Was wäre der Bedarf solcher Betriebe (Arten von Produkten, Mengen,saisonal,...)?
Könnten genossenschaftliche Produkte konkurrenzfähig sein? Wie sähe ein Preisangebot aus?

<u>Transport (Vor Ort)</u>
Wie können die Menschen dort mobil sein? (vom Auto bis zum Pferdefuhrwerk)
Gibt es motorisierte Boote in den Dörfern? Wenn ja, könnten diese für das Projekt benutzt werden?
Sind die Kanäle nutzbar? Inwieweit?

DIE PROJEKTPARTNER
Die Projektpartner, die sehr früh gebraucht werden und zum Einsatz kommen, sind jene im Bereich ***Boden und Agrarwirtschaft*** sowie im Bereich ***Agrarpädagogik***.
Erstere helfen bei der Analyse der Situation und können ein realistisches Bild zu den Themen der Bewirtschaftungsbedingungen auf Basis ihres Fachwissens zeichnen. Sie sind es auch, die Lösungen für Verbesserungen einbringen und diese auch testweise umsetzen bzw. die Umsetzung begleiten. Beispielsweise könnte das die Herstellung von Kompost oder der Test von Hochbeeten sein. Sie werden relativ früh aktiv und auch sehr bald vor Ort. Das heißt am Ende des ersten Quartals sollten die Projektpartner in dieser Hinsicht schon feststehen und ihre Arbeit aufnehmen. Dafür ist es sicher notwendig mindestens zweimal Vor Ort zu sein. Einmal ca. eine Woche, um zu erheben und erste Lösungen zu probieren und ein zweites Mal zur Überprüfung und Erfolgskontrolle.
Da in der Schule schon in der ersten Phase Workshops stattfinden, werden hierfür AnsprechpartnerInnen gesucht, die im Laufe des ersten Quartals feststehen sollten und kurz darauf mit den PädagogInnen der Schule in C.A.Rosetti in Kontakt treten. Dazu ist noch keine Anreise notwendig. In den ersten Korrespondenzen werden Inhalte abgestimmt und Wissenswertes ausgetauscht. Ein paar Tage vor den ersten Workshops ist es dann notwendig vor Ort zu sein. Optional zu den Workshops bei der Saat und der Ernte können auch speziell zu den Themen der Pflege und Winterbewirtschaftung Veranstaltungen stattfinden.
Ein weiterer wichtiger Projektpartner, wird Know-How im Bereich ***Förderung und Finanzierung*** bereitstellen. Die Finanzierung kann nur in enger Abstimmung mit dem Wissen, das in der Analyse gewonnen wird, festgelegt werden und ist daher erst gegen Ende der ersten Phase fix. Jedoch gilt es sich über verschiedene Möglichkeiten der Finanzierung und etwaige Kostenstellen Gedanken zu machen. Hier kann aus Kapazitätsgründen nicht sehr ausführlich auf das Thema eingegangen werden. Dabei kann ich auf ein anderes Projekt, ausgearbeitet von Gerold Ludwig, verweisen, das sich mit Finanzierungsoptionen im Feld der Mikrokredite beschäftigt. Andere Möglichkeiten sind EU-Gelder. Im

„Essential Report", der durch alle Studierenden dieses Kurses verfasst wurde, ist unter anderem die Fördersituation in der neuen Periode analysiert. Dabei stellte sich heraus, dass das Donau-Delta vom Mitgliedsland Rumänien besondere Aufmerksamkeit im Rahmen der ITI-Förderungen (ITI-Integrated Territorial Investments) erhält. Das wäre eine weitere Möglichkeit der Förderung. Ein weiterer Gedanke liegt bei der LEADER-Förderung (Liason entre Actions de Developpement de l'Economie Rurale) im Bereich der ländlichen Entwicklung. Diese Mittel wurden auch für die neue Periode 14-20 zugesagt. Auch die Donauraumstrategie, durch die keine eigenen Mittel ausgeschüttet werden,sondern lediglich bestehende Strukturen durch bessere Vernetzung der AkteurInnen nutzt, ist eine Option für die Lukrierung von Finanzmitteln.
Welche Kosten anfallen könnten bzw. welcher materielle Bedarf da ist, möchte ich nur kurz aufzählen: Reisekosten (Partner, Projektbeteiligte,...) Personalkosten (Partner, Projektleitung,...), Werkzeug und einfache landwirtschaftliche Gerätschaften (für die Schule, auch zum leihen in jedem Ort), Fortbildung für die Lehrkräfte, Zäune (für die Gärten als Schutz gegen Weidevieh und Wildpferd), Transport der Waren (Motorzille), Gebäudesanierung (Aus-/Aufbau des Lagers für die Kooperative), Deckung laufender Kosten, Personalkosten der Kooperative. Eine weitere grundlegende Frage, die zu klären ist, wie die Kooperative am Anfang finanziert wird (Eigenmittel der Mitglieder, Kredite, Förderungen..).
Um die rechtlichen Aspekte einer Genossenschaft schon möglichst früh zu bedenken, ist in der ersten Phase ein ***Partner*** notwendig, der über die ***Implementierung einer Genossenschaft in Rumänien*** Bescheid weiß.

DIE SCHULE

Der Schulgarten ist der erste Impuls des gesamten Projekts, sozusagen das Zugpferd, das als Beispiel und dadurch potentiell als Motivation dient. Der erste Workshop, die Initialzündung, ist für Mitte des ersten Quartals angelegt. Die LehrerInnen werden ihn gemeinsam mit der Unterstützung von AgrarpädagogInnen bzw. Fachpersonen vorbereiten. Der Unterricht in der Zeit davor wird so angelegt sein, dass Inhalte, die zum Thema passen, vorab bearbeitet werden. Die fachlichen BegleiterInnen, AgrarpädagogInnen oder Personen mit ähnlichem fachlichem Hintergrund, kommen nach C.A.Rosetti, um gemeinsam mit dem LehrerInnen Vorbereitungen zu treffen. Ein bis drei Tage vor dem Workshop sollten hierfür ausreichend sein. Danach geht es ans Werk. Eine zunächst kleine Fläche wird zum Schulgarten verwandelt. Das funktioniert, neben dem herkömmlichen Unterricht nicht an einem einzigen Tag. Es werden mehrere Tage bis eine ganze Schulwoche, drei bis vier Stunden an einem Tag, dem Schulgarten gewidmet werden. Immerhin müssen Beete etc. ganz neu angelegt werden. Für die Arbeiten werden Werkzeuge gebraucht - Spaten, Grabgabel, Rächen und Co. Wenn nötig, werden auch andere Materielle Aufwendungen, wie z.B. das Aufstellen eines einfachen Zaunes gegen das Weidevieh und die Pferde, zu bezahlen sein. Die PädagogInnen werden hierbei in der Vorbereitung bzw. Durchführung ein bis zwei andere Erwachsene brauchen, die helfend und tatkräftig zur Seite stehen. Daneben werden lokale Akteure in den Workshop eingebunden, die über traditionellen Landbau erzählen können, damit die SchülerInnen von Anfang an auch die traditionell gebräuchlichen Methoden kennen lernen. Diese Personen werden in der Vorbereitung des Workshops einbezogen. Hiermit ergibt sich eine Möglichkeit weitere Menschen aus C.A.Rosetti für das Projekt zu interessieren.
Dieser Workshop ist nur Initialzündung. Ein Garten will täglich gepflegt sein. Gemäß eines Pflegeplans werden Verantwortlichkeiten den Schülern zugewiesen, die wöchentlich wechseln. Zu fixen Zeiten im Schulalltag wird dann der Garten gepflegt. Die externen Pädagoginnen werden für einen zweiten Workshop im 3. Quartal wiederkehren, um die Schulgemeinschaft bei der Ernte zu unterstützen. Die AgrapädagogInnen zeichnen gemeinsam mit Lehrern und SchülerInnen einen Plan für den Winter. Auch für den Winter gäbe es Möglichkeiten der Bewirtschaftung. Somit stehen auch Winterversuche auf dem Programm.
Das Ziel ist, dass die LehrerInnen von C.A.Rosetti selbst die Grundlagen der Agrarpädagogik erlernen, mit welchen sie vermutlich noch nicht in Berührung gekommen sind. Hierfür ist eine Weiterbildung geplant. Da aber eine Weiterbil-

dung von dem ersten Workshop zeitmäßig unrealistisch erscheint, wird diese auf die nächste Phase im Projekt verlegt. Ein erster Wissenstransfer von Externen zu den LehrerInnen in C.A,Rosetti zum Themenkomplex passiert hinsichtlich der ersten Phase nur im kleinen Rahmen.

DIE GÄRTNERINNEN

Die Gespräche mit einigen potentiellen GärtnerInnen sind Teil der Analyse. Analyse nicht nur im klassischen Sinne, sondern auch als Instrument der Aktivierung, um Aufmerksamkeit zu erregen. Diese Kontaktaufnahme wird aber sehr informell gehalten und bekommt keinen offiziellen Rahmen. Warum aber keine offizielle großangelegte Versammlung? Es wäre auch in diesem Format eine Einschätzung der Interessenslagen möglich. Warum hier das informelle Gespräch zwischen zwei oder mehr Personen vorgezogen wird, hat mehrere Gründe. Zum einen wäre es verfüht zu diesem Zeitpunkt „offizielll“ zu werden, da der Rahmen, die Möglichkeiten des Projekts erst ausgelotet werden müssen. So wird vermieden falsche Hoffnungen zu schüren. Ein anderer Grund ist, dass persönliche Gespräche, mit einigen wenigen, mehr Effekt zeigen. Mehr Effekt dahingehend, dass eher Vertrauen aufgebaut werden kann, dass mehr und andersartige Information ausgetauscht werden kann und dass unter den Menschen in C.A.Rosetti eventuell ein Diskurs in Form alltäglicher Gespräche angestoßen wird.

DIE KUNDINNEN

Ähnlich wie bei die Gespräche mit den GärtnerInnen verhält es sich mit den Kundengesprächen. Hier steht die Analyse etwas mehr im Vordergrund, als die Aktivierung. Im Zuge dieser Gespräche sind die lokalen Politiker (bspw. die Bürgermeisterin von C.A.Rosetti/der Bürgermeister von Sulina) wichtige Schlüsselpersonen.

ERGEBNISSE DER ERSTEN PHASE

Am Ende des ersten Jahres ist der Rahmen für das Projekt „Producitve Spaces“ klar. Es kann entschieden werden in welchem Ausmaß- ob überhaupt- weitergemacht werden kann. Die Klarheit über die Voraussetzungen (Bedingungen für das Pflanzenwachstum,...) des Projekts ist gegeben. Ein Programm für die bei der Bewirtschaftung verwendeten Saaten ist bereit getestet zu werden. Die Partner, die im Laufe des Projekts Beiträge Liefern, sind mit ins Boot geholt. Die Finanzierung steht, abgestimmt auf den weiteren Fahrplan des Projekts. Das wichtigste: Es kann eingeschätzt werden ob und wie die Menschen in C.A. Rosetti in so einem Projekt beitragen können und wollen.

DER TEST - DAS II. JAHR
the second phase - piloting

DER KICK-OFF

In der zweiten Hälfte des ersten Quartals (2016) wird das Projekt offiziell für potentielle GärtnerInnen geöffnet. In erster Linie hat dieser Kick-Off die Information im Fokus. Es werden die Grundzüge und das Ziel der Idee präsentiert. Die Menschen können sich auch kreativ einbringen und neben Rückfragen und Einwänden selbst Vorschläge zur Idee oder verwandten Themen bringen. Eine der Informationen wird über den Schulgarten und die Aktivität der SchülerInnen und LehrerInnen bzw. über die Aufgabe der Schule und der Kooperative in Bildungsfragen sein. Eine weitere Vernetzungsmöglichkeit!

Neben der Information ist ein anderes Ziel der Kick-Off Veranstaltungen, den Diskurs, der eventuell schon vorher durch die informellen Gespräche angefacht wurde auf eine gemeinsame, offene Ebene zu bringen. Das dient der Verständigung untereinander über mögliche Perspektiven in dieser Projektidee, aber auch abseits dieser. Ein Prozess wird losgebrochen, der durchaus seine eigenen Dynamiken haben soll und nicht nur von außen gesteuert werden muss. Ein weiteres Ziel dieser anfänglichen Veranstaltungen ist es, Menschen zu finden, die in der zweiten Phase bei den Pilotbewirtschaftung mitmachen wollen.

Wie die Veranstaltung konzipiert ist, kann zum jetzigen Zeitpunkt noch nicht genau gesagt werden, denn ob es nun sinnvoller ist in jedem Ort einen Kick-Off bzw. eine Informationsveranstaltung abzuhalten oder eine einzige z.B. in C.A.Rosetti kann ich hier nicht adäquat argumentieren. Weniger Aufwand ist eine zentrale Verantstaltung, jedoch ist fraglich, ob hier wirklich ausreichend Menschen erreicht werden.

DIE GÄRTNERINNEN UND IHRE GÄRTEN

Es werden in der Testphase noch nicht alle Gärten aller Interessenten (es kommt dabei auf die Anzahl an) bewirtschaftet werden, sondern testweise nur eine bestimmte Zahl an Gärten bewirtschaftet. Beziehungsweise wird nur eine bestimmte Anzahl an Gärten für die Lieferung gebraucht. Die Anzahl richtet sich nach den teilnehmenden Kundenbetrieben und deren Nachfragen. Wenn mehr Menschen mitmachen wollen, dann können diese auf jeden Fall teilhaben, auch von der fachlichen Begleitung gebrauch machen und sich beim Wissenstransfer beteiligen. Jedoch kann nur ein Teil (dieser richtet sich nach der Anzahl der Abnehmer) der Produkte verkauft werden. Der Rest wird für die Selbstversorgung oder eventuelle Weiterverarbeitung im privaten Rahmen genutzt. In dieser Phase wird die Anzahl der Betriebe, die an der regionalen Wertschöpfungskette beteiligt sind, eher überschaubar gehalten. Das hat den Zweck, dass die Erfahrungen aus dieser Testphase systematisiert aufgenommen und verarbeitet werden können, um im nächsten Schritt entsprechende Änderungen umzusetzen. Die Übersicht muss gewährleistet sein. Ein weiterer Grund, der nicht außer Acht gelassen werden darf, ist der rechtliche Aspekt. In dieser Testphase sind alles Einzelsubjekte, die verkaufen. Im Genossenschaftsmodell wird das wieder anders sein.

Bei Bedarf ist es auch möglich entsprechendes externes Know-How zu erschließen. In Abstimmung mit den TestgärtnerInnen wird schon bei der Kick-Off Veranstaltung erhoben, ob Hilfe und zusätzliches Know-How gebraucht oder gewünscht wird. Es wird zu bestimmten Zeitpunkt im Jahr eine Fachperson für mehrere Tage vor Ort zu Verfügung stehen. Prädestinierte Zeitpunkte sind dabei in der Zeit der Saat, in der Zeit der intensivsten Pflegemaßnahmen und bei der Ernte bzw. Lagerung.

DIE SCHULE

Im Übergang vom ersten zum zweiten Jahr ist bereits die ***Fortbildung der Lehrkräfte*** aus C.A.Rosetti geplant, damit sie für die nächste Saison ihr Wissen und die neu erworbenen Kompetenzen in den Unterricht einbauen können. Diese Weiterbildung wird außerhalb C.A.Rosettis gesammelt mit anderen Lehrkräften stattfinden. Ob in Rumänien

eine Möglichkeit für eine derartige Lehrerfortbildung besteht oder die Pädagogen ins Ausland reisen müssen bleibt noch offen. Der Zeitpunkt hängt von den zeitlichen Anforderungen einer Fortbildung ab. Es müssen dementsprechend unterrichtsfreie Zeiten gewählt werden und der Termin unter Umständen sogar auf den Sommer des 1. Jahres verlegt werden. Eine eher unwahrscheinliche Variante wäre, die Fortbildner nach C.A.Rosetti zu holen, um das Wissen zu vermitteln.
In der Testphase können die LehrerInnen nun die Vorbereitung und Durchführung schon ohne Hilfe von ExpertInnen gewährleisten, wobei ihnen noch immer die Option der Inanspruchnahme von Hilfe offen gelassen werden sollte. In der Mitte des zweiten Quartals werden die entsprechenden Themen wieder in den Unterricht eingebaut, um alles für den Start in die neue Saison vorzubereiten. Zeitgleich mit dem Kick-Off der ersten Gärten wird auch im Schulgarten wieder Hand angelegt. Gemäß der Erfahrungen und Ergebnissen aus dem letzten Jahr wird der Pflanzplan entsprechend geändert. Neben dem herkömmlichen Anbau erfolgen schon erste Experimente. Dabei stehen Fachpersonen zur Seite, die bei den Experimenten und Verbesserungen beratend unterstützen können. Nicht nur der Betrieb im Schulgarten profitiert aus den Erfahrungen des letzten Jahres. Auch die Testgärten werden durch das gewonnene Know.How und die gesammelte Erfahrung von Lehrern und Schülern profitieren, indem hier gezielter Austausch organisiert wird.

DIE KUNDEN

Im zweiten Jahr werden die ersten Produkte an die Betriebe der Tourismusbranche verkauft. Dabei wird ein möglicher Transport, eine Abholung seitens der Tourismusbetriebe oder eine Transportdienstleistung getestet. Ist die entsprechende Finanzierung vorhanden, steht die Anschaffung eines eigenen Bootes im Raum.
Die interessierten Kunden werden zum Kick-Off eingeladen und können dort genauso wie die GärtnerInnen ihre Bedenken und Vorschläge äußern. Dabei werden die Möglichkeiten von Nachfrager und Anbieter dieses Marktverhältnisses ausgelotet und die Rahmenbedingungen einer potentiellen Zukunft gemeinsamer Geschäfte diskutiert werden.

ERGEBNISSE DER ZWEITEN PHASE

In einer ***Reflexion*** Mitte Oktober 2016 werden in verschiedenen Veranstaltungsformaten die Erlebnisse des vergangenen Jahres besprochen und dokumentiert. Dies geschieht zuerst separat in den einzelnen Akteursgruppen- bei den GärtnerInnen eventuell sogar ortsbezogen. So finden Reflexionsworkshops in der Schule, bei den Gärtnern, den Kunden und den Begleitern bzw. Partnern statt. Anschließend soll noch einmal in großer Runde mit allen Akteuren reflektiert werden. In dieser großen Veranstaltung wird letztlich eruiert, ob auch seitens der Akteure eine Genossenschaft mit dem System Garten durchführbar ist oder nicht. Eine letzte Willensbekundung gibt Klarheit darüber, ob dieser Schritt gewagt werden kann.
Die Ergebnisse der zweiten Phase sind unterschiedlicher Natur. Einerseits sind die Potentiale der verschiedenen Pflanzungen aus Gärten und Schule bekannt. Funktioniert es technisch? Andererseits können sich die Testgärtner und alle anderen Interessierten ein Bild über eine Mögliche Zukünfte des Projekts machen. Mit diesem Wissen, der Erfahrung und der Haltung zur Idee der „Productive Spaces“ ist eine Entscheidung für oder gegen die Genossenschaft zu treffen. im positiven Falle finden schon im Winter die ersten Versammlungen zur Genossenschaftsgründung statt.

DIE GENOSSENSCHAFT - DAS III. JAHR
founding the cooperative - step three

Die Gründung der Genossenschaft erfolgt in ca. viereinhalb Monaten. Das ist ein enger Zeitraum zwischen der Reflexion im Oktober des zweiten Jahres und dem Beginn der Saison im März des dritten Jahres. Es ist ein intensiver Prozess der in kurzer Zeit durchgeführt wird. Zuerst wird noch einmal über das Vorhaben informiert und die verschiedenen Interessen werden ausgelotet. Im nächsten Schritt werden die Interessen zu einem Leitbild, einer Vision, für die Genossenschaft gebündelt. Im letzten Schritt werden die Statuten in ihrer Formulierung erarbeitet und beschlossen.

INTERESSEN ERUIEREN UND INFORMIEREN

Mit kleineren Veranstaltungen geht es durch die drei (vier) Dörfer C.A.Rosettis, je Dorf eine Veranstaltung. Einerseits wird über die Funktionsweise einer Genossenschaft informiert, damit die InteressentInnen wissen worauf sie sich einlassen. Dabei wird es Unterstützung durch eine Fachperson geben, die sich mit dem Thema der Genossenschaftsgründung auskennt und im Stande ist, detaillierte Fragen zu erläutern. In diesen Veranstaltungen ist ein Platz für Erfahrungsberichte anderer landwirtschaftlicher Genossenschaften reserviert. Der Erfahrungsaustausch erfolgt entweder persönlich, oder über textliche Botschaften, die verlautbart bzw. durchgelesen werden können. Die BesucherInnen sind darüber hinaus gefragt, ihre Vorstellungen einer Genossenschaft zu entwickeln. Was würden sie sich von einer Genossenschaft erwarten? Wo sehen sie ihre Interessen berücksichtigt bzw. so wollen sie diese berücksichtigt sehen? Diese Interessendiskussion dient als Vorarbeit zum nächsten Schritt, der Vision. Diese kleineren, dorfbezogenen Veranstaltungen finden im vierten Quartal des zweiten Jahres statt. Am besten alle noch vor dem Jahreswechsel.

KERNSTÜCK - VON DER VISION ZUM INHALT

Ab jetzt wird nur mehr in Veranstaltungen ein einem Ort für alle der Dörfer gearbeitet. Immerhin werden Statuten für alle Mitglieder erarbeitet, die aus allen Dörfern kommen. Der Ort dieser zentralen Veranstaltungen kann variieren. Am Anfang des dritten Jahres wird mit der ersten zentralen Veranstaltung dieser nächste Schritt begonnen. In dieser Veranstaltung werden die gesammelten Interessen aus den vorhergehenden Veranstaltungen nochmal aufgerollt. Aus dieser Diskussion entstehen dann die Bausteine für die Vision, die grundlegende Werte und Ziele enthält. Diese werden von Prozessbegleitern gesammelt, gebündelt und bis zur nächsten Sitzung in ein Dokument gepackt, das als Grundlage für weitere Entwicklungen dient.

Die nächsten drei Sitzungen, die knapp aufeinander (wöchentlich) folgen, sind erste inoffizielle Generalversammlungen. Sie finden ab Anfang Februar statt. Diese drei Versammlungen sind thematisch gegliedert und es werden bereits Fromulierungen für Statuten angestrebt.

In der ersten Stizung wird das Mangagement der Kooperative zum Thema. Es wird erfragt, welche Personen welche Aufgaben übernehmen können und wollen. Wie das Verhältnis zwischen freiwilliger und bezahlter Arbeit ist. Wie die Wahlen des Vorstands ablaufen sollen und wie die Mitgliedschaft und die damit verbundenen Rechte und Pflichten, geregelt sind.

Die zweite Sitzung befasst sich im Kern mit der Finanzierung und der finanziellen Entwicklung der Genossenschaft. Wie läuft es mit dem Kapital am Anfang? Wie werden die Genossenschaftsanteile berechnet? Wie sieht es mit Finanzierungsmöglichkeiten aus? Ein weiteres Thema wird der Kundenkontakt und das Marketing sein.

In der dritten Sitzung wird alles rekapituliert und die Formulierungsvorschläge bewertet, so dass ein Entwurf für die konstituierende Sitzung gemacht werden kann. In dieser Sitzung werden am Schluss noch die Kandidaten für den Genossenschaftsvorstand festgelegt der bald gewählt werden soll.

DIE VERFASSUNG DER STATUTEN

Es wird noch eine Rückkopplungsschleife für die Statuten eingezogen. Jedes Mitglied hat nochmal die Möglichkeit Einwände kundzutun. Es werden die potentiellen Mitglieder erfasst und die Kandidaten für den Vorstand nochmals vorgestellt.

Mitte März kommt es dann zur konstitutiven Sitzung. Die offizielle Erhebung der Mitglieder wird durchgeführt und die Wahl des Vorstandes erfolgt. Nun kann die Vollversammlung die erarbeiteten Statuten beschließen. Jedes Mitglied eine Stimme.

PARTNER

In der dritten Phase bekommt das Know-How in Sachen Genossenschaftsgründung besonderes Gewicht. Dazu braucht es jene Projektpartner, die mit der rechtlichen Konstitution einer solchen Organisation vertraut sind. Darüber hinaus liefern Partner, die selbst schon einen solchen Gründungsprozess als Mitglied einer landwirtschaftlichen Kooperative mitgemacht haben, wichtige Erfahrung aus ihrer Sicht. Diese beiden Partner kommen im Gründungsprozess unterschiedlich zum Einsatz. Der letztere Erfahrungslieferant eher am Anfang zur Information und der juristische Partner dann, wenn es um die Vorbereitung bzw. um die Verfassung der Statuen geht.

Die Experten aus dem Bereich Agrarwirtschaft kommen bei der Aussaat, Pflege wieder punktuell zum Einsatz. In Workshops, gestaltet durch die Fachpersonen kann sich jedes Mitglied über Methoden der Saat, der Pflege und der Ernte informieren.

SCHULE

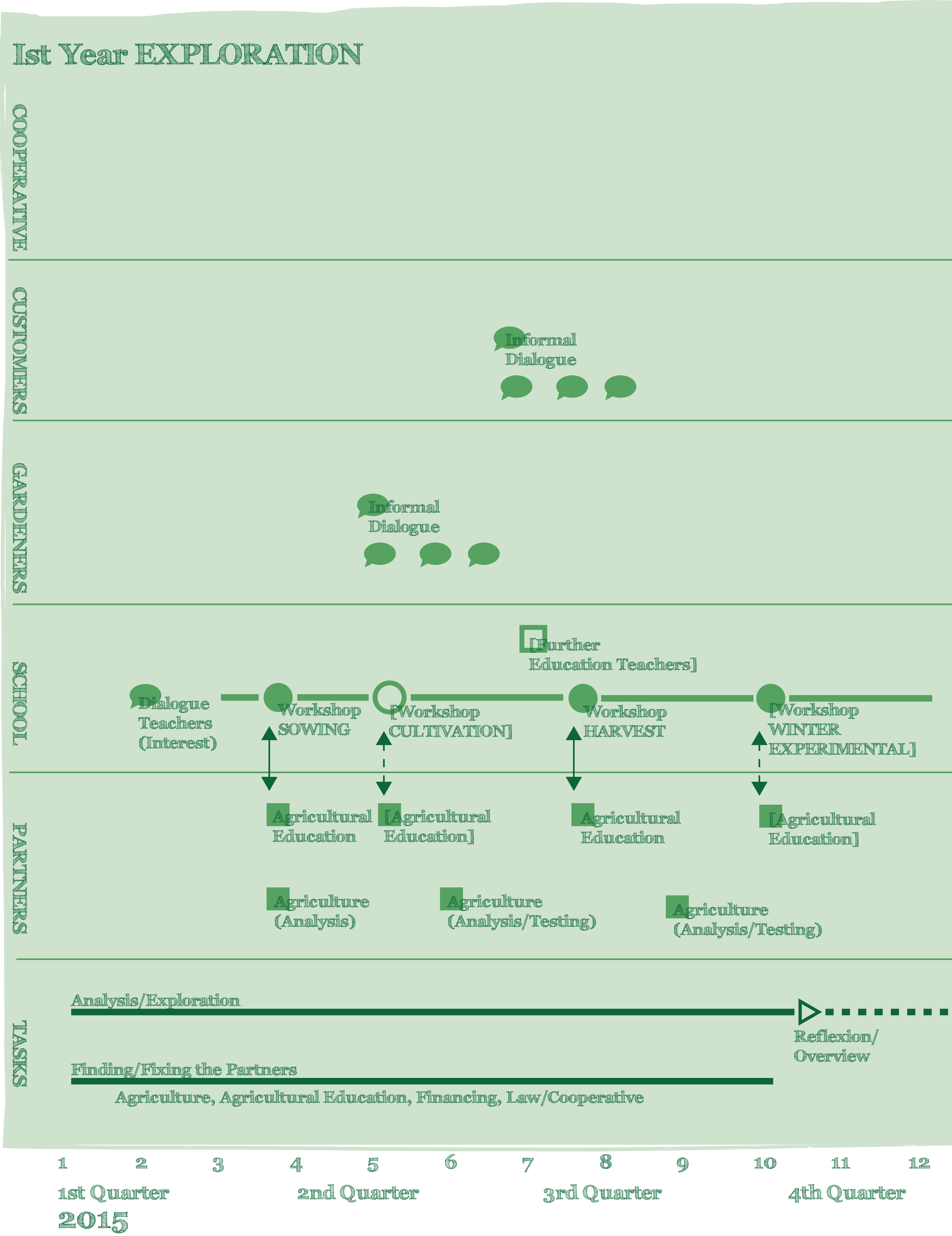
In der Schule beginnt das dritte Jahr der Bewirtschaftung. Es werden die Ergebnisse aus dem letzten Jahr reflektiert und in der Bepflanzungsstrategie entsprechend reagiert. Für die Fortführungen der experimentellen Bepflanzung stehen wieder ExpertInnen zur Verfügung. Anhand der Ergebnisse aus dem letzten Jahr, können Experimente ausgeweitet, für den herkömmlichen Anbau den Gärten C.A.Rosettis, getestet werden. Dabei können sich Gärtnerinnen bereit erklären, als Testpartner diese Experimente mitzumachen. Darüber hinaus steht neuen Experimenten nichts im Wege.

KUNDINNEN

Die Abnehmer erleben das erste Jahr mit großer Auslastung seitens der Lebensmittellieferungen aus C.A.Rosetti. Dabei wird der Transport und die Logistik auf die Probe gestellt.

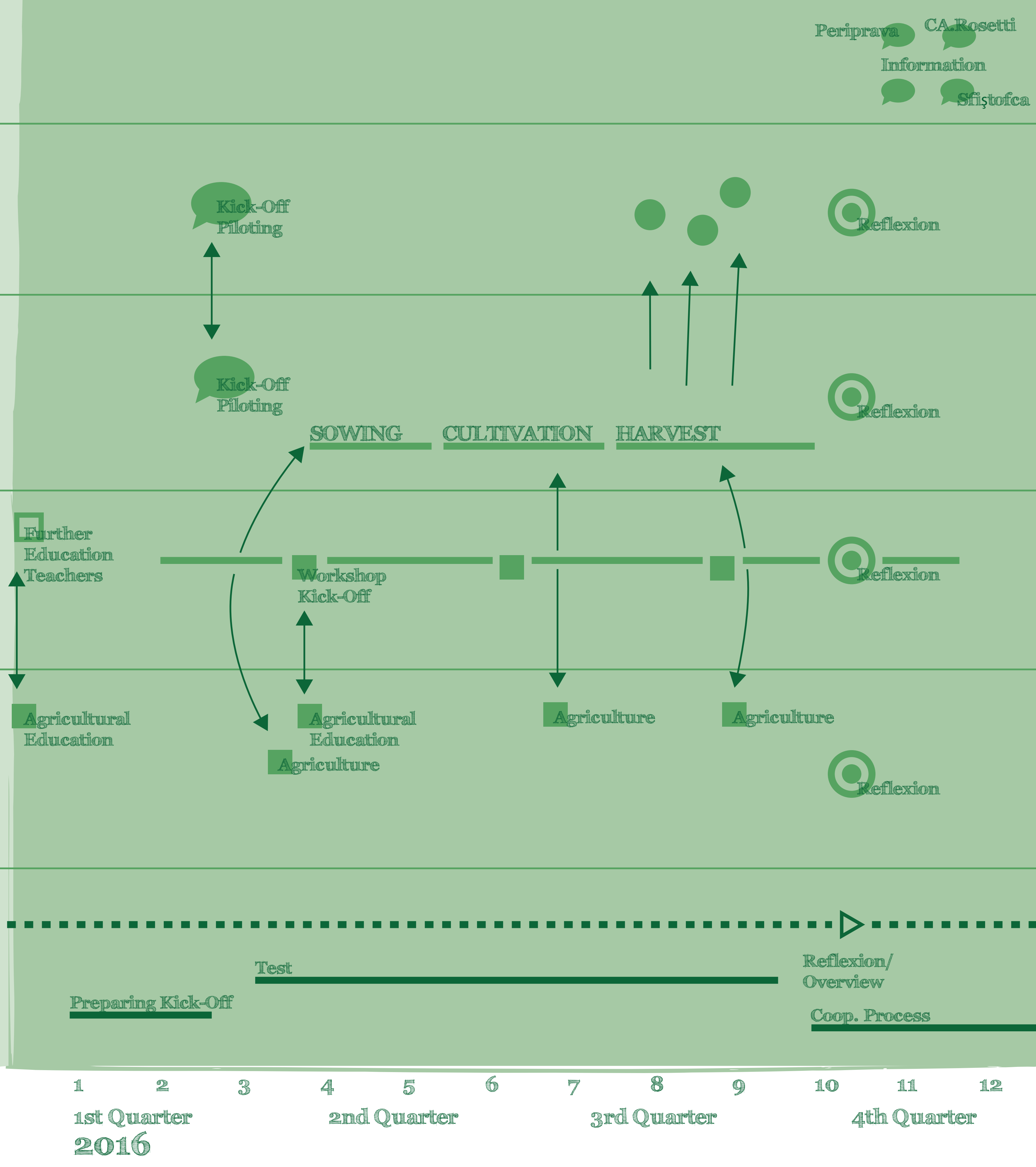
REFLEXION

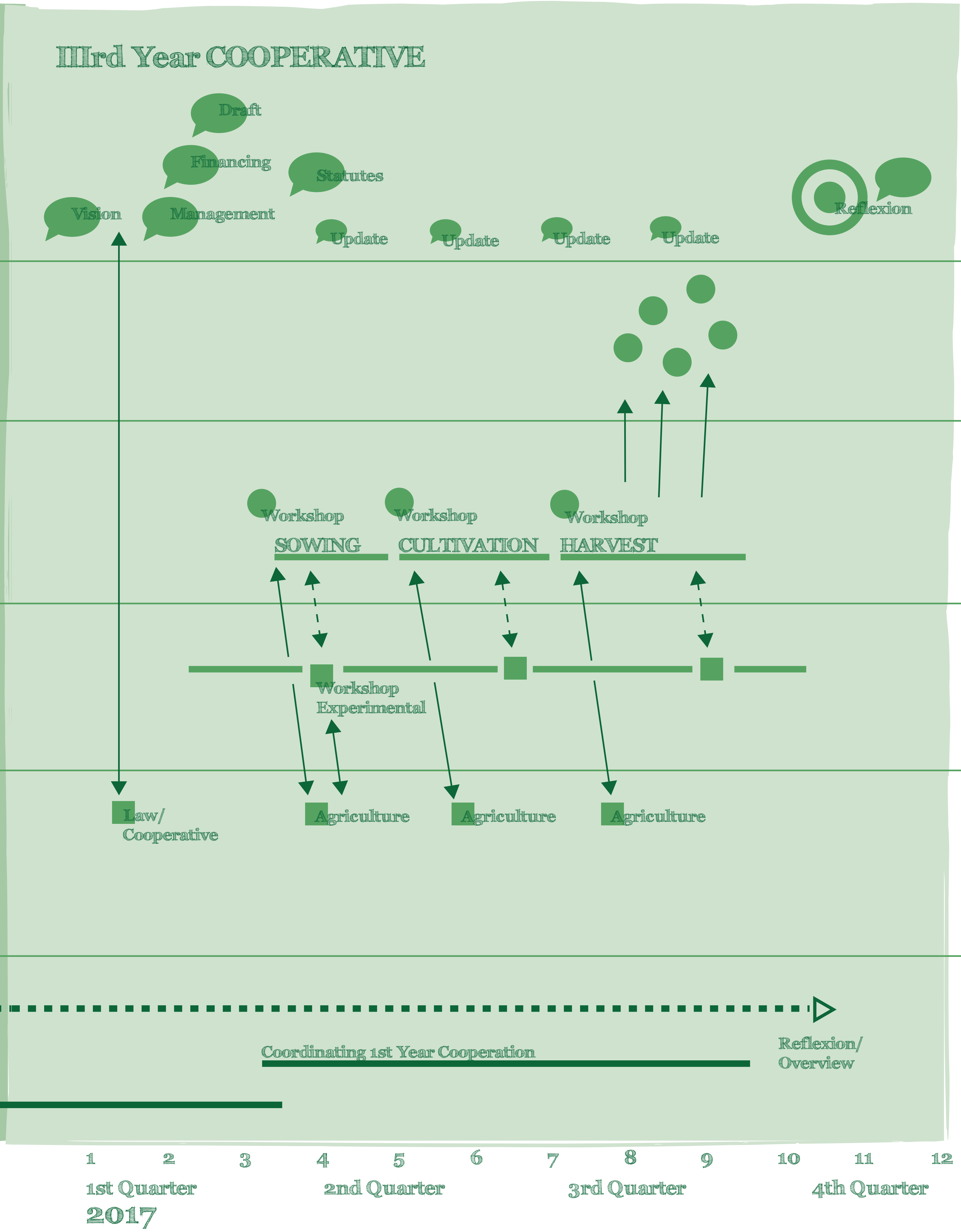
Am Ende der ersten Saison, in der in genossenschaftlichem Betrieb gearbeitet wird findet wieder eine groß angelegte Reflexion statt. Es kommen Problemfelder zur Sprache, für die im weiteren Verlauf Lösungen gefunden werden müssen. Aber auch über Erfolge wird Bilanz gezogen. Zu einer kurz darauf einberufenen Generalversammlung werden neben der lokalen Politik, die schon bei der Gründungsversammlung vertreten war, einige andere Institutionen aus dem Bereich Tourismus (Tourismusverband, Naturfreunde,...), Verwaltung (Biosphärenreservatsverwaltung, Kreisämter,...) und Agrar eingeladen, um auch für die institutionelle Öffentlichkeit das Projekt sichtbar zu machen.



Ist Year EXPLORATION
COOPERATIVE
CUSTOMERS
Informal Dialogue
GARDENERS
Informal Dialogue
SCHOOL
[Further Education Teachers]
Dialogue Teachers (Interest)
Workshop SOWING
[Workshop CULTIVATION]
Workshop HARVEST
[Workshop WINTER EXPERIMENTAL]
PARTNERS
Agricultural Education
[Agricultural Education]
Agricultural Education
[Agricultural Education]
Agriculture (Analysis)
Agriculture (Analysis/Testing)
Agriculture (Analysis/Testing)
TASKS
Analysis/Exploration
Reflexion/ Overview
Finding/Fixing the Partners
Agriculture, Agricultural Education, Financing, Law/Cooperative
1 2 3 4 5 6 7 8 9 10 11 12
1st Quarter
2nd Quarter
3rd Quarter
4th Quarter
2015

IInd Year TESTING





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CONSERVATION OF TRADITIONAL ARCHITECTURE - IN THE ROMANIAN DANUBE DELTA
Corinna Schmidt

Conservation of Traditional Architecture
in the Romaninan Danube Delta

Projekt III WS 2014

Corinna Schmidt

Index

Introduction

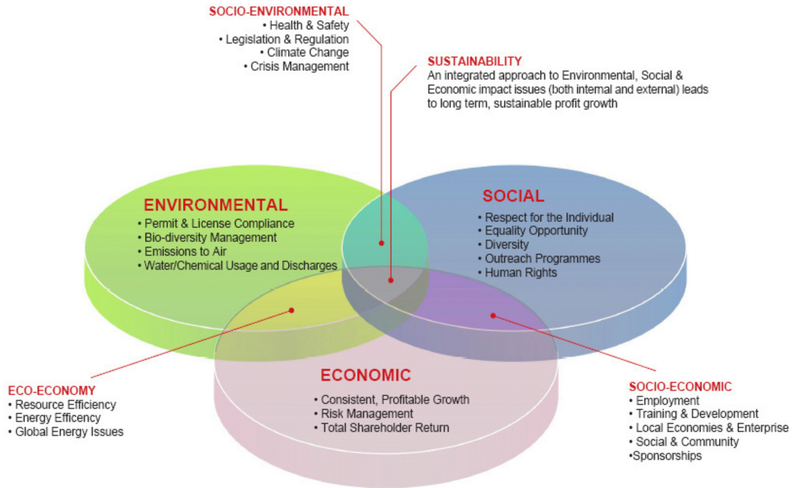
The Romanian Danube Delta is mostly known for its beautiful untouched nature and its incredible wildlife, but also for its decreasing population and the hard life conditions people are exposed to. Daily life seems to be affected by melancholic lethargy, probably caused by unemployment, in most cases and the obvious lack of self-estimation as well as the lack of estimation concerning their living environment. Of course this clear absence of estimation is not helpful to gather for example tourist's attraction in order to lead the region to a positive, sustainable development. In a shrinking region usually people do not just lose this feeling of hope, but also the feeling towards their culture and precious habits. They might lose their culture, if they have even not yet lost it. The municipality of C.A. Rosetti in the north-eastern part of the Romanian Danube Delta, next to Ukraine's border lost since 1990 an enormous amount of its population. Therefore the number of abandoned houses in this area is increasing; urban framework nowadays just shows a lot of open space between habited buildings and electrical towers, which are mostly the only thing left, after having left a site. The ecological standard of construction is the reason why nothings left after having left a house. Traditional houses' construction materials consist usually of natural and local material like clay, reed, straw, sand and wood. But in the last decades, due to several restrictions it became easier and even in some cases cheaper to build houses according to the "western", modern way of construction. Nowadays there are just a few people left who are aware of the traditional culture of construction building. Indeed a sad fact towards this old knowledge concerning ecological standard of constructing. During the last decades people all over the world, but especially in Europe, tried to build their houses as ecological and eco-friendly as possible, like in former times. Within investing an enormous amount of money, companies, networks and institutions try to re-gain this valuable knowledge concerning traditional and natural construction methods. In the meanwhile there is a region where the presence of natural construction method and knowledge is still incredibly, unexpectedly high (in spite of the present trend), but also a region where people are, due to international pressure (globalisation, restrictions of the EU concerning building rules) and decrease of material's price (mostly due to restrictions from the Danube Delta Biosphere Reserve and diverse companies concerning access to land and material), almost forced to build their houses the "classic, european" way.

Introduction

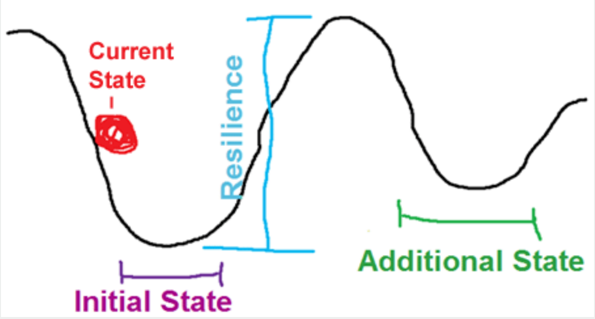
As already mentioned countries all over Europe have re-discovered this disappeared ancient method and partly decided to conserve and re-invent this old culture of construction, which was indeed commonly used in the past centuries before the triumphant success of burnt A.C.C bricks began. Indeed a challenge, especially while bearing in mind that knowledge of traditional building dies with the lack of practice, or rather when artisans do not have the possibility to impart their knowledge to younger generations, an actual important issue in the Romanian Danube Delta. Persons in charge have established different networks all over Europe, in most cases within the framework of the European Union, in order to prevent this culture of building from dying. Objectives mostly concern fighting against the skill shortage (global demand is high, because local old knowledge is not available), which further includes measures dealing with the creation of cross-links between handicraftsmen from the same or different countries to gather experience and interchange knowledge. But measures also concern the formal creation of the possibility to become a professional in adobe brick building. The basic aim of the further described project is therefore, to conserve basically this traditional building culture and the traditional knowledge of handicraft in the municipality of C.A. Rosetti, which includes essential measures: The foundation measure concerning the Sfistofca Art Association, who is supposed to be included in an existing European earthbuilding network and lead the first steps of the organisation work, a further measure is about the implementation of the formation of skilled employees in mudbrick building and the last measure deals with the creation of a concept concerning conservation and transmission of knowledge through generations within the local and international framework and the realisation of the clay n' reed studio . This project should be, as far as possible implemented in a matter of principle according to the endogenous nature of regional development, considered as self-sustaining help. This basically means that the extent of external influence should be as small as possible, in order to respect local conditions and to let the people further along the line carry and lead the expected sustainable development. The first steps of implementation are, as already mentioned, supposed to be led by the Sfistofca Art Association, but the general development of the project through further decades, within its organisation and implementation belongs to the local population of the municipality of C.A. Rosetti itself.

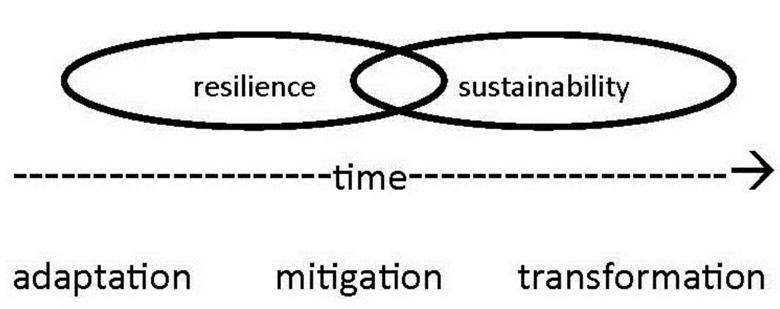
Personal Intention and planning approach

Getting to know this remote region of the Romanian Danube Delta (even for a few days), in which the municipality of C.A.Rosetti is a part of, was personally an incredible, unforgettable experience. The received impressions have definitely increased my personal awareness as a private individual, as well as a prospective planner. Experiencing a region, where enormous poverty, total remoteness and shrinking population on high level are combined would probably never be considered as a European region. But it actually is still in Europe, even in the European Union. As a young future spatial planner of a western country it is indeed rare to get confronted with such spatial conditions in a region. But this is exactly the reason why I choose this course for my master project. Content and implementation of planning are changing with the character of its region. Sustainability and especially resilience have always been a main part of my personal planning approach. By dealing with such spatial conditions we, in my personal opinion, have to start the discussion of a sustainable, resilient development (which has to be the main focus unquestionably) from a different point, not from a lower, less ambitious one, but indeed from a different. Finding and defining this first point or rather vision for the area, was probably the first step referring to the individual projects. Becoming aware of the individual character of this region, integrate this gained thought into personal thoughts concerning personal planning aspects and finally "creating" an idea, subsequently, describes in short my personal process during the last months.
I definitely cannot remember the moment when the idea of leading a project to the direction of the conserving traditional Architecture in the Delta. This idea was maybe caused by my architectural background; the first semester of the year 2014 I spent in the Lorraine, north-eastern France studying Architecture, besides my circle of friends partly consists of architects. This might have been an influence. I personally do not worship the beauty of building structures and its surface a lot, in my opinion things on surface area cannot live without deeper thoughts in the subsurface area. Architecture is getting interesting at that time it has gained a means to an end. An end that tries to help people "improving" their lives in a subtle manner, giving them simple hope in order to deal with live conditions and letting them know that they are not forgotten in this connected, globalised world, but without telling them in an arrogant, superficial and ignorant way how to change their way of living, this could be such an sustainable end.



The objective is to mix up skills and create something exciting new, where everyone, more or less educated, more or less prosperous, can profit in a deep sustainable way. The implementation of the project concerning the conservation of traditional architecture finds itself in the sustainability's matrix intermediate field between "Social" and "Economic", as well as in the intermediate field of "Socio-environmental", basically due to its thematic orientation and implementation (which will be described in a more detailed way in the following chapters). My personal approach concerning the combination of sustainability and resilience is mainly marked by the idea of sensitizing one's mind (my own included) during a process in a soft and slow manner, which allows participants to adapt themselves individually, an approach which is additionally supposed to be combined with the idea of the resilient nature of development. A resilient development means basically in short not to re-program the hardware of a village/ municipality/ region or even state, but to re-program it's software. The objective here is not to re-program people's minds or the regions subtle rules of living and being, but to help them in adapting themselves in times of change and crisis and to focus on something new. The concept of resilience is based on the thought that the current state of a region, project or even country (etc.) finds itself on the beginning of an intense crisis, where the whole system gets disturbed. Finding a new, better quick solution than the former one (from getting out of a crisis) with adapting, re-programming the system is the main aim of the theory of resilience. "Resilience is the ability of a system to return to its initial state after a disturbance" (e-education.edu, 2014).





The theories of resilience and sustainability are naturally related to each other. Both are essentials parts of an integrated system and should not be able to exist without each other. One addresses in short-term responses to disturbances and the other addresses holistic management for long term stability. For example, resilience is the ability to bounce back quickly from an extreme weather event by re-establishing food production and distribution, hopefully with improvements so that such events will do less harm in the future, while sustainability is the long term challenge to slow the rate of climate change so that extreme weather events won't continue to increase dramatically in frequency and intensity (learn.uvm.edu, 2014).

Danube Region Strategy

The Danube region strategy of the European Union, EUSDR, was basically founded on the ground of initiatives from Austrian and Romanian institutions, in first instance to find a common base regarding waterways and mobility. Finally Stakeholders from these countries considered the whole Danube river basin and its countries as an important transnational region that deserves to be protected, with its people and its ecological, economical and administrational systems (cf. Puchinger, 2014). The Danube region strategy does not only consist of countries being crossed by the Danube river, all countries belonging to the river basin area, beginning from the Black forest in south-eastern Germany ending at the Black Sea, participate in this European, macro regional strategy. The following figure shows all countries participating in this strategy. Following EU-member states a part of the concept: Austria, Bulgaria, Croatia, Czech Republic, Germany, Hungary, Romania, Slovakia and Slovenia. Additionally it was also possible for non-EU member states to participate in this strategy: Bosnia & Hercegovina, Republic of Moldavia, Montenegro, Serbia and the Ukraine. According to Mr. Puchinger (2014), the main and essential aspect in implementing such a strategy in this transnational region was to strengthen institutional culture & society, especially concerning their institutional memory and further actions. He pointed out that the aim of macro regional strategies in the framework of the European Union is primarily not to implement a high number of projects, but to encourage people in administrations behind possible projects, with organising administrative reforms for example. These employees would probably decide about funding a project or not in the framework of the structural funds of the European Union, for example. Mainly to exchange knowledge pertaining to administrational processes of EU-funding and organisation it is indeed an issue to help particularly new member states in different situations (Puchinger, 2014). The strategy is supposed to build a framework for further transnational projects and initiatives. But according to him the precedent actions in a country concerning transnational cooperation result from a sustainable top-down process, in order to assure the partly necessary administrative reforms. Generally the Danube Region Strategy addresses a wide range of issues, which are divided into 4 pillars and 11 priority areas. The present project pertaining to the conservation of traditional architecture in the Romanian Danube Delta can be addressed to the blue, as well as to the pink pillar, to be more precise concerning priority PA 05 “Culture and Tourism”, PA 07 “Knowledge society” and priority PA 09 “People and Skills”. But this project relation does not mean its direct implementation within the framework of the EUSDR.

Traditional Architecture in the Romanian Danube Delta

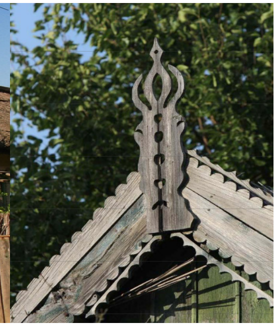
By taking a walk through the rural villages of the sabulous veldts of the Rumanian Danube Delta, nature itself is unmistakeably the essential element and distinctive property in this region. But the Rumanian part of the Danube Delta is not only known for its famous various flora and fauna, but also for a region where scattered houses of the rural population seem to be incomparably closer to nature than every other natural based building structure in Europe. Although this profound link to nature does not seem to find his path beyond the surface, as an author from the Igloo's magazine (2008) pointed out: The lively colours they are painted in and their small decorative technical innovations seem to reflect the need to extract these happy and revealing accidents from the homogeneity of nature, to demarcate, visually and aesthetically, the territory of man from that of the elements. In this region an huge amount of scattered buildings can be found, because of the mostly comprehensive continuing population decrease during the last decades in the region (especially concerning the north-eastern part of the Dobruja, next to the Ukrainian border, where the municipality of C.A. Rosetti belongs to) and subsequently occurred abandonment and following decay of houses; proximity to nature because of the nearly area-wide use of local, natural material in terms of house construction during the last decades and centuries.

Surface area – Artistic aspects and spatial condition

According to the above mentioned citation from the Igloo's magazine and to personal observation of the author, houses in the municipality of C.A. Rosetti are, due to the diverse cultural background of the local population in the Romanian Danube Delta, known for their bright colours of buildings faces, a correspondent element to the appearance of the landscape. Within this cultural framework depending on the local ethnic majority, some houses in particular parts of the Dobruja were constructed based on the Ukrainian model, others were constructed mostly based on the Russian model, which can actually just be distinguished by having a very close look at specific architecture details concerning facades, beak or type of roof. A main aspect in the characterisation of the traditional, in most cases, fishermen's houses is the construction method (will be described in a detailed manner in following sub-chapter) and the used material therefor. The local found construction material consists usually of clay (adobe bricks and facades plaster for walls), reed (cover for roof and part of adobe brick), wood (if available: timber frames and beaks) and diverse organic material like straw, dung or even sand.

Another facet of architecture in this rural landscape is the fine detail artistic work concerning wooden beaks, maybe fabricated that carefully and dignified due to the rareness of the material. According to Parau (1996) beaks are depending on the cultural background of the inhabitants either equipped with avimorphic motifs and affronted ponies (Romanian houses from the Razelm lake shore), with lyralike motifs (especially Slavic population from the Razelm lake shore or from Sf. Gheorghe), or with stylized phytomorphic motifs represented in the shape of beams (localities from the Delta). Roofs' shape in this rural area can be in most cases identified as simple saddle roofs, or as hip roofs made of reed.



The more beneficial implementation of artificial handicraft on the Danube Delta's traditional houses is the porch, so called "prispa", which is very often directly related to these artificial wooden elements of the roofs beaks, in a visual as well as in a technical way. Parau (1996) marked that these "prispas" either in a lengthwise side of the building or on its short side show not just an esthetical valence, but also beneficial aspects. Protecting the sensitive walls made of clay from heavy rain and the people from the heat during summer, the porch emphasizes the planes harmony (cf. ibidem.). An element especially found at Romanian, Lippovan (Ukrainian) and Slavic houses in the Delta sometimes coming from a three-slope roof raised to the level of the stone socle, having underneath the entry to the cellar, lending volume to the building (cf. ibidem.).

Surface area – Artistic aspects and spatial condition

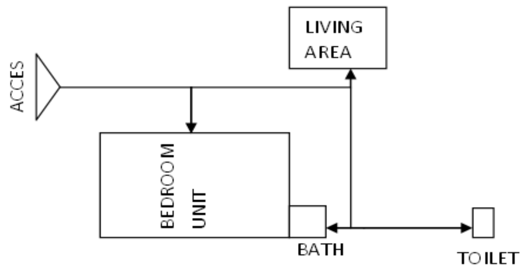


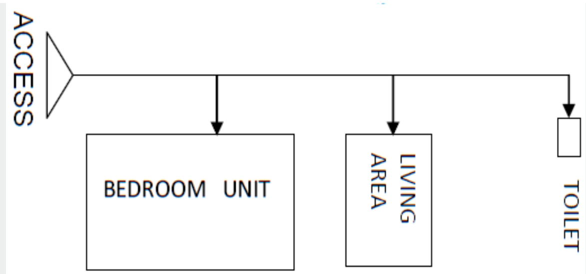

Because of using these materials, houses in this region can be considered as buildings with a high ecological standard. Thus after having left a site, the ground takes back every former built structure, which means that nothing stays behind after some decades of rotting. A high number of houses has been left during the last decades in this area (more about demographic aspect in the essential report, author B. Gugerell). Sfistofca itself for example, lost more than half of its population during the past years. On basis of this demographic development, a high amount of abundant houses and empty sites can be found in the municipality of C.A. Rosetti. The only things left are in most cases electrical towers.





An apparently important principle of the houses' characterisation in the Rumanian Danube Delta is the one-storey building method (cf. Voica 2014), additionally, buildings in the Rumanian Danube Delta feature a particular arrangement of housing space, which is considered as a simple module- structure (Ivanov 2010: 14). The author points out that basically the traditional house and the main functions were scattered in the land because of hygiene reasons, primarily because of the absence of sewage network in such remote areas; 84% of Rumanian villagers have no sewage grid, 85% have their toilet in the backyard and 91% are not connected to natural gas heating grid.





The division of living space into 3 basic functions represents a possible interpretation of the above mentioned figures: The night - living area, kitchen and bathroom, which are in most cases completely separated from each other in the plot in order of expressiveness and intimacy positioned relative to the street. The night area is usually located near the primary access perpendicular to the street (ibidem.). Kitchens as well as living areas are mainly located in the background, toilets way behind in the back of the yard, whereas the bathroom normally is located adjacent to the living area and kitchen.

Subsurface area – Material and Construction methods

One of the remarkable characterisation of buildings in the Rumanian Danube Delta is the previous and present way of constructing, as well as the used material. Primarily roofs are usually made of crosswise cutted reed sticks, which need to be renewed every 15 to 20 years.

This plant is the most abundant natural resource available in the region, due to the permanent presence of water, which encourages luxurious growth. Harvesting can be done mechanised as well as in a manual way (cf. Ivanov, 2010: 22). Nowadays the access to reed is highly restricted. Since ecological way of constructing houses became famous in Europe, natural material is of course subsequently on a high demand. Against the background that the Danube Delta is one of the richest regions in the world regarding its surface where reed is growing, companies of course began to invest and rent fields for decades (cf. Voica 2014b) in order to harvest and sell the material to western and especially northern European countries. Furthermore people used to use reed to build fences or as organic material in the different clay mixtures. As Ivanov (2010: 22) pointed out that, “like no other natural resource, reed forms part of the ecology and economy of the Danube delta - as important habitat and natural clarification plant on the one hand and as a versatile raw material on the other, fact that is well reflected in the traditional architecture.” In general reed or rather thatch has been used as a roof cladding material for many centuries, according to CSIR (1998: 2). It creates an aesthetically pleasing end result, well adapted to the natural environment, and its popularity has not diminished over time. Thatching is a craft traditionally handed down from father to son; consequently relatively little documented information exists (ibidem.), which is also the current issue in the Romanian Danube Delta. Clay and straw are used for building clay-bricks as well as for the facade. Straw additionally is also very often part of reed fences or even roofs. The unburnt clay and straw brick locally called “Chiprici” in this region consists usually of clay and organic material (very often straw) and is supposed to be burned in the sun for about 30 to 60 hours (ibidem.: 19). The second traditional way of using these materials is the mixture of a facades plaster, the so called “Ciamur”. Clay and sand is gathered from a moderate greasy soil, mixed together either water and straw until it has achieved a decent plasticity, after which it is either put into a mold and dried or used on site as a “Ciamur”, which is about 5 cm thick (ibidem.: 19).

Subsurface area – Material and Construction methods





Based on the assumption that loam in the Romanian Danube Delta arises basically by the reason of stream sediments (and before because of rocks' alteration) it consists of fine sand, coarse clay and clay, which is the basic annectent element (cf. IG Lehm, 2014). In general clay provides multiple advantages: it regulates air humidity, economises, energy, building material and cost of carriage, self-construction is easier, the material is re-usable, it accumulates heath and it protects from irradiation. According to Ivanov (2014: 3) another important advantage of using clay bricks instead of usual burnt A.C.C bricks is the lower degree of energy within the fabrication process, clay bricks "need only a dry and hot environment of hot summer days". The production of a clay brick does not depend on transportation hazards, the local or even global economic situation or the availability of fuel and electricity (cf. ibidem.). He points out that walls and floors made of clay have high thermal mass, they are capable of storing heat and releasing it during the night due to a property known as thermal lag. Furthermore the walls have the ability to "breathe", which means actually that they allow moisture to pass through and it has a high degree of recyclability. The disadvantages are for example that clay is a non-standardised construction material, it disappears during the drying-out process and additionally clay is not water-resistant, "it must be sheltered against rain and frost, especially in its wet state or else it's integrity is compromised" (ibidem.: 5) and it requires frequent maintenance, whereas it is simple and affordable (cf. ibidem.). Furthermore it needs a lot of working time to fabricate enough adobe-bricks in order to build one house, according to Ivanov (2014).




Wood is rarely available, because of the absence of forest in the region. Ivanov (2010: 21) illustrated that the only forests with a considerable size are protected areas. Therefore wood, or better unfinished tree trunks (found in nature) is sometimes sporadically used for timber frames (cf. ibidem.: 19). Besides these materials, people also used to work with sand, the most visible element in this region, which is basically used as mortar and for mixing cement on site. But sand itself as main part of the soil is also forced to be an ingredient of "Chiprici". Within the framework of using almost exclusively natural material, there is indeed low polluting pressure to the environment. Architect Ileana Mavrodin from Arhiterra points out that a more widespread use can reduce environmental damage because their construction and upkeep demands low energy consumption. Additionally houses built from clay or cob – a mixture of clay, water, sand, straw and other natural materials – are cheap and easy to build. "Most of the construction materials can be found on site," says architect Ileana Mavrodin. "From digging the foundation, we get the earth needed for the walls, and the vegetal soil is used for the roof." (cf. Ipsnews, 2014).

Legislation of earth building in the EU

Due to several restrictions and rules from the European Union, as well as from the Danube Delta Biosphere Reserve people are nowadays supposed to build their houses without using non-local material (cf. Voica, 2014b), which is indeed a challenge, facing restrictions concerning the access to reed and high prices to build a traditional house. Due to these building standards using for example cement or iron sheet is forbidden (cf. ibidem.). One of the oldest building regulations written in form concerning Clay-buildings in Germany and Austria was decreed in 1760 as baronial forestry regulation. Yonder document promoted basically certain fireproofed construction material, after the interdiction of using wood as such material, without even mentioning the simple word clay or loam in order to avoid people's horror (cf. Schneider/ Schwimann/ Bruckner, 1999: 198). Basic ratifying attempts in the last century have been discouraged under the title of "Lehm-bauordnung" in 1944 in Germany and concerned essential regulations for earth constructions. This marked the first attempt to detail rules and thoroughly document building techniques using earth based materials. In 1951 the compendium was included in the German DIN 18951, as a technical stipulation for construction works. After these initiatives until 1956, other norms and regulation projects were elaborated, but were not applied. All pro earth building initiatives suffered in 1971 a saddleback, all the regulations were decreed as obsolete, as well as uneconomic and were retreated (cf. Ivanov, 2014: 17). After an intervention made by the Interior Minister of the federal German state Hesse in 1982, and after the recent decree of the executive of the same land, these are still valid for approving earth constructions in the absence of technical regulations so that the utilizing mode explained in the old regulations won't have to be checked for every singular case (ibidem.). Some years ago the Earth Architecture Association in Germany, "Dachverdand Lehm", edited an approved technical compendium respective constructions in earth building since 1998, the rules having recommendation character and being used as such in 11 federal states in Germany (cf. ibidem.).

Conservation of traditional Architecture in the Romanian Danube Delta – Project description

The project is in general based on four pillars, respectively actions areas or steps to gain a sustainable resilient development in the municipality of C.A. Rosetti in terms of the project Conservation of traditional Architecture in the Romanian Danube Delta. These essential aspects mean invisible as well as visible measures. Consisting of three rather conceptual parts and one part which is supposed to be implemented physically. The three conceptual pillars concern the Sfistofca Art Association and its strategy, the creation of the possibility to be a professional in earth building and the transmission of traditional constructing knowledge and ancient handicraft within its cross-generation aspect, compared to the fourth pillar concerning the physical realisation of the clay n' reed studio. Those pillars are of course strongly related to each other and do have depending on the respective measures bigger and smaller overlaps, regarding their intensity and importance.

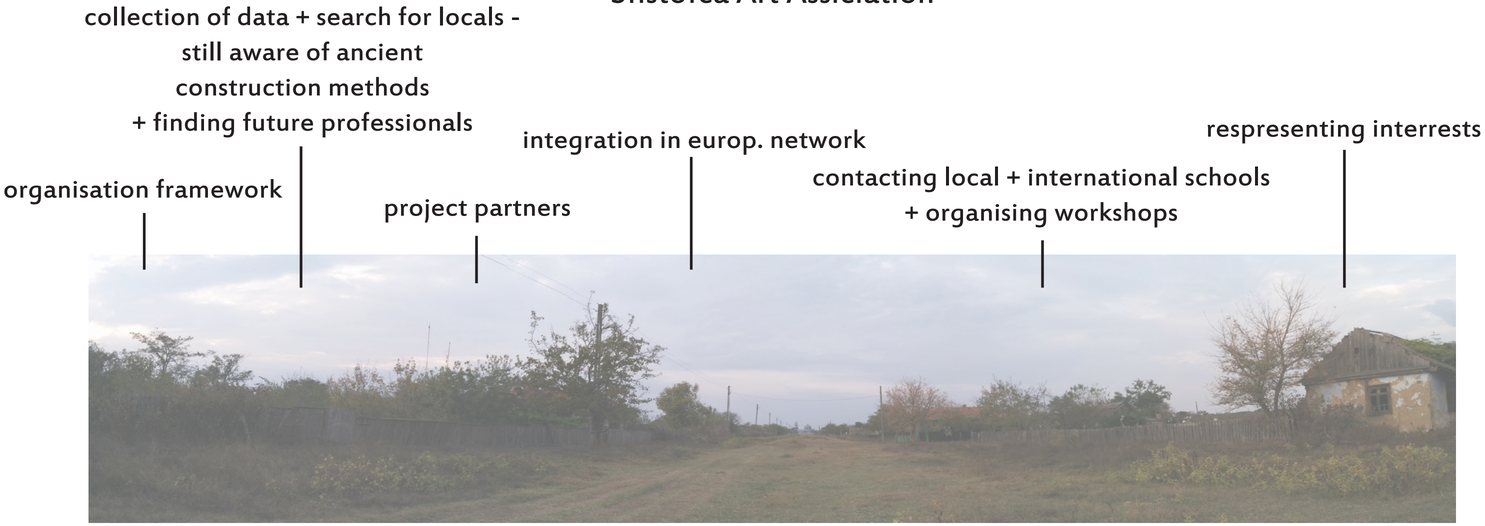
Sfistofca Art Assiciation

Skilled employee in mudbrick building

Transmission of traditional knowledge and handicraft

Implementation of a Clay n' reed studio

Sfistofca Art Assiciation



The first and principle steps of this whole project intervention are supposed to be guided by the Sfistofca Art Association, considered as Lead-partner, who already settled down in the region and built the essential framework (knowing the region and the people) for further acts. The principle aim of this pillar is, as already mentioned in the chapter's introduction, the formal integration in an already existing European earth building network, in order to enlarge the necessary essential framework for further steps respective the other project's action areas. This first pillar concerns on the one hand the formal foundation of a sector within the Sfistofca Art Association aiming at the conservation of traditional and ecological building culture, which is basically supposed to be defined in the association's constitutions in order to assure the principle of the project, especially respective possible project partners. Furthermore the integration in an existing European network which aims at conserving traditions of building culture, to be precise concerning clay and reed building culture should take place within this pillar for the main purpose of exchanging specialised knowledge and learning from other's associations. The Sfistofca Art Association is in general supposed to act as liaison agency between the local population, perspective stakeholders (inhabitants) of the municipality of C.A. Rossetti and the superior European network, especially in order to gain attention concerning local clay constructions, to uncover the region and make it visible concerning traditional, ecological architecture and construction methods. But the target is also to represent interests of local population concerning access to local resources adverse land proprietors in the region. A possible European network could be the Europäische Bildungsstätte für Lehmbau (European educational establishment in mudbrick building), which has established an open network with its own database concerning earth buildings (cartoterra.net) and its initiators and associations behind. The organisation happened already to be contacted in the framework of an event in Tulln/ Donau in November 2014. The main objectives of this organisation are indirectly identical with the objectives of the present project in the Romanian Danube Delta. The Europäische Bildungsstätte für Lehmbau (European educational establishment in mudbrick building) focuses basically on the exchange of lecturers in order to improve the quality in basic and further education. Additionally this organisation proposes possibilities in further education concerning loam rendering and design. Within the framework of this network many projects have already been launched and were partly funded by the European Union, a high degree of experience is therefore available (also concerning process of project implementation within the EU).Parallel first steps of the work of the Sfistofca Art Association would probably concern the collection of data, houses made of local, traditional material and the search for locals who are still aware of respective ancient construction methods.

Skilled employee in mudbrick building

finding locals - still awar of traditional handicraft and construction methods

finding locals - future professionals

connecting local professional with other national professionals

awareness of ancient construction methods + certification in earth-building

This pillar concerns the creation of the possibility for the local population to learn and to pass the trade of traditional house construction within the framework of this international network, organised by the Sfistofca Art Association. A main European problem of building activity based on clay is the lack of people who are still aware of this construction and fabrication methods and also the lack of people who are officially certificated as skilled employees in mudbrick building. Especially in less developed countries and regions, like the Romanian Danube Delta, specialists sometimes don't know about the architectural good of using local, natural material. Courses can be organised within the framework of the European earth building network, which focusses on conserving and transmitting this old good. On the one hand unemployed locals can be addressed here in order to create material value in the region and on the other hand brick layer trainees all over Romania can be addressed to learn (in further and best case from locals of the municipality of C.A. Rosetti) how to use loam and reed for building structures.

Transmission of traditional knowledge and handicraft

Within measures concerning the pillar respective transmission of traditional knowledge and handicraft in architectural construction methods, on the one hand minors from the municipality of C.A. Rossetti are supposed to learn how to work with natural, local construction material in workshops at school and on the other hand a summer school for international students or children are supposed to be invited to get to know the method of working with such materials. But this pillar also concerns the integration of national and international trainee bricklayer, which is of course related to the pillar concerning the creation of the possibility to be a professional in earth building. Depending on the personal contacts of the Sfistofca Art Association's stakeholders, children and young adults can be involved on the international level of transmitting ancient knowledge. Implementing measures could basically concern the invention of for example summer schools for students of Architecture (national and international) or other related studies or even children who would like to pass some weeks during the summer in the Delta, small workshops for local kids where little ones learn from the old. A main aspect in transmitting knowledge to the young local generation is the cross generational aspect. The main aim here is to avoid misunderstandings on a long term scale between elder and younger inhabitants and to drift apart due to the change of time. An important contact regarding the exchange of students is the existing contact to a Romanian professor at the University of Architecture of Bucharest.

Implementation of a Clay n' reed studio

constructed together with architecture students

experments and meeting point

workmanship for local projects

location: Periprava

This pillar concerns the construction of a little factory, where adobe bricks and clay plaster should be produced and where daily practical work should take place in the village of Periprava (due to better conditions for fabrication of adobe bricks and clay). The building is supposed to be constructed with the creative help of students of the architectural university of Bucharest, led by Mr. Marius Voica. A first step within this action area would be a built implementation of a shelter, the further step after some year of practicing could concerne the construction of a real studio-house, as Marius Voica proposed. Due to its richness in loam earth, Periprava would be choosen as location for the little atelier, mainly in order to avoid transportation costs.

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LEARNSCAPE GREEN DELTA - STRENGTHENING A PERIPHERAL REGION IN THE ROMANIAN DANUBE DELTA

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Learnscape
Green Delta

Strengthening a peripheral region
in the Romanian Danube Delta

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Vienna - December 2014

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◄
»Outdoor kitchen« in
Sfiştofca

Introduction

On the basis of the essential report (cf. Danner et al. 2014), which was written after a phase of research and the excursion to C.A. Rosetti in September 2014, a few things have to be underlined in order to understand this project's approach. In the Danube Delta, excluding Constantia and Tulcea, live about 15.000 people with twelve different ethnic backgrounds. Due to a lack of possibilities for employment and higher education the region experiences a drastic decrease of population. In C.A. Rosetti, the municipality we worked on, there is furthermore a lack of basic infrastructure like running water or a sewage system. As a result, some human settlements within the municipality already died out (Cardon) or are on the verge of doing so (Sfiştofca).

External interventions like the industrialization of fishing as well as the establishment of a Biosphere Reserve influenced the life of local people tremendously. Many restrictions were established in favor for the environment (Biosphere Reserve) as well as in favor for private enterprises (fishing). The consequences are that people lost their jobs as fishermen, they do not have the same access to natural resources like fish or reed, and further have restrictions on how to build or renovate houses. Some of these restrictions definitely make sense in order to preserve natural and cultural habitats but still people feel left out in decision-making processes concerning their personal lives.

The richness of biodiversity and nature in the municipality is an unique treasure which has to be preserved but in a matter of way that people are able to live with the nature and not just side by side threatening each other. The task is to take advantage of this situation while not harming it.

In recent years the region saw schools closing down, as happened in Sfiştofca. Schools possess a key role in the development of peripheral regions and especially in C.A. Rosetti. On behalf of children's education, and therefore the future settlement of new families, the school, which provides classes from 1st to 8th grade, is essential. Due to the migration there is a domination of elderly people. It is strongly believed that the existing school has to be strengthened in order to assure a future for the municipality. By working with the children it is possible to reach out to the future decision-makers as well as the current ones, the children's parents.

◄ Locals on their carriage in Periprava

From the economic point of view the municipality is definitely not rich. But looking at the cultural and natural resources, C.A. Rosetti is a very wealthy region. The project Learnscape Green Delta does exactly work with this rich resources of culture and nature to create an adding value in the region in terms of generating knowledge.
The crucial element for success of a project like this are competent and reliable partners with a profound knowledge about the region and/or the related (environmental/educational) topics. This paper underlines that approach by starting with an introduction of potential partners for the project before it continues with the vision and further remarks on the Learnscape Green Delta.

This paper does not claim completeness in terms of naming all potential partners or providing the one and only recipe for the development of C.A. Rosetti. The reader may rather regard this paper as a vision, eager to stimulate interested minds to take some of the thoughts a step further.

◀ Bathroom in Sfiştofca

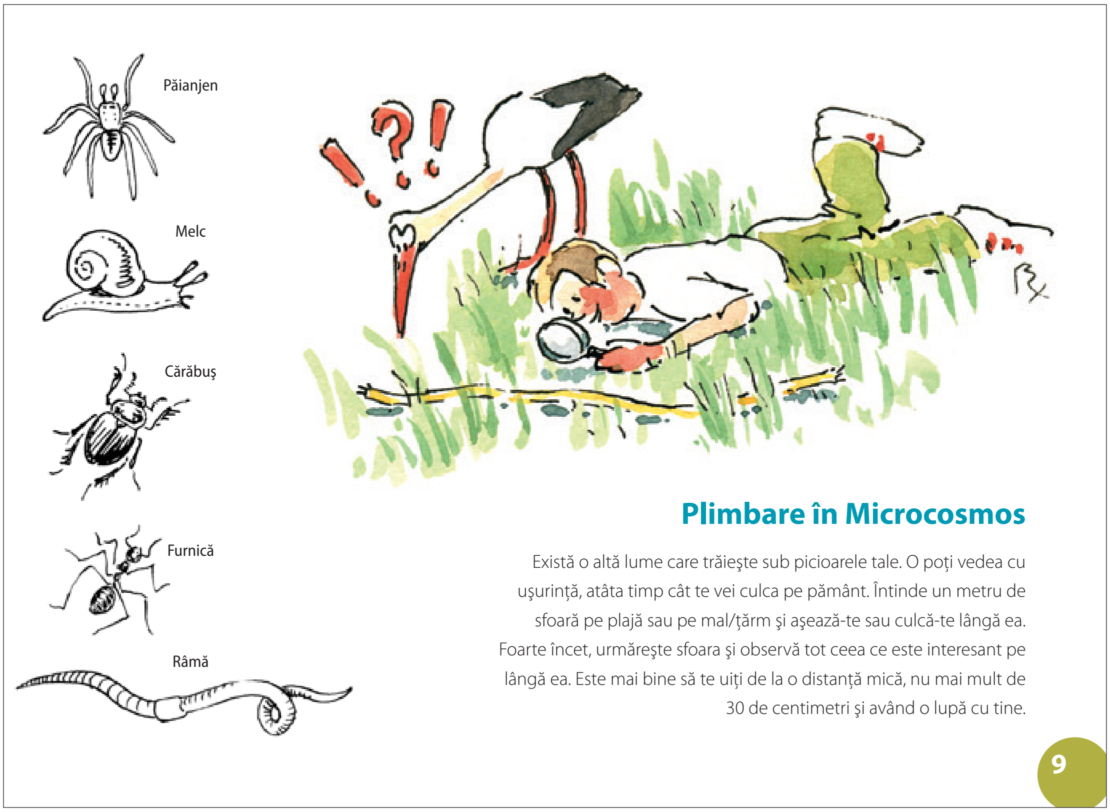
Potential **partners**

The most important component of a successful project are (local) reliable and competent partners. In the following there are some potential and important partners listed to realize a venture like the »Green Delta« project. There is no claim of completeness and there are definitely more potential partners which will just arise by digging deeper into the project's implementation. It has to be mentioned that the **local school**, the **municipality** of C.A. Rosetti and **local culture clubs** are obviously very important partners for the project because these are the people which are on-site all the time, but here further partners are explained in detail.

As mentioned in the essential report and earlier in this paper, the biodiversity of the Danube Delta is tremendously rich and most probably the biggest asset of the region. Due to this fact, Romania – as the first neighbouring country of the Delta – officially nominated its part of the Danube Delta as a Biosphere Reserve in 1990. Three years later the UNESCO placed the Danube Delta on the list of world natural heritages and Romania nominated it as a protected natural area. The Danube Delta is the biggest wetland in Europe and hosts more than 1.500 species of plants and 3.500 species of animals. Furthermore the Delta has the biggest connected reed area in the World and as such is home for over 330 different kinds of birds (cf. Resch 2009: 25).
The main three functions of a biosphere reserve are protection (of landscape, ecosystems and biodiversity), (sustainable and economic) regional development, environmental research and education by promoting showcase projects, monitoring and so on (cf. Unesco [a], online). The difference between a strict natural protected area and a biosphere reserve, or the »Man and the Biosphere Programme (MAB)« like the UNESCO calls it, is that not the unconditional conservation is the main focus but the (hu)man and his life with the nature is the key aspect (cf. Unesco [b], online).
The biosphere reserve of the Romanian Danube Delta is administrated by the **Danube Delta Biosphere Reserve Authority (DDBRA)** which is led by a scientific council including representatives from DDBRA, local authorities, ministries, health services, research institutions, Romanian academy of science, economic companies etc. (cf. DDBRA [a], online).

The DDBRA was established in 1993 and has probably the most important role in case of environmental education in the Danube Delta. It has taken different actions in environmental education and awareness especially since the year 2000. Within this scope they developed the first Public Awareness strategy, practical guides for environmental education for schools and kindergardens including DDBRA's specialists visiting schools, a variety of educational brochures, organizing events like »Environment Day«, »The International day of Wetlands« etc. Most of the physical material was only published in Romanian language because of the specific target group (Romanian pupils) and no need for further translations (cf. DDBRA [b], online; DDBRA 07.11.2014). The DDBRA also takes part in international collaborations in terms of environmental education programmes like the »NAVINATUR Project – Education for sustainable development by linking nature experiences with digital media«. This was a project including a school exchange[1] with the Center for Environmental Education SCHUBZ in Germany (cf. Centre for Environmental Education Schubz, online). This gathered experience and competence of the DDBRA makes it a very important partner for all actions related to environmental education in the Danube Delta region.

1 The school exchange included the Lyceum Joseph Haltrich Sighisoara (RO), Marion-Dönhoff-Gymnasium Mölln (GER), Haupt- und Realschule Salzhausen (GER), IGS Salzhausen (GER) and the Secondary School Sf. Gheorghe (RO).



◄ BeNatur brochure – better management of natura 2000 sites © DDBRA

The **World Wide Fund for Nature (WWF)** also established various projects concerning the Danube Delta and environmental education. The WWF Romania is constantly doing projects on protection and rebuilding wetlands and other ecosystems in the Delta and has also launched a green school programme with the aim of creating a network of active schools and teachers to develop formal and non-formal education models on the topics of sustainable development, active citizenship and environmental education (cf. WWF Romania, online). Another potential cooperation possibility for exchange programmes could be WWF Austria. They established a big environmental education programme for young people, children and teachers consisting of school programmes, action groups and so on (cf. WWF Austria, online).

Another important organisation for environmental awareness in the Danube Delta is the **Naturefriends International (NFI)**. Since 1989 the NFI nominates biannually a cross-border landscape of the year. The goal of this programme is to start or promote a sustainable development of the chosen region with a special focus on eco-tourism. From 2007-2009 this landscape of the year was the Danube Delta. The actions of the NFI in the Danube Delta were manifold: Eco-label workshops, certification workshops for hostel owners, sustainable use of reed workshops, environmental education activities, stakeholder workshops and so on (cf. Naturefriends International 2009). Over two years the NFI gathered a lot of knowledge about sustainable development in the Danube Delta and furthermore for a much longer time in different regions throughout Europe. This knowledge should definitely get used for any future activities in the field of raising environmental awareness.

▶
Children in the Danube Delta during the project »Landscape of the year 2009«
© NFI

The **Slow Tourism Company (STC)** is a partnership between the Association of Ecotourism in Romania and the Ivan Patzaichin – Mila 23 Association. Together they created a social enterprise which uses tourism as a tool for local development and nature conservation. The idea is to experience the unique habitat and the rich cultural heritage of Europe's largest wetlands by the slow pace of paddling a traditional boat. They are situated in Crişan and offer paddling tours starting in their Rowmania (sic!) Ecotourism Center (cf. Slowtourism, online). As a local initiative the STC could be an interesting partner for the project.

◄
Paddling in the Danube Delta
© Rowmania

Asociatia Letea in UNESCO is an NGO with the main goal to bring the use of reed in the region on the UNESCO list of immaterial cultural heritage. They started a project which is called »Stuful e beton!« (»Reed is cool!«) to raise awareness for the great characteristics of reed and to promote its use within the community and the public authorities. Another aim is to work on a local development strategy for Letea and to foster the community development by various events in Letea. Two of the founding members themselves are originally from Letea and by that a strong connection to the community is already provided (cf. Asociatia Leta in UNESCO, online). As a local NGO, which works on-site with the local community and in the context of environment-friendly handicraft, Asociatia Letea in UNESCO is a high potential partner for the Green Delta Gathering as well as for Green Delta Education and Green Delta Skills.

►
House with traditional roof made out of reed

Get active for a living Danube!

www.danubeday.org

The **International Danube Day** was founded in 2004 by **ICPDR** (International Commission for the Protection of the Danube River) and is taking place every year around the 29th of June. It provides a platform for the whole Danube region to raise awareness for the living environment and the eco systems of the river. On Danube Day there are various events like concerts, discussions, workshops, exhibitions, clean-ups etc. in each Danube country (cf. ICPDR, online). Danube Day and all the organisations which contribute to it could be co-operation partners for the Green Delta Gathering and the festival might even be integrated into the Danube Day activities.
The ICPDR also has a Public Participation Group which deals with activities concerning public information, outreach and awareness raising and environmental education. Therefore it could be an interesting cooperation partner for the Learnscape Green Delta.

The team of **River Jump** is a group of people with different ages and back-grounds. Every year they organise a border-crossing festival on environmental topics. It takes place at the border region of Austria, Czech Republic and Slova-kia and gathers about 60 people coming from these three countries. With their knowledge about organising environmental festivals on an international level and the cooperation with important funding partners, like the European Union, River Jump could be an important partner for the realisation of the Green Delta Gath-ering (cf. Hnuti Brontosaurus/SCI Österreich, online).

◄
Poster of the
Danube Day 2014
© ICPDR

►
Participants of River
Jump Festival 2014
© River Jump

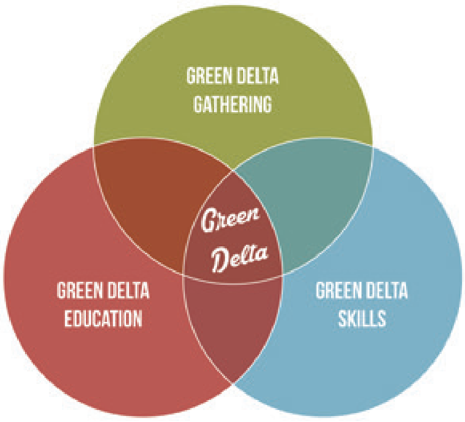
The Vision
Learnscape Green Delta

The Danube Delta with its richness of biodiversity and culture on the one hand and its simplicity of everyday life on the other, makes it the ideal breeding ground for people eager to experience nature in a very intact environment and further to develop ideas and projects which consider sustainability on all its dimensions.

The municipality of C.A. Rosetti embodies a special case based on the named aspects. Letea forest is the most northern subtropical forest in Europe and the oldest natural protected area in Romania. Together with the huge wetlands, reed fields and other places it hosts an immense number of flora and fauna. Ukrainians, Lipovans and Romanians with their rich cultural lives enrich a fascinating »Delta culture« which they all belong to. At the same time the challenges (see Introduction), which the municipality faces, create a tense situation and brave strategies are needed to offer a perspective for the people. C.A. Rosetti embodies all this being a great experimental ground to represent a learnscape for environmental awareness.

This learnscape is based on three dimensions:

Green Delta Gathering – Festival for Environmental Awareness and Education
Green Delta Education – Environmental Education Programme for the local school(s)
Green Delta Skills – Environmental Skill Programme for locals



◀
The three dimensions of Learnscape Green Delta

▶
Run-down boat in Sfiştofca
© Gerold Ludwig

Green Delta Gathering

Dimension one

Festival for Environmental
Awareness and Education

Green Delta Gathering
Festival for Environmental Awareness and Education

The Green Delta Gathering is a festival which takes place once a year in summer time on different sites in the municipality of C.A. Rosetti. The festival participants are young Europeans from the age of 16-30 years old who can participate for a reasonable expense due to the youth programme funding of the European Union. The implementation of the new instrument ITI (Integrated Territorial Investment) of the European Union (cf. Danner et al. 2014: 41ff.) could also offer a further funding possibility for the Green Delta project as a whole and in specific the Green Delta Gathering as well.

Every year the participant group offers a creative pool of about 60 young interested and motivated people eager to spend time and ideas on hands-on experiences on environmental topics. The lack of infrastructure (no running water, no sewage system) is not seen as a disadvantage but as an issue which can be worked on during workshops etc. There is a camping site prepared where the participants can sleep in their tents or as bad-weather-option in the school building of C.A. Rosetti and the abandoned school of Sfiştofca.

Some residents of C.A. Rosetti are employed to prepare breakfast, lunch and dinner for the festival attendees. The products for the meals should be locally grown and produced and (mainly) vegetarian, so vegetarians are not discriminated during mealtime. In terms of making the experience in the Danube Delta as authentic as possible,the food should also represent the everyday-meal of people living in the Danube Delta as far as possible.

The festival language is English and there are people who are able to translate, if necessary, to communicate with local people.

Together with the project partners (see Potential partners) a diversified festival programme will be developed in order to offer a variety of possible approaches to the Danube Delta and its related (environmental) topics. The duration of one week is basically splitted into two parts. The first part of the week (»Explore!«) provides different offers of excursions, workshops and evening events in order to get to know the people (attendees and locals), the region and the environmental issues. In the second part of the week (»Hands on!«) the participants are encouraged to let their own ideas flow. They have more free time and the task to organise their own little projects on relevant topics which have been introduced to them in the first part of the week.

The week ends with the presentation of the participants' projects and the projects of the school children (see Green Delta Education). A big focus of all of the activities is on the exchange and reflection in order to get most out of the exceptional creative circumstances.

The Green Delta Gathering schedule consists of different elements:

Mutual breakfast/lunch/dinner

Every day all the participants eat together at about the same time. These »side events« three times a day are seen as an important part of getting to know each other, establishing friendships, exchanging and reflecting experiences and last but not least getting to know the local food and satisfy the personal hunger.

Excursions

On three half-days the participants have the possibility to attend a variety of excursions by foott, car/bus or canoe/boat (cooperation with the Slow Tourism Company, see Potential partners). The excursions show the participants different situations and thematic approaches within the municipality and are accompanied by local experts (as well as residents and local school children as support team) and thematic experts (Danube Delta Biosphere Reserve Authority, Asociatia Letea in UNESCO WWF Romania, Naturefriends International, see Potential partners).

Examples for possible excursions and thematic approaches:

- Letea Forest: The participants explore the most northern subtropical forest in Europe, its protection and importance for the municipality.
- Canal tour I: The participants do a canoe tour on the western and northern edge of the municipality to explore flora and fauna on the water.
- Canal tour II: The participants do a canoe tour on the eastern and southern edge of the municipality to explore flora and fauna on the water
- Salt lake and other water sites: The salt lake between C.A. Rosetti and Letea might be an important resource for the municipality due to the supposed healing capabilities. This and other water sources (salt and fresh water) are visited during this trip.
- Village tour I: The participants start their tour in C.A. Rosetti and visit Letea and Periprava. Guided tours through the village by locals offer a deeper understanding of the community.

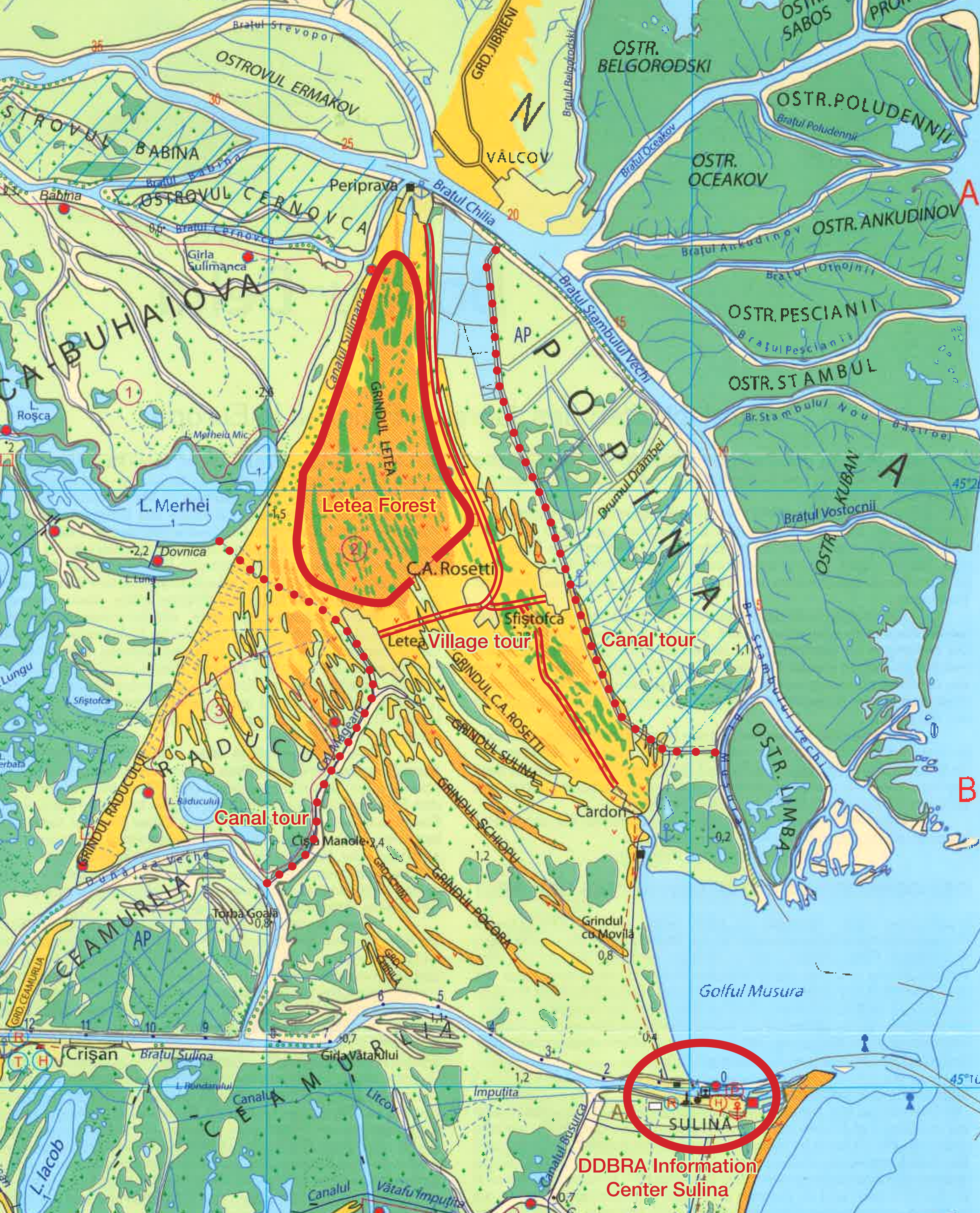
▶
Mutual mealtime in Sfiştofca

▶
left: Letea forest

▶
right: Canal in Letea

▶
left: Salt lake in Letea

▶
right: Village tour in Periprava


Letea Forest
Village tour
Canal tour
Canal tour
DDBRA Information Center Sulina
C.A. Rosetti
Letea
Sfiştofca
Cardon
Periprava
SULINA
Crişan
VALCOV
Cişla Manole
Torba Goală
Grindul cu Movilă
Girla Vătafului
Dovnica
Babina
Girla Sulimanca
L. Merhei
L. Roşca
L. Merheiu Mic
L. Răducului
L. Sfiştofca
L. Lung
L. Iacob
GRINDUL LETEA
GRINDUL C.A. ROSETTI
GRINDUL SULINA
GRINDUL SCHIOPU
GRINDUL POCORA
GRINDUL RĂDUCULUI
GRD. CEAMURLIA
GRD. JIBRIENI
OSTROVUL ERMAKOV
OSTROVUL BABINA
OSTROVUL CERNOVCA
OSTR. BELGORODSKI
OSTR. POLUDENNII
OSTR. OCEAKOV
OSTR. ANKUDINOV
OSTR. PESCIANII
OSTR. STAMBUL
OSTR. KUBAN
OSTR. LIMBA
OSTR. SABOS
CA BUHAIOVA
POPINA
RĂDUCU
CEAMURLIA
Braţul Chilia
Braţul Stambulul Vechi
Braţul Sulina
Braţul Stevopol
Braţul Cernovca
Braţul Oceakov
Braţul Poludennii
Braţul Vostocnii
Braţul Belgorodski
Br. Stambulul Nou
Dunărea Veche
Canalul Sulimanca
Canalul Litcov
Canalul Busurca
Canalul Vătafu Imputita
Imputita
Brumul Drâmbei
Golful Musura
Musura
AP
A
B
N

- Village tour II: The participants start their tour in C.A. Rosetti and visit Sfiştofca and Cardon. Guided tours through the village by locals offer a deeper understanding of the community.
- DDBRA information center Sulina: A visit in the information center of the Danube Delta Biosphere Reserve together with experts of DDBRA provides an insight into the structure of the Biosphere Reserve, the chances and the consequences for the environment and local people.

Workshops

The afternoon sessions of the exploration phase are workshops led by the thematic experts (see Excursions) in cooperation with local school children and residents (support team). The workshops will take place on different sites suitable to the specific topics. The aim of the workshops is to provide a deeper insight into specific environmental issues which are relevant for the region and beyond. The didactic approaches are taken from experiential education and wilderness education (see Green Delta Education).

Examples for possible workshops:

- Raft building: The participants build a raft with natural materials. At the end they can do a little tour with their self-made boat – or even a small race. Possible cooperation partner: Ivan Patzaichin – Mila 23 Association
- Reed knitting: Local experts show the participants the special characteristics of reed, how and where it grows in the region and how it can be turned into a roof. Possible cooperation partner: Asociatia Letea in UNESCO
- Fishing: Fish has always been an important resource for local people. The participants learn how the fishing restrictions nowadays are affecting local people, what kind of fish live in the Danube Delta and are taught traditional handicraft related to fishing like tying a fishing net.
- Agriculture: The natural circumstances in the region are not in favor for agriculture on a large scale. Still there is potential for self-sufficiency and small businesses (cf. Gugerell 2014; Schilling 2014). Locals present their small projects and the participants are invited to get active themselves.
- Tourism: Local people hope for more tourism in order to foster the region's development. However, tourism always has to be handled in a sensitive way, otherwise it can harm the region instead. The participants are invited to discuss their point of view on tourism for the region and to develop their own ideas.

◄
Map with examples for possible excursions
© Map designed on behalf of gtz; adapted by the author

Evening events

The first half of the week is accompanied by some side events to stimulate the process of getting to know each other and to foster the knowledge transfer between local people and the participants. The first night is spent together informally to get acquainted with the new situation for the participants. On the second night local experts are going to present some best-practice projects of the past, present and future to give the participants more ideas about the situation in the Danube Delta. The third evening is dedicated to the local culture and is organised by the local culture club(s) of C.A. Rosetti and its villages. On the fourth evening there is a film screening of a documentary about the Danube Delta and/or relevant topics for the festival. The following two evenings are free and can be used for further project work or just leisure time. The final evening starts early with a joint dinner and a party to end the festival in a pleasurable way.

◄
left: Bonfire in Sfiştofca
© Gerold Ludwig

◄
right: Concert of the local women chorus of Sfiştofca
© Gerold Ludwig

Self-organised excursion

On the 5th day the participants are invited to do a self-organised excursion to a place they would like to see again or which they haven't seen yet in order to get more impressions and ideas for the upcoming project work. The participants can decide on their own if they want to do a solo-excursion to have a more intense self-experience or if they want to go in groups to foster the exchange and reflection of the experiences. After this self-organised excursion the attendees should have an idea of what issue they want to spend their time on for the remaining part of the week.

Project marketplace and project work time

On the fifth day there is a project marketplace where the participants can introduce their ideas or hook up with someone's idea to work on. Local and thematic experts support the participants to form project groups to work on different topics. These topics can range from hands-on activities, like organising a clean-up or building a bird watcher spot, to a more theoretic approach like interviewing tourists, locals and experts. There are no boundaries for the project ideas and (almost) everything is possible. The main aim is to increase the self-experience, group-experience and nature-experience of the participants (see Green Delta Education) and of course to have fun.

The following day (and the evenings) are self-organised time to work on the projects. The local and thematic experts can support the groups if they demand it.

▶ left: Self-organised appointment with the mayor of C.A. Rosetti © Meinhard Breiling

▶ right: Reed-construction of students in Sfiştofca

Presentation

The day before the (early) departure is dedicated to the presentations of the festival participants. Every group can talk about their project, lessons learned and experiences of the week. Again the exchange and reflection is the most important part of this session. This final presentation is not only for the festival participants but also for the school children who present the projects they were working on during the last school year (see Green Delta Education). The different approaches of the local children in comparison to the mainly foreign youth might bring interesting conclusions.

The presentation is open to the public. At the end of the presentations a party will close the festival (see Evening events).

Exemplary festival schedule

	EXPLORE!		
Day one	Day two	Day three	Day four
Arrival of participants	8 a.m. **Breakfast**		
	9 - 12 a.m. **Excursions**	9 - 12 a.m. **Excursions**	9 - 12 a.m. **Excursions**
	12.30 p.m. **Lunch**		
	2 - 5 p.m. **Workshops**	2 - 5 p.m. **Workshops**	2 - 5 p.m. **Workshops**
6.30 p.m. **Reception**	6.30 p.m. **Dinner and exchange/reflection**		
8 p.m. **Dinner and get2gether**	8 p.m. **Presentation best-practice**	8 p.m. **Performance culture club**	8 p.m. **Film Screening**

HANDS ON!			
Day five	**Day six**	**Day seven**	**Day eight**
8 a.m. **Breakfast**	8 a.m. **Breakfast**	8 a.m. **Breakfast**	**Departure of participants**
9 - 12 a.m. **Free excursions** (free time)	9 - 12 a.m. **Project time** (support by experts/locals)	9 - 12 a.m. **Presentation** of the projects	
12.30 p.m. **Lunch**	12.30 p.m. **Lunch**	12.30 p.m. **Lunch**	
2 - 5 p.m. **Project market place** + project time	2 - 5 p.m. **Project time** (support by experts/locals)	2 - 4.30 p.m. **Presentation** of the projects	
6.30 p.m. **Dinner and exchange**	6.30 p.m. **Dinner and exchange**	5 p.m. **Dinner and party**	
8 p.m. **Free evening** or project time	8 p.m. **Free evening** or project time		

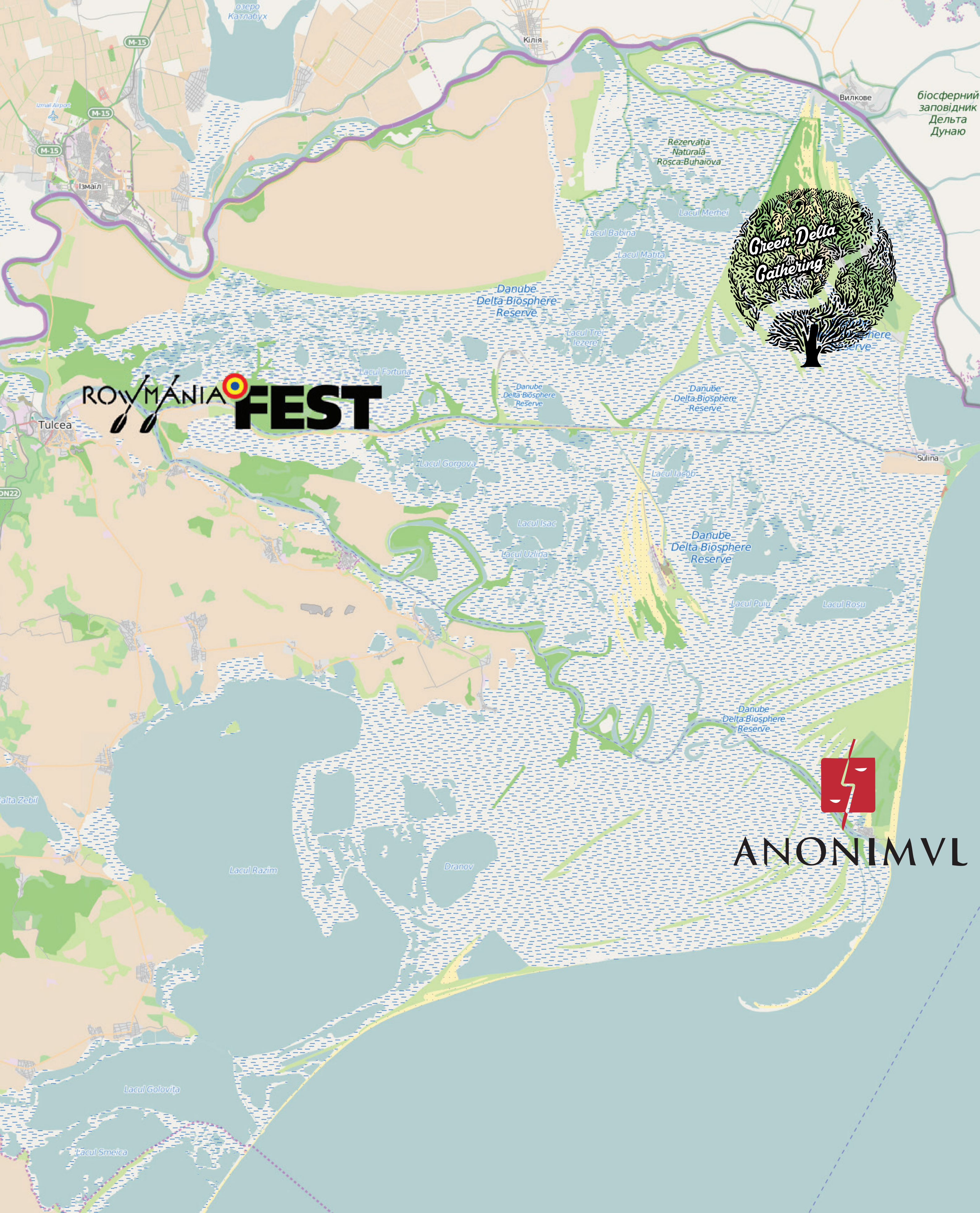
Positive examples for festivals fostering the development of the region are the Anonimvl – International Independent Film Festival in Sfântu Gheorghe and the Rowmania Fest in Tulcea. This year the Anonimvl experienced its 11th edition[2] and can be seen as a sustainable cultural enrichment of the Danube Delta which also boosts the touristic inflow for the region (cg. Anonimvl, online). In 2014 the Rowmania Fest experienced its fourth edition and explicitly tries to put a spotlight on the Danube Delta as a fascinating place offering natural and cultural richness to all its visitors. In the focus of the fest are paddling events accompanied by side events like concerts, debates and so on (cf. Rowmania [a], online).

2
In 2014 it was the first time that the festival did not take place in Sf. Gheorghe but in Bucharest. According to the organisation of the festival this was an exception (cf. Anonimvl, online).

◀
Boat race at Rowmania Fest 2014 © Rowmania

The impacts of the festivals do not reach into the municipality of C.A. Rosetti or at least not with a sustainable impact for the people living there. The Green Delta Project could be another successful element of sustainable development for the region.

▶
Festivals in the Danube Delta © OpenStreetMap adapted by the author


озеро Катлабух
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Rezervatia Naturala Rosca-Buhaiova
Lacul Merhei
Lacul Babina
Lacul Matita
Green Delta Gathering
Danube Delta Biosphere Reserve
Lacul Trei Iezere
Lacul Fortuna
ROWMANIA FEST
Tulcea
Sulina
Lacul Gorgova
Lacul Iacob
DN22
Lacul Isac
Lacul Uzlina
Lacul Puiu
Lacul Roşu
ANONIMVL
Lacul Razim
Dranov
Lacul Golovita
Lacul Smeica

Green Delta Education

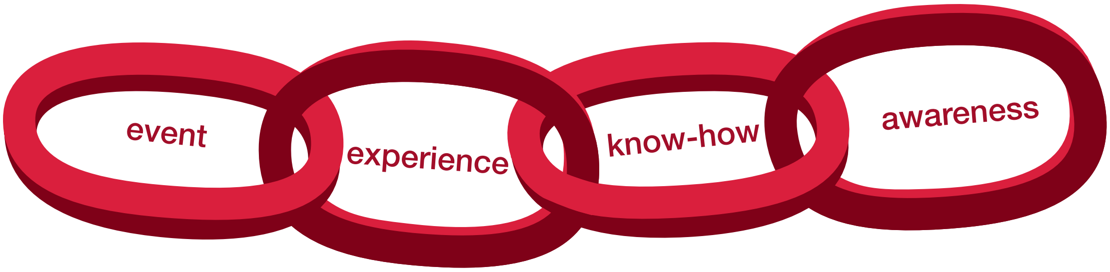
Dimension two

Environmental
Education Programme

Green Delta Education
Environmental Education Programme

Green Delta Education is an Environmental Education Programme for the local school in C.A. Rosetti. As mentioned in the introduction, the existing school in C.A. Rosetti is a very important institution for the whole municipality. If the school would close a downward spiral could not be detained. The smaller schools like the one in Sfiştofca already had to close and the children of the different ethnics are now in the same school in C.A. Rosetti. This has to be seen as a big potential and the school has to be strengthened.
The school in C.A. Rosetti allows children to enrol from the first grade until the eighth grade and by that fulfil the compulsory education within the municipality. In Scoala primara (primary school: 1st to 4th grade) the content of teaching is specified by the ministry of education by 80 per cent, 20 per cent can be organised by the school itself. In the Gimnaziu (secondary school: 5th to 8th grade) this ratio turns to 75 per cent predesigned by the ministry and 25 per cent self-organised content by the school (cf. Artzfeld & Chaudhuri 2001: 2841f.; European Commission [a], online). The workshops of Green Delta Education could be part of the content which is free to be organised by the schools. Another possibility could be the establishment of a nature club or similar.
Green Delta Education as the second dimension of the Green Delta Project wants to combine the potential of the children with the potential of the natural resources in the Danube Delta. By that Green Delta Education helps providing a fascinating learnscape for raising awareness for the region and its characteristics on the one hand, and using the natural resources for a self-reflected education and development of the children in C.A. Rosetti on the other. The didactic methods are based on experiential education and wilderness education.

An essential part of experiential education is the conversion of events and personal impressions into personal awareness by conscious perception of the experienced and by turning the experiences into knowledge. This happens through exchange and reflection in a group and with support of professionals (teachers, external experts). It is important that the experienced events are expressed within a group or a partner to start a reflection process (cf. Michl 2009: 9).



◄ The process from event to awareness (according to Michl 2009:11)

Experiential education is an activity-oriented method in which the children are faced with physical, mental and social challenges to foster their personal development and to motivate them to take responsibility for their environment (ibid.: 10). The children should have the possibility to explore their living environment and by that to explore themselves. The children should get encouraged to leave their comfort zone in order to maximise their learning experience.

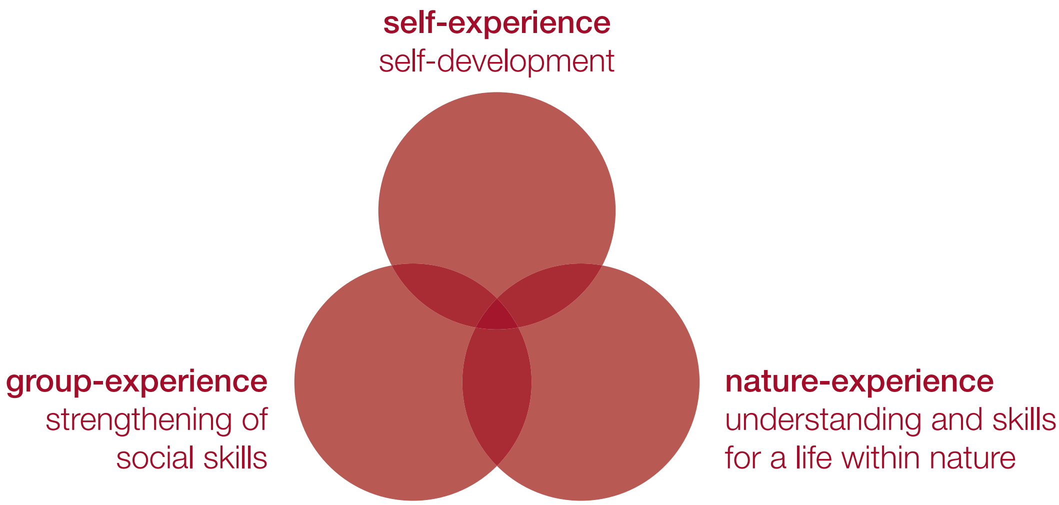
◄ Learning inbetween comfort and panic zone

The wilderness education puts its focus more on the living with the nature than the experiential education, which has the focus on the experience of the natural environment. Wilderness education tries to inspire young people for the nature and to be accordingly aware for the environment. The basis of wilderness education is the knowledge of natives to enable a living in and with the nature rather than living next or against the nature. The aim is to foster perception and attention to the environment and by that to strengthen personal abilities and talents. Similar to the experiential education the work focus is both on group experience as well as on individual experience and on reflection. Important methods of wilderness education are coyote teaching[3], nature mentoring[4], story-telling, and sharpening of perception (cf. Gärtner, online).

3 Coyote teaching tries to provoke the knowledge and potential of the student by not answering his/her questions but asking targeted questions which support the student answering his/her initial question him- or herself (cf. Gärtner, online).

4 This method is quite similiar to the coyote teaching but it is adapted to work not only in one-to-one situations but also in groups by leaving space for the students exploring their environment themselves and only giving input from time to time to support their learning results (cf. Gärtner, online)

▶
self experience, group experience, nature experience (according to Gärtner, online)



Green Delta Education offers workshops in the local school of C.A. Rosetti on a regular basis. The content of the workshops is developed together with the local school, Danube Delta Biosphere Reserve Authority, WWF Romania, Naturefriends International and other possible partners.
The workshop year is divided into two phases. In the first phase there are thematic workshops on different workshop sites within the municipality. At the end of every thematic workshop session the pupils work on a little project. They are motivated to choose their own topic and work in small groups together. The results of the workshops or the documentation of it is always shown at the local school for people of C.A. Rosetti and in the Environmental Visiting Centre Sulina for a broader audience.
Together with the Danube Delta Biosphere Reserve Authority (DDBRA) this workshop phase is cooperating with the Eco-Agent programme of the DDBRA. The pupils have the possibility to finish the programme within this phase and get qualified for the support team at the Green Delta Gathering (see Green Delta Gathering).

The thematic fields could be:

- soil: the children explore the different kinds of soil in their environment and understand the importance of it. This could also be a focus in the year 2015 due to the fact that UNO declared it as the »International year of soils«.
  Possible hands-on activities: building clay bricks, painting with soil colours (in cooperation with the EU project soil art, cf. NÖ Agrarbezirksbehörde, online)

- **water**: in cooperation with the Ivan Patzaichin – Mila 23 Association (cf. Rowmania [b], online) the children go by canoe on canals within the municipality and explore water as an essential element of the eco system. The drinking water situation in the municipality can be topic of workshops as well as the salt lake in Letea.
  Possible hands-on activities: building a raft, comparing different water sources (salt water, fresh water etc.)
- **flora**: the Danube Delta Biosphere Reserve Authority has developed a lot of educational material about the flora in the Danube Delta. The children explore the diversity of flora within the municipality.
  Possible hands-on activities: finding and collecting different kinds of flowers, flowers as source for medical help, flowers as source for food
- **fauna**: the Danube Delta Biosphere Reserve Authority also has developed a lot of educational material about the fauna in the Danube Delta. Again in cooperation with the Ivan Patzaichin – Mila 23 Association the children go by boat to observe birds and fish or observe the huge population of wild horses and other animals on the land.
  Possible hands-on activities: catching living fish and documenting it (and releasing it afterwards in order to respect the protection regulations), documenting other observed animals (drawings, photos, text etc.)
- **culture**: C.A. Rosetti and its villages consist of many cultural layers. Ukrainians, Romanians and Lipovans are living together a Danube Delta culture and still maintain individual rituals and habits. The children are encouraged to look deeper into this manifold cultural life in their villages. A cooperation with local culture clubs or the Sfiştofca Art Association could enrich the workshops.
  Possible hands-on activities: interviews with neighbours, preparing a typical dance/ concert etc., finding of differences and commonalities in everyday-life, rediscovering traditional handicraft

Further or other workshop topics could arise in the development phase with the project partners.

The second phase of Green Delta Education concentrates on the final projects of the school children. They are encouraged to choose a (workshop) topic they want to work on and to organise little work groups to do that. Supported by the local and thematic experts of the project partners the pupils work for a specified duration on their projects. At the end they can present their results at the final day of the Green Delta Gathering.

After the festival the final projects will be shown at the Environmental Visiting Centre in Sulina and Tulcea to reach a broader audience. Another possibility to present the final projects could be the Rowmania Fest which also takes place in the summer (see Potential partners).

▶ Cycle of Green Delta Education

An optional expansion of the Green Delta Education could be a school exchange programme with a European school which is also situated in or near a Biosphere Reserve. A constant exchange (via Internet and/or written letters) about workshop results on similar topics could enrich the outcome and broaden the horizon of both the school children and the involved project partners. If there are funds possible a physical exchange by one school visiting the other would be highly appreciated.

A positive example for a school exchange project which took place in the region is the NaviNatur school exchange Germany – Romania. The Environmental Education Centre SCHUBZ in Germany set up a project for German and Romanian school children which encouraged them to explore their natural environment by doing GPS supported tours. The idea was to connect nature experiences with digital media. The Danube Delta Biosphere Reserve Authority was a cooperation partner beside other Biosphere Reserve Authorities in Germany (cf. SCHUBZ n.d.).

Green Delta Skills

Dimension three

Environmental
Skill Programme
for locals

Green Delta Skills
Environmental Skill Programme for locals

Green Delta Skills is a skill programme which addresses local adults. Similar to the Green Delta Education, there are also workshops being held by the cooperation partners like DDBRA, WWF Romania, NFI Romania, Asociata Letea in UNESCO and other experts as well as other NGOs which can present their projects as best-practice-examples. These workshops are not designed as an ongoing continuous curriculum like the Environmental Education programme in the local school but as punctual sessions on environmental issues and topics of everyday-life, corresponding actions and strategies about implementation.

Possible topics could be:

- sustainable tourism: the Naturefriends International have developed a lot of material and workshops during the time when the Danube Delta was declared as the »Landscape of the year« (cf. Naturefriends International 2009). Based on this the local people can receive information about the topic itself and its context in the Danube Delta as well as collectively develop ideas how sustainable tourism has to look like in C.A. Rosetti.
- Financing own business ideas and funding possibilities: money is always a topic when it comes to project ideas regardless of which dimension the project is. This session informs the local people about different forms of funding possibilities, how to make a business- and finance-plan, what is important to put attention on etc.
- water supply: the fact that there is a lack of running water in the municipality together with the salinisation of the wells is a problem at the latest when it comes to host tourists or to use a bigger amount of water for different kind of businesses. In this session actions related to water supply can be discussed.
- Danube Delta Biosphere Reserve: the Biosphere Reserve is a big chance for the region but it also brings along restrictions for the local people. In this session these restrictions and how to deal with them can be discussed.
- Agricultural skill training: the area of the municipality is not extensively cultivated for agriculture. However, there are possibilities in order to act self-sufficient and even to do small businesses. Gugerell (2014) and Schilling (2014) worked on project proposals which deal with the issue of small-scale agricultural activities in the region.

- **Construction workshops with local materials**: as mentioned before, there are restrictions on the construction of new buildings due to the declaration of the region as Biosphere Reserve. The excursion in the region and on-site interviews showed that construction with local materials is partly more expensive than the construction with materials like concrete due to the restriction of using local material. In addition the local materials do not always have good standing within the community and the knowledge about these materials is vanishing. The sessions try to again promote the advantages of these materials and to train skills how to work with them. See Schmidt (2014) who dealt with this topic in more detail.

This list is definitely not complete but just tries to give some examples of which topics could be the content of the Green Delta Skills programme.
In the whole programme there is a focus on qualifying local people to take responsibilities or even to establish small businesses during the Green Delta Gathering or to be part of the Green Delta Education programme.

Further remarks on the Learnscape Green Delta

All three dimensions – Green Delta Gathering, Green Delta Education and Green Delta Skills – are seen as strongly connected elements of a greater vision, the Learnscape Green Delta. The realisation of just one of these three dimensions could be a success by improving a specific situation. However, to foster a sustainable development for the whole municipality and by that affecting a bigger share of the people living there, it is necessary to think all of the three dimensions together. Nevertheless it is possible to just start with one dimension in order to kindle a spark which boosts the other dimensions to start.

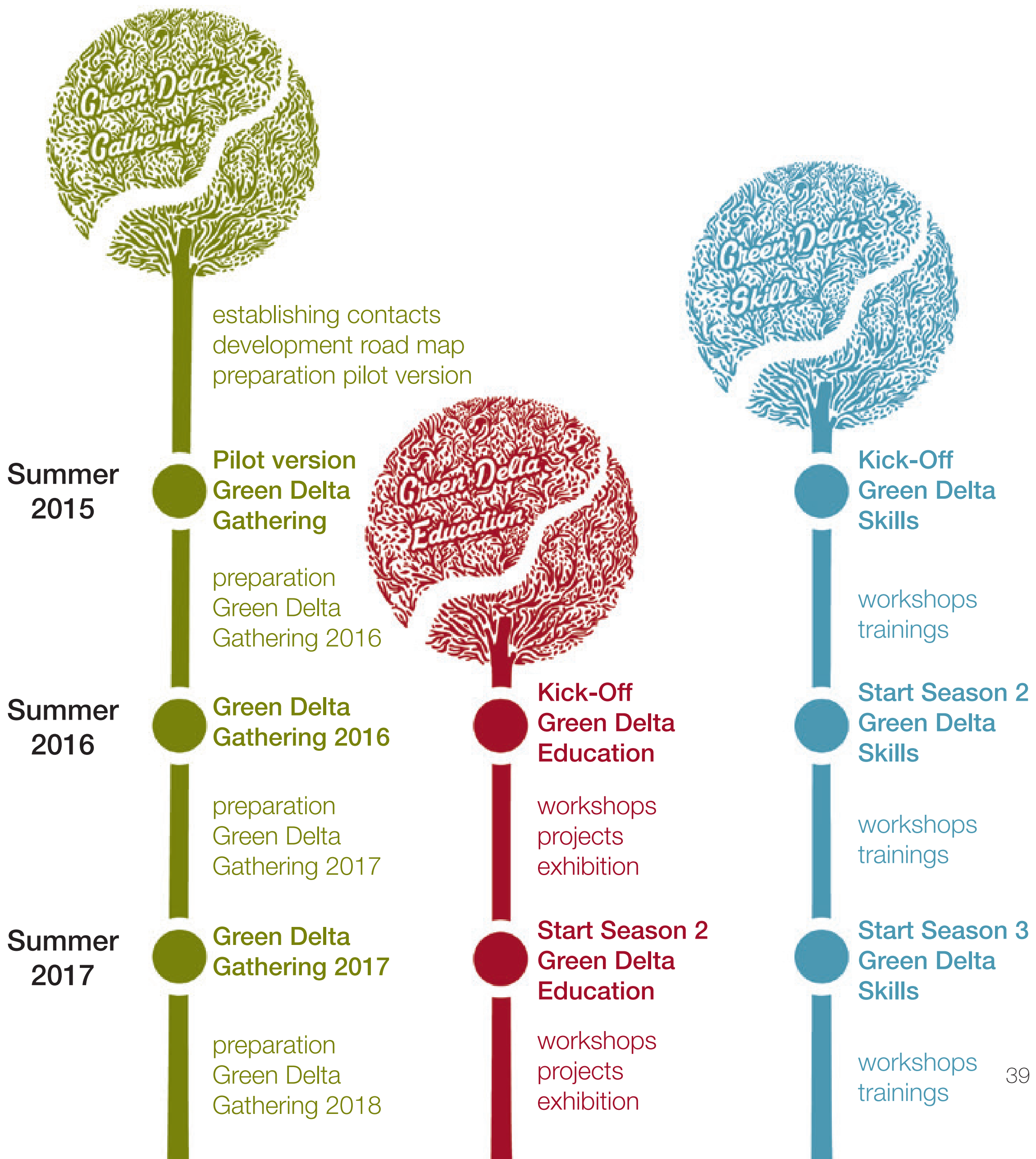
► Wine farmer in Periprava

The implementation of the project

This project proposal was developed after an excursion to Romania. During this trip I only spent four days in the Danube Delta. Under these circumstances I want to make clear that this paper is supposed to be seen as a vision or an inspiration for an upcoming project. The most important step is to find local partners which are willing to develop (on the basis of the present paper) a project in order to design a realistic path towards this vision. Possible project partners were already mentioned earlier (see Potential partners) and more have to be found. I strongly believe that this kind of project has to be submitted from a Romanian partner in order to create a sustainable long running project.
The implementation of the Learnscape Green Delta could be done stepwise by starting one dimension which triggers the kick-off for the next dimension. The year 2015 can be used to get in touch with potential project partners and to develop together a detailed road map to Learnscape Green Delta. A first small-scale Green Delta Gathering could take place as a pilot-festival with less people. This first »test run« has to be realised in close cooperation with the community so they participate in the development of next year's festival. In preparation for the Green Delta Gathering 2016, first Green Delta Skills workshops can take place in order to qualify local people to take responsibilities during the festival. The Green Delta Gathering 2016 should also be the kick-off for the Green Delta Education programme which will have been developed until then. All three elements are starting as small-scale versions and grow by fostering each other mutually in order to create the Learnscape Green Delta.

At this point it does not make sense to create a detailed financial plan but some funding possibilities can already be mentioned. For the festival the most interesting funding option is the Erasmus plus programme of the European Union. For the next seven years this programme will have a budget of 14,7 billion Euros which is an increase of 40 per cent in comparison to the former period. The aim of this programme is to »support transnational partnerships among Education, Training, and Youth institutions and organisations to foster cooperation and bridge the worlds of Education and work in order to tackle the skills gaps we are facing in Europe« (European Commission [b], online), and therefore is perfectly suited for a project like the Green Delta Gathering.

Other funding possibilities could come up through the new instrument Integrated Territorial Investments of the European Union or other grants like the Iceland Liechtenstein Norway EEA grants which have been created to minimise economic and social disparities within the 16 EU member states of Middle and South Europe.



▶ Possible Roadmap

Nice idea – **but what's next?**

First talks with potential partners from the cultural sector as well as from the Environmental Education sector in Austria already took place. It appeared that they are especially interested in the Green Delta Gathering. This is obviously the only part of the concept which can also be prepared by people who are not in Romania all the time.

There also have been first contacts with NGOs in Romania who work in the field of education for sustainable development. These conversations have to be intensified and more potential partners have to be contacted to set up a project team as soon as possible. In the case of setting up this team it has to be handled in a sensitive way so no potential partner feels left out. The project team should be multidisciplinary. Even though there are strong supporting partners from Austria (or somewhere else), the lead partner should definitely be situated in Romania.

The next task (for the project team) is to develop a road map to the first pilot version of Green Delta Gathering and to do further conceptual work for Green Delta Education and Green Delta Skills as well as to set up financial plans.

►
Man in Sfiştofca

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List of figures

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Bernadette, Corinna, Gerold, Bernhard, Karin, Leo (from left to right)

Learnscape Green Delta by Bernhard Siquans

Vienna - December 2014

RESONANZ IN DER GEMEINDE C.A. ROSETTI

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Concern: **Mastercourse C.A. Rosetti - EU am Ende**

Dear Dr. Breiling,

Thank you for introducing to me the results from the Master course, elaborated during autumn 2014 by your students from TU Wien. The municipality C.A.Rosetti is now working on the General Plan and the work of your students give us added value to our own work and we can understand how the outside world perceives our municipality. This is very helpful for us and our inhabitants.

The seven project ideas elaborated by your students will be spread under the citizens of C.A.Rosetti. Individual informal meetings are planned for all our villages, Letea, Periprava, Sfistofca, Cardon and C.A.Rosetti. They can be of tremendous help for initiative people here who do not see the possibilities of options like you see it as coming from outside.

If you or your students have a chance to come back, we invite you to participate in this process. We need your planning and the engagement from outside. This is an extra credit. If you see a possibility to continue this cooperation also over the coming years, we would be very happy and count ourselves privileged to have with TU Wien and theFaculty of Architecture and Planning such a strong supporter of our municipal development work.

Primar,

ROMÂNIA
COMUNA C.A. ROSETTI-JUDEȚUL TULCEA
PRIMAR

Hancerenco Florentina

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