

# **Transportation**

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# **Situation Analysis**

The position Somogy county fulfils in the regional structure of Hungary is determined by its geographical characteristics: the region is situated south Hungary running across southwest part of the country, alongside the axis of Lake Balaton - river Drava. Based on its position the county could play significant role in strengthening cooperation with the western and southern border regions in particular, but building partnerships is still quite slow even after joining the EU in 2004 (HU) and 2013 (HR), resulting in constructing more motorways and opening up border crossing points.

Transport structure of the region quite depends on its location. Transport routes northwards are blocked by Lake Balaton 70 km lengthwise in the northern part – except for the port in Szántód which is, however, not of competence to have enough permeability for letting through a national level transport. In southern and southwest parts of the county river Drava actually acting as the border river between Hungary and Croatia set a bar against transport, and road border crossing points can be found only at Berzence and Gola, Barcs and Terezino Polje. In spite of the fact that Somogy county is not neighbouring the Danube directly, the river with its very few crossing facilities does not help extending the transport connections of Somogy county eastwards, resulting in weak relations to the east. Connections to the western, northwest parts of the country are equally low and existing poor road network is not helping to improve it either. To sum up, Somogy county is to be considered relatively isolated.

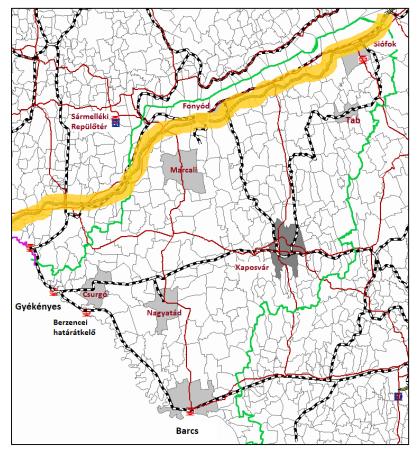


Chart 1: Motorway M7 (E71)

#### Infrastructure

## Road

## Motorway E71 and Highway No.7:

A transport route of international importance running through Somogy county is the motorway E71 (M7-7) leading to the Adriatic Sea. The motorway is the domestic road section of the European TEN-T network as well as of Pan-European corridor (corridor V/b), connecting the county to the capital Budapest. The length of the Hungarian section of the corridor is over all (from Budapest to Letenye) reducing the load on highway No. 7; latter secures the continuous running 50 km length alongside Lake Balaton which is extremely important in the summer holiday season. Function of highway No.7, however, changed when motorway M7 was constructed: now it contributes to distributing the traffic volume and primarily serving for the efficient regional transport. It is considered as a highway helping to build missing links between settlements and lessen

traffic volume.

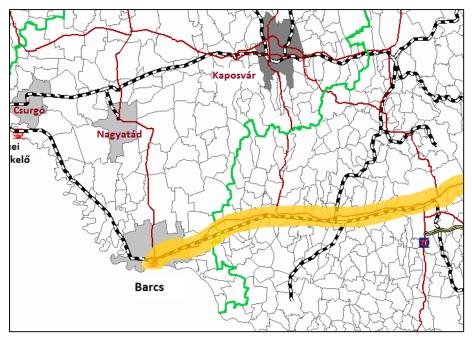


Chart 2 Highway No. 6 (TEIR)

## Highway E73/6:

Highway E73/6 runs across a small area of the county but the border crossing at Barcs the road is heading to is of great importance. This route makes the capital Pécs Budapest and connected. In spite of the fact that the Budapest-Pécs section of motorways M6/M60 has been linked to transport network, access to the capital is not as good as on the previous one. Reconstruction of the highway to semi-

motorway leading to Barcs and connected it to the semi-motorway A13 of Croatia would result in favourable changes in the transport structure of South-Somogy.

#### Semi-motorway M9 (E65):

Construction of semimotorway M9 would contribute to creating links between the northwest and southeast parts of the country. M9 is expected to be one of the main roads national significance, with the aim changing the domestic transport network of radiate structure. The

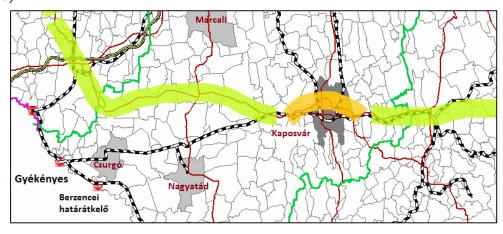


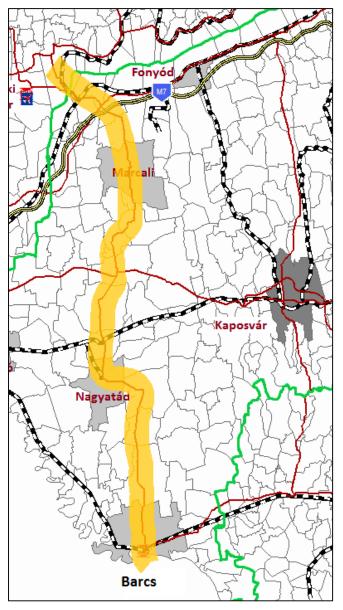
Chart 3 Conception for constructing M9 (TEIR, SM Regional Development Plan of South-Somogy)

route with its east-west dimension would make access either to the western and northwest or the eastern parts of the country by running through the settlements of Sopron – Szombathely – Zalaegerszeg – Nagykanizsa – Kaposvár – Dombóvár – Szekszárd – Szeged. Important element of the route is the bridge spanning over the Danube at Szekszárd, formally opened in 2003. The bottlenecks would be removed by making a direct road access to the Great Plain by constructing the section between Kaposvár and Bonyhád as well.

#### Plans on constructing M75:

The western section of M75 between Nagykanizsa and Kaposvár is not expected to be constructed before 2025. Till then, based on the medium-term country-level estimations on traffic load road transport will be served by highway No. 61.

## Highway E661/68.:



The link between the two highways of international level is created by highway E661 68) from the boarding point Balatonkeresztúr to the arriving point at Barcs. Bypass sections of the route between Nagyatád and Marcali will be constructed by the end of 2014, expected to be followed by a full renovation of the road. These construction works will help improving the efficiency of road transport of the region to a great extent. The quality of the roads justifies the needs for constructing bypasses, e.g. at Lábod, Böhönye, Mesztegnyő, Kelevíz, Kéthely.

There is the **highway No. 61 of secondary level** running between highways No. 7 and 6 which has been already reconstructed at full length by repairing road surface to hold 11,5 axle load resulting in becoming a highway of good quality, but there are still deficiencies left. After constructing M9 the highway will continue fulfilling vital role in the transport network of the region.

Important elements of the road network of Somogy county are south-east connections, highways No. 65, 67 and No. 66 connecting Kaposvár and Pécs (no development expected). These are all having bad passage sections.

Chart 4 Highway Nr. 68. sz. főút (TEIR)

## Highway No. 65:

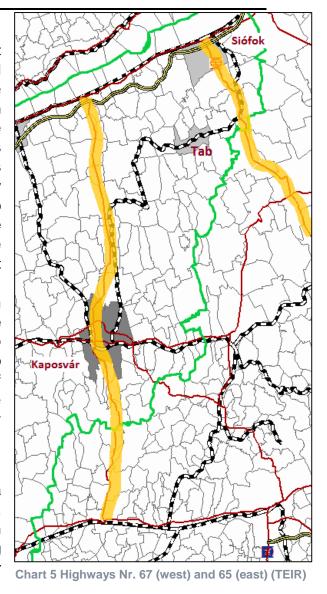
There is a short route of **highway No. 65** crossing the county, but the road has been reconstructed overall recently. The section is expected to be extended by a bypass at Ságvár and reconstructed into a four-lane route at Ságvár and Siófok-Balatonkiliti.

#### Highway No. 67:

Construction of a bypass to highway No. 67 at Kaposvár has got the transport faster and helped reduce heavy traffic volume at Kaposfüred. The highway is now the best amongst the north-south routes. After the construction of motorway M7 the section at Balatonlelle got out of use: the route is connecting to highway No. 7 at Balatonszemes through a bypass at Somogytúr and Látrány and by the road at Rád-puszta. To access from Pécs to motorway M7 more easily, further developments are planned to do such as reconstruction of the highway, construction of bypasses Mernyeszentmiklós, Somogyaszaló, Mernve. Vadépuszta and Somogybabod and reparation works on road surface to hold 11,5 axle load. These projects are still in preparation phase but will help contribute to significantly reducing travel times to Budapest. Long term plans contain extensions of highway sections outside the county (through Sellye to the border), a new bridge spanning over the river Drava and opening a new border crossing point.

## Highway No. 76:

**Highway No. 76** concerns the county only for a short route in the southern end of Lake Balaton. Constructing plans on building bypass of 7,5 km long at Balatonszentgyörgy and making improvements of road surface to the county border are in preparation phase.



#### Traffic parameters and side road network

Compared to the more developed regions of Hungary, traffic volumes generally are to be considered quite low except Motorway M7, which serves for a huge transport.

Passenger car transport is concentrating on highways No. 7, 61, 65 and 68, in Kaposvár and Siófok.

For freight transport see the respective section on page 11.

Full length of side road network of Somogy county is 1243 km long officially, albeit there are some areas scattered by villages in the inner parts of the region where road connections among settlements suffer from deficiencies and one from three of them are with dead end, worsening the performance of road transport.

Passenger car traffic is the heaviest on roads of no. 6505 at Kaposvár-Szántód, 6607 at Szigetvár-Kadarkút, 6701 at Kaposvár-Fonyód and 6801 at Barcs-Csurgó-Iharosberény, in the surroundings of Barcs and Csurgó. Significant traffic volume can be experienced in the following areas: at Pécs on the roads no. 6616 and 6703, in the surroundings of Siófok on



the roads no. 6401 and 6403, at Marcali on 6704, at Nagyatád on the road no. 6809 and at Tab on 6511. Roads no. 6707, 6711 and 6713 creating missing links between settlements located alongside Lake Balaton are sometimes quite crowded. Passages are of high importance.

Quality of the side roads (including capacity, road surface, wideness) is generally low – developments such as renovation of road surface or extension of transport network carried out in the period of 2007-2013 resulted in no significant improvement unfortunately.

#### Road border crossing points:

Low number of road border crossing points at the Hungarian-Croatian border proves poor connection between the border regions which doesn't contribute to strengthening cross-border partnerships either.

#### Rail

As the parts of TEN-T transport network two railway lines of international significance cross the region. The rail line running along **Budapest-Gyékényes** heads towards the Adriatic Sea through Croatia and Slovenia. The line serves the need of creating links for Russian, Ukrainian, Polish and Slovak areas to the Adriatic ports. The other important rail line goes along **Budapest–Székesfehérvár–Nagykanizsa (30)** towards Slovenia, Italy and the South-European countries. Although both railway lines belong to the European rail network, their capacity and performance is lagging behind the other lines running in Hungary.

Due to their poor quality, there is speed limit in some sections of the lines. In the recent years there were no developments carried out in rail ending up with deteriorating tracks and long travel times.

The only rail border crossing point can be found at Gyékényes.

## Railway line of Budapest– Székesfehérvár– Nagykanizsa (30):

The entire length of the line is electrified. Passenger trains as well as freight (cargo) trains are also running on the line. Some sections are short capacity; there would be necessary to make them into double-track lines to assure a faster transport (160km/h).

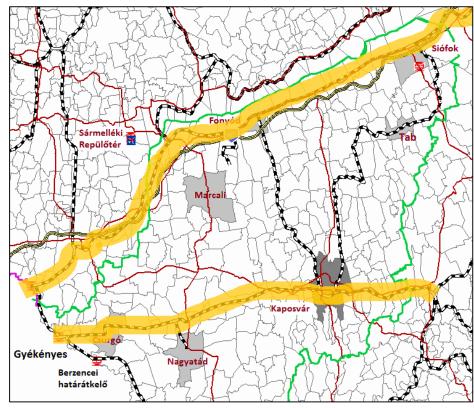


Chart 6Railway lines Nr. 30 (north) and 41 (south) (TEIR)



#### Railway line of Dombóvár-Gyékényes (41):

Passenger transport as well as freight (cargo) transport is also running on the line – in order to reduce the load on the surrounding network of Lake Balaton. This single-track line possesses poor technical parameters proven by the fact that the maximum speed limit is 60-80 km/h (10 km/h at some points!). Developments are therefore very necessary to implement; a complete reconstruction is to be carried out from Dombóvár to Kaposmérő, then at Ötvöskónyi and Csurgó.

## Railway line of Balatonszentgyörgy–Tapolca (26b):

Though the line crosses the region for a short route only, it is important to take it into consideration since the line is the only element of the national rail network which accesses to the international main line at Balatonszentgyörök. The single-track line plays important role in the holiday season.

#### Railway line of Nagykanizsa-Pécs (60):

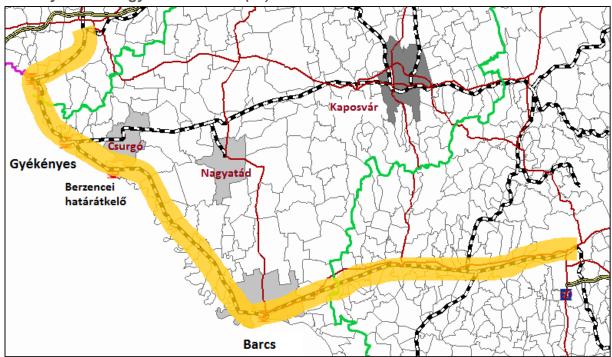


Chart 7 Railway line No. 60 running along the border between Nagykanizsa and Pécs(TEIR)

The single-track line goes along the border through the settlements of Murakeresztúr, Gyékényes, and Barcs, but electrified only in the section that connects the lines of No. 30 and 41(Nagykanizsa-Gyékényes).

## Other rail lines:

The two international main lines (30, 41) are connected by three non-electrified side-lines running from North to South. Rail line **Kaposvár–Siófok (35)** serves the greatest coaching traffic on the southern section between Kaposvár and Felsőmocsolád, and the northern areas between Siófok and Tab. The lines of poor quality often allow the trains to run with only a 20-30 km/h speed.

Rail line **Kaposvár–Fonyód (36)** plays a bigger role by having a larger volume of traffic. Between Pécs and Celldömölk high-speed trains are allowed to run on the line.



Rail line **Nagyatád–Somogyszob (38)** is 9 km long, but has a good capacity for serving 15 passenger trains a day, though allowing them to run with 20-40 km/h only.

Rail line **Somogyszob–Balatonszentgyörgy (37)** is out of use at the moment.

Rail line Barcs-Villány (62) crosses the county for a short route but is out of use at present.

City of Kaposvár is the one who plans establishing an intermodal rail junction with the aim of operating rail freight station. That development would contribute to making significant changes in rail transport of the region.

#### Dinkey lines:

There are more dinkey lines running in Somogy county. The railway departing from Balatonfenyves to Csiszta-spa is the only line running along Lake Balaton that is a narrow-gauge railway. Its side-lines go to Táska and Somogyszentpál but they are out of use now. Passenger train running on a regular basis are only on the line between **Balatonfenyves-Somogyszentpál** which serves the needs out of season too. It is used not only for tourism purposes. Improvements are being carried out.

The other narrow-gauge railway with its length of 9 km runs across the Landscape Protection Area of Boronka. Today it serves for tourism. In 2013, complete reconstruction has been carried out by SEFAG Zrt. responsibe for the operation.

The 8 km long dinkey line running between **Szenta-Kaszó** also crosses a natural park. Between the settlements of Baláta and Szenta the train delivering passengers by demand only. It serves for tourism. Operated by KASZÓ Zrt.

#### Air

There is no air traffic in the county though there are some facilities that can be transformed into airports serving for trade.

Airports using for sport and leasure purposes: Kaposvár-Kaposújlak, Balatonkiliti, Balatonkeresztúr

#### Siófok-Kiliti Airport:

**Siófok–Kiliti Airport** is located 5 km south from Siófok, near the highway No. 65. The airport is 1250m long having a 50 m wide grass runway and lighting. A public airport with no international scope. Serving for leasure and sport activities.

In addition, **Hertelendy Castle** has a private airport suitable for receiveing smaller plains and helicopters. Serving for luxury tourism. The airport can be used for free.

#### Taszár Airport:

The Airport is located 8km south from Kaposvár, near the highway No. 61. The area previously hosted a military base pulled-off in February 2006.

## Hévíz-Balaton Airport:

The airport at **Sármellék** is actually located in Zala county but is so near the county of Somogy that it can have impacts on the region too by fulfilling international scope. After having recognized the opportunities the area could offer the operator of the airport developed

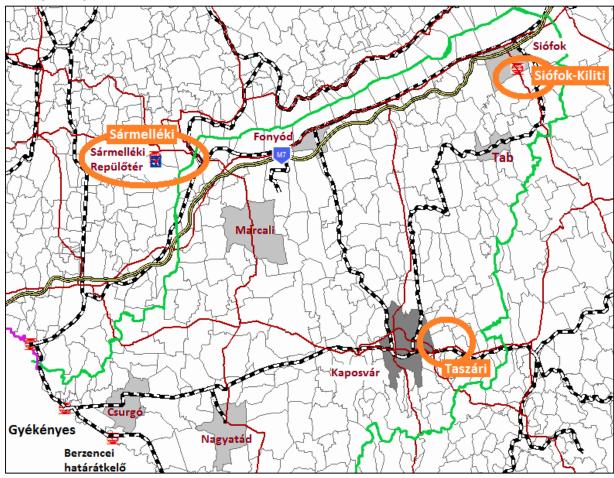


Chart 8 Taszár Airport, Siófok-Kiliti Airport and Hévíz-Balaton Airport (TEIR)



the place into an international airport, opened up in April 2006. In 2007 the establishment was extended by building a new cargo terminal and a logistics centre.

#### Water

Lake Balaton and river Drava and temporarily the Sio canal are used for water transport.

#### River Drava:

The border river Drava is not to be considered as an international water transport route. Since Croatia is the member of the EU since 2013, co-operation between the two countries could be deepened more efficiently than it nowadays is.

Shipping on the Drava is possible from the firth to Barcs on a permanent basis; and to Bélavár temporarelly. Merchant-service on the river, however, is quite low. Border ports can not be found, public ports are working at Barcs and Drávatamási. Great potential to be used for water tourism and boating are lieing in the river.

#### Lake Balaton:

Balaton shipping as one of the main attractions the lake can offer is primarily serving for tourism, though sometimes water-level problems can set a bar against it. There are 8 ports in the southern part of the lake. To use a ferry you have to go to Szántód, albeit the ferry boats are not working the whole time of the year. It rather serves for tourism than contributing to letting through a great volume of traffic.

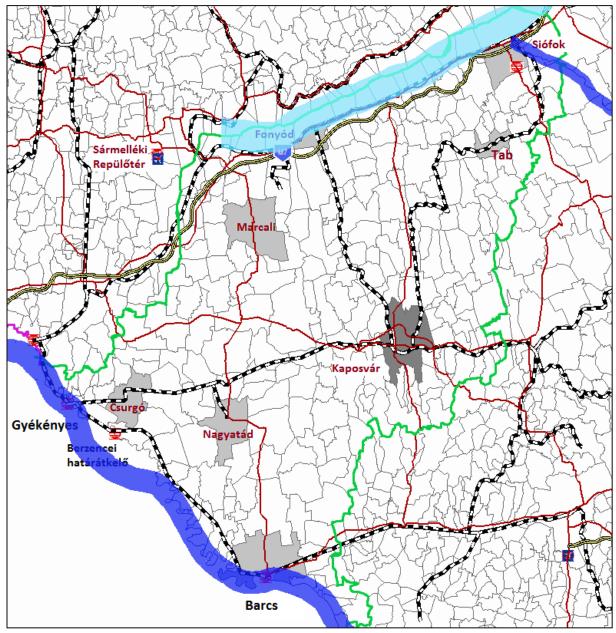


Chart 9 River Drava in the South, Sio canal northeastward, Lake Balaton highlighted with blue (TEIR)

There is often mentioned in the development plans to solve the crossing of the lake by establishing a second ferry port at Fonyód and Badacsony, which could significantly help improving the connections northward.

#### Sió canal:

Sio canal acts as an inland waterway between Lake Balaton and the river Danube. The canal can be used for shipping periodically since water level is generally low and the good quality of the water bottom can not be maintained for a long time to make the canal passable.

#### **Bike transport**

Bicycles are becoming quite favourable means of transport nowadays proved by the growing need for riding bicycles to work and for leasure and sport activities as well. If circumstances would be more appropriate number of bycicles riding on the roads was multiplied: cycle infrastructure facilities are still underdeveloped, no cycle track can be found in the county actually. Only one path to be used for cycling is going around Lake Balaton (Balatoni



Bringakörút). Existing cycle facilities found in the settlements are not linked to each other – not even in the chief town of the county, and parking is not safe. Now City of Kaposvár os taking measures to establish a small-scale cycing network.

#### **Junctions**

Kaposvár is functioning as the road and rail junction of greatest significance in the county. Its connections to the regional transport network contribute to the development of the city. Because of its location in the eastern part of the county, however, only one fourth of the territory of the region can be reached by bus or rail within an hour. It takes a long time to arrive in Budapest from Kaposvár either. Constructing the semi-motorway M9 would contribute to travelling faster and safer.

Motorway **M7 plays** a role of great importance in road transport network of the county. In addition to the fact that it has an international significance and secures the fast approach of Lake Balaton, the motorway contributes to improving the quality of environment of settlements alongside the lake by reducing the environmental load. Many junctions along the route make it possible to get to the motorway.

## **Freight transport**

Rail freight transport is frequent on railway no. 30 (Budapest-Székesfehérvár-Nagykanizsa) and 40 (Dombóvár Gyékényes).

Cargo ships can use the ports of Lake Balaton at Fonyód; ferry port can be found at Szántód.

Shipping on the Drava is possible from the firth to Barcs on a permanent basis; to Bélavár temporarelly. Merchant-service, however, is quite low. Border ports can not be found, public ports are working at Barcs and Drávatamási. Great potential to be used for water tourism and boating are lieing in the river.

#### **Transportation:**

Heavy goods vehicles such as lorries and big trucks are mainly using motorway M7 and highway No. 61 near Kaposvár. Highways No. 6, 7, 61 and 67 are of good quality and wide enough to hold freight vehicles. Road surfaces are continuously needed to be repaired but generally satisfactory.

## **Public transport**

The role of public transport in the county is very important since helps remove bottlenecks the transport infrastructure network is suffering from in the areas with minor villages in particular. Collective rail transport is ensured by MÁV-START Zrt., bus transport by Kapos Volán Zrt.

Railline 30/41 is by far the most used. Almost 20 settlements near Kaposvár are connected to either of the railways No. 35, 36 or 41, but most villages are not linked directly. In areas such as these rail facilities if any had been previously (buildings, stations, stops or restrooms) are out of use by now. Conditions for suburban rail transport are not appropriate. Since travelling by rail takes a long time because of the speed limits, rail transport is not able to replace or even complete travelling by bus.

Opportunity to travelling by bus or coach is offered by Kapos Volán Zrt. in towns (Siófok, Fonyód, Tab, Marcali, Barcs, Csurgó, Nagyatád) except Kaposvár where local municipality is responsible for the operation.

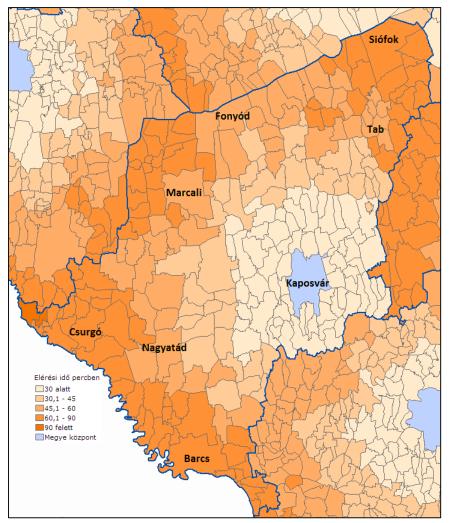


chart 1. Accessibility of Kaposvár from the settlements of the county (TEIR, 2012)

From the chief town of 158 the county settlements be can reached by bus or coach directly. Kaposvár be can reached within half an hour from the neighbouring settlements only. generally takes more than 90 minutes for people living in the northern and souther parts of the county like Barcs or surroundings of Siófok and Marcali to get here.

Tο ensure that all settlements are reached by bus or coach extra vehicles making bypasses have to involved which costs a lot. Despite of this fact all the 245 settlements are connected to transport network on weekdays (only for

reaching 71 settlements needs extra busses). At weekends people from villages do not always have the chance to travel by bus or coach.

Passanger transport on Lake Balaton primarily serves for tourism purposes.

# Stakeholder analysis

## Governmental institutions, authorities

#### **Somogy County Governmental Office, Transport Inspectorate**

The Transport Inspectorate acting as the specialised body of the County Governmental Office is responsible for transport affairs happening in the administrative area of the county. The appeals against the decisions made by the Transport Inspectorate in first instance are judged by the National Transport Authority. The Inspectorate's main tasks are the followings:



permission issue for activities of technical testing stations; checking tolls; controlling the driving and rest periods of drivers of heavy duty vehicles; controlling the road transport of vehicles delivering dangerous goods; controlling the meeting the restrictions on heavy trucks; controlling the environmental suitability of vehicles and testing the drivers as well.

## **South Transdanubia Regional Development Agency**

The Agency acting as the intermediate body of South Transdanubia Operational Programme is responsible for implementing regional development programmes. In the period of 2007-13 the organisation helped implementing 904 projects financed by 241,7 billion HUF of support. The experience the organisation gained between 2007 and 13 is a great asset to be built upon and the use of it for cross-border cooperations is highly recommended.

## **Transport infrastructure operators and maintainers**

## **National Infrastructure Development Ltd. (NIF Ltd.)**

As a state-owned development company NIF implements economic and transport programmes. It manages projects invested to building highways, public roads and railway lines.

#### Hungarian Roads Management Company (Magyar Közút Ltd.)

The Hungarian Roads Managament Company is responsible for maintaining and operating a more than 31.000 km long national (and county) level road network. The Hungarian Roads Management Company is working with the aim of ensuring all passengers a smooth transport. The activities carried out by the company include operating, service and maintenance tasks both in term of national public road network and motorway network.

#### MÁV Co. (Hungarian State Railways Ltd.)

MAV is responsible for operating the whole railway infrastructure, and increasing the investments and developments in raillines. It also deals with coordinating subsidiaries. The task of the Railway Track Department is the operation, maintenance, reconstruction and development of the railway network as well as the sale of railway track services, and operation, surveillance and management of the train transport.

## Passenger transport companies

#### Máv-START Ltd.

It act as the subsidiary of MÁV responsible for passenger transport, which has now been extended with other necessary supporting functions.

It should be noted that as part of the reorganization of MÁV Group, the MÁV-TRAKCIÓ Ltd. merged into MÁV\_START Ltd on 1 January 2014. The MÁV-TRAKCIÓ Ltd., the Hungarian railway towing company was one of the MÁV's subsidiaries previously.

#### **SEFAG Ltd.**

In addition to its main activities, SEFAG Forestry and Wood Industy Ltd. is responsible for operating a light local railway at Mesztegnyő.

## KASZÓ Ltd.

KASZÓ Forestry Ltd is the operator of the light local railway at Kaszó.



#### Kapos Volán Ltd.

The state-owned company is working on both regional and local level by offering people to travel by bus or coach in settlements Fonyód, Marcali, Tab, Siófok, Csurgó, Nagyatád, Barcs. Due to the patterns of the county, the areas with small villages representing a big proportion in the settlement structure in particular, the Ltd. can create missing links where other transport services are not possible to use. Due to these facts the company suffers from more financial deficit than other regional public transport companies do and stands in need of continuous state aid.

## Kaposvár Public Transport Ltd.

The company operates the public transport in the county seat, it is owned by the municipality.

## **Balaton Shipping Ltd.**

The scheduled passenger transport and ferry transport in Lake Balaton is carried out by Balaton Shipping Co. Due to the location of the lake, the company do operate not only in Somogy county. It is owned by the municipalities of settlements providing public ports alongside the lake.

## Freight transport companies

## **Rail Cargo Hungaria**

The former MÁV Cargo Transport Ltd. came into the property of Rail Cargo Austria AG after the privatisation. As a member of the company group, it is one of the dominant rail cargo companies in Hungary.

# **SWOT** analysis

Strength	Weakness
Many European (TEN-T) transport corridors going across the county:  → Road E71 (M7) - creating links between Budapest and Slovenia and Croatia via the county. It ensures a connection of high quality for the northern part of the county. → Budapest-Gyékényes main railway corridor - it is the most significant rail line running through the county) → Budapest-Székesfehérvár-Siófok-	Weakness  Somogy county is considered relativelly isolated in terms of transport too:  → The bypass roads, which can be capable of superseding the low grade town-crossing sections of the existing main roads, have not been built yet  → Long town-crossing road sections decelerate the traffic on the following routes: main roads no. 61, 65, 66, 67  → Direct connections via highway or good quality main roads to the western, northwestern part of the
<ul> <li>Nagykanizsa main railline</li> <li>→ Three light trains serving for tourism purposes</li> <li>→ Southern parts of Balaton area are easy to reach by train as well as by road.</li> <li>→ Shipping on the Drava is possible from the firth to Barcs on a permanent basis; to Bélavár</li> </ul>	country and to the Hungarian Great Plain are missing There is no main road of good quality connection from Kaposvár to the highway-network The rare crossing possibilities over the river Drava and the lack of main roads to the southwestern direction and the shortage of the border



temporarelly

- → Hévíz-Balaton Airport is located in Zala county, but has a definite impact on economy of Somogy county
- → Established but currently unused airport at Taszár.
- → Transit traffic with less strain on the county road network.
- → A relatively good coverage of public transport network, each settlement to be reached at least on weekdays.

crossing points mean also a problem

- → There is only one crossingpoint at Lake Balaton, links to the north are weak
- → The transport situation of the county is exacerbated by the fact that the major part of the existing road network – regarding its structure, capacity, general condition – does not meet the demand expected
- → All railway sidelines have degraded, their traffic have decreased. The transport on the sidelines is slow; the average speed of 20-30 km/h is not extraordinary.
- → Regarding the external links with the adjacent Croatian territories, the low number of the road crossing points and the single rail crossing point at Gyékényes signal poor connections, which is a hindering factor in the field of cross-border cooperations.

These problems above have significant impact on the level and time of accessibility, and they influence all sort of opportunities for development to a great extent..

- → The capacity of the railway network (in terms of quantity and quality as well) limits the potential for development.
- → The railway passenger facilities outside the main lines are almost completely missing.
- → The section of the Sió-canal located in Somogy county is barely navigable most of the year due to the low water level and the untended state of the water-course at some places.
- → The ferry at Szántód is primarily serving for tourism and not leading the nationwide transit traffic.

#### **Opportunity**

- → Constructing M9 highway would create east-west connections, and increase the accessibility of Kaposvár
- → Upgrading main road no. 67 would improve access to motorway M7 from Kaposvár and reduce travel times
- → Extending main road no. 67 towards the border and establishing a new link to Croatia by a new bridge

## **Threat**

- → Maintaining the railway sidelines with continuously decreasing demand, the ensuring modern operating conditions can only be achieved by increasing financial losses.
- → The reconstruction of main roads and local roads and construction of bypass roads are costly investments.
- → Since international railway and



⇒ Suburban public transport of
 Kaposvár would be ensured by train by means of reorganisation of existing infrastructure.

## Freight transport:

- → The existing rail infrastructure could be used more effectively for freight transport
- → The volume of freight transport on river Drava could be extended using existing freight ports
- → Intermodal hub can be established at Taszár Airport. The establishemnent of a freight railway station in Taszár could strengthen this project.

- highway can be found only on the southern coast of Lake Balaton, thus evolving major logistics center in the county is implausible. (The exception could be Kaposvár and its area.)
- → Most of the county has poor accessibility value; it means a risk that only few external investments will be realised in the county.
- Due to the few border crossing opportunities, the creation of crossborder cooperations will remain limited.
- → The loss of Kapos Volán can increase; the decreasing number of passengers or the losses can induce to cut down the territorial coverage of service.

## **Identification of Key Challanges**

First of all, the highways are necessary to be improved including ensuring a better tracing, reducing the number of passages, carrying on ongoing rehabilitations and preparing new ones. These works would help highways meet the needs and ensure a more efficient road transport.

Some settlements are short of connections to the cities (e.g Tab-Lengyeltóti-Marcali, Kaposvár-Marcali); there are settlements to be reached by side-road only (e.g. Csurgó, Tab, Lengyeltóti). Deficiencies in the road transport network are mostly due to the geographical characteristics of the region but unfortunately are to blame for the decrease in the functions of settlements. Connections between cities and settlements found in their surroundings are poor. It happens quite often to take a by-pass to reach the neighbouring settlement (e.g. Karád-Somogymeggyes etc.). Close to one third of settlements are with dead end and being addressed differently: the situation of a settlement approachable easily even by a side road connected to a main road with good connections is favourable since it doesn't suffer from heavy traffic crossing the settlement. A settlement, however, also approachable by side-road connected to a main road with worse connections can make the area lagging behind. (The most villages with dead end are in the surroundings of Tab, Zselic and north from Kaposvár.)

Attention should be paid to the area of Marcali– Lengyeltóti–Tab where the number of roads is the lowest for a long time. No connections between the cities and their surroundings built and a lot of settlements with dead end are located here. New section of highway No. 67 will be numbered as 671connecting Sávoly - Marcali - Somogyvár - Gamás - Törökkoppány – Nagykónyi will be started to construct in 2025-2027 the earliest.

Low capacity (in volume and speed) of rail transport network sets a bar against the development of the region. It would be necessary to transform at least the main railway routes (30 and 41) into double-track lines and increase the speed limit to 160km/h maximum.



Maintainance of railway facilities built in the beginning of 20<sup>th</sup> century costs a lot; the need for their reconstruction however is justified. After implementing developments rail line running from Dombóvár to Gyékényes (41) would be one of the main transport corridors in the region, ensuring the appropriate connection either to the capital or the cross-border regions.

Crossing the border by rail could be solved at Barcs (there is a railway line in Croatia running along a few kilometers far from the border) and a further road border crossing point could be opened between Barcs and Berzence including a building of a bridge over the river Drava.

Connecting Szentgyörgyvár in Croatia and Nagyatád in Hungary would help to build long-term cross-border partnerships but that needs to construct new roads as well (partly in the area of a National Park).

**Public transport continuously needs national financial support to run.** Operation of managing companies cannot be alterred without reducing some range of services; introduction of new services also require quite a lot support. Maintainance and modernisation of railway lines knowing the fact that volume of rail traffic suffers from continuous decline also costs a lot.

- 1. First of all, the highways are necessary to be improved including ensuring a better tracing.
- 2. Some settlements are short of connections to the cities.
- 3. Low capacity (in volume and speed) of rail transport network sets a bar against the development of the region.
- 4. There are limitations regarding border crossings.
- 5. Attention should be paid to the area of Marcali- Lengyeltóti-Tab where the number of roads is the lowest for a long time.
- 6. Public transport continuously needs national financial support to run.

# **Cross-sectoral Linkages**

## **Agriculture**

Ensuring high level of transport infrastructure is crucial for the transportation of agricultural outcomes and products. Capacity of road transport infrastructure in Somogy county proves to be enough for serving the needs of the sector but some improvements by constructing more by-passes around the settlements would contribute to approaching the region better and reducing transportation costs. Any road development would be for benefit of local agriculture. This is particularly true for those branches where crops need to be processed quickly, e.g sugar industry (the only sugar plant of the country is found in Somogy).

Rail can also be profiting from the results of road developments.

It would be worth using the river Drava to deliver goods in bulk.

It is recommended to transform vehicles of public transport into eco- and environment-frienly means that consume biogas or bio fuel. Using locally produced bio fuels could strengthen the co-operation between farmers and public transport companies.



## **Environment protection, natural values, energy**

Volume of the road traffic in the county does not have a real threat on natural values at present. Motorcycles are not allowed to use Lake Balaton. Freight water transport on river Drava is allowed temporarilly. Only a slight transit traffic concerns the county that contributes to preserve the nature.

Though main railway lines of the county are already electrified, energy efficieny of (public) transport vehicles is recommended to increase to produce lower exhaust emissions. Using electric vehicles would be welcome.

For the purposes of increasing energy efficiency and protecting the environment there would be necessary to promote intermodal freight transport. On routes where transportation by rail or inland waterways like Drava is possible the introduction of these environment-friendly ways of transportation should be supported.

## Regional development

Transportation is present in regional development with regard to infrastructural configuration. Peripheral position of some areas of the county could be enhanced by improving accessibility, for the situation for particular areas (e.g. Barcsi district) is very critical, and it is the major obstacle to development. Connections among settlements are incomplete, cumbersome in several district; some towns and villages can be approached only through connecting roads, there are lots of dead-end villages.

## **Tourism**

The link between the transportition and the tourism sectors is significant. Access time of the different tourist destinations are significant factor for the county's tourism. Transportition is the bottleneck itself for the industy and agriculture of the county and it applies to the tourism as well.

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