



Challenges in Creating a Sustainable Transport Policy – a Polish-Ukrainian perspective

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ABSTRACT

A fundamental element of creating a common European market is the transport policy aiming at developing infrastructure and transport corridors, also involving neighbouring non-EU member countries in this process. In this article, some challenges in creating sustainable transport policy are discussed from a Polish (EU member) and Ukrainian (non-EU member) perspective in the context of the importance of good governance and multilevel governance. Theoretical arguments are provided that the lack of good governance is likely to lead to unsustainable development of transport systems, which may be in particular the case for Ukraine, while a more sustainable development of transport in Poland is supported by the EU policy.

KEYWORDS: transport policy, sustainable transport, European integration, good governance, multilevel governance, Pan-European Transport Corridor III, Poland, Ukraine

1. Introduction

As Adam Smith [1] already argued more than two centuries ago in his *Wealth of Nations*, the extent of the market is determined by the development and efficiency of transport systems. One definition of a transport system is “a collection of objects (e.g., transport network and infrastructure, transport investment, transport processes in all modes of transport) and the relation between these objects as well as its attributes, using transport policy for the co-ordination of transport systems [2, p. 73].” In the co-ordination and development of transport systems the co-operation between different levels of government administration is required due to, e.g., its public good character, the indivisibility of transport systems, interdependencies in transport processes and problems of incomplete, dispersed and asymmetric information on its environmental, social and economic impact [3, 4, 5]. An important determinant of the sustainability of transport policy is so-called good governance, emphasizing the importance of public participation in policy making, transparency

(access to information), accountability and responsibility of policy makers, policy coherence and effectiveness, political stability, rule of law, etc. [6, 7]. This issue will be discussed in the framework of multilevel governance, which in the context of transport systems can be defined as “[a] system of continuous negotiation among nested governance systems [8, p. 292]” of transport systems at different territorial and administrative levels. The governance of transport systems “are enmeshed in territorial overarching policy networks [9, p. 5]” including a wide range of stakeholders at different territorial and administrative levels being influenced by or having different levels of salience in influencing the development and functioning of transport systems [10].” It will be argued that due to a lower level of good governance, transport systems are less likely to develop in a sustainable way than in the case of Poland. In the context of the importance of the Pan-European Transport Corridor III, first sustainable transport and transport policy will be discussed. Afterwards, Poland and Ukraine will be compared regarding good governance and the sustainability of transport systems.

2. Sustainable Transport and Transport Policy

Following different definitions of sustainable development [11], sustainability of transport systems exists when access required for improving ones quality of life is guaranteed for current and future generations. Conditions for such sustainability are lack of negative impact on human health and ecosystems as well as permanent access to energy [12]. Thus, the development of transport systems in the Polish-Ukrainian context does not only concern the creation of, for example, the Pan-European Transport Corridor III connecting Berlin/Dresden – Wrocław – Katowice – Kraków – Rzeszów – Lviv – Kiev (see Table 1). A transport corridor may be interpreted as a transport system including infrastructure for different modes of transport, such as railroads, motorways, waterways, logistic centers, but also energy distribution and telecommunication networks [13, 14]. As a consequence, policy for sustainable transport is closely related to energy policy and environmental policy. Even when the general policy is developed at higher levels of administration (EU, nation state), in accordance with principles of multilevel and good governance, policy should be developed in coherence with local development plans. Even when local public administration is relatively efficient, real power to determine its own development path in a sustainable way depends on the efficiency and effectiveness of national public administration [15, 16]. Neglect of the relation with local sustainable development, more efficient transport corridors may lead to increased economic development or large agglomerations, while negative environmental, social and economic impacts for rural areas may be easily neglected. Furthermore, the development of one transport network should not be independent for other transport networks. One reason is that the development of one corridor has impacts on the use of other corridors. Furthermore, when aiming at strengthening integration of Ukraine with the EU via development of transport systems, the connection with Belarus, Russia and China via other corridors (e.g., Pan-European Transport Corridor II connecting Berlin – Warsaw – Minsk – Moscow – Nizny Novgorod) should not be neglected [17]. Without such development, access to energy and other resources may be hampered for the EU, in particular in the context of global economic and political changes which are taking place through the strong development of countries with large populations such as China and India.

The Pan-European Transport Corridors should lead to more efficient use of different modes of transport, and stimulate the application of, e.g., Information and Communication technology and integrated multi-modal transport technologies, leading to reduced pressure on the environment. Rail transport should be used for bulk cargo transport over large distances, while improved access to markets should lead to economic development [19, 20]. However, as the development of rail infrastructure, infrastructure for multimodal transport, logistic centers and investment in modern rail vehicles remain behind due to a lack of government policy and slow restructuring of the railroad market [21], it may be expected that road traffic increases faster than rail traffic. This is confirmed by predictions of PKP Cargo (the Polish rail cargo

shipper). As the data presented in Tables 2-5 show, it is expected that road cargo as well as rail cargo transport will increase in the next two decades. While railroad cargo transport is expected to increase by less than 20% between 2015 and 2030, for road cargo transport the number is about 80%. This is likely to pose serious challenges to environmental sustainability in the Pan-European Transport Corridor III. However, it should be emphasized that the estimates depend heavily on the level of economic growth. A change in growth rates may lead to an even stronger change in demand for transport services. Furthermore, rail cargo depends strongly on bulk cargo such as coal, construction materials, etc. For example, a decrease in coal use due to increased reliance on renewable energy resources will significantly influence the estimates. Thus, while the data have to be interpreted with care, there is a clear tendency for road cargo transport to increase faster than rail cargo transport. Without proper policy, this tendency is unlikely to be changed. Effective policy for sustainable development of transport systems is even more unlikely in the case of lack of good governance.

Table 1. Pan-European Transport Corridors going through Poland and Ukraine [18]

Corridor	Road and rail links
I	Helsinki – Tallinn – Riga – Kaunas – Warsaw: a) Road Corridor (Via Baltica) Tallinn – Riga – Warsaw; b) Rail Corridor (Rail Baltica) Tallinn – Riga – Warsaw; c) Branch (road/rail) from Riga – Kaliningrad – Gdansk
II	Berlin – Warsaw – Minsk – Moscow – Nizhny Novgorod Dresden – Wrocław – Lviv – Kiev
III	Venice – Trieste – Koper – Ljubljana – Budapest – Uzgorod – Lviv. Branch a: Bratislava – Kosice – (Uzhgorod) – Lviv. Branch b: (road): Rijeka – Zagreb – Cakovec. Branch b: (railway): Rijeka – Zagreb – Koprivnica – Dombovar. Branch c: Ploce – Mostar – Sarajevo – Osijek – Budapest
VI	Gdansk – Grudziadz/Warsaw – Katowice – Zilina. Branch to Brno
IX	Helsinki – St. Petersburg – Pskov/Moscow – Kiev – Ljubasevka – Chisinau – Bucarest – Dimitrovgrad – Alexandroupolis

Table 2. Forecast of load in tons for chosen road sections in the Pan-European Transport Corridor III until 2030 [22]

Section	Year	Maximum flow per day (in tons)	Minimum flow per day (in tons)
Jędrzychowice - Wrocław	2015	117,659	66,448
	2020	149,407	84,697
	2025	183,867	104,513
	2030	218,378	124,360
Wrocław-Katowice	2015	167,131	86,667
	2020	208,772	109,320
	2025	253,881	133,890
	2030	299,021	158,488
Katowice-Dębica	2015	93,922	62,147
	2020	117,671	78,000
	2025	143,777	95,183
	2030	169,910	112,383
Dębica-Korczowa	2015	46,031	10,846
	2020	57,659	13,730
	2025	70,259	16,859
	2030	82,870	19,992

Table 3. Forecast of annual load in tons for chosen road sections in the Pan-European Transport Corridor [22]

Section	Year	Average flow per year (in tons)
Jędrzychowice- Wrocław	2015	31,723,245
	2020	40,231,760
	2025	49,465,895
	2030	58,712,805
Wrocław- Katowice	2015	43,435,365
	2020	54,678,095
	2025	66,869,095
	2030	79,073,235
Katowice- Dębica	2015	27,935,275
	2020	34,994,010
	2025	42,644,045
	2030	50,301,015
Dębica-Korczowa	2015	10,636,830
	2020	13,287,825
	2025	16,159,280
	2030	19,032,560

Table 4. Forecast of load in tons for chosen railway sections in the Pan-European Transport Corridor III until 2030 [22]

Section	Year	Maximum flow per day (in tons)	Minimum flow per day (in tons)
Bielawa Dolna / Węglińiec- Wrocław	2015	24,738	4,954
	2020	26,198	5,247
	2025	27,539	5,515
	2030	28,802	5,768
Wrocław- Gliwice	2015	61,606	19,663
	2020	65,242	20,824
	2025	68,582	21,890
	2030	71,726	22,893
Gliwice- Kraków	2015	68,582	36,834
	2020	72,629	39,008
	2025	76,348	41,005
	2030	79,848	42,885
Kraków- Rzeszów	2015	43,886	23,331
	2020	46,476	24,707
	2025	48,856	25,972
	2030	51,095	27,163
Rzeszów- Medyka	2015	18,362	1,923
	2020	19,446	2,036
	2025	20,441	2,141
	2030	21,379	2,239

Table 5. Forecast of annual load in tons for chosen railway sections in the Pan-European Transport Corridor III [22]

Section	Year	Average flow per year (in tons)
Bielawa Dolna / Węglińiec- Wrocław	2015	5,694,000
	2020	6,030,165
	2025	6,338,955
	2030	6,629,495
Wrocław-Gliwice	2015	15,172,320
	2020	16,067,665
	2025	16,890,375
	2030	17,664,905
Gliwice-Kraków	2015	17,952,160
	2020	19,011,390
	2025	19,984,845
	2030	20,900,995
Kraków-Rzeszów	2015	11,967,255
	2020	12,673,165
	2025	13,322,135
	2030	13,932,780
Rzeszów-Medyka	2015	4,283,275
	2020	4,536,220
	2025	4,768,360
	2030	4,986,995

3. Good governance and the sustainability of transport systems – Poland and Ukraine compared

While sustainable development of transport systems should take economic, social and environmental aspects into consideration, in reality economic issues are likely to receive priority. First of all, when economic activity and related transport flows increase, the economic benefits are directly measurable, and lead to an increase in the revenues for companies involved and in turn to increased tax revenues. As a consequence, it can be expected that economic interests are high on the developmental agenda of transport systems [23]. As power is determined by the possession of economic resources, military and political strength [24], it may be expected that particular economic interests are stronger in Ukraine as a consequence of the strong connection between economic and political power. While in Poland after the fall of communism the elites from the communist party lost much political power, in Ukraine (like in other former Soviet republics) they remained politically powerful while obtaining large wealth in the process of privatization [25, 26]. This also has had important consequences for the development of democracy, freedom of press, development of the court system, protection of civil rights, etc.

A problem with the environmental impact of the development of transport systems is that these effects are often difficult to measure, indirect and long-term [27]. While environmental deterioration may threaten the sustainability of any type of development, they tend

to receive lower priority than employment and income providing people with direct utility [28]. Unemployed people may vote in elections, while environmental interests need indirect representation. When environmental issues are not discussed in the press and democracy is functioning poorly, they are unlikely to be important in policy for transport system development.

Indicators of good governance as presented in Table 6 provide information on the capacity of a country to develop efficient policy not influenced by particular interests. It should be emphasized that, as is noted by the World Bank [31], “[t]he governance indicators presented here aggregate the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, and international organizations.” Thus, the data gathered should only be interpreted as an indicator of weaknesses or strengths of a country. The indicators are aggregates, which do not reflect the weaknesses or strengths of different levels and departments of public administration. They show the perception of different stakeholders in a country’s social and economic life, which does not necessarily reflect reality. However, perceived political stability, government effectiveness, etc., is likely to influence the willingness to support and implement policy.

The data presented in Table 6 show the following. Although different aspects of good governance have been improving in the first decade of the 21st century in Ukraine, they are at a lower level than Poland. Voice and accountability and political stability have improved in Ukraine, while political stability and regulatory has improved in Poland. Corruption remains a main problem in Ukraine. As a consequence, it can be expected that in Ukrainian transport policy particular short-term economic interests are more likely to prevail than in Poland, while social and environmental issues are more likely to be neglected. However, Ukrainian aspirations to join the European Union may counteract this [32].

4. Conclusion

In this article, it was argued that a lower level of good governance in Ukraine than in Poland is likely to lead to less sustainable development of the Ukrainian part of the Pan-European Transport Corridor III. As cargo shipment by road is expected to increase faster than rail cargo, policy measures should be taken in order to stimulate multimodal and rail transport, not only in order to prevent environmental problems, but also congestion and excessive depreciation of roads. Improvement of indicators of good governance is a condition for the development and effective implementation of such policy. However, as this is a cumbersome long-term process, there may be an important role for the European Union to provide incentives for more sustainable development of the Ukrainian part of the transport corridor. In the long run this may provide important economic pay offs, as it improves access to markets in former Soviet republics, supporting access to natural resources required for long-term economic development.

Table 6. World Bank indicators of good governance – Poland and Ukraine compared [29, 30]

Governance indicator	Year	Percentile rank (0-100) for Poland	Percentile rank (0-100) for Ukraine
Voice and account-ability	2010	81.0	44.1
	2005	76.9	39.4
	2000	81.7	32.7
Political stability	2010	83.5	42.0
	2005	58.2	38.5
	2000	56.3	29.3
Government effectiveness	2010	72.7	24.9
	2005	68.3	33.2
	2000	73.2	23.4
Regulatory quality	2010	79.4	32.5
	2005	72.1	33.8
	2000	71.6	28.9
Rule of law	2010	69.2	25.1
	2005	62.2	26.3
	2000	69.9	14.4
Control of corruption	2010	70.3	17.2
	2005	62.0	29.8
	2000	70.2	7.8

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