On the Economic Role of Social Indicators in Urban and Regional Planning

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by
Helmut Maier
Leontief-Institute for Economic Analysis
Berlin / Germany
Leontief-inst@gmx.de
Subject, Aim, and Approach

• **Aim** of this paper is to describe the present status of using social indicators within urban and regional planning and decision procedures of public authorities in Germany.

• The methodological **approach** is based empirically: Exemplarily it is focused an actual (but finished) land use planning procedure including an environmental risk assessment. Within this procedure the role of social indicators is focused.

• **Subject** of this empiric example is the public planning procedure for the location of the future metropolitan airport “Berlin Brandenburg International” (BBI).
Remarks on Social Indicators

• **Definition of a social indicator:** To understand these explanations, it is sufficient to know that a social indicator describes social characteristic of a single person, of groups, or of the entire society.

• In many cases a social indicator will not be measured quantitatively but solely verbal.

• In a particular case an economic indicator may be a social indicator as well, an example is the rate of joblessness. Equally, an indicator of land use planning may be a social indicator, too; an example is the fraction of area used for housing.

• **Conclusion:** Transitions to pure economic, geographic, and other indicators are floating and subjective defined, see also Werner (1975).

• Referring to SCORUS conference in 2006 in Wroclaw/Poland, it is noted that social indicators (besides biometric indicators) are even identified as the ultimate economic indicators, Maier (2006)
Bibliography


• Der Tagesspiegel, daily newspaper of Berlin, articles of different issues.
As for urban and regional planning procedures, social indicators are thoroughly used within decision-making. But they play an economic role, too. They can be used and are used to hide different economic and financial interests within public decision-making. For clarification: Social indicators can be used to achieve a majority for a certain decision which will not hold if the hidden economic and financial aspects and interest are included into decision-making. In principle, social indicators are inferior to economic and financial indicators (and restrictions).
Empiric Substantiation: Airport Berlin Brandenburg International

Federal Republic of Germany prefers a location close to Berlin to limit financial subsidies for public traffic lines.

Rural province Brandenburg uses social indicators within the land use procedure to promote the location of airport BBI far away from Berlin, and hides economic and financial benefit from development by this decision.

Metropolis Berlin would agree to a more costly location far from Berlin in case of unification with Brandenburg, only.
Germany

Brandenburg
2.7 m residents

Berlin
3.3 m residents

Mecklenburg-Western Pomerania

Lower Saxony

Saxony-Anhalt

Saxony

Thuringia

Bavaria

Czech Republic

Poland

Baltic Sea
Airport Berlin Brandenburg International
Locations evaluated by the land use procedure

- Schönefeld
- Süd not compatible
- Sperenberg compatible
- Jüterbog-Ost compatible
- Potsdam
- Berlin
Substantiation
Remarks on Airport BBI

• First plans for a big international airport for metropolis Berlin and province Brandenburg arose shortly after fall of Berlin wall in 1989.
• In May 1991 a holding BBI was established with shareholders Federal Republic of Germany (FRG, 26%), Brandenburg (37,4%), and Berlin (37,5%).
• In June 1993 the supervisory board of the holding BBI decided to apply for a comparable land use planning procedure for the locations Jüterbog-Ost, Schönefeld-Süd, and Sperenberg.
• In May 1994 the comparable land use planning procedure including an environmental risk assessment starts under authority of Brandenburg (and not of Berlin) because the competing locations are situated on the sovereign territory of Brandenburg. This procedure is a forerunner of the ultimate authorisation procedure.
• At 16 November 1994 the result of this procedure was reported to public, mainly based on social indicators: The locations Sperenberg and Jüterbog-Ost are compatible, and Schönefeld-Süd is not compatible (viewing land use plans, aims and interests of Brandenburg).
Substantiation
Remarks on Airport BBI

• However, the comparable evaluation of province Brandenburg from November 1994 didn’t lead to an ultimate decision of the airport holding BBI.
• The location Schönefeld-Süd came back mainly due to two developments:
• A delay of the ultimate decision by the shareholders Berlin (37.5%) and FRG (26%) within the holding BBI which were not convinced by this decision and listed additional cost not included in this land use procedure.
• A negative vote in May 1996 of Brandenburg people in a public poll against a contract of Berlin and Brandenburg governments to unify both provinces.
• End of May 1996 the three shareholders Berlin, Brandenburg, and FRG agreed to adapt the existing airport Schönefeld to the requirements of the planned airport BBI in 2010, with a capacity of 20 million passengers per year. This airport should replace the existing airports in Tempelhof and Tegel of Berlin.
• Future conflicts arose which are not focused. In February 2007 the higher administrative court of Brandenburg and Berlin rejected a claim of airlines against the close-down of airport Tegel in 2008, and a petition for a referendum in Berlin aiming the future use of airport Tempelhof didn’t reach the required quorum.
Overall 60 indicators were extracted from the report from 16 Nov. 1994 used for decision-making.

34 of 60 refer to the properly land use procedure, denoted S1 to S34, and 26 refer to the estimation of environmental risk assessment, denoted E1 to E26.

For the list of all indicators, see Maier (1998).

Applying the rough definition for a social indicator, relatively unproblematic 17 social indicators can be extracted. Some more might be added.

In a scenario we focus the estimated characteristics for these social indicators in year 2010.
E1  Number residents concerned by day by aircraft noise with permanent level over 57 decibels
E2  Number of residents concerned by night by aircraft noise with top level over 70 decibels
E3  Number of residents concerned by day by street noise with permanent level over 59 decibels
E4  Number of residents concerned by night by street noise with top level over 49 decibels
E5  Number residents concerned by day by railway noise with permanent level over 59 decibels
E6  Number of residents concerned by night by railway noise with top level over 49 decibels
E7  Number of residents concerned by carbon black
E8  Assumed number of residents concerned by a catastrophe in security zone two
S12 Elongation of travel time of car driver to airport BBI (after close-down of airports in Berlin-Tegel, Berlin-Tempelhof, and the old one in Schönefeld) in minutes
S13 Travel time by express from station Lehrter Stadtbahnhof in Berlin to airport BBI in minutes
S14 Travel time by express from station Potsdam to airport BBI in minutes
S23 Concerned social institutions (kindergartens, senior housing, hospitals, schools)
S25 Noise burden of housing and settlement structure
S26 Number of residents to be resettled
S31 Area of security zone in square kilometres
S32 Fraction of settlement area within the security zone
S33 Important firms within the security zone

Social Indicators
In a scenario we focus estimated characteristics for these 17 indicators in year 2010, for the three competing locations.
Substantiation

Overall Result Based on Used Indicators

• The location Schönefeld-Süd impairs population and settlement in a region with high density of population considerably stronger. Thus it avoids quite a few costly and economic programs and activities which impair environment.

• The location Sperenberg impairs environment in a region with low density of population. To balance the disadvantage of the considerable longer distance from Berlin it needs and includes many costly programs to improve the infrastructure.

• The location Jüterbog-Ost shows similar characteristics like location Sperenberg (we pass it)
Substantiation
Details for Location Schönefeld

- Highest impair of population by noise, E1 to E8,
- Strongest impair of social institutions, S23,
- Highest impair in case of a catastrophe, S32 and S33,
- Highest impair of cultural monuments, E26,
- Not compatible with the overall concept of land use of province Brandenburg, S1,
- Least support of the overall concept of decentralized concentration of province Brandenburg, S2,
- Least impair of fauna and flora, E9 to E13,
- Least impair of soil and ground, E14 to E16,
- Least impair of air, E20 to E22,
- Least impair of climate, E23 to E24,
- Least impair of landscape, E25,
- No problems with former military areas, S24,
- Highest values for growth of population, S3 to S5,
- Least expenses for traffic infrastructure, S13 to S16, and S18 to S21.
Substantiation
Details for Location Sperenberg

- Least or little impair of population by noise, E1 to E8,
- No impair of social institutions, S23,
- Limited impair of development of settlement and housing, S25, S26,
- Compatible with the overall concept of land use of province Brandenburg, S1,
- High support of the overall concept of decentralized concentration of province Brandenburg, S2,
- Highest or high impair of fauna and flora, E9 to E13,
- Highest impair of soil, E14 to E16,
- Strong impair of water balance, E17 to E19,
- Strongest impair of housing and settlement structure, E25,
- Biggest or big problems with conversation of former military areas, S24,
- High growth of population, S3 to S5,
- Highest or high number of newly created working places, S6 to S11,
- Highest or high need of expenses for traffic infrastructure, S13 to S16, and S18 to S21.
Substantiation
Conclusion from the Detailed Evaluation

• The expert opinion of Brandenburg’s ministry from November 1994 weights and evaluates the overall concepts of land use and decentralized concentration of province Brandenburg very strong.

• Moreover it weights and evaluates impair of population (of Berlin) measured by social indicators stronger than the additional burden of environment and additional expenses for traffic infrastructure in Brandenburg.

• Hence it concludes the locations Sperenberg and Jüterbog-Ost are compatible with the requirements of land use planning and environment, and the location Schönefeld-Süd is not compatible.
Substantiation

Conclusion from the detailed evaluation

- It substantiates the necessity to improve the infrastructure and the economic development of the mostly rural province Brandenburg – using social indicators.
- It hides expenses for costly additional programmes to convert military areas (of former Russian troops) at locations Sperenberg and Jüterbog-Ost (indicator S24), as well as it hides additional and high expenses for the extension of traffic infrastructure to a great extent will fall to the shareholder FRG (S18-S21).
- Hence the high weighting and evaluation of social indicators could be and was used as an excuse to hide additional cost for the locations Sperenberg and Jüterbog-Ost which bring economic benefit primary for Brandenburg.
- As the shareholders Berlin (34.5%) and FRG (26%) of holding BBI finally could escape from this evaluation, finally, arguments based on social indicators are inferior.
Federal Republic of Germany prefers a location close to Berlin to limit financial subsidies for public traffic lines.

Metropolis Berlin would agree to a more costly location far from Berlin in case of unification with Brandenburg, only.

Rural province Brandenburg uses social indicators within the land use procedure to promote the location of airport BBI far away from Berlin, and hides economic and financial benefit from development by this decision.

Empiric Substantiation: Airport Berlin Brandenburg International
Thanks!
See you in
Berlin