TECHNOLOGICAL AND ECONOMIC DEVELOPMENT

Baltic Journal on Sustainability





2008 14(2): 144–150

"INSTITUTIONAL CAPITAL" AS A FACTOR OF SUSTAINABLE DEVELOPMENT – THE IMPORTANCE OF AN INSTITUTIONAL EQUILIBRIUM

Joost Platje

Faculty of Economics, Opole University, ul. Ozimska 46a, 45-058 Opole, Poland, e-mail: jplatje@uni.opole.pl

Received 18 October 2006; accepted 17 September 2007

Abstract. The main aim of this article is to provide a basis for changing the focus in New Institutional Economics (NIE) from the economic effects of institutions to the importance of "institutional capital" for sustainable development. First, a theoretical model of NIE is presented in the context of sustainable development. Then, the concept of an institutional equilibrium (where informal institutions support and strengthen formal institutions) is discussed as an important determinant of "institutional capital" stimulating or hampering sustainable development.

Keywords: sustainable development, institutional capital, institutional economics, institutional equilibrium.

1. Introduction

New Institutional Economics (NIE) often focuses on how institutions (formal and informal rules of the game) and the level of transaction costs influence economic activity and efficiency (North 1981, 1990; Williamson 1985; Eggertsson, Thrainn 1990, However, as Sen 1999) argues, income, GNP or productive efficiency is rather means for development which serve different goals of development. Economic development is a broader issue than economic growth, as it includes the distribution of income, access to educational and health services, access to productive resources, freedom of choice, freedom from oppression, etc. (Todaro 1997). Generally speaking, it may be argued that sustainable development adds the environmental and inter-generational factor to "traditional" economic development issues.

Following Rao (2000: 77), the choice set for future individuals should be equal to or larger than the current choice set, for which manufactured capital, ecological capital ("an all-encompassing concept of natural capital", human capital and social capital are essential. NIE, which already has been applied to particular issues of sustainable development (Gatzweiler *et* *al.* 2002; Parto 2003 and 2005; Bezanson 2004; McGranahan and Satterthwaite 2004)¹, offers the opportunity to broaden the notion of social capital (which is often related to issues of trust; Raiser 1997 and 1999; Raiser *et al.* 2001) and informal social processes to "institutional capital". A working definition of "institutional capital" is: institutions, "institutional governance" and governance structures that reduce uncertainty, stimulate adaptive efficiency (*i.e.* the ability of a system to adapt to changing conditions) and stimulates the functioning of the allocation system and sustainable production and consumption patterns (Platje 2004a, 2004b: 15).

In Section 2, the basis of NIE is shortly discussed. In Section 3, the notion of an institutional equilibrium (where informal institutions such as culture and mental models strengthen formal institutions) as a factor of "institutional capital" is discussed. This discussion is general and is meant for further explorative research on the importance of "institutional capital" for sustainable development (Platje 2006a).

2. New Institutional Economics

In general, the focal point in NIE is the incentives for economic activity (performance) provided by the "institutional environment", consisting of institutions (North 1990) and "institutional governance". Institutions are defined as the rules of the game in society (North 1990: 3). These rules provide incentives or disincentives for economic activity and determine which types of governance structures are most efficient from the economic point of view. Governance structures, also called "institutional arrangements", concern the organisation of decision-making arrangements (e.g. markets vs. hierarchies such as firms, government agencies, bureaucracies and other types of organisations (Williamson 1975, 1985, 1998). Transactions (e.g. production and allocation of goods and services), taking place on the level of governance, are accompanied by transaction costs. The level of transaction costs influences the level of economic activity by determining which type of governance structure is the most efficient (Coase 1988; Williamson 1985). For example, when the cost of using the market increases due to cheating, while an inefficient "institutional governance" hampers contract enforcement, it becomes more attractive to resign from buying via the market, and to start producing within the firm, even when the market price of the product in question is lower than in the case of own production. "Institutional governance" concerns the judge of the game, "organisations that interpret and enforce the rules of the game such as the judiciary, police, government and government agencies" (Platje 2004a: 21).

Transaction costs, consisting of search, negotiation and control costs, concern friction in the process of exchange via the market (market transaction costs) and organisation of production within the company (managerial transaction costs). This type of cost exists because of incomplete and asymmetric information and the fact that human beings are fallible and have limited cognitive and calculative abilities (Furubotn and Richter 1997). Search costs, the costs of obtaining information, and negotiation costs are incurred before a contract (transaction) has been concluded, while control costs concern monitoring and enforcing the fulfillment of the contract (Platje 2004a: 23–24). When, for example, "institutional governance" becomes

¹ Many economic theories discussed issues that are related to sustainable development. However, the theory of sustainable development can be used as a critique on, for example, mainstream neo-classical economics.

more efficient in contract enforcement, control costs decline, making the market a more attractive governance structure. Different types of institutions, such as freedom of contract (a formal institution) and trust (an informal institution) may reduce transaction costs, and as a result stimulate economic activity.

Institutions, the rules of the game in society, can be divided in formal and informal rules. Formal institutions, including the system of property rights, laws and regulations, basically can be "written down" and, in principle, can be enforced in court. When these rules of the game are clear and enforced, this, *ceteris paribus*, stimulates economic activity. Unclear rules or rules that change often create uncertainty, negatively influencing economic activity (North 1990; Van de Mortel 2000; Platje 2004c). Furthermore, unclear and poorly enforced formal rules in connection with high transaction costs create incentives for so-called opportunistic behaviour (lying and cheating Molho 1997. This not only may negatively influence economic performance, but also have negative social and environmental consequences (Platje 2005, 2006a, 2006b).

Informal institutions concerns everything what people "have in their head", and can neither be "written down" nor enforced in court. We talk about culture, mentality, values, trust, mental models, etc. As mentioned, informal institutions such as trust may reduce transaction costs. They also help to explain why change of formal institutions (system change) is difficult and more time consuming than often expected. A law or regulation may be changed immediately by administrative decision (*e.g.* tax law). However, "institutional governance" (*e.g.* the tax collector, courts), needs time to interpret and implement these new rules. More important, the way of thinking, culture, values, mental models, of citizens and people working in "institutional governance" change less quickly, slowing down the speed of institutional change and making the outcome uncertain (North 1990; Van de Mortel 2000; Platje 2004a, 2004c).

Informal institutions play a crucial role in the efficiency of formal institutions. As mentioned earlier, when formal institutions are weak (*e.g.* poorly defined property rights, unclear and/or quickly changing laws and regulations, inefficient "institutional governance", high transaction costs), there are stronger incentives for opportunistic behaviour (Barzel 1989; Platje 2004a). Informal institutions determine the extent to which people use the opportunities to lie or cheat created by weak institutions, – an issue discussed in more detail in the next section.

3. Institutional equilibrium and sustainable development

One of the factors determining "institutional capital" is the so-called "institutional equilibrium". Such an equilibrium exists when informal institutions support and strengthen formal institutions and the functioning of "institutional governance" (Furubotn and Richter 1997). Suppose, people are completely honest. In other words, they will not respond to incentives for opportunistic behaviour, as is the case people who find a wallet and bring it back to the police or the owner (Platje 2006a). In such a situation, weak formal institutions will rather have no negative influence in the economic, social and environmental field. The reasoning is simple. When people are honest, and trust each other, do they need formal rules of the game? This is related to the question, whether formal rules come into existence due to distrust in other people in order to reduce transaction costs of opportunistic behaviour, or whether they are a reflection of trust and are aimed at reducing the transaction costs of obtaining information

	Efficiency of institutions and "institutional governance"	Degree of institu- tional equilibrium	Likely effect on sustainable development
1.	Formal and informal institu- tions stimulating SD, efficient "institutional governance"	Perfect institutional equilibrium	Positive
2.	Formal and informal institu- tions stimulating SD – inef- ficient "institutional gover- nance"	Rather institutional equilibrium	Rather positive, as the "judge function" is less rel- evant due to the fact that people accept the formal rules of the game and show sustainable production and consumption behaviour.
3.	Formal institutions and "insti- tutional governance" stimulat- ing SD – informal institutions hampering SD	Institutional disequi- librium	Although the formal system supports SD, people's mental models and opportunistic behaviour tend to stimulate unsustainable development paths. The idea is that, although incentives by the formal institutions and "institutional governance" for op- portunistic behaviour are weak, people will always find a way to circumvent the formal rules as transac- tion costs of e.g. making watertight contracts and laws are too high.
4.	Formal institutions stimulating SD – inefficient "institutional governance" and informal in- stitutions hampering SD	Institutional disequi- librium	Greater likeliness of entering unsustainable develop- ment path than in Case 3. For example, although property rights on economic and environmental resources are delineated on paper, in reality there may be large value in the public domain due to high transaction costs of enforcement and opportunistic behaviour by individuals.
5.	Informal institutions stimulat- ing SD and efficient "institu- tional governance" – formal institutions hampering SD	Institutional disequi- librium	In such a situation it is not clear whether a sus- tainable or unsustainable development path will be achieved, although the effect may be rather positive than negative. "Institutional governance" is efficient in enforcing inefficient formal institutions, negatively influencing sustainable development. On the other hand, individuals' mental models support sustainable development, hamper the implementa- tion of unsustainable activities which may have as a result that inefficient formal rules remain on paper. For example, when property rights are poorly delineated, this is not likely to create real problems. People may have strong moral incentives to change the formal rules into a more sustainable direction and use the efficient "institutional governance" to find loopholes in the formal rules.
6.	Informal institutions stimulat- ing SD – formal institutions hampering SD and inefficient "institutional governance"	Institutional disequi- librium	The likely effect on sustainable development is more positive (or less negative) than in Case 5. For example, property rights are poorly delineated and laws may stimulate unsustainable activities. However, transaction costs of enforcing inefficient property rights are high and people see rather the need for sustainable development and show little opportunistic behaviour.
7.	Efficient "institutional gover- nance" – formal and informal institutions hampering SD	Rather institutional equilibrium	Negative as "institutional governance" enforces inefficient formal institutions, people accept these formal rules of the game and show unsustainable production and consumption behaviour.
8.	Formal and informal institu- tions hampering SD, inefficient "institutional governance"	Perfect institutional disequilibrium	Negative

 Table 1. Different degrees of institutional equilibrium and sustainable development (SD)

Source: Platje 2006a

and negotiation. An example of the first is the existence of laws and procedures to reduce the problem of late payment or lack of payment by customers. An example of the second is the use of money and the price mechanism in order to reduce the costs of information on prices and the costs of negotiation in case of barter trade. Thus, when people are honest, "institutional governance" in inefficient and the first type of formal institutions are missing, it is likely that the weak institutions will not have negative economic, social and environmental consequences. When the second type of formal institutions is missing, this will lead to an increase in search and negotiation costs. This may lead to a less economic activity and decision-making based on less reliable information, hampering sustainable development.

The simple model presenting the different degrees of "institutional equilibria" (Table 1) is based on the simplifying assumption that formal and informal institutions can either stimulate or hamper sustainable development. In reality, however, as North (1990) argues, rules are often a "mixed bag" of efficient and inefficient institutions. Analysis of efficiency of, for example, different formal institutions and their influence on particular aspects of sustainable development and which aspect should receive priority is not taken into consideration in the model presented here.

A perfect institutional equilibrium, positively influencing sustainable development, is only achieved when formal and informal institutions stimulate sustainable development, and "institutional governance" is efficient in enforcing the formal rules of the game. Such rules and "institutional governance" stimulate sustainable consumption and production behaviour, and reduce opportunities for opportunistic behaviour and the transaction costs of obtaining information, while informal institutions have as a consequence that people do not show opportunistic behaviour and support the sustainable production and consumption patterns.

Following Meadows (1999), the general idea presented in Table 1 is that mental models (informal institutions) are more important for achieving sustainable development than formal institutions and "institutional governance". The main argument was discussed above. When people's mental models support sustainable consumption and production patterns, they will rather not implement inefficient formal rules. Efficient rules become "self-enforcing", which makes the efficiency of "institutional governance" less relevant. An interesting case is when formal institutions are inefficient, while "institutional governance" enforces these rules and people's mental models stimulate sustainable development (Case 5 in Table 1). The influence on sustainable development is unclear. However, when people do not accept the inefficient formal rules, they may just not carry them out or try to change them. Much depends on whether the people working on "institutional governance" share the same mental model as the rest of society, or that this group rather carries out the inefficient rules. In the first case, the inefficient rules may not be carried out and be changed later on. The second case is one of a mix of efficient and inefficient informal institutions, and a lot depends on whether "institutional governance" or the rest of society as more power.

4. Concluding remarks

In this paper the importance of an "institutional equilibrium", being a part of "institutional capital", for sustainable development is discussed. When people's mental models support sustainable production and consumption patterns, formal institutions and "institutional

governance" become less relevant, even when they are inefficient. A model has been created to show the effect on sustainable development of different degrees of "institutional equilibrium". An assumption was that institutions and "institutional governance" can be either efficient (stimulating sustainable development) or inefficient (stimulating unsustainable development) argues that institutions are often a "mixed bag" of efficient and inefficient institutions. Furthermore, institutions that are efficient at one moment in time, may become inefficient in the face of, for example, a technological change. Another issue is whether institutions come into being as a result of distrust (reduction of opportunities for opportunistic behaviour) or trust (reduce costs of obtaining information and making mistakes). These factors should be taken into consideration in future research on "institutional equilibrium" and other determinants of "institutional capital".

References

Barzel, Y. 1989. Economic Analysis of Property Rights. Cambridge, Cambridge University Press.

- Bezanson, K. 2004. Global Public Goods: some key questions, in T. Bigg (ed.). Survival for a Small Planet the sustainable development agenda, London, Earthscan, 67–73.
- Coase, Ronald H. 1988. The Nature of the Firm, *Economica* 4: 386–405; reprinted in: Coase, Ronald H. *The Firm, the Market, and the Law*, Chicago.
- Eggertsson, Thrainn. 1990. *Economic Behavior and Institutions*. Cambridge, Cambridge University Press.
- Furubotn, E. G.; Richter, R. 1997. Institutions and Economic Theory The Contributions of the New Institutional Economics. Ann Arbor, The University of Michigan Press.
- Gatzweiler, F. W.; Judis, R.; Hagedorm, K. (eds.). 2002. Sustainable Agriculture in Central and Eastern European Countries – The Environmental Effects of Transition and Needs for Change. Institutional Change in Agriculture and Natural Resources 10, Proceedings of the ACE Phare seminar, Aachen.
- McGranahan, G.; Satterthwaite, D. 2004. Striving for Good Governance in Urban Areas: the role of local Agenda 21s in Africa, Asia and Latin America, in T. Bigg (ed.). *Survival for a Small Planet – the sustainable development agenda*, London, Earthscan, 121–134.
- Meadows, D. 1999. Leverage points places to intervene in a system. Hartland, The Sustainability Institute.
- Molho, I. 1997. *The Economics of Information Lying and Cheating in Markets and Organizations*. Oxford, Blackwell Publishers.
- North, D. C. 1981. Structure and Change in Economic History. New York and London, W.W. Norton.
- North, D. C. 1990. *Institutions, Institutional Change, and Economic Performance*. Cambridge, Cambridge University Press.
- Parto, S. 2003. *Sustainability abd the Local Scale: squaring the peg?* Maastricht, MERIT Infonomics Memorandum Series 2003/017, Maastricht University.
- Parto, S. 2005. "Good" Governance and Policy Analysis: what od institutions? Maastricht, MERIT Infonomics Memorandum Series 2005/001, Maastricht University.
- Platje, J. 2004a. *Institutional Change and Poland's Economic Performance since the 1970s incentives and transaction costs*. Wrocław, CL Consulting i Logistyka.
- Platje, J. 2004b. An Analysis of Trends and Requirements for the Development of Sustainable Agriculture in Poland, in Leal Filho, W. (ed.). Ecological Agriculture and Rural Development in Central and Eastern Europe – NATO Science Series V: Science and Technology Policy, Vol. 44, Amsterdam, IOS Press, 15–37.

- Platje, J. 2004c. Institutional Capital Interface with Ecological Capacities in the European Union, in S. Czaja (ed.). *Ecological Aspect of Poland's Integration into the European Union*, 320–324. Lądek Zdrój, biblioteka "Ekonomia i środowisko", No 31.
- Platje, J. 2005. New Institutional Economic Theory as a Basis for Urban Sustainable Development, in I. Sagan; D. M. Smith (ed.). Society, Economy, Environment – towards the sustainable city, Gdańsk-Poznań, Bogucki Wydawnictwo Naukowe, 179–190.
- Platje, J. 2006a. New Institutional Economics as the Tool of Analysis and Implementation of Sustainable Development, paper presented at the conference on "Sustainable Development in Theory and Practice", Wrocław, 29–30 June.

Platje, J. 2006b. Good Governance as a Condition for Urban Sustainable Development, unpublished.

- Raiser, M. 1997. Informal institutions, social capital and economic transition: reflections on a neglected dimension. EBRD Working paper, No 25. London.
- Raiser, M. 1999. Trust in transition. EBRD Working paper No 39, London.
- Raiser, M.; Haerpfer, C.; Nowotny, T.; Wallace, C. 2001. Social capital in transition: the first look at the evidence. EBRD Working paper, London No 61.

Rao, P. K. 2000. Sustainable Development - Economics and Policy. Oxford, Blackwell Publishers.

Sen, A. 1999. Development as Freedom. New York, Anchor Books.

Todaro, M. P. 1997. Economic Development, sixth edition. London, Longman.

Van de Mortel, E. 2000. An Institutional Approach to Transition Processes. Rotterdam, Tinbergen Institute, Research Series, Erasmus Universiteit Rotterdam.

Williamson, O. E. 1985. The Economic Institutions of Capitalism. New York, Free Press.

- Williamson, O. E. 1975. Markets and Hierarchies: Analysis and Antitrust Implications. New York, Free Press.
- Williamson, O. E. 1998. Transaction Cost Economics: how it works; where it is needed, *De Economist* 146(1): 23–58.

INSTITUCINIS KAPITALAS KAIP DARNAUS VYSTYMOSI VEIKSNYS – INSTITUCINĖS PUSIAUSVYROS SVARBA

J. Platje

Santrauka

Šio straipsnio tikslas – pateikti naujos institucinės ekonomikos (NIE) pokyčius, kai pastebimas perėjimas nuo ekonominių institucijų efektų prie institucinio kapitalo plėtotės darnaus vystymosi kontekste. Visų pirma autorius pateikia teorinį NIE modelį darnaus vystymosi aplinkoje. Vėliau nagrinėjama institucinės pusiausvyros koncepcija (atvejis, kada neformalios institucijos palaiko ir stiprina formaliąsias institucijas). Autorius konceptualiai apibrėžia stimuliacinį ir prevencinį šios koncepcijos poveikį sąveikaujant instituciniam kapitalui bei darniam vystymuisi.

Reikšminiai žodžiai: darnus vystymasis, institucinis kapitalas, institucinė ekonomika, institucijų pusiausvyra.

Joost PLATJE. Professor, Opole University (Poland). He is a co-ordinator of International Relations at the Faculty of Economics. Fields of scientific interests include micro- and macroeconomics, international funds and project management, intuitional economics, urbanization and regional development, sustainable development.