

AN APPROACH TOWARD SUSTAINABILITY ON CROSS BORDER REGIONS

UN ENFOQUE HACIA LA SOSTENIBILIDAD EN REGIONES TRANSFRONTERIZAS

Daniel Francisco Avendaño Leadem¹

Investigador en HafenCity University (HCU), Hamburgo, Alemania

ABSTRACT

Due to the peripheral conditions of most cross-border regions (CBR) around the world, managing and protecting environmental resources together with the improvement of socioeconomic conditions have posed a constant challenge. The aim of this paper is to identify the most important elements to consider on the path toward promoting the sustainable development of CBRs. It begins with an overview of development experiences of these types of regions in Europe, North America and Asia. It continues by differentiating conventional regional development from the CBR approach in order to establish the core aspects of applying sustainability within these spaces. The article concludes by proposing an evaluation method to facilitate the assessment of sustainability planning on CBRs and contribute to further development of the topic.

Keywords: cross border region, territorial development, sustainable development, sustainability assessment

RESUMEN

Dadas las condiciones periféricas de la mayoría de regiones transfronterizas (RTF) en el mundo, uno de sus desafíos constantes ha sido la gestión y protección de los recursos naturales así como el mejoramiento de las condiciones socioeconómicas. El objetivo de este artículo es identificar los elementos más importantes a considerar en la senda para promover el desarrollo sostenible en las

¹ Geógrafo máster en planificación urbana y regional. Investigador en HafenCity University (HCU), Hamburgo, Alemania; danavenda@gmail.com.

RTF. Comienza con un repaso de las experiencias de desarrollo en estos tipos de regiones en Europa, Norte América y Asia. Continúa haciendo la distinción entre desarrollo regional convencional y el enfoque de RTF con el fin de establecer los aspectos clave en la aplicación de sostenibilidad en estos espacios. El artículo concluye planteando un método de evaluación que facilita la planificación de sostenibilidad en RTF contribuir al desarrollo del tema.

Palabras clave: región transfronteriza, desarrollo territorial, desarrollo sustentable, evaluación de sustentabilidad

Introduction

International borders and border regions in developing countries remain poorly understood. Analyzing transboundary relationships in a fragmented way is prone to ignore their multifaceted nature and here is precisely where contradictions arise. In recent years their function has changed considerably and in most cases they have become more accessible, presenting fewer barriers to interacting scales of development and allowing ‘cross border region’ (hereafter CBR) dynamics. The development of these regions depends mainly on the ability to successfully identify and construct decision-making processes across international boundaries (Ganster, 2001; Hall, 2008).

The concept of the CBR has gained increasing prominence in policy and academic discourses especially in areas with macro-regional integration initiatives, such as the European Union, where CBRs are considered as spaces with an intricate interaction of actors, policies and governance levels. These initiatives are driven by local and regional authorities with the purpose of solving local border-transcending problems, such as environmental degradation, or to promote cross-border economic development strategies and, more recently, intercultural communication (Perkmann, 2007). For the purpose of this article, a CBR will be regarded, within the context of developing countries, as a territorial unit that comprises contiguous sub-national units from two or more nation states, varying in their legal and administrative set-ups and having in common that they are not ‘regions’ in an administrative-constitutional sense (Scott, 1999).

It is important to recognize that today’s dynamics of globalization and information technologies have given rise to the network society, where ‘spaces of flow’ are now overriding the traditional ‘spaces of place’ as the leading logic for social organization and institutions (Castells, 1996). CBRs are now being considered as globalized spaces characterized by the declining importance of the nation states and the increasing relevance of regions which are

being shaped by intensive socioeconomic interdependencies. In order to illustrate this relationship, geographers have introduced the neologism 'glocalization', indicating the stronger interdependencies and interactions between local and global actors (Brenner, 2004). As a result, the construction of CBRs has become a strategic objective pursued by various forces within and beyond border regions (Perkmann & Sun, 2002; Ganster & Lorey, 2005). CBRs are thus changing their character from front lines of the sovereign states towards socioeconomic contact zones for neighboring societies.

Nevertheless, by observing the general tendencies in less developed countries, it is precisely CBRs that suffer from some of the worst cases of uneven geographical development. They are among the most destitute, socially margined and politically peripheral regions, aspects that planners and politicians definitely have to consider. Therefore, CBRs require an improved theoretical interpretation in which sustainable development must be targeted within spatial planning (Giroto, 1997; Harvey, 2006).

Unfortunately, research within the context of spatial planning and applied sustainability along CBRs in developing countries has been characterized by its quasi non existence. The same can be said in regards to the analysis of economic tendencies within different scales, ranging from local to global scale and vice versa, and their effect on these particular territories. Most studies, besides being centred in the contexts of developed countries, have focused on aspects like employment or business interactions, and include extrapolations of general abstract data (Ganster, 2001).

Taking into account these considerations, it becomes evident that the field of geography, specifically spatial planning and applied sustainability, can contribute to the development of CBRs in view of the fact that this science relies on observing and interpreting what is going on in the surrounding space. This approach needs to give priority to the study of the dynamic flow of space rather than to the traditional static condition of place (Castells, 1999). Therefore, planning requires the ability to recognize the different factors that influence spatial development at different scales and the ability to make them come together, envisioning a more sustainable future. Usually there is evidence about the history of a place, the social and economic dynamics within, use of the land and natural environmental changes. It is the planners' job to contextualize these indicators and link them to other territorial processes (Jacobs, 2004). Current challenges that

have a direct effect over the spatial development of CBRs include uncontrolled economic development, uncertain political scale of governance, dispersed stakeholders, as well as the need for sustainable development (Giot, 1997; Perkmann & Sum, 2002; Blatter, 2004a; Ganster & Lorey, 2005).

In this sense, the purpose of this paper is to identify the main factors that decision makers need to consider when implementing spatial planning and targeting sustainability in CBRs of developing countries. A theoretical model focusing on economic development, levels of governance, sustainability and stakeholders will be proposed for the determination and evaluation of these implications. In order to achieve this, a brief account of the recent state of knowledge regarding research on CBRs will be addressed. This will provide the necessary background to establish sustainability and spatial planning aspects on CBRs, and subsequently introduce the model.

Research on CBRs and recent state of knowledge

Recent research regarding CBRs has dealt with themes such as cultural identity, migration processes, international border conflicts and state hegemony. Most of these studies were carried out by professionals in the fields of sociology, anthropology and international relations. Studies regarding border economics and governance did not begin to proliferate until the early 1990s and were focused basically on the emerging European Union and the challenges encountered in the United States - Mexico border (Ganster, 2001; Perkmann, 2007).

The awakening awareness regarding research on CBRs is due mainly to three macro tendencies having influence on a global scale: the growth of economic transboundary activities through the increased movement of goods, services and people, contributing as well as reinforcing the process of globalization (Perkmann & Sum, 2002); the process of decentralization and regionalization, leading to more autonomous levels of governance on the sub-national levels (Blatter, 2004b; Brenner, 2004); and the integration of former socialist economies into global capitalism (Perkmann, 2003; Ganster & Lorey, 2005). Economic development has consequently played a major role in the emerging interests regarding CBRs, especially since traditional studies in economy did not provide a clear insight on international boundaries, and there was a pressing need to comprehend the friction that these generate to economic flows. Since the 1980s, CBRs have gained importance within research and policy implementation on a transnational level.

The comprehension of CBRs acquired more significance as consciousness towards the alarming effects of environmental degradation and social injustice were linked to the economic development across border regions and also when regional economic integration started to take place, particularly in Europe, with the creation of the European Union (1993), and in North America with the signing of the North American Free Trade Agreement - NAFTA (1994) (Ganster & Lorey, 2005).

Therefore, in regions where economic integration is stronger, the need for CBR research became crucial since economic, technological, ecological and social developments contribute to greater interdependence between international regions, therefore requiring political intervention (Blatter, 2004a). This is the reason the main schools of research on CBRs originated in Europe and North America (Clement, 2001).

The European and North American experience

Even though Europe and North America are not developing regions, they have a rich experience in CBR development from which important lesson can be learned in order to subsequently relate them to other contexts of CBRs.

In Europe, specifically in the European Union (E.U.), there is an open border scenario with consequent erosion of socioeconomic barriers and a steady convergence of political and economic conditions of the different nation-states involved. There is a free flow of goods, services and people. The European experience centers more on developing border areas by creating homogeneous transnational economic spaces and building durable transnational public governance institutions, such as the Euro-Regions (Sum, 2002). It reflects the integration of public and private stakeholders working across CBRs, provided with stable cooperative structures aiming towards the improvement of economic development. These organizations are encouraged by a supranational authority (European Commission) and are formed with the objective of transnational institutional building. Sustainable development framework is put forward as in most E.U. -related issues (Clement et al, 2005).

These strategies have succeeded to such a point that CBRs are engaging in common collective action and have strong influence over national and supranational policy making (Perkmann, 2003). The process of institutionalization of CBRs shows the modern features of the European model, characterized by a strong presence of representatives from

the public and private sector, a clear geographical scale of intervention, a multifunctional scope, as well as temporal stability. As a result, the official multilevel governance structure is now being complemented by another layer of institutions of governance (Blatter, 2004a).

On the other hand, the typical border scenario still prevails in North America, particularly the U.S.-Mexican border. Its permeability is strictly monitored and selectively opened for defined economic transactions that cause a high degree of social friction when taking into consideration the strong migratory restrictions (Perkmann & Sum, 2002).

The importance of considering CBRs in North America became notorious through a set of compensatory local struggles to cope with the economic interdependencies that were induced by state-level strategies. In this sense, cross border regionalism in these areas became subject to the logic free trade oriented supranational integration backed up by the framework of NAFTA since the signing of this treaty in 1994 (Perkmann & Sum, 2002). In general, the contemplation of CBRs in this area promotes a certain degree of economic integration focused on free trade, characterized by the exploitation of factor cost differentials and relative advantages (Kiy & Worth, 1998). Development of CBRs in North America is promoted for the benefit of national and supranational economies.

CBR cooperation in this area seems to follow the logics of spaces of flow: spaces that are organized for the constant movement of people, goods and information. Due to this condition of constant movement, organization efforts within CBRs become fragile because of the unclear geographical and temporal scope; this causes decision-making processes to be generally weak in playing significant roles in policy conflicts and stakeholder articulation (Blatter, 2004b).

The experiences of CBR development in Europe and North America reveal the important role of territorial integration (cooperation across territorially defined borders) and whether this condition hinders or enhances the effort towards achieving sustainable development. In this sense, Ganster & Lorey (2005) and Perkmann (2007) suggest that while addressing sustainable development on CBRs it is important to point out the main factors that drive territorial integration across borders. This is substantiated by the fact that a complex intertwining of economic, technological, ecological and social features contribute to a rapid increase in interdependences

across territorial boundaries and to political processes and policymaking. This reliance is further boosted by different political trends such as decentralization and the move toward continental integration, stimulating and facilitating new sub-national CBR activities; taking for example the previously mentioned European Union and NAFTA.

By studying the experiences of Europe and North America, Blatter (2000) highlights four important requirements for achieving sustainability on CBRs by means of spatial planning. The first one is a legal and normative approach toward international and CBR cooperation, the next two are economic considerations, and the last is a political approach regarding governance.

- *Establish a regulatory regime:* If no instance is dealing with negative externalities across the CBR, an alternative is to reduce problems by building a regulatory regime. In other words, a series of implicit or explicit principles, norms, rules and decision-making procedures around which stakeholder expectations converge in a given arena of international relations. The main goal is to reduce uncertainty, homologate standards and policies, and monitor activities to ensure compliance.
- *Function as a transfer hinge:* The idea is to create useful ways to share CBR development experiences and information flow not only within the area that comprises the region itself, but also among other experiences with similar and applicable conditions.
- *Create an innovation pole:* CBRs can serve as spaces where different creative ways of development can be attracted and implemented to serve as catalyser of all dynamic local energies and stakeholders (other entities, associations, universities/research centers and small-medium enterprises).
- *Facilitate cross-border coalition building:* Changes to more accurate policies often counter the routines and agendas of interested groups and political actors. Conflict and competition thus arise between different stakeholders or sectorial departments or agencies. International and cross-border political pressure can help to overcome confrontation or settle any contested policy.

In order to guarantee sustainable development within the spatial context of a CBR, analogous economic, ecological and social goals must be

reflected within the corresponding policies that apply to spatial planning. This means that policymaking on CBRs has to be cross-sectorial, comprehensive and integrated, and should be able to consider the full range of environmental, social and economic concerns and values of the region.

On a negative side, the European and North American experiences reflect that territorial integration on CBRs could actually foster antagonistic communities and networks that make difficulties more complicated to overcome. These are the reigning cases of many border regions in developing countries. Under these circumstances, cross-border institution building actually constrains the search for sustainability if not developed appropriately. In this sense, a crucial element for successful planning is not so much the development of comprehensive plans with detailed indicators, but rather a planning process embedded in institutional settings. Stakeholder participation, inter-sectorial communication and cooperation, round tables and forums are considered fundamental elements to attain innovative and sustainable development (Blatter, 2000).

The Asian experience.

The Asian experience on CBR development constitutes a descriptive example of the modern day trends of regional dynamics in developing countries. It also gives noteworthy insight into the proper governance structure needed for the successful implementation of sustainability within these regions.

Within this experience, CBR development has been categorized according to the fundamental factors impelling their development, such as: infrastructure driven, investment driven, as well as policy driven CBRs; they can also be considered as planned (supported by government or multi-lateral agencies) or spontaneous (initially being developed without formal support and being driven by social, cultural and/or economic interactions) (Evans et al, 2000).

Regardless of their propelling factors, three defined sequential stages of CBR development can be observed within the APEC (Asia-Pacific Economic Cooperation) countries. First, regional-national actors are expanding the time-space reach of export-oriented modes of growth to new sites and scales since the early 1980s, expansion that coincides with changes in global-regional-national conditions. Second, the attempt by the United States to global-regionalize its liberal trade and investment regime

has given rise to the situation of support/struggle over APEC's open regionalism. The latter has contributed toward its loosely coupled/network nature. This time regional-globalization takes the form of learning and the transfer of the best practices of successful growth triangles as a strategy. Third, this strategy is affirmed both by regional-national actors interested in expanding embedded exports and by global-region hegemony, which sees it as having a facilitating effect upon open regionalism (Wu, 1998)

These diverging and converging trends of globalization and regionalization on CBRs within the APEC countries can be interpreted and adapted to other developing countries by using the terms de-territorialization and re-territorialization (Sum, 2002). De-territorialization is defined as globalized flows of production, finance, information, culture and so on, which are not territorially defined or constrained; on the other hand, re-territorialization involves actors and their networks that are seeking to capture these global flows and (re)fix them in time and space. According to Sum (2002), this convergence between globalization and regionalization takes two current and interrelated paths: first, the *regional-globalization* trajectory involving local-national-regional stakeholders taking the initiatives to re-territorialize the global flows of production, finance and trade; and second, the *global-regionalization* trajectory viewed in terms of global hegemonic actors seeking to regionalize their global neoliberal regime practices in Asia, in this case through the APEC.

These paths differ in space (global, regional, national, local) and time (on one hand the compressed time of production and the lead time of commerce, and on the other, the development stage of each CBR within this globalized context), which is why the political economy of these spatial-temporal arrangements cannot be fully analyzed in terms of a bottom-up/top-down approach. Here is where the concept of time-space governance is introduced as a strategic discourse that can span the economic and socio-cultural activities across space and time. Within the context of CBRs, this governance is defined as "a contiguous cross-border mode of geo-economic coordination that is mediated by networks of social relations that cut across discursive-material, time-space, private-public and global-regional-national-local dimensions of production and exchange." (Sum, 2002; p.67)

Besides distinguishing between the corresponding stages of regional-globalization and/or global-regionalization mentioned above, this mode

of governance will only reach the objective of sustainable development if it embraces economic complementarities, geographical proximity, policy commitment and coordination, as well as infrastructure development. A lesson learned from the Asian experience of governance on CBRs is that achieving time-space governance also encompasses certain processes through which multi-scaled actors rearticulate (rearrange) time and space (Perkmann, 2007). These include:

- *Creation of cross-border identities and discourses*: objects of governance (co-operative ventures with different factors of land, labor, capital and management, which together are economically complementary, in consequence generating mutual advantages in external trade and investment) and growth poles (ex. sub-regional economic zones, natural economic territories, or extended metropolitan areas) aligning capital, technology and human resources of more advanced regions with the land, natural resources and labor of less developed regions.
- *The articulation and control of new spatial scales*: global, sub-regional, national, local, and temporal horizons mediated by new practices and controlling how these practices are involved in the building of institutions/governance mechanisms and reordering of social relations.
- *Spatial re-imagination*: reflexive-learning governance for managing the spatial-temporal fixes across borders and creating awareness towards any associated tensions/crisis tendencies.

Key requirements needed for targeting sustainability on CBRs

Despite the know-how gathered from North and South experiences, the reality is that the majority of developing countries have not been able to manage progress of CBRs to its highest potential as a source for rising prosperity, social justice, governance and environmental conservation (Roberts, 2003). In other words, the framework of sustainability has not been embraced within the context of CBRs even though these regions claim the need for such implementation. (Ganster & Lorey, 2005).

Sustainability has gained importance in specific historical circumstances as an answer to specific problems. Its principles as a political concept have created a setting in which many ideas and approaches are assimilated, thus creating a basis for the implementation of policies, development processes,

and planning strategies on a regional level. According to Thierstein & Walser (1999), there are three characteristics that describe sustainable development within a regional context: it requires awareness about the interconnections of social, ecological and economic problems; it is based on different needs within a region and therefore different interests; and it should fulfill the requirements of cooperation created by problems ranging above the local level.

In this sense, space becomes the common element bringing together the triad of sustainability concerns: environment, society, economy (Roberts, 2003). It provides the setting in which the policies related to each of these concerns are put into practice. In order to take full advantage of their relationship, the spatial dimension of sustainable development can be studied as an integrating element and as an approach (Whitehead, 2007). As a result, regional development policies have gained importance and are increasingly considered to be essential for redefining the role of economic, socio-cultural and political entities in a changing continental and global context (Blatter, 2004a).

Nevertheless, there is no defined approach toward sustainable regional development; much less on CBRs. This means that different methods for achieving sustainability on a spatial level are possible, depending on the specific situation of a region and the needs and interests of the actors involved (Thierstein & Walser, 1999). For this reason, it is important to highlight the key requirements, pointed out by scientific literature, needed to target sustainability on CBRs.

Differentiation between region and CBR.

Before going into detail about the key factors that influence sustainability on CBRs, it is important to distinguish between the dynamics of regional development from those of CBR development. Wu (2001) states that these are the main differences between both forms of territorial development:

- *The immobility of factors of production:* Conventional regional development theory is based on the assumption that there are no obstacles to the mobility of factors of production, whereas cross-border development is founded on the immobility of factors of production, at least in its first stages.
- *Transaction costs and delays:* Borders impose their own transaction costs in the form of delays caused by clearing customs, traffic con-

gestion, and other bureaucratic impositions. Costs are also imposed by cultural differences in the ways business is conducted or by psychological barriers that prevent individuals from seeking employment or other opportunities across the border.

- *Incompatible economic systems:* Some of the more challenging cases of cross-border development occur at border where a transitional economy and a market-oriented economy meet. Cross-border developments under these conditions can neither afford to ignore the constellation of issues nor try to tackle them in isolation.
- *Institutional Issues:* Institutional issues such as profit repatriation regulations, double taxation agreements, guarantees of exchange rates, and political institutions for joint actions are crucial to cross-border development.
- *Proximity of differences:* this refers to the economic complementarities of the two territories involved in cross border development which must exist; otherwise there would be few incentives for CBR development to proceed.
- *The role of the informal sector:* many cross border developments are based on the activities of the informal sector activities, including trade and small-scale industries, whose role has to be considered in policymaking.

Economic considerations.

As mentioned before, traditional economic theory rarely was concerned with the interpretation of international boundaries or development of CBRs. It stresses different scenarios like tariffs and quotas that provoke friction on international movement or flow of goods, people and services (Ganster & Lorey 2005).

In general terms, economy has generally perceived international frontiers as barriers to trade. This assumption is being overcome. The emerging features of global economy, increased openness, lower tariffs, fewer barriers to commerce, and rapid technological innovations lead to greater levels of globalization. This has reduced, though not completely, the barrier attribute of CBRs even considering that political borders remain (Clement, 2001).

Many authors coincide that in order to understand the dynamics of CBRs and seek sustainability, economic considerations have to be

discussed from two points of view: the global tendencies that exercise influence over them, and the particular territorial conditions of each CBR. (Kiy & Wirth, 1998; Ganster, 2001; Perkmann & Sum, 2002).

From a general global and economic point of view, these considerations can be traced to what is considered to be the most influential theory and set of platforms in present day economy: neoliberalism. In regard to CBRs, this trend encourages free mobility of capital between sectors and regions, reduces the obstacles to this movement, and opens the various economic markets to global forces of capital (Blatter, 2004a). This maneuver also involves widespread deregulation and privatization, tax cuts for corporations and wealthy sectors, as well as free trade and economic integration agreements that enhance capital mobility. The International Monetary Fund, World Bank, and World Trade Organization have supported this doctrine through a variety of practices, such as structural adjustment programs and the signing of the General Agreement on Tariffs and Trade (GATT) (Harvey, 2006).

Consequently, regional economic and/or trade blocs have been formed. These blocs have a direct economic implication on CBRs through which restrictions on the mobility of goods, services, and capital are being reduced. Examples of these are the already mentioned European Union (EU) and North American Free Trade Agreement (NAFTA), as well as the Central American Free Trade Agreement (CAFTA), the South American Common Market (MERCOSUR), the ASEAN Free Trade Area (AFTA), and the Greater Arab Free Trade Area (GAFTA).

In some cases, CBRs are examples of the increasing relevance of those regions that are being shaped by intensive socio-economic interdependencies. Additionally, many border regions are no longer peripheral; in some cases they are witnessing economic prosperity above the national average (Clement et al; 2005). In North America and Europe, border regions are changing, or at least complementing their character from 'front lines' of the sovereign states towards socio-economic 'contact zones' for neighbouring societies. In other cases, as in many parts of the world, especially in less developed countries, CBR's are still considered peripheral (Blatter, 2001) or marginal spaces, due to the fact that they are still under international disputes or far from the decision-making processes of the political and economic centers.

There is a wide variety of conditions surrounding CBRs around the world, each one of them having its own peculiarities. In this sense, when reviewing the economic considerations for sustainable spatial planning, special attention has to be given not only from the point of view of wider scales, but also from the point of view of the CBR scale itself, as they also hold particular economic, social, political, cultural and environmental features that need to be taken into account (Mamadouh et al, 2001; Masuda & Crooks, 2007).

In order to regulate this economic growth, avoid divergences and achieve sustainable development, transboundary collaboration between local governments, businesses and non-governmental organizations (NGOs) need to be expanded in many areas of the world in an attempt to regionalize governance and/or decision making across international boundaries (Clement, 2001; Ganster, 2001; Perkmann & Sum, 2002).

Governance and cooperation issues.

The world economy, based on an ideology that tends to stress the economic aspect of trade, has resulted in the shrinking involvement of central government in achieving full employment and economic growth. This decentralization of power means that local and regional governments are required to accept more responsibility for economic development in their own jurisdictions (Harvey, 2006).

While the number of international boundaries and CBRs proliferate or are transformed by changing political and economic circumstances on a local and/or international scale, the need to understand them in the context of public policy grows (Perkmann & Sum, 2002). Hoping to reduce conflict and improve prosperity and quality of life, CBR collaboration between local governments, businesses and NGOs has expanded in many areas of the world in an attempt to regionalize decision making across international boundaries (Clement, 2001).

On a global scale, economic, technological, ecological and social developments all contribute to a rapid increase in interdependence across CBRs and an urgent need for governance (Ganster, 2001). However, the recent interest in borderland governance has been directed almost exclusively toward specific geographical regions, mentioned beforehand, or specific aspects of a region, for example transboundary environmental collaboration

(Clement, 2001). The application of these domains to situations in less developed countries depends on the specific features of each CBR, the political environment within the area and the capacity for organization.

One attribute shared by most of the studies held on CBR governance is the fact that they are far from being regions in the conventional juridical and political sense. Therefore, CBRs are not governed in the conventional territorial sense (Ganster, 2001; Perkmann & Sum, 2002; Blatter, 2004b).

From a reduced scope, the integration through cooperation and governance of CBRs depends on the proliferation and reactivation of social and/or economic relationships. However, from a wider scope, governance should take into account cooperative relationships between public entities and other stakeholders sharing their particular interests, such as dealing with environmental issues or creating cross-border economic spaces (Kiy & Wirth, 1998). Their emergence is a result of failures on behalf of the central state authorities, and to the efforts of local and regional actors to take advantage of the new opportunities created by regionalization and globalization (Perkmann & Sum, 2002).

As mentioned previously, there is an intense transformation of CBRs from 'spaces of place' to 'spaces of flow'. According to Blatter (2004b), this transition is accompanied by similar transformations in the governance patterns of these regions. These can be referred to as territorial patterns of governance in the case of 'spaces of place', and functional patterns of governance in the case of 'spaces of flow'. It is important to keep in mind that this change has occurred in different degrees within each CBR depending on its stage of economic and political development.

In general, territorial governance handles a series of tasks within one or a small number of jurisdictions. Consequently, the congruency of these tasks within their spatial scale is related to the clearness of the boundaries between jurisdictions. In this sense, territorial governance is relatively formalized and stable in regard to time and space, whereas functional governance has practically the opposite features (See Table N° 1).

Territorial and functional governance hypotheses have certainly enriched the understandings of aspects of globalization on CBRs, though they may also distract the attention from multiple and heterogeneous processes involved in the current re-articulation of spatial scales and temporal horizons, as well as from the role of other scales within global-local interactions.

As referred to before, Sum (2002) suggests the hypothesis of time-space governance. This hypothesis focuses on the strategic networks of CBR actors (public and private) involvement in the coordination and stabilization of differing transborder modes of growth and their capacities to manage self-reflexively the material, social, discursive and time-space dimensions of these modes of growth, envisioning the accomplishment of sustainable development.

Table 1: Territorial governance vs. Functional governance

	Territorial governance 'spaces of place'	Functional governance 'spaces of flow'
Structural pattern of interaction	Hierarchy; monocentricity	Network; policentric
Sectorial differentiation	Separation of public, private, and non profit sectors	Integration of public, private, and non profit sectors
Functional scope	Broad (many tasks)	Narrow (few tasks)
Spatial scale	Clear cut scales: congruent boundaries	Undetermined scales: variable geometry
Institutional stability	Stable in regard to time and space	Fluid (flexible) in regard to time and space

Source: adapted from Blatter (2004b)

Nevertheless, the most important element for the achievement of sustainable spatial planning is not the development of comprehensive plans with detailed indicators, but a planning process embedded in institutional settings. Inter sectorial communication and cooperation, round tables and forums are deemed crucial elements to moving toward innovative and sustainable development (Blatter, 2000). In this sense, it is therefore important to establish the identity of the stakeholders involved in this process.

Scale and stakeholders.

In short, the above assessment of the different concepts, principles, theories and tendencies considered for the pursuit of sustainability and planning of CBRs, leads to the conclusion that there is going to be a series of stakeholders involved in its actual implementation. In order to identify these stakeholders, it is important to consider the scale in which research of CBRs is most practical. Even if there are many similarities between CBRs and their surrounding areas, there is also much heterogeneity between each

specific case. Grouping them together into a single region for their study would probably conceal more than it would reveal (Ganster, 2001).

In order to identify the stakeholders needed for the achievement of sustainable spatial planning, it is necessary to identify what is the appropriate territorial scale of approach. For example, research within the field of governance usually tends to consider several scales in order to interpret the different political and economic liaisons affecting CBRs, varying between global and local and vice versa (Perkmann & Sum, 2002).

Among the consulted references, no source addressed the ideal scale for interpreting sustainable regional planning as such. For this reason, it was necessary to gather different interpretations from the elements that make up this sort of planning and come up with the ideal scale that suits the conditions of CBRs. For data collection purposes, an ideal unit for study would be those administrative units adjacent to an international boundary that exhibit cross boundary activity, such as bordering regions and/or jurisdictions (Clement, 2001). Concerning spatial planning, regional and local scales are also appropriate for research and implementation, considering that the process of state decentralization requires local governments to apply spatial planning within their own jurisdictions. Regarding sustainable development, the intervention scale is suggested to range from the regional down to the local (Roberts, 2003). From this derivation, the appropriate scope for studying the sustainable spatial planning of CBRs is considered to range between local and regional scales characterized by an actual or potential degree of transborder interaction.

From this point of view, the key stakeholders are the following: regional and/or local policy and decision makers (local governments, national ministry representations, boundary monitoring entities, migration offices, etc.); social representations (local associations, worker unions, cooperatives); private sector representatives (chambers of commerce, enterprise owners); NGOs (environmental, socio-cultural, developmental, human rights); research centers (universities, educational institutes, private consultants, international organisms); and financial support entities (national, international) (Ganster, 2001; Clement, 2001).

Method to evaluate sustainability on CBRs

Even though a project may have contemplated the previous aspects within the development of a CBR, this does not mean it can be

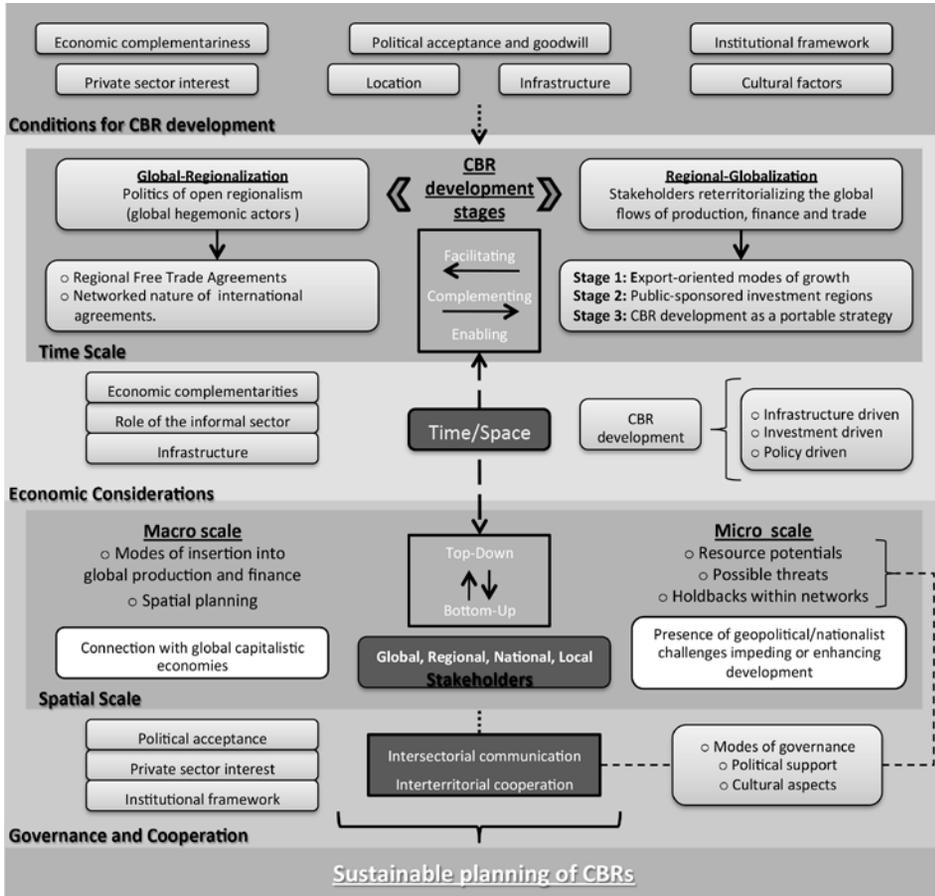
considered sustainable. In reality, using the term sustainability has become a trend in many plans and programs in order to suggest progress and modernity. Unfortunately, in most cases only certain elements of sustainability have been contemplated, such as establishing a roundtable as an advisory board or the integration of ecological aspects. A real change through stable policies is not yet foreseen; hence sustainable regional development needs 'a tool' to assess policies and projects in terms of sustainability and to support regional actors in formulating proper goals (Thierstein & Walser, 1999; Goo & Lee, 2000). For this reason, an evaluation method based on the examination of scientific literature and CBR development experiences from around the globe is proposed in this section. The purpose of this instrument is to facilitate assessment regarding the basic conditions required for sustainability planning on CBRs and to contribute to further discussion on the topic.

The instrument is based on five aspects depicting the elements for the evaluation of sustainability on CBRs (Figure N° 1). A synthesis of each of these aspects is presented. As a start, it is important to identify the regional dynamics required for CBR development mentioned previously: economic complementariness, political support, institutional framework, the interest of the private sector, cultural characteristics and evidently geographical location and infrastructure. For this reason, the evaluation begins with the first segment labelled "Conditions for CBR development".

The following segment of the instrument is designed to evaluate the actual development conditions being experienced in the particular CBR being studied, in other words, its temporal developmental stage (Time Scale). As stated above within the Asian CBR research, this development can be considered either as global-regionalization (politics of open regionalism influenced by global hegemonic actors) or regional-globalization (stakeholders re-territorializing the global flows of production, finance and trade), perhaps even a combination of both. Within each one of these development paths it is important to identify the different sub-stages and explore whether or not they enable, complement or facilitate each other. On one hand, if a global-regionalization development prevails, it will be important to identify the relationship within the context of free trade economics and the networks proper of its dynamics. On the other hand, if the tendency is more towards a regional-globalization type of development, it

will be possible to identify what is the present development stage of the particular CBR: export-oriented development; public-sponsored regional investment (free zones, tax cuts, or the like); or a distinctive CBR forming part of a higher scaled development structure.

Figure 1: Instrument to evaluate sustainable planning of CBRs



Source: Avendaño, D. (2008).

The third part of the instrument (Economic Considerations) aims at evaluating the economic relationships within the CBR, considering local and transboundary complementarities within the region itself, as well as the significant roles of adequate infrastructure and informal sector

participation. It is also important to identify what factors impel the development of the CBR being examined; in this case, whether they are infrastructure, investment, and/or policy driven.

The subsequent section (Spatial Scale) deals with the interpretation of the different spatial variables from the perspective of macro and micro scales. On a macro scale, it is important to identify the modes of insertion into regional or global production and the way in which these interact with regional or even global economies. Spatial planning should also be contemplated in a conciliated manner. On a more local or micro scale, on one hand it becomes decisive to identify the possible holdbacks or tensions which might evolve into threats towards development, whereas on the other, resource potentials should be highlighted. As seen in the diagram, the relationship between the Time Scale and the Spatial Scale sections forms the time/space axis.

The last segment deals with governance and cooperation. The different inter-sectorial and inter-territorial issues of the particular CBR are evaluated along with its political acceptance, the involvement of the private sector, and corresponding organizational framework (synchronize spatial planning). It is recommended to carry out a stakeholder analysis in this section in order to identify participation in the process of planning for sustainability.

Conclusions

The preceding factors included in the sustainability evaluation instrument were taken and interpreted from different think tanks with CBR research expertise as well as case studies within the contexts of developed and developing countries. It is important to point out that this is an elementary theoretical approach toward how sustainability can be set into motion and subsequently evaluated on CBRs. This does not mean that the proposed method is definite and cannot be enhanced with further contributions. Not only does it require further research and insight from numerous fields, but it also calls for its interpretation within different political and geographical conditions. The intention here is to create a basis on which to start a debate or discussion on how to address sustainability on CBRs.

To give an idea, this instrument can be improved with additional input such as insight into environmental issues and socioeconomic conditions that support spatial planning; methods of citizen involvement and

participation; detailed ways of policymaking and/or establishment of regulatory regimes to facilitate cross-border coalition building; as well as relevant issues from sociological, anthropological and political viewpoints.

Considering the context of developing countries, for CBRs to become sustainable it is also important to establish priorities that facilitate accessibility to basic services and needs such as education, health, employment, housing, electricity, telecommunication, technology, transportation, infrastructure, accessibility and other amenities. This has to be done in direct coordination with the central governments and state institutions. Cross border coalition building has to be contemplated in order to pursue these priorities and alleviate the processes and paper work that become even more lethargic when it comes to CBRs.

Sustainability in CBRs is not an easy task. These regions' complexity compels decision-makers to pay special attention to specific factors that make them dissimilar and unique. For sustainable development to be successful on CBRs it has to be cross-sectorial, comprehensive and integrated, and thus take into account the full range of environmental, social and economic concerns and values. In order to achieve this ultimate goal, a process of re-education has to take place. For this to be achieved, different disciplines are required to take interest and contribute to the overall discussion. Inputs from professionals in fields such as law, politics, architecture, international relations, anthropology, sociology and ecology will be very enriching. The concepts of nation-state and sovereignty also require new imaginative approaches, especially among politicians and key stakeholders participating in the decision-making processes.

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