International Boundary Cities: The Debate of Transfrontier Planning in Two Border Regions

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International Boundary Cities: The Debate on Transfrontier Planning in Two Border Regions

ABSTRACT

For the first time in modern history, large-scale cities are evolving along the borders of nation-states. The settlement pattern is one in which urban residents on either side of the boundary are enmeshed in a singular functional region, or "transfrontier metropolis." Ecological resources are shared within these common transboundary living spaces. Environmental problems such as sewage contamination, hazardous waste spillage, or air pollution are also shared. While cooperative transborder planning has been proposed as a means for resolving these problems, it is not clear that such an approach works. This article examines the transfrontier policy debate for two important boundary regions: Western Europe and the U.S.-Mexico border. Western Europe's record of transfrontier cooperation is critically reviewed. While the volume of transfrontier planning projects has mushroomed there during the past decade, many structural obstacles to long term cooperation remain. Along the U.S.-Mexico border, strong political-economic polarities hinder the formation of formal, bi-lateral border policy-making mechanisms of the Western European variety.

BACKGROUND

This article considers the dilemma of managing densely populated regions along international borders. Most boundary zones separating nation states tend to be devoid of cities. Indeed, a large proportion of the world's more than one hundred thousand miles of international borders traverses deserts, mountains, and other uninhabitable terrain. The longest boundary in the world, separating China and the Soviet Union, houses few important urban settlements along its 5,965 miles. Many of the other large international borders in Asia, Africa, South America and parts of...
North America (the Canadian-United States border), and Europe (northern and eastern national borders) also lack significant urban settlements.\(^1\)

These facts are consistent with the original thinking of statesmen and diplomats who prepared the treaties leading to the demarcation of boundaries during the period of nation-state formation in the nineteenth and early twentieth centuries. They also parallel the work of scholars who studied boundaries before 1950. The prevailing wisdom, both in and outside academia, has been that boundaries represent a protective shield between nation-states. Because they were the primary line of national defense in the land-based conflicts prior to the second world war, boundaries attracted considerable attention from scholars concerned with their role in international security.\(^2\) The military functions of boundary zones before 1950 led one scholar to write that the "functions of boundaries are in general negative rather than positive" and they "cannot promote trade or human intercourse."\(^3\)

Early twentieth century social science characterized boundary areas as "buffer regions" between nation states.\(^4\) This meant that, from an economic development or planning point of view, boundary regions were viewed as "unstable." Two important location theorists, Walter Christaller and August Losch, argued that international boundaries distorted "normal" trading patterns, and created uncertainties and problems both for consumers and retailers.\(^5\) In *The Location of Economic Activity*, Harvard economist Edgar Hoover\(^6\) devoted several chapters to "The Locational Significance of Boundaries." Hoover claimed that the divergent laws, customs, cultural values and national policies partitioned along political boundaries interfered with the transborder movement of labor, commodities, capital and enterprise. Thus, he argued, boundary areas lacked the conditions necessary for economic development.

In general, researchers found boundary regions to be suboptimal locations for valuable national resources or investments. They best served as institutionalized buffer zones, where national governments could monitor and regulate the transboundary flow of people and goods from neighboring states. Because border locations repelled economic activity, it was unlikely that one would find significant populations living along the edges of national territory. The world of sparsely inhabited boundaries that evolved before 1950 therefore conformed with the views of border scholars up to that time.

4. *Id.*
CITIES AND PLANNING PROBLEMS ON INTERNATIONAL BOUNDARIES: WESTERN EUROPE AND THE U.S.-MEXICO BORDER ZONE

Since 1950, two important world regions have spawned the growth of large and medium-sized international border cities: Western Europe and the United States-Mexico border area. By 1980, many important West European settlements had evolved along the Swiss, French, German, Belgian, Dutch, and Italian borders. Among the salient border agglomerations today are: Geneva, Switzerland (335,000 population); Lille, France (935,000); Strasbourg, France (373,000); Basel, Switzerland-Mulhouse, France-Freiburg, Germany (766,117); Maastricht, Netherlands-Aachen, Germany-Liege, Belgium (824,538); and Saarbrucken, Germany (188,763).7

Along the United States-Mexico border, by 1980, an equally formidable array of large urban places had developed including: San Diego-Tijuana (2.4 million); El Paso-Ciudad Juarez (1.2 million); Calexico-Mexicali (460,000); McAllen-Reynosa (604,000); Laredo-Nuevo Laredo (386,000); and Brownsville-Matamoros (450,000).8

In both regions, urban population growth along the boundary has assumed a unique form. Cities emerged on either side of the border line, but, over time, the components that governed their growth9 became intertwined. Unique settlement configurations evolved, consisting of functionally unified, paired-city zones located around international borders. Each zone might be called a "transfrontier metropolis." It is not surprising, therefore, that in both Western Europe and the United States-Mexico border region, urbanization of boundary zones has generated a set of common planning problems or "transfrontier externalities."10 As cities grow on one or both sides of the boundary, the spillover effects of air pollution, sewage contamination, and toxic waste dumping diffuse across the international border.

In Europe, these problems have taken on serious proportions in light of two recent catastrophes that had transboundary effects: the nuclear disaster at Chernobyl,11 and the chemical spill along the Rhine River in Basel, Switzerland.12 Other serious transborder planning problems include the location of French nuclear plants along the border in the Alsace region,13 air pollution in industrialized border areas such as northern

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9. These components include economic base, transport structure and social composition.
France, the French-German-Swiss border zone at Basel, and the Ruhr basin; in the United States-Mexico border region, salient transboundary problems have included: air and water pollution; sewage contamination; flooding and groundwater conflicts; transboundary resource management, including oil and gas; drug enforcement; and immigration policy.

The growth of boundary area cities in the United States-Mexico and Western European cases, and the subsequent evolution of similar types of planning problems suggest a rationale for broadly examining the question of transfrontier policy and environmental and urban planning in international boundary areas. Some scholars have emphasized the similarities between the United States-Mexico and Western European border regions. They envision a generic model of "transfrontier cooperation" whereby authority is granted to municipal and regional governments contiguous with the international border. This authority is generated through international treaties and manifested in the form of transborder decision-making entities such as planning commissions or regulatory agencies. Duchacek views border decisionmaking within the context of changing territorial political behavior growing out of the increasing permeability of national territories, and the rise of "regionalist" movements. These movements, especially in Western Europe and U.S.-Mexico border zones, represent a form of "transborder regional microdiplomacy" that may begin to challenge national foreign policy in the future.

Hansen, the strongest advocate of comparability between Western European and U.S.-Mexican borders, has suggested several important similarities between the two world regions, including: i) both areas have experienced urban development and economic growth since 1950; ii) as a result of this growth, both regions require some form of transfrontier

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21. Such problems include air and water pollution, transfrontier workers, trade relations, and economic development.
23. I. Duchacek, supra note 22.
24. N. Hansen, supra note 22.
cooperation; iii) border regions in both places tend to be relatively distant from the national capitals; iv) there is considerable cross-national labor migration across boundaries; v) the basic force causing transborder interaction is economic development.25

Hansen and others view the boundary as a political line that has become increasingly permeable to economic relationships that transcend it. Although a vast economic gap separates the United States and Mexico, Hansen insists that the similarities to Western Europe still prevail: "despite the relatively great degree of economic disparity that exists in the U.S.-Mexico case, there are also numerous similarities to European border situations."26 This view has been openly challenged by Friedmann and Morales27 who argue that the Western European model is entirely inappropriate as a comparative framework for understanding the U.S.-Mexico border region. They take exception to the use of the phenomenon of economic interdependence as a rationale for transborder cooperation. Noting that "interdependence" can be a misleading concept, they argue that the economic linkages between the U.S. and Mexico are hardly reciprocal. The United States has become the overwhelming beneficiary of the bi-national relationship. Liberalization of transborder interaction, they observe, would mainly serve to enhance the free circulation of international capital, "opening the path for American corporations advancing southward under the pretext of free trade."28

Urbanized zones along the Western European and U.S.-Mexican borders are not simply neutral spaces upon which a rational model of "transfrontier cooperation" can be superimposed. Planning at the physical edges of nation states, therefore, must be understood within its unique regional context. First, planning regions enclose populations not only in different political communities (not uncommon in the multi-jurisdictional U.S. metropolis, either), but in different nations; second, planning regions encompass cities structured within two different national cultures; and third, because of the border, local decisions have foreign policy implications. While in the past, boundary matters were part of a common international law framework, border urbanization has generated legal and political concerns not previously addressed within the international legal arena. For example, no systematic framework currently exists to resolve border problems such as traffic congestion, sewage contamination of common watersheds, or land use incompatibilities. There is a clear need

26. Id. at 42.
28. Id. at 8.
to develop new conceptual guidelines for planning in a "transfrontier metropolis." At the same time, the limitations of transfrontier cooperation must be understood. For example, national culture must be accounted for, insofar as nations with divergent economic and political systems attach very different meanings to urban land and its use.29

Planning along international borders requires negotiation between two federal governments. These negotiations hinge upon each nation's perception of its overall relationship with its neighbor. Thus, city planning along the border becomes inevitably intertwined with foreign policy. Western Europe, which has led the initiative in creating programs of transfrontier planning and cooperation, offers an example of how difficult it is to implement planning projects that transcend national boundaries.

**POLITICAL LIMITATIONS ON THE WESTERN EUROPEAN TRANSFRONTIER COOPERATION MODEL**

The growth of cities in two important international boundary regions calls for the development of a new research agenda aimed at understanding the political and policy implications of large scale border urbanization. New conceptual frameworks are needed to grapple with the administration of environmental and city planning problems in densely populated international boundary regions. Scholars will be forced to address the changing roles of international borders in a rapidly integrating world system.

Having entered this emerging conceptual arena, however, one cannot forget that political boundaries continue to divide national governments, which still seek to protect their own interests through the international legal principle of "sovereignty." Bluntly stated, boundaries continue to be necessary. In the words of one scholar, "a world of sovereign states is a world divided by boundaries."30

As noted previously, an important scholarly response to the problems of urban growth along boundaries has been to suggest the possibility of transborder cooperation between nations sharing large-scale boundary metropoli and their inevitable problems. Transborder policy-making turns out to be far more complex and difficult to administer than some observers might lead us to believe. While some progress has been made in establishing programs for transfrontier governance in Western Europe, a number of serious obstacles still face European nations seeking to implement these unusual administrative techniques.

One can begin to grasp the difficulties facing those who seek to implement transborder cooperation programs by examining the case of the Regio Basiliensis, one of the largest transfrontier cooperation projects in

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Western Europe. The Regio Basiliensis is a tri-national planning and promotional agency operating in the Upper Rhine River Valley region at the borders of northwest Switzerland, southeastern France, and southwestern Germany. Its jurisdictional domain covers three metropolitan areas along the Rhine River: the urbanized zones of Basel, Switzerland and Mulhouse, France, west of the Rhine, and Freiburg, Germany on the eastern side of the river.

The upper Rhine River Valley is unified by common physical geographic features, language (Germanic), and culture. Yet there are numerous reasons why the formation of a tri-national planning authority might never work. Historic conflicts in the Alsace region along the French-German border have long impeded local and national authorities' attempts to implement serious transfrontier measures. For example, tensions between France and Germany in the Alsace region have resulted in weak infrastructural linkages (for example, roads, rail connections) across the international border. France's decision to build nuclear power plants along its border with Germany and Switzerland near the Rhine River has evoked a harsh response from environmentalist movements and the governments of both neighboring countries, and certainly has not strengthened the cause of border cooperation.

In fact, although the Regio Basiliensis is a political-administrative structure supported by three nations (Switzerland, France, and Germany), Switzerland is really the driving force, both economically and politically, in assuring the continuation of the transfrontier agency. It can be argued that without the active participation of Switzerland, the Regio would cease to exist.

Having said this, one must acknowledge the accomplishments of the Regio, without a doubt the leading world model for transfrontier planning. Among the successful transfrontier projects organized by the Regio are: the tri-national Basel-Mulhouse airport, environmental regulation programs, and the development of cross-border mass transportation and traffic planning systems. When one looks at the origins of the Regio, however, it is clear that the primary motivation of its founders was economic, and limited to Swiss interests, rather than those of neighboring countries. The Regio did not begin as a transfrontier policy-making agency. It was formed in the city of Basel in 1963, at a time when the economic elite from the Swiss pharmaceutical and chemical industries were searching for new markets. Some observers feel that the motives underlying the original

31. See Briner, Regional Planning and Transfrontier Cooperation: The Regio Basiliensis, supra note 25, at 45–53.
33. Personal interviews with officials in the Regio Basiliensis, Basel, Switzerland (Sept., 1987).
formation of the Regio were self-serving. They argue that the original mandate for the agency grew out of the local concerns of Swiss business interests, and that this approach was modified into a more transfrontier, regionalist framework only when the original Swiss sponsors realized that a purely "pro-Basel" approach would alienate French and German interests.  

The earliest key participants in the Regio were the Chambers of Commerce and local industrial interests—not planners and government officials. In fact, there has been some tension between the Regio and Swiss officials, since the agency’s formation. The Regio thus served as a catalyst for transborder business and marketing. Its interests in transfrontier cooperation emerged as a result of its location in a dynamic production center within a nation that needed stronger cross-border ties to offset the disadvantages of non-membership in the European Economic Community.

An important barrier facing transfrontier commissions like the Regio Basiliensis is that the political structures of the three sponsoring nations are very different. The more centralized French system allocates different legal powers to its border provinces than do the governments of Switzerland and Germany. This creates confusion about budgetary powers and legal authority in land use and other matters that might be coordinated at the border. Furthermore, both France and Germany have been cautious about sacrificing the authority of the central government in the interests of border planning for fear that strong regionalist movements and local diplomacy might threaten the authority of the central government. The strengthening of border authorities is viewed by some national governments as a potential loss of sovereignty.

The feasibility of transfrontier planning is ultimately linked to the question of authority. "Transfrontier cooperation" organizations like the Euregio (Dutch-German border) or the Regio Basiliensis (French-Swiss-German border) lack the real power (both political and economic) to achieve stable transfrontier relations. That power lies with the European Economic Community (EEC), the most powerful inter-governmental parliamentary body in Western Europe. The EEC has increasingly distanced itself from the transfrontier planning debates. In fact, the "frontier region" question is a low priority concern within the framework of current EEC regional development policy. The EEC assigns highest priority to severely depressed economic regions; it currently allocates a large share of its

36. J. Scott, supra note 32.
financial resources to the strengthening of economically less-developed areas such as Portugal, Spain, Italy, and Greece.\textsuperscript{37}

The "borders" that are recognized by the European Economic Community are not those that partition one nation-state from another, but rather those that separate the EEC from the rest of Europe. These "EEC borders" will take on even greater meaning if the proposed "Single European Act of 1992" is implemented. Under that act, the EEC will finally take a much debated step toward creating an internal European market, thereby removing many of the cumbersome border controls that interfere with the flow of goods, workers, and traffic between member nations. In moving to implement the Single European Act, the EEC has continued to maintain its distance from the weaker parliamentary body—the Council of Europe—which has traditionally been the lead advocate for transfrontier cooperation. Such an agenda is more suited to its cultural and human rights orientation, according to some observers.\textsuperscript{38}

Even the Council of Europe's efforts in transfrontier cooperation have been strained. In 1980, the Council drafted a resolution called the Convention of Transfrontier Cooperation, which was heralded as the beginning of a new era of formal transborder policy-making. Since then, there have been numerous commissions and agreements reached on matters of pollution, transport policy, frontier workers, and trade.\textsuperscript{39} Yet, not one major transfrontier project has actually been undertaken since the 1980 signing. In addition, seven of the twenty-one national members of the Council failed to ratify the convention, and two major powers, Italy and France, ratified it with reservations.\textsuperscript{40} As one official at the Council of Europe stated about the convention: "It is very positive that we have this text, but it has not provoked any real new inputs in transfrontier cooperation, mainly because of national reservations about it."\textsuperscript{41}

The above illustrates that the existing model of European transfrontier cooperation is not the panacea for border planning that some have claimed it to be. We have seen that a number of political factors constrain transfrontier planning in Western Europe—among them, historic conflicts between neighboring nations, differences in national political systems, the fear of regionalism by central governments, and the incompatibility of border planning with the objectives of the EEC. Questions about regionalism and transfrontier relations are clearly going to be prominent in the discourse within Western Europe in the next decade. Many observers are

\textsuperscript{37} Interview with M. Locatelli, Council of Europe, in Strasbourg, France (Sept., 1987).
\textsuperscript{39} See Council of Europe, The State of Transfrontier Cooperation, supra note 14.
\textsuperscript{40} Interview with J. Chauvert, Council of Europe, Strasbourg, France (Sept., 1987).
\textsuperscript{41} Id.
pessimistic about the feasibility of non-central autonomy and regional governance. They speak of the "failure of regionalism" in Western Europe due to ethnic rivalries, economic rather than regional consciousness among decisionmakers, the homogenization of culture through mass media, and the persistence of national governments in keeping local authorities powerless.42 This suggests that the future of transfrontier planning in Western Europe remains, at best, uncertain. This certainly constrains the applicability of the European model to other world regions.

SOCIO-ECONOMIC ASYMMETRY AS AN OBSTACLE TO COOPERATION ALONG INTERNATIONAL BORDERS

A second factor must be taken into account in assessing the feasibility of transborder planning: economic parity. Interstate relations are constrained by national economic inequalities, especially when the economic differences are unusually large. It follows that the success of border cooperation programs is at least partly conditioned by the relative economic levels of neighboring countries. In Western Europe, there is relative parity across borders; along the U.S.-Mexico border such parity does not exist. The glaring imbalance of income and power along the U.S.-Mexico border is probably the most obvious deterrent to the formation of transborder cooperation programs.

Tables 1 and 2 summarize comparative population, employment, and income data for states and provinces along Western European and U.S.-Mexican borders. One sees that in both regions substantial populations reside in the states or provinces contiguous with international boundaries. Most of the border provinces in Western Europe (Table 1) had well over one million inhabitants in 1980. Equally, all of the northern Mexican and Southwestern U.S. border states had populations surpassing one million in the same year (Table 2). In fact, it is now clear that the 1980 census in Mexico seriously undercounted border populations, thus the Mexican figures in Table 2 could be even higher.

Transborder measures of socio-economic well-being (unemployment, income) for Western Europe (Table 1) and the U.S.-Mexico border (Table 2) diverge sharply. Socio-economic inequality is far more severe along the U.S.-Mexico border. As Table 1 suggests, income and unemployment levels do not vary that strongly between neighboring European border provinces. In the cases of the French-German (Lorraine-Saarland), the Belgian-German (Waals-Trier), and the French-Belgian (Nord, Pas de Calais-Flanders) borders, income levels are virtually equal, and only on the Belgian-German border are there significantly different unemployment levels. Even along the Italian-French (Liguria-Cote d'Azur), Italian-Swiss (Lombardia-Ticino) and Dutch-German (Limburg-Dusseldorf-Cologne) borders, the wealthier nation displays an average income that is only

42. R. Strassoldo, supra note 38, at 126–35.
### TABLE 1
Population, Unemployment, Income for Selected Border Regions of Western Europe

<table>
<thead>
<tr>
<th>Border Region (National Province or sub-region)</th>
<th>1980 Population (millions)</th>
<th>% Unemployed</th>
<th>Annual Income (Gross Value Added Per Capita in U.S. Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cote D'Azur, France</td>
<td>3.9</td>
<td>8.6</td>
<td>10,286 (1980)</td>
</tr>
<tr>
<td>Liguria, Italy</td>
<td>1.9</td>
<td>5.7</td>
<td>7,089 (1979)</td>
</tr>
<tr>
<td>2. Lombardia, Italy</td>
<td>8.9</td>
<td>2.9</td>
<td>7,462 (1979)</td>
</tr>
<tr>
<td>Ticino, Switzerland</td>
<td>0.3</td>
<td>3.6*</td>
<td>10,531 (1980)</td>
</tr>
<tr>
<td>3. Alsace, France</td>
<td>1.5</td>
<td>4.7</td>
<td>10,864 (1980)</td>
</tr>
<tr>
<td>Northwest, Switzerland</td>
<td>1.0</td>
<td>3.6*</td>
<td>13,763 (1980)</td>
</tr>
<tr>
<td>Freiburg, Germany</td>
<td>1.9</td>
<td>2.6</td>
<td>10,283 (1978)</td>
</tr>
<tr>
<td>4. Lorraine, France</td>
<td>2.3</td>
<td>6.1</td>
<td>9,706 (1980)</td>
</tr>
<tr>
<td>Saarland, Germany</td>
<td>1.1</td>
<td>5.1</td>
<td>9,805 (1978)</td>
</tr>
<tr>
<td>5. Trier, Germany</td>
<td>0.5</td>
<td>3.7</td>
<td>8,371 (1978)</td>
</tr>
<tr>
<td>Waals, (Liege) Belgium</td>
<td>3.2</td>
<td>12.8</td>
<td>8,283 (1979)</td>
</tr>
<tr>
<td>6. Nord-Pas de Calais, France</td>
<td>3.9</td>
<td>8.9</td>
<td>9,021 (1980)</td>
</tr>
<tr>
<td>Flanders, Belgium</td>
<td>5.6</td>
<td>10.7</td>
<td>10,016 (1979)</td>
</tr>
<tr>
<td>7. Limburg, Netherlands</td>
<td>1.0</td>
<td>7.5</td>
<td>7,984 (1978)</td>
</tr>
<tr>
<td>Dusseldorf-Cologne, Germany</td>
<td>9.1</td>
<td>3.0</td>
<td>11,808 (1978)</td>
</tr>
</tbody>
</table>

*National figure
Source: Council of Europe, Compendium of Regional Statistics (Stasbourg, 1983) (Income conversions to U.S. dollar by author).

### TABLE 2
Population, Unemployment and Income Data Neighboring Border States: U.S. and Mexico

<table>
<thead>
<tr>
<th>Border region</th>
<th>1980 Pop. (millions)</th>
<th>% unemployed (U.S.)</th>
<th>% unemployed/ Underemployed (Mexico)</th>
<th>Annual Per Capita Income (1970) in U.S. Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonora</td>
<td>1.4</td>
<td>/13.2 (1970)</td>
<td>619</td>
<td></td>
</tr>
<tr>
<td>Baja California (Norte)</td>
<td>1.2</td>
<td>/16.6 (1970)</td>
<td>622</td>
<td></td>
</tr>
<tr>
<td>Chihuahua</td>
<td>1.9</td>
<td>/21.3 (1970)</td>
<td>351</td>
<td></td>
</tr>
<tr>
<td>Coahuila</td>
<td>1.5</td>
<td>/15.8 (1970)</td>
<td>499</td>
<td></td>
</tr>
<tr>
<td>Nuevo Leon</td>
<td>2.4</td>
<td>/11.5 (1970)</td>
<td>695</td>
<td></td>
</tr>
<tr>
<td>Tamaulipas</td>
<td>1.9</td>
<td>/18.4 (1970)</td>
<td>465</td>
<td></td>
</tr>
</tbody>
</table>

Sources:
about 30 percent higher than its economically weaker neighbor. One of the most densely populated and economically dynamic international border zones, the French-German-Swiss border area (Alsace-Freiburg-Basel/northwestern Switzerland), displays considerable parity on measures of income and unemployment.

These Western European boundary areas also house increasingly larger volumes of cross-border interaction. Table 3 summarizes data on cross-border daily labor migration in Western Europe. One can see that the most important commuting zones lie on the Swiss-Italian (Ticino-Lombardia), Swiss-French (Geneva-Ain Haute/Savoie), French-German (Moselle-Saar), Swiss-German-French (Basel-Sudbaden-Haut Rhin), and Dutch-Belgian-German (Nord Brabant-Anver-Limburg) borders. Many of these commuting areas are located in what Friedmann and Morales called “the heartland of industrial Europe, which draws into its arteries cities that play a global role as centers of financial control, research, management, and high skilled industrial production.”

TABLE 3
Commuter Workers by Region, Western Europe
1975

<table>
<thead>
<tr>
<th>Frontier Region</th>
<th>Number of Trans-boundary workers</th>
<th>Country of destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ticino/Lombardy</td>
<td>30,200</td>
<td>Italy-Switzerland</td>
</tr>
<tr>
<td>Geneva-Ain Haute-Savoie</td>
<td>28,400</td>
<td>France-Switzerland</td>
</tr>
<tr>
<td>Moselle-Saar-Luxembourg</td>
<td>24,000</td>
<td>France-Germany/Luxemburg</td>
</tr>
<tr>
<td>Basel-Sudbaden-Haut Rhin</td>
<td>22,500</td>
<td>France-Switzerland/Germany</td>
</tr>
<tr>
<td>Nord-Brabant-Anver-Limburg</td>
<td>18,300</td>
<td>Netherlands/Belgium/Germany</td>
</tr>
<tr>
<td>Nieder-Oberbayern-Voralberg Salzburg</td>
<td>16,000</td>
<td>Austria-Germany</td>
</tr>
<tr>
<td>Rhenanie-Westphalia-Limburg</td>
<td></td>
<td>Netherlands-Germany</td>
</tr>
<tr>
<td>Hainaut-West Flanders-Nord</td>
<td>15,000</td>
<td>Belgium-France</td>
</tr>
<tr>
<td>Other</td>
<td>95,600</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>250,000</td>
<td></td>
</tr>
</tbody>
</table>


The U.S.-Mexico border region (Table 2) displays a rather different pattern. In 1970, the per capita incomes of most U.S. border states were between five and seven times greater than neighboring Mexican states. Employment data display equally sharp contrasts north and south of the border, although “unemployment” figures are more difficult to compare. Table 2 lists “unemployment” in U.S. states and “underemployment” in Mexican states. While the Mexican states had “unemployment” rates of between 5 and 10 percent in 1970 (the national average), the “under-

employment” rates in these states were even more significant. Compared to U.S. states, Mexican states had at least two or three times as many workers underemployed, in addition to those not employed at all (unemployment not shown).

Table 4 suggests that daily commuting patterns in the U.S.-Mexico border region are similar in magnitude to those in Western Europe. These movements, however, occur under very different socio-economic conditions. Here, citizens of a Third World Nation are attracted by economic opportunity available in a neighboring post-industrial nation with three times the population and twelve times the gross domestic product.44

TABLE 4
Mexican Alien Commuters by U.S. Region
1966, 1980

<table>
<thead>
<tr>
<th></th>
<th>Mexican Alien Commuters</th>
<th>Projected Commuters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1966¹</td>
<td>1980²</td>
</tr>
<tr>
<td>Texas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brownsville</td>
<td>2,032</td>
<td>4,369</td>
</tr>
<tr>
<td>McAllen</td>
<td>1,163</td>
<td>2,500</td>
</tr>
<tr>
<td>Laredo</td>
<td>2,581</td>
<td>5,549</td>
</tr>
<tr>
<td>Eagle Pass</td>
<td>1,604</td>
<td>3,449</td>
</tr>
<tr>
<td>Del Rio</td>
<td>513</td>
<td>1,102</td>
</tr>
<tr>
<td>El Paso</td>
<td>12,046</td>
<td>25,899</td>
</tr>
<tr>
<td>Arizona</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas</td>
<td>418</td>
<td>899</td>
</tr>
<tr>
<td>Naco</td>
<td>127</td>
<td>273</td>
</tr>
<tr>
<td>Nogales</td>
<td>1,614</td>
<td>3,470</td>
</tr>
<tr>
<td>San Luis/Yuma</td>
<td>4,234</td>
<td>9,103</td>
</tr>
<tr>
<td>California</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calexico</td>
<td>7,616</td>
<td>16,374</td>
</tr>
<tr>
<td>San Diego</td>
<td>9,281</td>
<td>20,000</td>
</tr>
<tr>
<td>Other</td>
<td>458</td>
<td>985</td>
</tr>
<tr>
<td>Total</td>
<td>43,687</td>
<td>93,927</td>
</tr>
</tbody>
</table>

¹U.S. Department of Labor Manpower Administration, Farm Labor Developments (1968).
²Based on projections for San Diego region reported in Community Research Associates, Undocumented Immigrants: Their Impact on the County of San Diego 161 (1980).

Socio-economic asymmetry is the dominant feature in the relationship between cities on the U.S.-Mexican border. The asymmetry is of the first world-third world variety, and thus, some scholars view this border region through the lens of dependency theory. For example, writers have criticized the characterization of U.S.-Mexican border relations as “interdependent,” arguing that Mexico has become inordinately dependent on
the United States along the border, while the United States remains relatively self-sufficient.\textsuperscript{45}

Recent research in the area of U.S.-Mexican relations supports this argument. It has been shown, for example, that the assembly plant, industrial production-sharing program, or "maquiladora" in operation along the border since the mid-1960s has tended to subordinate Mexico to the power of U.S. corporations.\textsuperscript{46} Mexico has become dependent on the plant location decisions of United States and other foreign corporations. If labor costs become low enough in another part of the world, U.S. investors could decide to relocate their assembly operations, dislodging thousands of jobs and income from Mexico's northern border region. Even if assembly plants remain in Mexico, they have created neither the backward and forward linkages, nor the management and technical expertise necessary to generate sustained economic development. Instead, the assembly plant program has led to the growth of "export enclaves" in northern Mexico, a vast economic infrastructure that ultimately fails to bring long term development potential to Mexico; it only perpetuates the nation's dependence on its powerful northern neighbor.\textsuperscript{47}

A second important example of Mexican dependence on the United States is illustrated by studies of the immigration phenomenon. A growing body of literature now shows how Mexican immigration to the United States is directly linked to Mexico's vulnerability to the U.S. economic system and to the behavior of American capital.\textsuperscript{48} As the U.S. economy shifts through periods of growth and decline, Mexico's productivity fluctuates accordingly. Low productivity in Mexico may ultimately be caused by U.S. economic factors. One consequence is that unemployed workers migrate northward to the United States. Alternately, cyclical shifts in the U.S. economy drive Mexicans out of the United States during low periods. Thus, Mexican labor is caught in a pendulum of dependency that drives it back and forth across the border at the whim of the U.S. economy.

Economic asymmetry, therefore, represents a second important kind of barrier to transborder cooperation. In Western Europe, political conditions impede efforts to create long term transborder governing structures. While political differences plague efforts toward border cooperation for the United States and Mexico, economic disparities play an even larger role. Mexico's historic dependency on the United States remains


\textsuperscript{46} L. Sklair, Assembling for Development (1989).

\textsuperscript{47} Id.

\textsuperscript{48} J. Bustamante & J. Cockcroft, Unequal Exchange in the Binational Relationship, in Mexican-U.S. Relations, Conflicts and Convergence, supra note 45.
a driving force in inter-state relations in the modern era. Inequality strains U.S.-Mexico relations in such areas as trade policy, labor migration, and industrial development. This severely limits the formation of border co-operation programs.

AN EXAMPLE OF INEQUALITY ON THE U.S.-MEXICO BORDER

Border inequality is perhaps best viewed by examining any one of several metropolitan regions along the border. One striking example is the Tijuana-San Diego border region. Located at the very western terminus of the nearly two thousand mile-long border, the region encompasses two growing cities that are among the largest in their respective nations. San Diego is a dynamic, affluent, rapidly expanding sunbelt city with an employment base built around high technology, tourism, military, electronics, and real estate activities. Tijuana is a hyper-urbanizing border metropolis with growing middle and professional classes, contrasted by a mushrooming population of poorly housed, underemployed, low-income migrants from rural Mexico. Its economic base centers around assembly plants, tourism, trade, and services.

Tijuana-San Diego is a functionally unified, but economically and politically polarized border community. Relations between the two cities mirror those between the two nations. While the border line separates two disparate cultural worlds, it is completely porous to long term economic forces that have made Tijuana dependent on both San Diego and the southern California economy. This is clearly illustrated when one reconstructs the elements of this northern Mexican city’s transformation.

Four important periods highlight Tijuana’s evolution from a small cattle ranching settlement in the late 1800s to a metropolis with over one million inhabitants a century later. They include: first, the period 1880–1920, second, the decade 1920–1929; third, the period 1929–1945, and last, the modern era from 1945–present. Each period of Tijuana’s growth illustrates the heightened sensitivity of the city’s economy and structure to southern California.

The period of Tijuana’s initial formation as a town, 1880–1920, coincides with the first important era of North American investment in the economic development and settlement of Baja California. In the late nineteenth century, Baja California remained a sparsely populated, pastoral region, isolated from the nucleus of population and production in central Mexico. Were it not for U.S. investments in cotton production in the Mexicali valley, farming and wine cultivation in Ensenada, and recreational and tourist enterprises in Tijuana, Baja California would have remained a remote agricultural region well into the twentieth century.  

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As it was, Tijuana's development emerged during a period of land boom in Southern California. The increase in land subdivisions, real estate transactions, and new town construction in the United States spilled south of the border. Tijuana's subdivision and early master planning was financed by American capital. The city quickly took on a North American look by the turn of the century: the traditional rectangular design plan found in most Mexican cities was modified in favor of a diagonal, multi-centered model, of the type employed in many new towns in the United States. By the 1920s, Tijuana's strong ties to the United States were blatantly manifest in its physical structure: the main plaza and the highest concentration of population and facilities had shifted toward the northeast sector, adjacent to the border crossing into the United States.

From 1920–1929, Tijuana experienced its first major period of economic expansion. The cause of this sudden economic transformation was simple: in 1919, Prohibition Laws were passed in the United States. Suddenly, there was a great demand in Tijuana for outlawed California "recreational" activities such as gambling and drinking. During this "Golden era of tourism," economic infrastructure (roads, hotels, wine and beer factories, racetracks, spas, cabarets) was built at a feverish pace. By the end of the era, the town's population had grown from a little more than 1,000 inhabitants (1920) to over 11,000 (1930)—by far the largest rate of change for any ten year period in the city's history. Yet, just as quickly as the economy and population grew, it faltered, when the stock market crash occurred and the Great Depression began in the United States in 1929. This period of economic stagnation gripped the city until after World War II. During the modern era, 1950 to the present, Tijuana's population has nearly doubled in every decade up to 1980, a phenomenal growth rate attributable to the diversification and expansion of ties to the North American economy. These linkages have taken a number of evolving forms: a steady flow of workers through Tijuana into California labor markets, with a measurable return-flow of income to Tijuana; increasing trade relations with San Diego (tourism, retail trade, services); and assembly plant industries linked with parent firms in the United States.

Tijuana epitomizes what one border scholar has termed "dependent space" in northern Mexico. An important dimension of this dependency is revealed when one compares quality of life and income. Table 5 gives income distributions for San Diego and Tijuana. In Tijuana, more than

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50. See Herzog, supra note 8, at 93-95.
51. Id.
53. Herzog, supra note 8.
TABLE 5
Income Breakdowns, Tijuana and San Diego, 1980

<table>
<thead>
<tr>
<th>Income Groups (Annual income converted to U.S. Dollars)</th>
<th>Tijuana</th>
<th>% Total</th>
<th>San Diego</th>
<th>% Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No income</td>
<td>15,321</td>
<td>9.4</td>
<td>Less than $5,000</td>
<td>74,605</td>
</tr>
<tr>
<td>$0—300</td>
<td>2,532</td>
<td>1.5</td>
<td>$5,000—7,499</td>
<td>52,590</td>
</tr>
<tr>
<td>301—564</td>
<td>2,748</td>
<td>1.7</td>
<td>7,500—9,999</td>
<td>56,219</td>
</tr>
<tr>
<td>565—1,032</td>
<td>5,449</td>
<td>3.4</td>
<td>10,000—14,999</td>
<td>109,200</td>
</tr>
<tr>
<td>1,033—1,884</td>
<td>11,401</td>
<td>7.0</td>
<td>15,000—19,999</td>
<td>94,255</td>
</tr>
<tr>
<td>1,885—3,456</td>
<td>47,732</td>
<td>29.5</td>
<td>20,000—24,999</td>
<td>81,015</td>
</tr>
<tr>
<td>3,457—6,336</td>
<td>29,580</td>
<td>18.3</td>
<td>25,000—34,999</td>
<td>104,623</td>
</tr>
<tr>
<td>6,337—11,592</td>
<td>10,814</td>
<td>6.7</td>
<td>35,000—49,999</td>
<td>62,207</td>
</tr>
<tr>
<td>11,593+</td>
<td>4,912</td>
<td>3.0</td>
<td>50,000+</td>
<td>35,920</td>
</tr>
<tr>
<td>Not reported</td>
<td>31,575</td>
<td>19.5</td>
<td>Total</td>
<td>670,634</td>
</tr>
<tr>
<td>Total</td>
<td>162,064</td>
<td>100%</td>
<td>Total</td>
<td>670,634</td>
</tr>
</tbody>
</table>


50 percent of the economically active population in 1980 earned less than $3,456 per year; in San Diego, the bottom half of households in 1980 earned $20,000 or less. In general, there were large clusters of population in Tijuana earning between $1,885 and $6,336 per year, while in San Diego the largest proportion of households earned between $10,000 and $34,999, or about five times the average incomes in Tijuana. This disparity is somewhat softened by lower costs of living in Mexico, however, these numbers may also underestimate the economic differences that are masked by the fact that much of Tijuana's population is outside the "economically active population" category, earning a meager wage from "informal" activities, such as street vending. A second measure of the gap between the two cities is observed in Table 6, which offers a simple indicator of housing and neighborhood quality, through data on household water services in the two cities. In 1980, only 56.8 percent of Tijuana's households had access to piped water directly inside their homes; 21.7 percent of households had no running water in their homes. These figures, which probably underestimate the magnitude of Tijuana's inadequate water service delivery system, contrast sharply with San Diego, where, in 1980, there was virtually full water servicing, as only 1.1 percent of all households lacked complete plumbing facilities.
Both Tijuana’s long history of dependency on San Diego and the socio-economic differences between the two cities have made transborder planning difficult, despite the growing list of city planning problems the two neighbors share. There has been no shortage of rhetoric calling for trans-frontier cooperation in the areas of transportation management,55 land use planning,56 and environmental regulation.57 In each of these policy areas, however, decisionmaking has continued to be made strictly within national boundaries. Transborder cooperation for the most part has faltered. In the transportation area, while San Diego built a light rail mass transit system in the early 1980s, connecting its downtown business district with the border at San Ysidro, lack of monies impeded Tijuana’s ability to build a similar system that would connect its downtown and river zone districts with the U.S. system at the San Ysidro border gate.

The two cities face many obstacles to coordination of land use planning decisions. As a result, incompatible uses of land are typically found along the border. In the mid-1970s, for example, the city of San Diego designated a wildlife refuge—the Tia Juana River estuary—for a location directly contiguous with the most densely populated section of downtown Tijuana. Perhaps the most striking example of incompatible land development is the planning of a large tract of land lying on a plateau called

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1Censo General de Poblacion y Vivienda, Estado de Baja California at 35 (1983).

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57. R. Duemling, San Diego and Tijuana: Conflict and Cooperation Between Two Border Communities, 16 U.S. Department of State. (May, 1980) (Foreign Service Institute, paper prepared for Executive Seminar in National and International Affairs).
the Otay Mesa, east of the San Ysidro border gate. Notwithstanding the good intentions of officials and planners on both sides of the border, many of the planning decisions made on this plateau were strictly national decisions. In some cases, the implications of those decisions were particularly harmful to the neighboring nation. For example, Tijuana built an international airport adjacent to the boundary, where, on the U.S. side a large scale residential development is now proposed. On the other hand, several proposed U.S. developments for its side of the mesa were particularly damaging for Tijuana. These included: a state prison, which was originally proposed for a site lying directly at the new border gate, but eventually moved a short distance to the north; and a Disneyland-style amusement park and a Grand Prix racetrack, both incompatible with Mexico’s vision of an industrial and commercial center for the mesa.58 In the end, the failure to cooperate in planning this tract of land could be traced to the disparate economies of the two cities (and nations). Mexico’s agenda was to produce employment quickly, and build schools, housing, and roads. It developed the mesa more than a decade before San Diego—wealthier and more patient about determining how to use its land—even began to study the feasibility of development there.

In the area of environmental regulation, planning decisions have been made largely on a national, rather than bi-national, basis. This is evident in two important environmental planning areas: sewage control and air pollution monitoring. Sewage spills have been a persistent problem in the region, mainly due to renegade flows spilling from Tijuana into the San Diego region. The most obvious solution lies in the construction of a joint U.S.-Mexico facility. But proposals to complete such a facility have been rejected by Mexico, mainly because the construction and maintenance costs (estimated in the hundreds of millions of dollars) are out of reach, and because Mexico believes it can solve its sewage problems internally.59 It is reasonable to speculate that Mexico also views a joint facility located in the United States as yet another loss of control over its destiny.

Attempts to jointly manage the air pollution problem have met a similar fate. Asymmetry of resources seems to be the underlying reason why Tijuana and San Diego find it difficult to cooperate. Recent estimates, for example, show that in the mid-1980s San Diego county’s air pollution control staff was 20 times larger than its counterpart in Mexico (100 staff persons in San Diego, 5 in Tijuana), while its budget was 35 times larger than the one in Mexico ($2.3 million in San Diego, $65,000 in Tijuana).60

60. Id. at 803.
Transfrontier cooperation has been severely limited in the areas of transportation, land use, and environmental planning. This does not mean that all transborder cooperation efforts have failed. Indeed, the U.S. and Mexico do communicate on serious matters, such as toxic waste dumping, policing of the border, and other individual issues. Cooperation is more successful when it is pitched outside of the formal governmental structures. Neither country is willing to concede authority in the formal political arena, but actors in Tijuana and San Diego recognize that the cities share common problems. The most successful area of cooperation has been in economic development. Key leaders in the private sector have negotiated cooperative arrangements with their counterparts in Mexico, particularly on matters that enhance economic activities such as tourism, retail trade, and assembly plant expansion. Often, government agencies will serve as conduits in these private sector negotiations. "Planning," because it implies control (over land and property), is not likely to become an area of cooperative policy-making along the border; economic development, however, is a more plausible candidate for future cooperation. Unfortunately, such areas as environmental regulation and land use planning will continue to fall largely within national, rather than cross-national, decisionmaking structures.

CONCLUSION: RETHINKING TRANSFRONTIER PLANNING

The urbanization of international border regions in some parts of the world has produced a new dilemma for environmental and natural resource planners, as well as diplomats: how to manage the environmental and resource problems native to densely populated boundary zones. "Transfrontier planning" poses a challenge to policy-makers. Normally, the institutions, laws, and public policies governing the planning field are understood within individual national political systems. Along some international boundaries, however, functional metropolitan areas overlap more than one national political jurisdiction. Planning problems in these transboundary zones demand a bi-lateral approach. The solutions require not only rational responses to technical problems, such as transborder sewage seepage or air pollution, but an understanding of the political and economic differences between bordering nation-states that may ultimately impede the coordination of common planning solutions.

There is a great temptation to find hopeful models of cooperation in Western Europe, and then apply them elsewhere. Yet, the successes of even the most celebrated of European transfrontier planning ventures appear to have been achieved largely as a result of unique regional forces that may neither be applicable to all parts of Europe, nor to other world

61. See Herzog, supra note 17, at 71-84.
regions. In the Upper Rhine River Valley, heralded as perhaps the outstanding example of European cross-border cooperation and "micro-diplomacy," the unique regional attributes of "a dynamic constellation of local personalities and the economic clout that the Upper Rhine River has to recruit the aid of influential politicians" allowed transborder programs to evolve. The regionalist movement emerged because of private economic incentives that were primarily nation-specific.

Regionalist movements, including those along national frontiers, have been opposed by European central governments because they are perceived as a threat to national authority, especially in matters of economic policy that affect the nation at large. In the end, it appears that national sovereignty still remains as a dominant force in the negotiation of border urban planning problems: "despite all promising European prospects, economic policy remains an instrument of national and state governments, who set priorities according to their own special circumstances. Regional and geographic units play a negligible role. . . . These are still reflexes of the dominant ideology of national sovereignty." 63

We can conclude, therefore, that direct application of a transfrontier model from one part of the world to another is problematic. Urban development models in boundary zones are highly sensitive to the political-economic forces that shape urban areas in bordering nation-states. Making the leap from the Western European context to the U.S.-Mexico border region thus becomes difficult. The two regions of the world are as different as they are geographically far apart. The profound economic asymmetry that characterizes the U.S.-Mexico relationship is the crucial point of departure.

Cooperation along the U.S.-Mexico border in the traditional planning areas of transportation, land use, and environmental regulation is impeded by the vastly unequal levels of wealth and political power that separate the two bordering nations. The United States proposes planning projects that are either financially infeasible to debt-ridden Mexico, or simply incompatible with its objectives. Dependent Mexico is also wary of cooperation, which it translates as loss of sovereignty. Mumme has recently suggested that Mexico's ability to resist U.S. pressure to step-up domestic regulation of hazardous wastes along the border derives from its inherently more powerful position there: the boundary is one place where the forces of geography make the United States dependent on Mexico. This will probably mean that along the border Mexico will continue to carry out environmental planning at its own pace, something Mumme correctly cautions that U.S. policy-makers must begin to take more seriously. 64

63. Id. at 12.
Mexico’s dependency on the United States strongly limits formal cooperation on planning matters. Conflict has dominated relations between the two nations, from the drawing of the boundary in the mid-19th century, to the treatment of Indian cultures, northern Mexican citizens, and even U.S. citizens of Mexican ancestry.65 This makes it difficult to imagine that the two nations would cede authority and sovereign control over land and property to a bi-national government structure. As an ex-mayor of San Diego once stated: “We need to be realistic. There are two nations, two political systems. It is unlikely that institutionally we are going to be able to share political power across that border.”66

Perhaps economic development offers a more attractive incentive structure to both sides in making joint decisions, but, while these decisions may allow more capital to flow into the region, they will not resolve the “quality of life” problems generated in rapidly urbanizing areas. A systematic transfrontier planning approach, compartmentalized into different policy areas (sewage, air pollution, transportation, etc.), may be the only way to truly address these problems, but as we have seen, it is unlikely that such an approach will soon emerge, a troubling forecast, indeed, for a region whose cities will continue to display growth rates among the highest on the continent.

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66. R. Hedgecock in Herzog, supra note 17, at 76.