

# **Transformations in Port-Cities in Times of Globalisation: The Case of the Rio de la Plata Estuary.**

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## **The role of Ports under globalisation**

Since 1960s, the port/city relationship has been influenced by external and internal factors, particularly the changes to world transport systems, the revolution in shipping industry and the design of port infrastructure. The traditional role of ports in transport and stocking, loading and unloading, has changed in order to link specialised activities and services inside the port-areas, including industrial, business, commercial, environmental, administrative and logistic services. As globalisation deepens and expands, ports are increasingly becoming the new dynamic knots between the international production and the global distribution networks, and the cores of regional development.

The concept of port as a logistic place implies a new port-city relationship, in which the port-functions are not restricted to the port-area but to the whole transport and distribution chain giving more added value to the city (Aldoney Vargas, 1997). The main issues that ports face presently can be summarised as follows (Alemany Llovera, 1997):

- To modernise the entire port-structure in terms of organisation, management, equipment and services with new requirements in the “cost-efficiency-quality” relationship. This implies an increasing demand on water and land space, and the consequent reduction of directly related employment;
- To offer an economically and socially viable alternative for both the port and the city developments focussing on the port-areas. This means looking for new activities, sectors and services of employment in the city;
- To shorten the supply chain and delivering seamless point-to-point service through logistics and intermodal networks (ship-truck or railroad-store) in a more efficient transportation pipeline but also maintaining the integrity and quality of life of the urban structure; and
- To search for an efficient port-city cooperation formulae with joint financing from different players –local, regional, global- in order to integrate the activities connected to transport organisation and logistics to the activities of the city.

The complex port/city relationship includes various kinds of reciprocal influences: economic, spatial, institutional, social and cultural links. An understanding of economic relations is essential for port and city development and planning. Technological changes and ICT applied to the new forms of transportation, the increasing speed in business and trade, the logistics development, the changes in production (JIT) and the simultaneous processes of privatisation and transference of large infrastructure in transport systems, have contributed to change nature of international trade.

In principle, the changes resulting from globalisation are particularly favourable for ports. Firstly, the transport of freight increases considerably, be it intercontinental or internal. Secondly, this kind of transport is increasingly essential to create wealth around cargo-connected services. And ports have a foot in port and urban development: they count on a maritime or river vector in a global and multimodal transport system, and on cities with historical capacity for business. Thirdly, the global circulation process has changed the traditional role of the port (Baudouin, 1997). In the past, the port was the way to serve the hinterland via state structures and infrastructures, while currently the multimodality can only be applied to those ports in control of all the circulation of goods in the territory. The territorial

role is given by the range of logistical functions covered, which is mostly external to the port itself. In developed countries the logistical companies usually locate on the fringes of the hinterland as new "dry" ports within large interior urban areas supplied by "sea" hubs, which are reduced to a geographic transit role with high-technology and in competition with many others. The port development trend is going from various main ports by world region towards the development of a global ports' network on old harbours. The global ports will be located one per continent in a first phase, and certainly become the biggest free-trade zones.

The impact of ports in a city economy can be measured through the direct effects - concerning the cargo volume, actual employment and gross value related to the activities carried out in the port area-, the backward linkages –the indirect employment connected with the services to the port area- and the forward linkages –including those activities which would not take place in the city without the presence of the port- (Van Den Bossche, 1997). During the modernisation process, ports represented a huge percentage of job creation in port-cities; new port developments implied more employment share underpinned to a wealthy urban productivity. In the globalisation times, when ICT, new transport technologies and managerial transformation have been applied in ports, the "multiplier factor" of modernisation has moved from the actual port activities to an extended services sector. The drastic reduction in direct employment has been not always attached to labour reconversion programmes and often the port service sector is not flexible enough to create new jobs. The employment share of the region before directly attached to the port area, is nowadays related to the development of the service sector. These aspects of the globalisation process in ports have changed the social dimension of the port/city relationship.

### **The spatial dimension of the port/city relationship**

The technical revolution in the maritime activities has continuously contributed to the transformation of port and city as different entities since the last century. The spatial development of ports has proceeded through phases in the XX century such as the port-growth, the maturity, the obsolescence, abandonment and recently redevelopment (Marcadon, 1997). On the other hand, the characteristic abandonment of the last decades was taken by the city as an opportunity for new developments. The port/city interface has taken the form of an active urban expansion over the port area (Malezieux, 1997), by developing culturally related activities (thematic parks, sailing ports, artistic markets, university buildings), public spaces (promenades, parks), specific productive sites (technological and science parks), high-specialised services (media locations, multinational centres, CBDs) and mix-income residence. This kind of intervention aiming to emphasise the port-identity of the space has been related to urban renewal projects, such as the London Docklands, the Port of Brooklyn in New York, the Vancouver Waterfront, the Kop van Zuid area in Rotterdam, and the Puerto Madero Plan in Buenos Aires. In these cases, the new link between port and city is a *sine qua non* condition to position the city in the global context and often the vehicle of ambitious urban policies.

In the long-run, the new port programmes will require the disposal of vacant water and land areas, ready to be used with low investments. Usually old ports are located in dense urban areas where the port-growth would overload the already saturated road system, pushed by the increasing levels of mobility and motorisation in the city. On the regional level, the lack of good sites to locate new ports by natural or territorial conditions -problems of accessibility, not enough water depth, lack of adequate services or infrastructure networks-, implies the concentration of different cargos and different infrastructure requirements in few harbours, which affects the efficient functioning of the port system. The lack of space means a challenge for the city and port management in order to avoid constraints to the competitiveness of the port as well as to the regional development itself.

Port development policy can not be disconnected from the urban planning policy. The process of port modernisation must be considered related to policies on infrastructure and communications, as well as to the urban development policy. Policies on port development, production and communications are no longer considered inside social policies, which allowed the introduction of competitive mechanisms by opening the sector through deregulation and privatisation. The essential instrument for the development of the new port/city relationship seems to be a common planning mechanism, such as the "director plan", the "director scheme" or the "master plan", which frames the coordination between the requirements from urban development together with port dynamics. It should be supported by the agreement and permanent dialogue amongst port-players and city-players on the relevance of investments and profitable revenues for the port but also the cultural layout and the social cost effectiveness for the city as part of the governance issue (Rufenacht, 1997). In many countries, port administration lies at the central government or provincial/regional level, meanwhile the city administration lies in with local government. This divorce in port and city management makes it difficult to conciliate a common development planning by multiplying instances with different interests and disturbing each other's development processes.

It seems necessary to increase the relationship between city government, local actors, port-authorities, operators and users of facilities and services, by: including innovative approaches in public-private partnerships; integrating the principles of sustainable development in the strategic plans of cities and ports diversifying port-activities in search of flexibility and adaptability to the shifts in global trade; managing the mixed-industrial and economic activities in port areas (such as value-added manufacturing, commercial and distribution systems, intelligent transportation systems centres, industrial centres); ensuring fair competition between ports (cooperation, niche operations in specific commodities, feeding and mixed-use activities); making the port significant not simply in terms of trade but in terms of the broader economic development for the urban region (value-added to the city by employment, urban revenue, downtown revitalisation programs); placing port development in the context of a more comprehensive scale of planning (regional, national, continental); and evolving actively the players in the port development and projects on transport infrastructure, from decision-making to final assessment (Wakeman, 1999).

### **The Rio de la Plata estuary: the territory and the ports**

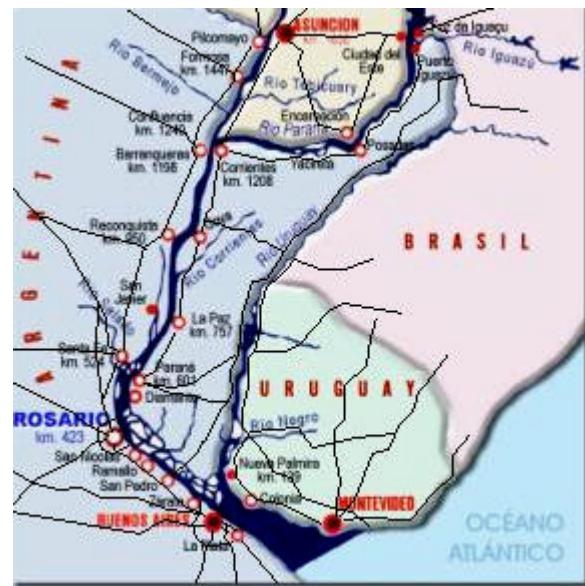
The recent positioning of Latin American economies within the global economy has resulted in a considerable increase in inter-continental exchange -between Mercosur member countries for example- or extra-continental -particularly with Europe and North America-. This has resulted in the re-activation of the port's role in domestic economies. All the coastal Latin American countries have port systems where generally one single main port guarantees the traffic of general cargo and containers on international routes. In the 1980s, international operators considered increasingly obsolete and insufficient the majority of port organisations and facilities in the region. Port-authorities answered with numerous projects of modernisation and relocation of the main ports towards peripheral spaces, with a lack of consideration about the natural conditions and the ecological value. The old harbours adjoining the city were progressively taken as unworthy of investment. The main problems in port-cities are the social cost of the modernisation process (Collin, 1999) and the presence of fragile ecological systems, which need sustainable development policies (Lemaire, 1999).

The Rio de la Plata basin involves a large region integrated by Argentina, Uruguay, Brazil and Paraguay. The Rio de la Plata estuary refers to the 450 km basin made up of the mouth of the Parana and Uruguay Rivers and the Rio de la Plata. This currently means around 1,7 million people in the port-cities of Uruguay (40% of the national population) and 17 million inhabitants on the Argentina side (44% of national population in 2001), giving a total of

almost 19 million in the area. The estuary has been historically configured by the confrontation of economic and political factors under different development models, which affected the urban structures and specially the “port/city” relationship. The port-system has been developed as a hierarchy with main 3 categories of ports: the regional (in the prime cities of the estuary with general cargo and containers on international routes), the secondary (specialising in oil, ore or grain, competing with each other and complementing the regional ports), and the subsidiary ports (serving the secondary ports in the feeding and coastal navigation). Most of these commercial ports use infrastructures built at the end of the XIX century and the beginning of the XX century. Extensions for containers terminals and specialised platforms for general cargo date from the 1970s.

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**Map 1:**  
The Rio de la Plata estuary: ports and routes.



Source: Municipalidad de Rosario, 1998.

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Over the last 10 years, Argentine, Brazil and Uruguay have become rivals in a race to get a continental hub as the interface between multiples modes of transport for the redistribution of goods in the continent (Collin, 1999). They have approved radical legal reforms in port organisation and management by liberalising services and privatising ports or their terminals –Argentina and Uruguay in 1992, Brazil in 1993-. There has been a shift from a strict dependence on a central government body to private enterprises, from a single provider of services to various specialised ones. After these changes, the private sector in general terms has focused on the improvement in managing efficiency (productivity), quality of services (safety and timekeeping) and cost reductions. Meanwhile the community has focused on the immediate loss of jobs directly related with no specific labour programme but a training programme. On the other hand, although management has been widely deregulated, there has been a lack of investment in infrastructure which remains out-dated in comparison with other main international ports (Alemany Llovera, 1997b), and the logistic costs (by transportation and distribution) are high due to the excessive tax charges, lack of coordination between state organisations and high levels of inefficiency of ports, which represent over 35% of the goods value against the 10% registered in developed countries (“La Nacion”, 2001). The challenges remaining after this first step in the restructuring of the regional port-system, include:

- New spaces for specialised terminals essential for containerisation, and intermodal and logistic platforms;

- New forms of organisation and management with ICT, total quality plans and marketing development, under strategic agreements between the port company, agents and customers; and
- Urban reconversion of port-areas today abandoned by maritime traffic, in order to be used by the city and companies.

The main port transformation projects focus on:

- Blueprints or master plans for the development of commercial activities on their own or with the support of financial agencies (World Bank, Inter-American Development Bank), such as Montevideo, Santos or Dock Sur in Buenos Aires;
- The privatisation process in secondary ports through long-term concession of the whole port or important terminals, such as Rosario; and
- The Parana-Paraguay Waterway to improve the navigability to a depth of 32 feet of two rivers up to 3300 km, and to serve as an important area linking Argentina, Uruguay, Brazil, Paraguay and Bolivia. The direct benefits will be in the ports of Buenos Aires, La Plata, Zarate, Santa Fe, Resistencia and private ones in Argentina, Montevideo and Nueva Palmira in Uruguay, Asuncion in Paraguay and Puerto Caceres in Brazil. This project is supported by the WB, IADB, EU and the national governments involved.

These changes in the port-system do address some regional development questions:

- The organisation of the interior territories: the railroad and the river transport systems are totally underdeveloped in the South Cone and the road system between Buenos Aires and Rio de Janeiro is saturated. The waterways projects –such as the “Parana-Paraguay” and the “Tiete-Paranha”- need to be considered as a potential of economic development from the coast to the interior and the development of activities such as the cereal area and grain ports along the Parana;
- The cooperation between the port-cities in the continental scale: there is no hub without medium size ports to guarantee the redistribution of goods by feeding and coastal navigation, which could be linked in an international medium port-network. Considering the logistic chain, the lack of cooperation between port-cities in terms of information exchange, know-how, commercial networks, investment policy and controls, has threatened port-system development in the past and its competitiveness in the future.

These questions require the cooperation strategies between port-cities (including the big and the medium) aimed at the achievement of new opportunities in the region opened up by globalisation.

### **From many ports in competition to a competitive port-system?**

Here we stand that the globalisation process together with the market-oriented approach in port-administration and urban policies, are changing the role of medium/secondary port-cities in port-systems. Specifically in the case of the Rio de la Plata estuary, the formation of the Mercosur, the deregulation of the port sector and the strategic approach in urban planning, are leading medium/secondary port-cities to play a growing role to increase their share in the regional market supporting the prime port-cities, whose port capacity has become saturated with the consequent spread of port-functions to other harbours (Maps 2 and 3).

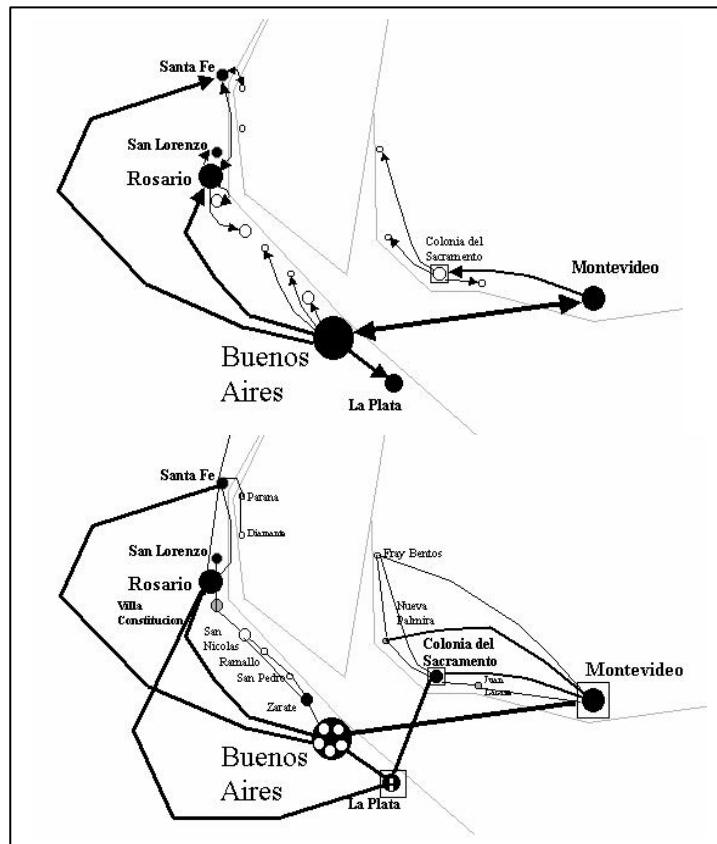
This paper addresses tentative answers to some main questions that arise from the current stage of port development in the estuary in two scales: the regional scale –concerning the whole estuary- and the urban scale –concerning the study cases-.

Maps 2 and 3:

The ports under restructuring  
in the Rio de la Plata estuary.

References:

- Main port
- Secondary port
- Local port
- Freeport zone
- Terminals



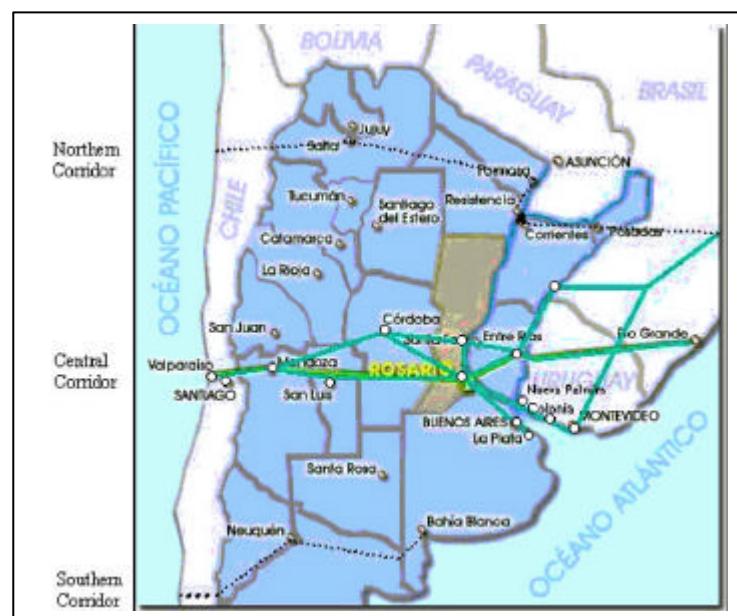
**a. The regional scale of the study**

In this level of analysis, the question is:

- Are the changes seen in the hierarchical port-system of the Rio de la Plata estuary leading to the formation of a port-network system, or on the contrary is the intensification of the competition between them affecting the productivity of the estuary?

The South Cone is a largely heterogeneous region in terms of its development level and socio-economic structure. The first consideration from governments to join the globalisation process was the elimination of trade barriers to better their position in external markets and to improve the competitiveness of goods and services. With the establishment of Mercosur as the regional economic bloc in 1995, the governments involved have attempted to improve national and continental infrastructure particularly trunk road systems, telecommunications, airports, ports and services related. The trunk routes will create transcontinental corridors connecting the countries and the Atlantic and Pacific oceans, to open up new economic opportunities for these countries and the urban network. At the end of the 1990s, the Mercosur had as the main priority the materialisation of those bi-oceanic corridors, through the Multilateral Working Group of Bi-oceanic Corridors (Grupo de Trabajo Multilateral de Corredores Bioceanicos) formed by the Ministries of Public Works and Transport of Mercosur (Argentina, Brazil, Uruguay and Paraguay) plus Chile, Bolivia and Peru (Carmona and Burgess, 2000). According to Roccattagliatta (1995) and ECLAC (2001a), the main bi-oceanic urban corridors considered are the Northern, the Central and the Southern corridor (Map 4).

Map 4:  
The Bi-Oceanic Corridors  
in the Mercosur



The Central Corridor connects the most vital economic centres of the Mercosur passing through the Rio de la Plata estuary, where large infrastructure projects have been planned in order to avoid existing and future bottlenecks in transportation (Roccatagliata 1995, ECLAC 2001a and MERCOSUR 1995):

- The main project is the “Parana-Paraguay Waterway” (“Hidrovia Parana-Paraguay”), to make navigable up to 32 feet deep the Parana River up to Asuncion and Porto Caceres (Matto Grosso state in Brazil), to continue to Sao Paulo with the “Tiete-Paranha”, which will change the regional transport system linking the main consumption markets and the production centres (under construction);
- The “La Plata-Colonia” Bridge and the “Buenos Aires-La Plata” Freeway, to connect Buenos Aires with Montevideo, and directly the free-port areas of La Plata and Colonia, which will affect the urban network by shrinking the time-space distance between capital cities in a mega-urban-continuum involving around 19 million people (under study);
- The Provincial Route 6, the third ring of Buenos Aires Metropolitan Area linking the main international routes, which will contribute to the urban restructuring (almost finished);
- In Rosario, the “Rosario-Victoria” Bridge and the National Route 9 to Cordoba, to improve the connection between the Chilean ports of Valparaiso and San Antonio, with the Brazilian industrial centres of Porto Alegre, Curitiba and Sao Paulo (almost finished); and
- The international route from Montevideo/Durazno/Uruguiana in Uruguay, which will improve the national road system to Sao Paulo (improvement works under construction).

There are substantive historical differences in terms of port development on both river sides particularly given current technological changes in the harbours and the regionalisation process (see “Table 1”). Argentina’s foreign trade is related in the first place to the shipping (mainly outside the Mercosur) and secondly by trucking (mainly inside Mercosur). In 1989, ship transport handled 33,036,000 tons (89.4% of national exportation/importation balance) and truck transport only 1,963,000 tons (5.3%). In 1993, ship transport jumped to 48,688 tons (89.2% of the national exportation/importation balance) and trucks to 4,934,000 tons (doubling the figures to 9% of the national trade) (ECLAC, 2001a). These figures are related to the deregulation of the sea transportation sector and the reorganisation of the regulation entities in 1992 (National Law of Ports): the creation of the Sub-Secretariat of Ports and Navigable Waterways (Secretariat of Transport, Ministry of Economy) with a decentralisation plan for the port administration; the former General Administration of Ports into the

Administrative Society of Buenos Aires (to handle the Buenos Aires port) and the Argentinian Port Consortium (responsible for coordinating the technical and administrative aspects of the 15 main provincial and autonomous ports).

In the case of Uruguay, the foreign trade is dominated by ship transport as an alternative road in Mercosur. The export/import balance in the ports was 5,736,023 tons in 2001 (INE, 2002), which corresponds to an increasing trend since 1992. The "Ports Law" deregulated the national system in order to open the operation of terminals by the private sector under the administration and development of the National Administration of Ports (Administracion Nacional de Puertos) in the Ministry of Transport and Public Works, and led to the creation of freeports in old harbours. The main port is Montevideo -historically developed as the prime port of the country and the administrative capital city of the Mercosur-. The "Port Law" attempts to develop "Freeport Montevideo" and business management. In the last decade this trend has been challenged by the increasing relevance in terms of traffic and trade of secondary ports such as Colonia del Sacramento, Fray Bentos and Nueva Palmira as international ports and free-zones located in the Rio de la Plata estuary.

**Table 1:  
The ports in the Rio de la Plata estuary in 1990s**

Name of Port	Function	Area (ha)	Export Volume including Liquids (ton)		
			1990	1993	1993-90 (%) **
<b>Buenos Aires</b>	Gate port and transhipment, 97% of national container traffic (1994).	95	5,800,711	3,462,058	-40.33
<b>Montevideo</b>	Gate port and transhipment. Containers, food industry, grain, ship repairing, passengers ferry, storage. Freeport.	10 (port area). 50.6 (Freeport area).	756,410 (1992)	No data	---
<b>La Plata (***)</b>	Bulk cargoes. General cargo (metal-mechanic industry, oil and petrochemical products). Ship industry. Freeport Zone.	2,249 in total. Freeport Zone: 229 (41 ha currently developed)	3,464,201	2,869,487	-17.17
<b>Rosario (*)</b>	Bulk cargoes. Grains (60% in 1994) and oils (40% in 1994). Multipurpose and transhipment.	100 (40 ha is reserved area)	3,380,996	4,491,335	+32.84
<b>San Lorenzo*</b>	Oil and by-products.	No data	9,763,411	12,210,248	+25.06
<b>Santa Fe</b>	Grain, woods, cotton, sugar.	70.8	119,418	217,961	+82.52
<b>Colonia del Sacramento</b>	Passengers and car's ferry Buenos Aires-Montevideo. Freeport.	10 (estimated)	63,032 (1997)	17,344 (2001)	-27.52
<b>Nueva Palmira</b>	Fruits and grains. Increasing wood, agroproducts, minerals, fertilisers. Freeport.	10 (estimated)	501,046 (1997)	260,910 (2001)	-52.07

Notes: (\*) In the Metropolitan Area of Rosario. (\*\*) It means the 1993's export increment respect of 1990's export. (\*\*\* ) Located in the Metropolitan Area of Buenos Aires.

Sources: ECLAC 2001a, ECLAC 2001b, INDEC 1995, INE 2002, [www.anp.com.uy](http://www.anp.com.uy) 2002.

Buenos Aires is still the prime port of Argentina and in the Rio de la Plata estuary, although its capacity has almost been filled and exports have been decreasing recently. The "OKIMA 2 Report" talks about the possibilities of increasing Japanese-Argentinian trade (ECLAC, 2001a) and recommends the optimisation of the container terminal in Buenos Aires in the short term. In the long term, the Report recommends the development of new container

terminals at other ports in the region such as Rosario; the development of a new secondary port –such as La Plata- or an artificial off-shore island in front of Buenos Aires; the review of current plans for different ports and a conducting nationwide containerisation study in order to improve the quality of service in ports; the development of the Buenos Aires port into a “third generation port” -according to the port development stages defined by UNCTAD- by cooperating with the city’s economic and social activities to attract people from the city and surrounding regions; and, the improvement of land and port connections between the countries in Mercosur which demands new investments in large infrastructure and facilities to improve and reinforce the intermodal transport system (railway network, road system, airports and harbours).

### ***b. The urban scale of the study***

In this level of analysis, we study two particular port-cities: La Plata and Rosario. Both of them are located in the metropolitan region of Buenos Aires, the most populated area of Argentina. Their ports were in a secondary place in a natural hierarchy developed in the estuary around the Buenos Aires harbour. Our interest in these cases is related with the scenario opened by a double challenge: the reconversion of the ports due to the new large infrastructures under construction in the region, and the urban restructuring given their position in the metropolitan area of Buenos Aires and the strategic plans running in the port-cities. The main question that arises here is:

- *Will the formation of a new port-network system for a market economy contribute to the urban development of middle/secondary port-cities, or on the contrary will it be a constraint on the achievement of spatial and social objectives of the new urban policies?*

The new port developments in the region of the Rio de la Plata estuary seem to come back on the original “port vocation” of the cities by improving and reinforcing the port functions in urban development.

In the case of the port of La Plata, a new port -based on a smaller colonial port- was created as part of the economic development basis for the recently founded city in 1882. Located at 8 km from the city, the original plan considered the extension of the port-area up to the boundaries of the city. In 1890 it was opened and in 1905 transferred to the National Government and closed without the completion of the works, specially the docks and canals near the urban centre. Since the beginning of the XX century, the port has been functioning with bulk cargoes related to cold storage (up to the 1930s) and since 1925 as a mono-functional port focused on oil and petrochemical products, metal-mechanic industry and shipbuilding industry, without substantial differences in trade development since 1987.

In the case of Rosario, the city was created after the formal designation of the port in 1867. Historically the port has been oriented to grain exports and by-products (60% in 1994). Since 1985 these functions have been transferred to new private ports developed along the coast in the metropolitan area of Rosario. On the other side, the high-specialisation of the terminals of oil and its by-products is increasing (40% in 1994).

The National Law on State Reform 23696 and the National Law of Ports (1992) deregulated the sea transportation sector and modified the administration entities. All the important ports –like La Plata and Rosario- belonged to the central government through the Administracion General de Puertos (General Administration of Ports), which was replaced by the Sub-Secretariat of Ports and Navigable Waterways (Secretariat of Transport, Ministry of Economy) in order to implement a large decentralisation plan. The new Administrative Society of Buenos Aires handles the port of Buenos Aires, and the Argentinian Port Consortium is responsible for the coordination in technical and administrative aspects of the 15 main provincial and autonomous ports.

In the case of La Plata, the port was transferred to the province of Buenos Aires and managed by the Provincial Entity of Ports through the Concejo de Gestión del Puerto La Plata (Managerial Council of Port La Plata), integrated by port-actors (the provincial government, operators, users and commercial and industrial chambers of the region). The port of Rosario was transferred to the province of Santa Fe and operated and managed by the Ente Administrador del Puerto de Rosario (ENAPRO, Administrator Entity of Port of Rosario), with the participation of the municipality of Rosario, provincial government, and local commercial and industrial chambers.

In terms of urban planning, both port-cities present different situations. After the Foundational Plan (1882), the municipality of La Plata could never agree upon the development of the port with the city's development. Nevertheless, in 1960 the Urbis Plan included the port as one of the main issues for the economic development of the city but it was not implemented due to the lack of political support from the National Government regarding the prevalence of Buenos Aires port. In 1993, the port administration created the Freeport Zone of La Plata (ZFLP) in an area of 229 has, which currently has developed 40 has for storage, offices with telecommunication services, permanent customs operation and port assessment; in 2001, there were 180 direct users and 350 indirect users for commerce, services and industry. Given its characteristics of a "dangerous port" related to the petrochemical industry and the delicate conditions of its entrance channel lacked of maintenance, it has unregular traffic and a particularly small container trade. In 1990s under the strategic approach, the Concejo de Gestión del Puerto La Plata (Managerial Council of Port La Plata) has formulated a Regulator Plan (1997) to transform the port into for multi-purpose harbour provided with high-technology. The plan attempts to transform one of the islands in the port jurisdiction into a container terminal, without considering the articulation with the local players, not even the municipalities of the capital city. The Municipality of La Plata formulated the PEL ("Strategic Local Plan", 1998) which considered the problematic of port in order to improve local development. There was no linkage with the port authority (depending from the Provincial Government) and finally the plan vanished without any support from the other municipalities of the region, which have their own initiatives related to the port.

In the case of Rosario, there were various attempts to link the urban planning and the port planning through transport policies. The "Plan Ferroviario y de Transporte" ("Railroad and Transport Plan", 1935) intended to reorganise the city's development together with the transport system from the port but lacked institutional support. The "Plan Regulador de Rosario" ("Regulator Plan of Rosario", 1967) evolved multiple state agencies related to the main infrastructure systems of the city (railroad, port and street networks), and was partially applied. The "Gran Rosario Plan" ("Great Rosario Plan", 1972) set up by an inter-municipality entity, was based on municipal regulator plans and structural transport projects. The "Plan Director" ("Director Plan", 1985) from the municipality of Rosario, linked the relocation of industry with the restructuring of port areas by urban renewal. The PER (Strategic Plan of Rosario, in application since 1998) considers the metropolitan area articulating the port and the transport infrastructure and system. The update of the "Director Plan" (2001) has included the waterfront project in the urban renewal program of the city centre. Currently the port complex of Rosario involves different ports located along the Paraná River, Villa Constitución (at the south of metropolitan area of Rosario) and San Lorenzo (at the north), and is linked to the port of Santa Fe. The port function is currently oriented to multipurpose and transhipment port of export/import cargo for Mercosur. This development is guided under a master plan with the participation of the Municipality of Rosario and the Provincial Government, to relocate the main activities for containers at 4 km from the city.

## Briefly

Based on the fact that new infrastructure generates new urban developments, the modernisation in ports implies the development of new port-functions, technologies and infrastructure with high-specialisation in old harbours –usually located in the centre-, which goes hand-by-hand with the renewal of the “port-city” relationship. From the spatial point of view, this process could even imply the relocation of the port-functions in new areas far from the centre, leaving the old location as an strategic opportunity to upgrade the city functions. From the socio-economic point of view, part of the changing relationship between port and city would seem to be constraint by the limited employment multipliers created by contemporary port and transport technologies.

However, it seems that *the economic integration process of the Mercosur supported by liberalisation of trade and investments in large infrastructure and communication, is insufficient to overcome the market-oriented logic of resources allocation at port-administration level in the Rio de la Plata estuary*. In the context of the regionalisation process, the port development of the region is leading to the accelerated growth of medium/secondary ports, which is changing their roles within the system. The question is, will new regional infrastructure in transportation systems together with the renewal of old harbours and the appearance of new harbours, be capable of realising a mutually-supportive high-specialised port-network?

In the case of the port-cities selected –La Plata and Rosario-, it seems that *the update of port-structures has been shrunk to the privatisation of port-terminals and the drastic reduction of direct employment, generating constraints in the achievement of social objectives in the new urban policies*. On the other side, it also seems that this updating process has contributed to the accelerated urban growth through new urban developments which are not always connected with urban planning policies. Considering the facts, the lack of linkage between port development policy and city development policy seems to be a serious obstacle in the port/city relationship in terms of urban structure.

## Note

This article refers to a PhD study “*Influences of Globalisation Process in Port-Cities: The Case of the Rio de la Plata Estuary*” (under development) supervised by Prof. Ing. J. Rosemann and Dr. Ir. M. Carmona, Urban Renewal and Urban Management Sector, Faculty of Architecture, DUT.

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