

Urban sustainability under threat: the restructuring of the fishing industry in Mar del Plata, Argentina

Adriana Allen

Cities are increasingly recognised as the areas in which almost all of the environmental impacts of development are felt. It is also increasingly recognised that development strategies must ensure that today's gains do not result in cities that will need radical restructuring in the future because they need more resources and have too great an impact on the environment to be sustainable. However, a significant outcome of macro-economic restructuring is that the 'globalisation' process is generating social and environmental conflicts in specific localities. While it is clear why we should focus attention on the urban environment and sustainable development, the precise relationship between macro-economic strategies and the sustainability of contemporary urban development trends remains largely unexplored (Burgess *et al.* 1997).

The need to assess development in the light of its social, environmental, and political impacts is the central concern of this paper, which focuses on the emergence of a socio-environmental conflict resulting from the restructuring of the Argentinian fishing industry in the city of Mar del Plata. The experiences we shall describe are typical of those facing many medium- and small-sized cities in Argentina which, unlike the metropolitan areas, are finding it increasingly difficult to reposition themselves in an open economy. Recent macro-economic reforms in the country have had an impact not only on the local economy of such cities, but also on their political, social, natural, and physical sustainability.

Argentina's local fishing industry developed in the post-war period according to a Fordist model, whereby production processes and forms of labour organisation were standardised, but which sought to guarantee workers a living wage. This model was supported by a series of regulatory institutions, which included the principle of collective bargaining, the establishment of minimum wages, and formal contracts

of work. These were backed up by a welfare state whose role was to assist all individuals to have access to the market. Since the 1980s, industrial production in Argentina, as in most of Latin America, has shifted from Fordism to liberal-productivism. But, as Lipietz reminds us, '[a]s with Fordism, liberal-productivism fosters a use of natural resources which makes no sense, as the ecological debt which past and present generations are handing on to future generations ... will have to be paid for in the next forty years' (Lipietz 1992: 321). The main difference between the two systems lies in the increasing domination by transnational markets of national and local political actors (Gould *et al.* 1996).

In Argentina, the shift from Fordism has been shaped by political changes, economic instability, heavy debt-servicing, and the dramatic reduction of public investment in social expenditure and infrastructure. Argentina's economic reform can be divided into two periods: stagnation and instability between 1976 and 1990, and a period of macro-economic recovery and economic growth since the 1991 Convertibility Plan. During the earlier period, the abandonment of the import-substitution culture and the process of trade reform were the initial catalysts of the conditionalities imposed by the World Bank in return for trade policy loans. These resulted in increased under-utilisation of industrial plant, sizeable reductions in productivity and real wages, and growing inequality in income distribution.¹

During the second period, which started in 1991 and is still ongoing, import liberalisation went far beyond the requirements of the international financial institutions and full liberalisation became part of a wide-ranging plan to deregulate the economy. Argentina's so-called 'New Economic Model' (NEM) consists of internal and external reforms dealing with macro-economic stability, opening up of the economy, fiscal reform, privatisation and financial liberalisation, technological modernisation, and the redefinition of the role of the state. These reforms rapidly stabilised and expanded the economy, and profoundly restructured national patterns of consumption and production. Such developments brought dramatic social and environmental changes in their wake, particularly in urban areas.

Since 1991, and after a decade of economic recession, urban-based manufacturing industries (particularly food industries) have been the most dynamic sector, shifting from the domestic market to export. However, this growth has not translated into higher incomes because of the lack of growth in formal employment and lack of capital growth

per worker in the informal sector.² The economy of small- and medium-sized cities like Mar del Plata, where most such industries are based, relies increasingly on the exploitation of natural resources, processed or raw. In order to face the difficulties posed by the opening up of the economy, activities like the fishing industry have based their international competitiveness on the ‘informalisation’ of processing activities, unsustainable exploitation of the natural resources on which they depend, and externalising (i.e. disregarding) the environmental costs. The national government regards current social and environmental problems as an unavoidable consequence of economic growth and stabilisation that might eventually have to be tackled through investments to clean up the environment and through social assistance for the most vulnerable groups. But the prospects for even such narrow environmental and social policies are strongly constrained by the country’s low rate of national savings.³

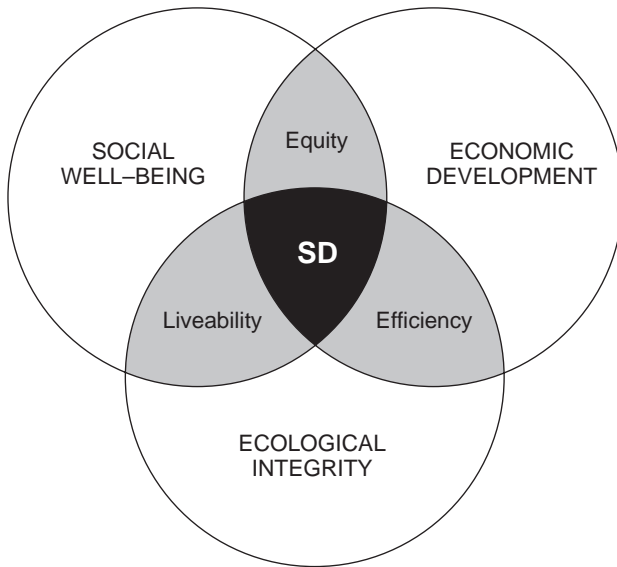
This paper will argue that contemporary processes of industrial restructuring that are prompted by neo-liberal macro-economic strategies not only accelerate competition over environmental resources but also promote the short-term maximisation of profits through socially and environmentally unsustainable mechanisms. As a result, not only are local livelihoods negatively affected and environmental conditions worsened but also existing regulations governing natural resources are transformed, which introduces new struggles between local and external stakeholders. This paper will first examine the social and environmental impacts of macro-economic strategies that, obsessed with growth, often overlook these dimensions of the development process. It will then look at the reconfiguration of local stakeholders, their power relations, behaviour, and rhetoric, and the institutional arrangements that emerge when industrial expansion goes beyond the limits of nature’s resilience. In short, the paper examines how the intensification of environmental conflicts within specific localities results in new forms of governance, and asks whether the new regulatory frameworks effectively confront long-term power associations or simply perpetuate relations of dependence and depletion.

The sustainability of urban development: towards an analytical framework

Many discussions of sustainability invoke the idea of a ‘three ring circus’, in which sustainable development (SD) is about the intersection of encompassing social, environmental, and economic

goals (see Figure 1). Although this model represents a great advance on previous perspectives, it perhaps does not go far enough for two reasons. First, it says little about the trade-offs and contradictions inherent in the pursuit of economic, social, and environmental goals. Second, it provides a picture that is still too abstract to explain how the relationship between growth, development, and environment unfolds at the urban level, and how macro-economic strategies and urban social and environmental problems relate to each other.⁴

Figure 1: The 'three ring circus' model of sustainable development (SD)



In order to assess whether contemporary processes of urban development are moving towards or away from sustainability, we must consider the way in which the concept of sustainability redefines the social, economic, environmental, and political performance of urban development. In cities, environmental performance is defined not only in terms of the use and appropriation of the natural resource base or natural capital but also in terms of the performance of the physical or built environment. Thus, assessing the sustainability of the urban development process will depend on the trends and challenges associated with the dimensions discussed below.

Economic sustainability (ES), defined as the ability of the local economy to sustain itself without causing irreversible damages to the natural resource base on which it depends, implies maximising the productivity of a local economy (urban or regional) not in absolute terms (e.g. increase of economic capital) but in relation to the sustainability of the other four dimensions and their respective capitals. In this sense, ES has to be pursued in the context of a bio-regional rationality, which ensures that a given region produces and consumes within the natural limits of its surroundings, and that it does not do this by exporting environmental degradation to other regions. Increasingly, economic globalisation is promoting competition among cities and between cities and the regions on which their production is based, and is thus reshaping urban economies. In this sense, the achievement of ES implies the need to fix a certain ceiling to the competitiveness of urban economies so that they do not improve at the expense of other areas or compromise the long-term use of their own natural resource base.

Social sustainability (SS) is defined as a set of actions and policies aimed at the improvement of quality of life, but also at the fair access and distribution of rights over the use and appropriation of the natural and built environment. SS implies the improvement of local living conditions by reducing poverty levels and increasing the satisfaction of basic needs. SS involves the consolidation of popular economic strategies, as a means of articulating the relationships between household survival strategies and the strategies deployed by the public and private sectors. SS also implies addressing the regressive impacts produced by the process of economic globalisation through policies focused on reintegrating those who are marginalised by such a process.

Natural sustainability (NS) is understood as the rational management of natural resources, and of the pressures exerted by the waste produced by societies, which demands an integrated view of local, regional, national, and international development and environmental trends. Natural sustainability is linked to the potential of urban regions to extract natural resources, and the management of the productivity of these resources. In a context characterised by increasing pressures from a global economy, urban systems are less able directly or indirectly to maintain the sustainable use of their natural resources. The over-exportation of natural capital and growing inequity in the access to and distribution of rights in respect of the natural resources of a city or region increasingly compromise the sustainability of natural capital.

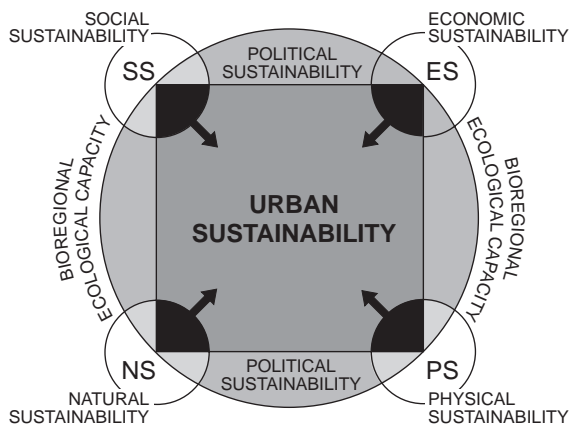
Physical sustainability (PS) is defined as the capacity and aptitude of the urban built environment and techno-structures to support human life and productive activities. Crises in natural and physical sustainability are strongly linked. In Argentina, rural–urban migration in the 1950s was connected with the failure of national policies to develop an intensive agriculture model and a network of agro-production services centres. Since the 1960s, the crisis of physical sustainability has been manifested in metropolitan and large medium-sized cities like Mar del Plata, through the imbalance between in-migration and the carrying capacity of these cities in terms of natural resources and technical infrastructure.

Political sustainability (PS) is understood as the democratisation and participation of the local civil society in decision-making processes. This concept refers to the sustainability of urban governance, that is, the ability of local society to use its political capital in regulating the relationship between the previous four dimensions. Again, the predominance of outside and market forces in bringing about global change is increasingly challenging this ability at the local level.

Figure 2 shows the relationship among these five dimensions of urban sustainability. While economic, social, natural, and physical sustainability are represented as four angles of the urban development process, political sustainability is represented as the governance framework regulating the performance of the other four dimensions. The circle represents the ecological capacity of the urban region to deal with the pressures of the four angles. The extent to which social, economic, natural, and physical performance is sustainable depends on whether these pressures are kept within the ecological capacity of the urban regional ecosystem.

Looking at current trends affecting urban sustainability, there is a growing polarisation between the two diagonals presented in Figure 3. On the one hand, urban sustainability is increasingly related to the processes of change governing the relationship between economic and natural performance through the ‘re-primarisation’ of urban economies, i.e. the process by which local economies become ever more reliant on the exploitation of the resource base of their surroundings, so straining the limits of natural regeneration. On the other hand, social and physical performance are closely related in the experiences of large sectors of the urban population living in poverty and lacking adequate living conditions. This is related to the environmental conditions of urban systems as the living and working environment of a large

Figure 2: The five dimensions of urban sustainability



number of people and includes a specific concern for lower-income communities, which are particularly vulnerable to the negative impacts of urban development. At the same time, environmental problems affect the livelihood strategies of these communities and decrease their access to different types of assets (including access to natural resources such as land, water, energy, and so forth).

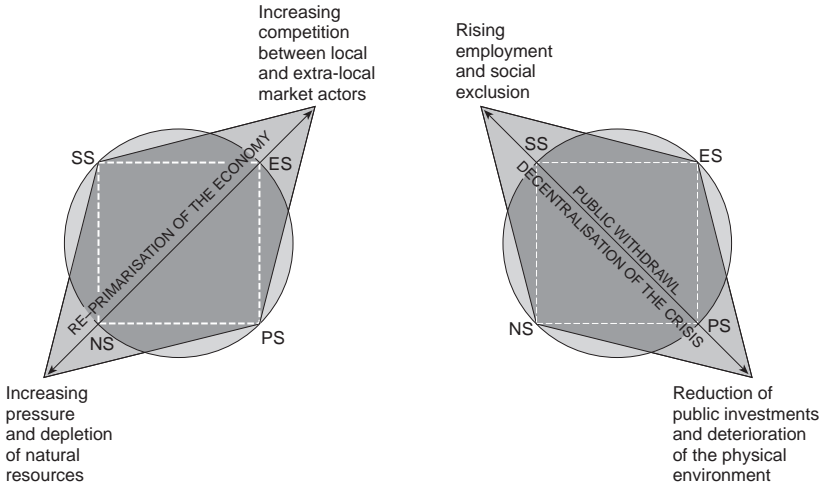
In terms of the level at which decisions are made with regard to these two critical trends, we see that the diagonal of economic and natural performance is increasingly dominated by decisions made externally, while the diagonal of social and physical performance is being shaped by the decentralisation of responsibilities and decisions from the national to the local level. Given that the decentralisation of the decisions related to these two dimensions is seldom accompanied by the resources needed to be able to respond in a meaningful fashion, this is often referred to as the 'decentralisation of the urban crisis' (Pirez 1995).

The following sections will examine the links between the decisions made at the four angles of urban sustainability and the political sustainability or governance framework that regulates their relationship.

The fishing industry in Mar del Plata

The coastal city of Mar del Plata,⁵ in the province of Buenos Aires, has traditionally been the centre of national tourism and of the domestic

Figure 3: The impact of micro-economic strategies on urban sustainability



fishing industry, which consists of processing fresh sea produce into frozen, canned, and fishmeal products. Both activities have been based on the city's natural comparative advantage – a long coastline with some of Argentina's best beaches, and easy access to the rich fishing grounds of the south-west Atlantic. Thus, national policies dating back to the late 1940s turned Mar del Plata into a favourite working-class holiday destination and a decade later into a dynamic industrial city, attracting thousands of migrants from the rest of the country.

Commercial fishing in Mar del Plata began in the early twentieth century with a small local market supplied by local fishermen. Towards 1915, immigrant communities contributed two essential elements to the development of maritime fishing: the incorporation of Europeans (who were traditionally fish consumers) and the settlement of people qualified in the trade. In 1922, the city's harbour was completed and the area became the working and residential centre of the Italian community.⁶ Gradually, changes in technology and communications saw a shift from artisanal to industrialised production. Towards 1942, protectionist policies helped the local fishing industry to displace canned imports. National jurisdiction over the continental shelf was established in 1945, and from the 1960s the fishing industry was further promoted through various government policies and subsidies.

The introduction of the filleting process and the marketing of packaged fillets were central to the rapid industrialisation of fishing activities in the 1960s, when frozen fish displaced canned fish as the main product. Local firms were originally based on family enterprises, mostly of Italian origin, and simultaneously embraced the activities of fishing, industrialisation, and trade. The local fleet was mainly oriented to coastal fishing but local firms expanded during the 1960s and made significant investments in offshore vessels and land-based factories, where fresh fish was processed into fillets and fishmeal.⁷ Thus, Mar del Plata consolidated its role as the centre of the national fishing industry.

Since then, the Argentinian hake (*Merluccius hubbsi*) became the main commercial species and the focus of the local fishing industries. In 1973 the government adopted an Exclusive Economic Zone (EEZ) that extended 200 miles from the shore, establishing the exclusive right of Argentinian vessels to fish in the zone, which includes one of the world's largest continental platforms (1,164,500km²). At the same time, national firms were encouraged to incorporate foreign factory and trawler vessels, and the fishing industry began to produce and export frozen merchandise. Despite this, production was still focused on the domestic market.

Restructuring of the fishing industry took place in two phases. The first began in 1976 with the military coup, when a dualistic approach was adopted towards the fishing sector. While the military régime reaffirmed national industrial interests and rights over the Argentine Sea, it also opened up to foreign fishing rights and investments. The second phase corresponds to the structural changes initiated in 1989 under the Menem administration and later consolidated with the 1991 Convertibility Plan. It was characterised by an aggressive attempt to insert Argentina's exports into a more competitive international economy, the liberalisation of business transactions, and the restructuring of labour relations including the 'flexibilisation' of terms and conditions. How did these two sets of structural changes affect the national and local fishing industry?

In 1976 the military régime created the Secretary of Agriculture, Cattle, Fishing, and Food (SAGPyA) and the National Institute for Research and Fishing Development (INIDEP). These institutions became the policy and scientific bodies for regulating fishing at the national level. With a view to decentralising fishing from Mar del Plata down to the southern coast of Patagonia, new policies granted special benefits to fishing exports from the latter region. In practice, this

became an opportunity for foreign companies to form joint ventures with the Argentine fleet in order to gain access to the then under-exploited fishing grounds of the Argentine shelf. These new enterprises were granted special benefits, tax breaks, and rights to exploit the fishing grounds south of the 41° parallel. Hence, between 1976 and 1979 the total hake catch increased by 215 per cent, freezing and storing capacities increased by 210 per cent and 232 per cent, respectively, while fish exports rose by 220 per cent in tonnes and by 449 per cent in US dollar value (Pagani and Bertolotti 1991).

In 1982, the Falklands/Malvinas war ended with the British victory. The long-standing dispute over these islands was in fact a conflict over the adjacent fishing zone. The British government established an administrative fishing zone around the islands and granted fishing rights to foreign fleets, while Argentina signed agreements with Bulgaria and the Soviet Union over the same fishing grounds. Between 1982 and 1987 new and existing firms started to focus on the exploitation of squid in the region of Patagonia. Special support from the provincial governments saw the capacity of the region's fishing industry increase by 87 per cent. This shift was accompanied by changes in production, from the exploitation and processing of hake to other species; from national land-based factories to long-distance foreign factory ships; and from combined domestic and export-oriented enterprises to an almost exclusively export-oriented market. Figure 4 shows the close relationship between the growth of catches and exports.

Since 1991, the opening up of the economy, together with a series of changes in the regulations governing the fishing industry, led to a second transformation, which brought with it a new cadre of actors and new power relations.⁸ With the expansion of fishing rights to the foreign long-range fleet and the creation of partnerships between European and national enterprises, catches doubled in a few years, leading to the collapse of the Argentine hake, until then the main commercial species.

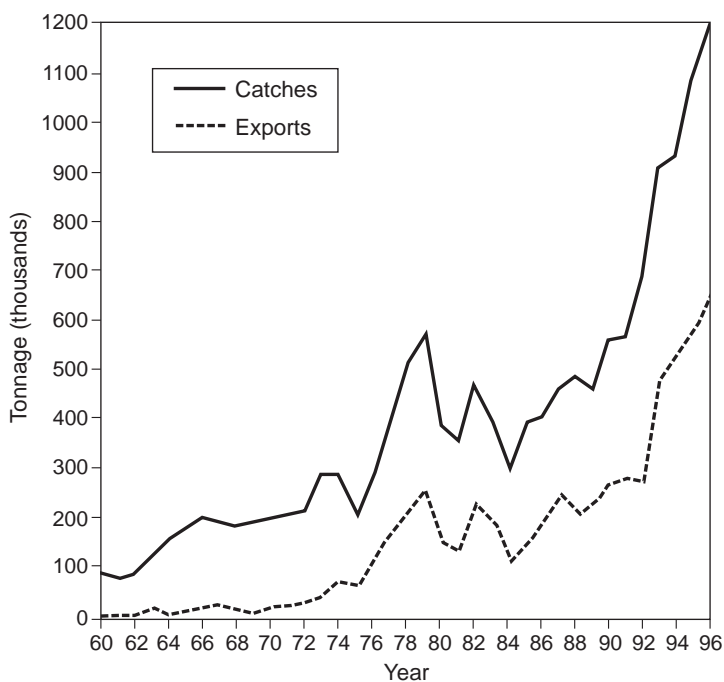
Towards or against sustainability?

We now turn to the impact of the restructuring process on local fishing in Mar del Plata and on the development of the city.

Economic performance

The local fishing industry played a key role in the development of Mar

Figure 4: Evolution of fish catches and volume of exports, Argentina, 1960–1996



Source: Based on national statistics collected by SAGPYA 1997

del Plata, generating a significant share of the urban economic output and constituting one of the main sources of employment. Over the last two decades, this sub-sector has undergone major restructuring in Argentina.⁹ Despite significant changes in the number of industrial units and personnel employed over the period, in 1994 the fishing industry still accounted for 33.1 per cent of the total value of industrial production, 36.4 per cent of the total industrial employment, and 6.1 per cent of all industrial establishments.

The fluctuation in the number of fishing establishments is associated with the increasing competition of foreign fleets and firms operating in the south of the country, but also with the shift from the combined domestic and external market to almost exclusively the latter. Only 45,000 tonnes of fish was exported in 1973, compared with 270,000 tonnes in 1987. In 1996, the local fishing industry accounted for 93 per cent of total exports from the area, i.e. 12 per cent of the gross product

of Mar del Plata (MGP 1997). Today, almost all the local fish production is for export, representing almost 40 per cent of national exports (Madaria 1999). Consequently, local firms have become increasingly dependent upon and exposed to fluctuations in the international market. At the time when the national market was opened to foreign capital, local firms were characterised by low productivity, low levels of diversification, and the inability to invest in new technologies in order to meet these challenges.

Between 1994 and 1995, industrial activity in the city diminished by 5 per cent and total industrial employment decreased by 3.8 per cent, one of the results of the Convertibility Plan on production previously geared to the domestic market. The fishing industry was the only sector that escaped the general economic recession, increasing its output by 13.6 per cent (Gennero de Rearte 1996). However, the dramatic drop in the number of firms and personnel employed witnessed in 1994 was never reversed. As foreign competition increased, many local companies closed down, and production became centralised in a few enterprises. Some large companies remained in business by moving to Patagonia or by forming new firms with foreign investors.

The surviving local companies continued operating with offshore trawlers and processing their catches in land-based factories. However, in order to reduce fixed production costs and to deal with the increasing competition of foreign factory vessels, these companies adopted a 'labour flexibilisation' strategy, reorganising their workers in co-operatives. Now, six large enterprises concentrate the local process of catching and trade, subcontracting most of the production processes to workers' co-operatives. Today, over 66 per cent of the industrial establishments, including the co-operatives, process fish provided by a few enterprises, and so are highly exposed to fluctuations in their demands (INIDEP 1998).

The strategy of decentralising by means of subcontracting aspects of production can be viewed as a 'renewed form of Fordism' (Lipietz 1992) whereby the firm reduces the costs of maintaining a labour force and gains the flexibility needed to respond to fluctuating demands. This in turn puts pressure on the subcontracted firms, who are forced to reduce their costs through providing more precarious working conditions. Thus, the risks of operating under increasing uncertainty are transferred towards the lowest links in the production chain. This has dramatic impacts on the organisation of production and on the relationship between capital and labour, squeezing labour and avoiding environmental regulations.

Social performance

Towards the late 1970s, the local fishing industry employed about 10,000 workers of whom almost 40 per cent were women.¹⁰ By 1990, there were 7000 workers, and by 1992 there were only 3000.¹¹ By 1994, about one third of those who had lost their jobs in the larger industrial plants joined co-operatives, while the rest had become unemployed. By 1996 about 44 per cent of all workers in the fishing industry were based in co-operatives (INIDEP 1998), but the others who were made redundant in 1992 have not found work.

The organisation of the labour force into co-operatives took place over a period of four months between 1991 and 1992. The sheer speed of the process prevented workers from mounting a defence. Some workers continued working in the same factories, but lost their status as full-time salaried employees. In other cases, the workers who were made redundant formed new co-operatives, operating informally in small workshops and even households. According to the Institute for Co-operative Action (IAC), in 1999 only one third of such co-operatives were fully registered, while the rest operated in the so-called 'pseudo-co-operatives', without even the basic infrastructure required for performing their tasks safely and competitively.

Decentralising the processing phases outside the firms' legal and contractual responsibility did not respond to real principles of co-operativism, such as egalitarian organisation, collective negotiation and management of production, or equitable distribution of the benefits. In fact, the firms imposed this co-operative structure in order to avoid taxes and social contributions, as well as regulations concerning the local environment and working conditions. In this way, they established a flexible contractual system, payments became directly related to productivity, and the risks inherent in a fluctuating demand were transferred to the workers. These workers lost many of the rights that had been won over decades of struggle, such as pension contributions, paid holidays, insurance, and collective bargaining. In addition, working hours became irregular, depending on the demand and availability of fish. When the demand goes up, workers will put in up to 12 hours a day, with no bonuses for working over public holidays or weekends (field survey).

The impact of this restructuring on workers needs to be examined in the light of what has happened to employment patterns over the last 20 years. Argentina has traditionally been a 'salaried society': full employment policies promoted the social integration of the working

class as citizens with full social, political, and civic rights. With the dismantling of formal working conditions and the co-operativisation of the labour force in the early 1990s, the official trade union lost its 'clients' and bargaining power. A new *Unión Obrera del Pescado* (UOP) (Fishworkers' Union) emerged in the late 1990s as a parallel organisation, as did an association of women whose families were engaged in the fishing trade. The role played by these two groups in mobilising to defend the livelihoods of the local fishing community and against the depletion of hake, is discussed in the final section of this paper.

Natural performance

The national fleet had enjoyed unrestricted fishing permits that entitled vessels to fish as much as they wanted of any species. Until the 1980s, the Argentine Sea was among the few major fishing areas of the world with large unexploited potential. In the 1990s, fisheries expanded hugely and catches reached a historic maximum in 1997 at 1,341,077 tonnes (Madaria 1999). As noted earlier, the government took a schizophrenic approach to the industry, on the one hand tightening up the licensing regime, while on the other offering subsidies for the incorporation of new vessels and granting new fishing rights.¹² Within a few years, the fishing sector was over-capitalised and over-expanding: many fish stocks became fully exploited while hake became severely depleted. This process was further accelerated by an agreement signed in 1994 to promote Argentinian–European fishing joint ventures.

As discussed above, the fishing industry was focused on hake and structured around the offshore fleet and land-based processing plants for the domestic and external market. Until the mid-1980s, the offshore fleet accounted for the majority of hake landings while the factory and freezer fleet accounted for 15 per cent. The harbour of Mar del Plata had a share of 77 per cent of national catches in 1986, which declined to 35 per cent in 1993 and 31 per cent in 1998 (Madaria 1999). The lost hegemony of Mar del Plata during the restructuring process was due to the expansion of a long-range fleet of mixed and foreign companies which was established in Patagonia. Between 1991 and 1997, while the offshore fleet catches remained almost static, the long-range fleet quadrupled its catches, and almost all the total catch growth in recent years has been a direct result of the expansion of that fleet.¹³

In 1991, INIDEP warned the government that the reduction of hake biomass and high mortality levels were together rendering the hake fisheries unsustainable. Disregarding this, SAGPyA continued

expanding the fishing rights over the Argentine Sea.¹⁴ The 1994 agreement with the European Union established a total allowable catch (TAC) of 250,000 tonnes to be exploited over a period of five years by joint ventures between Argentinian and European companies or between European countries. In exchange, the newly formed companies received tax advantages to export their catches to Europe. The agreement responded to Europe's need to find new fishing grounds in order for its fishing industry to stay in business. The stated aim of the agreement was to modernise the national fleet and to diversify from hake to other species. However, under this agreement, the EU subsidised the incorporation of approximately 100 freezer trawlers, which were on average older than the national vessels they were supposed to replace, and focused on the species already over-exploited by the national fleet. In addition, the new joint ventures kept the supposedly 'replaced' vessels in operation, thus expanding the overall fleet. The fleet of freezer and factory trawlers added significantly to pressure on the fishing grounds, but generated no local jobs as all the processing was done on board.

Physical performance

The restructuring of the fishing industry brought not only negative social and natural consequences but has resulted in the deterioration of the city's environment, particularly the harbour area where the fishing activity was focused, as well as being the residential, social, and political centre of the community. Today, 85 per cent of the fishing industries are located there, taking up an area of 350 hectares (about 20 per cent of the total urban area). The area has the highest concentration of slums in the city, with 36 squatter settlements on private and public land.¹⁵ Most of the slum-dwellers were part of the seasonal labour force of the fishing industry, but many are now without any work. In recent years, living conditions in the area have been worsened by frequent floods, due to the accumulation of industrial wastes blocking the drainage system. The area is also affected by foul-smelling emissions from fishmeal factories and by the stench of the putrid fish supplied to them.

Over the years, the harbour had affected the coastline, causing the erosion of the beaches located to the north of the city. In addition, sand accumulation in the harbour constrains the operations of the fishing fleet and demands regular dredging. During the 1960s and 1970s, there were significant public and private investments in urban

infrastructure. Since the 1980s, the environmental conditions have deteriorated rapidly, both because the state has withdrawn from the administration of public utilities (through a combination of privatisation and decentralisation), and because the industries have cut costs at the expense of the environment.

During the 1980s, the state, which was historically responsible for the administration of the harbour, cut public investment in its improvement and maintenance, and announced in 1994 that the harbour would be privatised. The local government challenged this decision and, together with local fishing firms and trade unions, demanded a role for the local fishing community in the administration of the harbour. Consequently, a local consortium is now overseeing the process of privatisation. The local government views this as an opportunity to improve the infrastructure of the harbour for industrial purposes and to turn it into an international freight point in order to revitalise the local economy and the city itself. The plan includes the removal of the slums settled on public land in order to extend the regional railway system to the harbour. The proposal has been resisted by the slum-dwellers and the local government is now considering relocating the slum-dwellers to the outskirts, while it still seeks possible investors to modernise the harbour.

The restructuring process has also led to a chronic lack of private investment in maintaining facilities in the surviving industrial establishments. Added to this, fishing firms have increasingly tended to externalise their environmental costs by discharging their wastes directly into the sewage and drainage systems and also by subcontracting parts of the production process to informal co-operatives. Wastewaters from fishing industries are rich in fats, blood, proteins, and other organic residues, and, to a lesser degree, chemicals used in cleaning the plant. Only the larger plants have primary treatment systems, and most of the co-operatives lack decanting tanks. Today, 60 per cent of the factories discharge their industrial wastewater through clandestine connections into the drainage and sewage networks or directly into the sea (INIDEP 1998). Since 1985, Mar del Plata has had a sewerage treatment station but, because of budget cuts made while it was being built, it only provides primary treatment: liquid and solid effluents are separated and then discharged directly into the sea. As a result, sea and beach pollution has also worsened during the last decade.

The fishing industry has also been associated with the recent over-exploitation of groundwater. The city's supply for domestic, industrial, and agricultural uses relies exclusively on groundwater sources. Fishing industries account for the highest consumption among industrial users. In the canning factories, water is used to wash raw materials and containers and for sterilisation processes. In the cold-storage factories the main uses are ice production, general hygiene, and fish processing. Over the years, the port has been particularly affected by the depression of groundwater levels and has suffered recurrent water shortages. Since the late 1980s, many factories have installed clandestine pumping systems to guarantee a supply of water, thus aggravating the situation. As a consequence, the wells that supply the area present a high level of salinisation (800–900mg/l) and also a high concentration of chlorites, reaching values of 6000mg/l, far above the maximum value recommended by WHO as acceptable for human consumption (700mg/l) (Allen 1999).

The body responsible for monitoring the quality of fish products is the National Secretary for the Auditing of the Food Sector (SENASA). The provincial government of Buenos Aires establishes the legal framework dealing with the control of atmospheric emissions and the municipal Parastatal Company for Water and Sanitation (OSSE), which was decentralised in 1985, regulates the emission and treatment of liquid and solid wastes. Since 1996, a new legal framework introduced by the provincial government demands the environmental auditing of all industrial activities. The municipality is responsible for enforcement while the provincial government assesses the environmental auditing reports. All fishing industries are requested to submit an environmental audit report in order to obtain a Certificate of Environmental Aptitude (CEA). In theory, no industry can operate without such a certificate. However, according to municipal records, in 1998 only 13 per cent of the fish processing plants had submitted an environmental audit report and only 10 per cent had obtained a CEA. These figures exclude the many pseudo-co-operatives and informal establishments of which the municipality has no records (field survey).

The environmental framework regulating the fishing industry has a poor level of enforcement owing to the dispersed and conflicting intervention of several agencies. The municipality has acquired a new role in the environmental management of the city, but this has squeezed its budget and institutional capacity. Within the local government, industrial monitoring and infrastructure management

are still two separate spheres, just as the monitoring of fishing and processing are also regulated, respectively, by national and local bodies.

Conflicts in the aftermath of the restructuring process

The 'Fish War'

Following the collapse of hake populations, the government attempted to impose a system of closed seasons and quotas in defence of 'national interests'. The local state, firms, and workers of Mar del Plata formed a coalition, known as the Multisectoral Group, to fight the measure and demanded the expulsion of the foreign fleet. Under the leadership of the mayor of Mar del Plata, the Group included representatives of the trade unions, chambers of the national ship-owners, and land-processing factories supported by the provincial government of Buenos Aires. The mixed national-foreign capital firms responded by staking out their own claim to be part of the 'national fishing industry', and were supported in this by the regional governments of Patagonia, whose meagre economies had slightly improved through the revenues from the joint companies. Both sides were internally divided, but the proposed new management regime became the central focus of the conflict.

A new Federal Fishing Law was introduced in January 1998 with the aim of promoting the 'sustainable development of the fishing industry', defined as the preservation of natural resources, the promotion of increased value-added in fishing products, and the use of national labour. This law established a new division of powers, ratifying SAGPyA as the implementing authority and creating the Federal Fishing Council (CFP) as the main national policy-making body. Five representatives of the national government and one representative from each of the five provinces with interests in the Argentine Sea form the CFP. This was a significant change in the decision-making structure regulating the fishing industry, which shifted from being the almost exclusive responsibility of the national government to a collegiate body of stakeholders with representatives from the main fishing provinces.

In parallel with the creation of the CFP, local and provincial councils were organised in each fishing harbour and province, with representatives from the public sector, trade unions, and business chambers. These councils and the Multisectoral Group in Mar del Plata generated

a new structure in the governance of the fishing activity and consolidated the alliance of local stakeholders voicing their demands before the national authorities.

The second innovation of the law was the abolition of the previous unrestricted fishing rights and the establishment of a new system of individual transferable quotas (ITQs) to be allocated to each vessel or enterprise within the maximum sustainable yield.¹⁶ The system was to be implemented in 1999 but its enforcement was resisted by several pressure groups operating at the local, provincial, national, and international level. The main conflict was between the Multisectoral Group and the long-range fleet. One of the main fears was that the transferability of the quotas could open the possibility for the larger firms to acquire those granted to smaller companies in order to establish monopolies. The law explicitly banned the transference of fishing quotas to the freezer-factory fleet, and this was resisted by the joint ventures in Patagonia, where the majority of this fleet operated. A second concern was the strong reliance of the system on the control and regulatory capacity of the state to guarantee adherence to the quota system as well as the fulfilment of conservation measures.

While heated negotiations continued, thus preventing the implementation of the quota system, increasing uncertainty about the sustainability of hake populations resulted in a 'rush to fish', which aggravated their depletion. In response to another alarming report issued by INIDEP about the severe decline in the reproductive biomass of hake, in late April 1999 the CFP prohibited hake fishing from the beginning of June for an indefinite period. Leading the Multisectoral Group, the local government of Mar del Plata fought for the fishing quota to be allocated to the local fishing industry in order to avoid its collapse and the consequent social crisis. Over 100 vessels from Mar del Plata blocked the harbour of Buenos Aires in protest, while over 2,000 people demonstrated against the measure in front of the parliament building, demanding a Fishing Emergency Law. The protest was supported by demonstrations in other cities and received general public and media support. The draft Fishing Emergency Law established the displacement of the freezer fleet to the south of parallel 48° and outside the EEZ and postponed the enforcement of the quota system until December 1999. This was a short-term measure to defuse the conflict and gain time to negotiate the distribution of the quotas. In the meantime, the freezer fleet opposed the draft law and threatened to block the access of fuel supplies to the whole of Patagonia.

The national media gave massive coverage to the so-called 'Fish War'. The international fleet claimed that the Emergency Law curtailed their freedom and rights to operate in the country. This was supported by the Spanish government, which reacted in defence of Spanish investment. The Multisectoral Group argued for the nationalisation of the fishing industry on the grounds of defending the rights of national and local workers and enterprises to sustain their activity as stated in the National Constitution. Several environmental NGOs, including Greenpeace, demanded urgent measures to preserve the hake and the livelihoods of thousands of workers. Cedepesca, a local NGO, estimated that 5000 regular workers were to be affected by the closure of the harbour, plus a further 5000 if temporary workers and jobs indirectly related to fishing were included. The conflict was brought to a halt when a group of women from Mar del Plata disrupted a cabinet session and obtained the commitment of the president to enact the Emergency Law, granting the right to fish hake to the harbour of Mar del Plata. This took place just before the elections of October 1999, a decisive factor in inclining the final decision in favour of the local fishing industry.

However, after the approval of the Emergency Law, INIDEP revealed that there were only 50,000 tones of hake left to fish within the maximum sustainable yield (MSY). A rotating system of closed seasons was implemented to distribute the remaining TAC among the local offshore fleet. This was supposed to guarantee the regular supply of fish to the land-based processing factories and to mitigate the possibility of massive unemployment in Mar del Plata, but was insufficient to contain the crisis. The harbour of Mar del Plata experienced the highest level of inactivity in the history of the local fishing industry. Most industrial establishments worked only four months during 1999 and production was reduced to about one third of its average annual amount (field survey). The co-operatives suffered even more; many closed down and in those which survived work was down to less than eight days a month.¹⁷

A new local conflict arose over the distribution of the fish supply between the formal and informal processing sectors. Given that the supply of fish was controlled by the larger firms that owned the offshore fleet, the measure benefited these firms at the expense of the co-operatives and smaller establishments. Challenging the Multisectoral Group, workers went on strike demanding the regularisation of the pseudo-co-operatives, the return to a salaried regime, and measures of

social containment and compensation to reduce the impact of the plants being inactive during closed seasons.

Cedepesca and the UOP fought for a monthly compensation of US\$500 for the local workers. Instead, the government sent 6000 food parcels to be distributed among the worst affected workers by the trade union and the municipality. This measure was followed by violent demonstrations against the larger firms, the trade union, and the municipality; but they were ignored by the Multisectoral Group. Thus, the workers became still further marginalised.

Political performance

Table 1 summarises the changes experienced by the local fishing industry from its artisanal origins through its development in the 1960s and 1970s to its restructuring since then. Until the late 1950s, there was a balance between the four angles and decisions were made at the local level by the fishing community. During the second phase, the local fishing industry expanded at a dramatic rate but still within the limits of natural carrying capacity. The expansion of fishing fleet and land-processing plants played a key role in the local economy and had a significant impact on the generation of salaried employment and investments in infrastructure. The expansion and industrialisation of the activity was promoted by import-substitution policies and supported by national protectionist policies and subsidies. In this way, the governance of the fishing industry shifted from the local to the national sphere and was led by an alliance between capital, workers, and the state.

Following the trends presented in Figure 3 (p.19), the process of industrial restructuring transformed the economic, social, physical, and natural performance of the local fishing industry. This brought dramatic changes to the city but also to the political alignment of local, national, and international actors. Local versus national government, national versus foreign capital, formal versus informal workers, and land-based factories versus factory ships, were some of the issues of contention within and between the various parties within the coalition and its opponents. Initially, the state, firms, and workers were at one in defence of the local fishing industry but as the conflict evolved the alliance broke down. This section examines how the claims of local actors were organised around different interpretations of sustainability.

Hake populations were the only actor without a voice in this conflict. However, there were public calls to sustain the maritime ecosystems

Table 1: Evolution of the local fishing industry of Mar del Plata, Argentina

Development phases	Economic and technological changes	Social changes (livelihoods)	Natural changes	Built environment changes	Political changes
Up to 1950s: Origins phase	<ul style="list-style-type: none"> • Artisanal fishing and processing techniques • Domestic market • Familiar organisation of production • Low added value 	<ul style="list-style-type: none"> • Italian immigration • Establishment of the fishing community 	<ul style="list-style-type: none"> • Low pressure on the natural resource base • Local catches within the micro-region 	<ul style="list-style-type: none"> • Construction of the harbour • Settlement of the fishing community in the harbour area 	<ul style="list-style-type: none"> • Local social contract regulated by cultural factors of the fishing community
1960–1970s: Consolidation and expansion phase	<ul style="list-style-type: none"> • Domestic and external markets • Fordist organisation • Expansion of capital investments in offshore fleet and land processing plants 	<ul style="list-style-type: none"> • Expansion of local salaried employment • Incorporation of women in production • Access to social networks and financial capital (credit and savings) 	<ul style="list-style-type: none"> • Increasing pressure but below MSY • Expansion of fishing area to regional grounds 	<ul style="list-style-type: none"> • Capitalisation of the harbour • Investment in infrastructure and built environment improvements 	<ul style="list-style-type: none"> • Corporatist social contract • National import-substitution policies • Unrestricted fishing rights
1980–1990s: Restructuring phase	<ul style="list-style-type: none"> • Shift to exports • Joint ventures with international investors • Relocation and downsizing of firms • Economic concentration • Vertical decentralisation of production 	<ul style="list-style-type: none"> • Working conditions more precarious • Mass lay-offs • Emergence of pseudo-co-operatives • Worsening income and working conditions 	<ul style="list-style-type: none"> • Unsustainable • Generalised over-fishing and rush to fish • Increasing pressure over national fishing grounds • Depletion of hake 	<ul style="list-style-type: none"> • Public and private disinvestment • Privatisation of the harbour • Negative impacts due to externalisation of environmental costs • Deterioration of local environment 	<ul style="list-style-type: none"> • Macroeconomic reforms • Breakdown of corporatist social contract • With withdrawal of the national state • International versus local actors
Outcomes	<ul style="list-style-type: none"> • Increasing uncertainty • Disappearance of small and medium enterprises • Investments frozen due to economic and natural uncertainty 	<ul style="list-style-type: none"> • Emergence of new disenfranchised workers and women's organisations • Increasing uncertainty • Welfarism 	<ul style="list-style-type: none"> • Increasing natural uncertainty 	<ul style="list-style-type: none"> • Uncertainty • Projects to improve efficiency and higher productivity of harbour • Relocation of slums 	<ul style="list-style-type: none"> • Privatisation of the sea (ITQs) • Local multi-sectorial coalition • Marginalisation of workers' demands

made by several environmental NGOs who investigated the effects of over-fishing and informed the general public of the outcomes of similar international conflicts elsewhere. Cedepesca carried out several investigations into the illegal practices that, with the consent of national government, had allowed the expansion of the foreign fleet operating in the Argentine Sea in the 1990s and provided crucial evidence for the annulment of the agreement with the EU. NGO demands were made in defence of the sustainability of the natural resource but also of the livelihoods of the local fishworkers of Mar del Plata and other fishing harbours in Patagonia.

Firms focused on defending their economic viability and recognised this as being intimately linked to the sustainability of the hake ecosystems. In the words of the manager of one of the oldest and largest firms in the city:

The crisis of the fishing industry emerged because there are more fishers than fish. Someone has to leave the sea and it is only fair that the foreign fleet leaves. We have invested in this city and brought wealth to it for many years.

When asked about the reorganisation of the labour force into co-operatives, he explains:

The co-operative system was the only way to reduce fixed costs to survive in an increasingly competitive system. It is unfortunate but it is the only way in which we could manage to become more flexible to the expansion and contraction of the market. The long-range fleet processes everything on board and lands its catches in foreign harbours, at least we bring work to the city, even if that is through the co-operatives. (Fieldwork interview, December 1999)

The social dimension is thus reduced to 'sustaining a cheap and flexible labour force'. The physical dimension of sustainability is only expressed in terms of improving the efficiency of the harbour infrastructure through private investment, but is silent about environmental degradation, which is seen as another cost that has to be paid by the city in order to sustain the activity and its revenue.

The local government took as a starting point its role in managing the physical environment of the harbour and adopted a proactive approach to sustaining the natural resource base and the local fishing sector. Although invoking the rhetoric of 'saving the social capital of the city, the livelihoods of its workers, and the well-being of their

families', the mayor focused on reorganising the social contract between enterprises and trade unions at the local level, using the same alliance that had been created to retain control over the harbour if it was privatised. Although the local government was in an ideal position to draw together the different dimensions of the conflict, its demands to the national government were almost exclusively focused on obtaining the maximum local benefit in how the quota system was to be allocated. It responded to social demands with reassuring rhetoric followed by weak welfarist measures, exemplified in the distribution of food to the families most critically affected by the closed seasons.

The social measures necessary to provide a meaningful response to the inevitable decline of the fishing industry were kept off the agenda. In the words of the mayor:

We need social compensatory measures for the expulsion of workers from the fishing industry but this falls to the national government. (Fieldwork interview, December 1999)

Similarly, the connections between the deterioration of environmental conditions in the harbour and the offloading of costs via the pseudo-co-operatives were not up for discussion. A senior officer from the Municipal Environmental Department explains why:

The municipality has inherited a long-term crisis and is doing its best to cover deficits in areas that lack basic infrastructure, the problem now is quantity, not quality. The port is deteriorating but at least it has basic infrastructure. We don't have the human resources to monitor efficiently who is polluting what and where, and even if we did, we would then face serious problems in enforcing the existing regulations. In a context of crisis, we cannot close down factories because they are illegally discharging blood and fat into the sewage or drainage system or even directly into the sea. We are forced to be flexible and to a certain point blind to avoid the worst consequences. (Fieldwork interview, December 1999)

Workers focused on defending their livelihoods and organised their demands outside the corporatist regime of the trade unions. They did not simply focus on improved incomes but on a more structural defence of rights as citizens and workers. Miguel, who worked in the fishing industry for 20 years, explains the motives behind their mobilisation:

We don't fight for a simple pay-rise. We don't want to bring bread to our families today and misery tomorrow. We don't want boxes of food.

We fight to make sure that the fishing grounds are sustained in the long term and not just for the benefit of a few local and foreign companies. We fight to abolish the perverse regime of the co-operatives and to regain our rights. Ironically, we seem to be responsible for polluting the water we drink, but we are forced to do so on behalf of those who get richer on the back of our work and suffering. (Fieldwork interview, December 1999)

This statement shows the position of citizens and workers with regard to the social, economic, natural, and physical changes brought about by the restructuring process. A clear connection is established between these dimensions and also in relationship to how these changes are managed.

Looking at the different claims, it is possible to understand the rationale behind the coalitions and conflicts at the local level. It is also possible to see that certain issues, such as the impacts on the livelihoods of the fishing community and the deterioration of the physical environment and habitat of the harbour, were marginalised in the attempts to seek a political response to the conflict. Local actors were polarised in their demands and were in fact fighting against external actors in the economic–natural sustainability diagonal. In doing so, they surrendered to the same logic that they were trying to fight, the dominance of economic considerations over social, natural, and physical ones.

Concluding remarks

The state was essential to the development of the local fishing industry, as it guaranteed a monopoly over access to fish resources and protected the domestic market through special regimes and subsidies. However, in the 1970s this model faced a crisis, partly due to the penetration of Argentina's domestic market by cheaper imports. In addition, there was increasing competition among countries to attract international investments on the basis of low salaries and free access to natural resources. In this context, firms and governments tried to overcome the 'rigidities' of the Fordist model through decentralising production processes via subcontracted firms and the offloading of risks.

The social implications of this approach can be seen in the reorganisation of the relationship between capital and labour under the façade of the 'co-operative system'. Firms gained flexibility at the expense of workers' stability and worsening environmental conditions.

Furthermore, most workers became disenfranchised and lost their legal protection and traditional mechanisms for collective action. The rationale behind this process was based on a static, zero-sum understanding of the relationship between economic interests and political institutions, promoted by the Menem administration. The assumption was that high wages, state-enforced controls over production, and rigidities in labour deployment constituted significant barriers to internal capital accumulation.

The process of industrial restructuring not only reinforced social inequalities but also exacerbated the depletion of the natural resources upon which the fishing industry as a whole relies. Increasing competition over the local and regional fisheries resulted in a crisis that became evident for all to see with the collapse of hake fisheries in the late 1990s. This turned the conflict into an environmental one, in that all sectors (state, private industry, and labour) became engaged in the search for ways to sustain the fishing grounds, although with rather different interpretations of what needed to be done.

In 1999, the governance of fishing resources became the subject of intense conflict and uncertainty owing to the depletion of hake, disagreements about a new fishing régime, and national elections. The future of the fishing industry and of the many who depended on it was trapped into a debate that was determined by sectoral interests in which the government failed to establish limits to avoid further depletion of the fishing resources. The introduction of a system based on the distribution of ITQs brought with it inevitable conflicts. This initiative opened the debate about the need for a long-term policy framework to guarantee the sustainable management of the fishing industry. However, this was not accompanied by measures to reduce or offset the social and economic impacts of a reduction in fishing, which left the industry with no certain future. Political decisions were torn between conserving fishing resources and maintaining policies to favour free trade, foreign investment, and export-led economic growth.

The fishing industry in Argentina was traditionally ruled by a coalition between the state, corporate capital, and labour organisations. Their interests were bound by the pursuit of continuous economic expansion and based on the assumption that the supply of natural resources was infinitely elastic. Hence, environmental considerations were marginal, and were felt only in a weak and centralised fisheries management régime, in which the preservation of fishing grounds lost out to the possibility of more catches. It was only with the advent of the

hake crisis that most sectors became aware of the effect of over ten years of uncontrolled expansion. Not only did the traditional alliance between national capital and the state break down, but also new locally based coalitions were forged, shifting their claims from economic to environmental and social arguments. The local government of Mar del Plata took forward these claims at the national level through mechanisms such as public hearings and demonstrations, with overwhelming support from civil society. The Multisectoral Group that was formed in reaction to the crisis succeeded in taking a proactive approach, playing a key role in drafting new legislation and establishing a decentralised régime to discuss the future of the fishing industry. Two significant changes accompanied this process; first, alliances split between local and external actors, and, second, there were further splits between the local government, firms, and workers. The national government was trapped between these two constituencies and finally forced to prioritise local claims. But the workers' demands were marginalised in the process and subordinated to the corporatist coalition of local trade unions, firms, and the local government. It could be argued that the social and environmental claims put forward by the Multisectoral Group were something of a tokenistic fight against the increasing participation of foreign capital in the development of the fishing industry.

Unfortunately, local reactions were too late and too polarised to offset the consequences of the crisis. The local industry reaffirmed its exclusive rights over the fisheries at a time when the collapse of hake had already taken place. With little fish left for the local plants to process, the industry continues to decline and workers are still being laid off. The case of Mar del Plata's fishing industry could be the tale of many cities in the South. Increasingly, restructuring processes are leading to over-exploitation of certain areas and natural resources, leaving local firms and workers in a highly vulnerable position as they attempt to cope with the aftermath of environmental, social, and economic collapse.

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restructuring. The case of the fishing industry in the city of Mar del Plata, Argentina'.

Notes

- 1 In the 1980s, per capita income fell dramatically and per capita investment levels fell by 70 per cent. Between 1949 and 1974, inflation averaged an annual 27 per cent. From 1975 until 1988, the annual average totalled 227 per cent and there had been two hyper-inflationary surges by 1991 (López Murphy 1996). The labour market also worsened significantly. In the 1980s, there was a strong trend towards increasing unemployment, the growth of micro-enterprises and informal activities, and a general drop in salaries and increased labour instability. A wider sector of the population was negatively affected by adjustment policies, and by the regressive impact of inflation on income distribution and on the country's economic activity (Beccaria and López 1996). Poverty became widespread and intense, as many middle- and lower-middle-class households experienced a significant reduction in their incomes.
- 2 Between 1980 and 1990, per capita income declined 11 per cent, the minimum salary dropped by 33 per cent, and urban unemployment increased from 3 per cent to 8 per cent. Non-agricultural employment in the informal sector grew from 39.4 per cent in 1980 to 49.61 per cent in 1992, while employment in large private firms decreased from 41.8 per cent in 1980 to 32.7 per cent in 1992. Incomes in the informal sector declined by 42 per cent and industrial salaries declined by 6 per cent (PREALC 1992).
- 3 Between 1991 and 1993 the accumulated deficit in the current account reached US\$21.4 billion. If the funds used for accumulating international reserves are added, the total demand for foreign finance was US\$29.5 billion.
- 4 The contradictory approaches that led the debate on environment, growth, and development over the previous decades were not overcome but rather intensified as SD came to the fore. The 1992 UNCED conference was a clear example of the political tensions that increasingly dominate the North–South debate. Since then, bottom-up initiatives in implementing Local Agenda 21 have spread, while multinational corporations have lobbied to add 'sustained economic growth' as a leading principle to SD. Progress in assessing and implementing the principles of SD is hampered by disagreements about the basic terms of reference.
- 5 The city of Mar del Plata has a resident population of 600,000, which rises to 1,500,000 in the tourist season.
- 6 In 1925, the city boasted about 140 steamships and 80 sailing boats, whose catches reached 12,000 tonnes (of the 16,000 tonnes for Argentina as a whole). This was entirely for the domestic market and the population of Buenos Aires City alone consumed half of it (Alvarez and Reynoso 1991).
- 7 In the 1960s, the development of the fishing fleet was based on the incorporation of offshore vessels built in the country as well as imported from abroad. In 1962, the national government supported the construction of 30 offshore fishing vessels financed by the Argentinian Industrial Bank. Legal reforms were incorporated to subsidise national shipyards and a tariff licence was introduced to import vessels (Alomar 1973).

- 8 Under other general economic regulations the rights of foreign and national investors merged, allowing freedom to establish anywhere in the country and to repatriate capital and utilities. The tax regimes for national and foreign companies were also similar, allowing the latter to create subsidiary branches in the country or joint ventures with Argentine or other foreign firms. A new mechanism established the regime of 'local enterprises of foreign capital', by which foreign firms could operate in the country through new companies in which they owned over 49 per cent of the capital (Madaria 1999).
- 9 In 1974, local production was shared by 30 large enterprises and 103 small and medium enterprises, which followed a Fordist production model. By 1989, the number of total industrial units operating in Mar del Plata had suffered a dramatic reduction as the recession had reduced the domestic and external markets. At that time many local companies suffered a debt and liquidity crisis, with huge stocks of inventory which they could not sell. This crisis was associated with the removal of national protection tariffs that enhanced the competitiveness of foreign products and caused a rise in imports. The fishing industry was the only industrial sector that survived this crisis without a massive reduction in the number of firms or employees.
- 10 Since the 1970s, women have had a significant role in the local fishing industry, particularly in processing activities such as canning and filleting. In 1996, over one third of the total number of workers in industry were women but they represented only 20 per cent of the workers organised in co-operatives (INIDEP 1998).
- 11 Records of the Fish Industry Workers' Union (*Sindicato Obrero de la Industria del Pescado* SOIP) 1995.
- 12 In the early 1990s, the legislature established that the fishing resources under Argentinian maritime jurisdiction were to be exclusively exploited by national flagged vessels authorised by the competent authority. Since then, fishing rights have been granted on the basis of individual fishing projects to be assessed by SAGPyA. The approval of each application depended upon the technical capacity of the applicant and could only be granted within the limits of the maximum sustainable yield (MSY) defined by INIDEP. Although fishing rights were granted to individual vessels and firms, they could be transferred to other companies.
- 13 The offshore fleet of Mar del Plata operates in the fishing grounds north of parallel 41°S, while the long-range fleets operate both north and south of parallel 41°.
- 14 In addition to the agreement with the EU, several resolutions from SAGPyA allowed national ship-owners to hire foreign vessels for the fishing of squid over a period of three years. Out of the nearly 200,000 tonnes of squid catches in 1995, half corresponded to the 71 foreign vessels incorporated under this provision. The accidental by-catch of hake by these vessels also contributed to the increasing pressure on the species (Godelman *et al.* 1999).
- 15 The settlements on private land alone account for 3209 inhabitants (Fernández 1996).
- 16 Fishing quotas were to be granted according to five criteria: the average catch of each enterprise between 1989 and 1996, the number of personnel employed, the investment already

made, the volume of production, and the record of previous offences committed by each company. The Law also established the right of the CFP to reserve and grant part of the annual quota to cases of 'social interest', as a mechanism to ameliorate the socially regressive impact of the system on the most vulnerable groups.

- 17 María, a 40-year-old woman with two sons, who worked with her husband in the fishing industry for 17 years, explains the situation affecting thousands of local workers:

We were not rich but nor were we poor. We worked hard but the effort was worth it. Over the years, we managed to build our own house and to send the kids to school. When the fishing seasons were bad, it was easy to obtain credit, nobody denied it to a worker from the fishing industry, now they laugh at you...I leave the house at 4 am ... at that time you can see hundreds of men and women walking around the port and checking one co-operative after another to see if there is any work. We have to walk because we cannot afford the cost of bus fares any more. Sometimes we don't get a table [to fillet] in the whole week, if we are lucky we work one or two days per week ... the rest of the time we just walk. My husband stopped seeking work because he is 50 and the plants only want young people. He does bits and pieces in construction, but with the fishing industry in crisis there is not much work in the city. (Fieldwork interview, December 1999)

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