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**The Multi-Function Polis 1987–97: an International  
Failure or Innovative Local Project?**

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# THE MULTI-FUNCTION POLIS 1987–97: AN INTERNATIONAL FAILURE OR INNOVATIVE LOCAL PROJECT?

*The Multi-function Polis (MFP) has created debate and divided opinions since it was first proposed by Japan's Minister for International Trade and Industry in 1987. The announcement of its official demise by the South Australian Premier in August 1997 following the termination of federal funding in 1996 appeared to complete the story. However, opinions remain divided as to whether the project was a A\$100 million waste of taxpayers money or a valuable initiative to promote urban redevelopment in an environmentally and socially responsible manner. This paper reviews the debate by recognising the changing roles of international and local actors. The interaction between international and domestic politics has received increased attention in the literature on Pacific relations and development initiatives. In its first phase, the Multi-function Polis was supported by the Japanese and Australian federal governments, but received strong local opposition. In the second phase, Japanese and Australian federal government support for the project waned, but local support grew as state and local governments promoted the project because of its potential to meet local needs. However, by 1997 the project had failed to attract large scale external investment and it was integrated into state government efforts to promote development in the core of Adelaide. This Australian case study of a Japanese proposal for a futuristic high tech city for interaction among the People of the Pacific, offers lessons for other international development initiatives.*

## Introduction

'It's an international embarrassment that we deliberately sought and captured international attention for a project that we did not deliver.' (Denis Gaskin, former chief executive of the joint Japanese–Australian committee which completed the MFP feasibility study, cited in Hodge 1998: 9).

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'The MFP has finally landed. What began life as a sci-fi Japanese satellite technocity turns out to be something much less sinister – a friendly village-style housing development with a comfortable green, technological edge.' (*The Advertiser* 30 October 1996: 17).

The August 1997 announcement by South Australian Premier John Olsen that the MFP Development Corporation was to be replaced with a body to promote development in the Adelaide city centre completed a decade of debate over the merits of the Multi-function Polis (MFP) initiative (Abraham 1997; Kelton 1997). The 1980s idea of creating a series of high tech villages 12 kilometres from the city centre had attracted interest, been selected as the national MFP site, yet failed to be implemented. The explanation for this outcome is found partly in the differences in the relations among political and economic interests in Japan and Australia and partly in the different objectives of local and international actors.

Investment in high technology industries and research and development activities is typically concentrated in the largest cities at the top of the urban hierarchy (Castells and Hall 1994). In the case of Australia, Sydney and Melbourne have the greatest concentration of high tech industry and research workers. Initiatives to create new high tech centres beyond the largest cities, such as the Tsukuba and Kansai Science Cities or the regional technopolises in Japan, require substantial investment from government. Differences in the role of government investment and its links to private investment in Japan and Australia could affect the outcome of a project which is suggested by one country for implementation in another. The interaction between local and international actors is important and changes over time may alter the direction of the project.

The contrast between international and local objectives also highlights the opposing evaluations of the MFP. From the international and national perspective, large scale international investment is a priority. However, at the local level a degraded urban environment needed to be renovated before new residential development could proceed to meet local environmental and social objectives. The 1996 announcement of the development of Mawson Lakes as the A\$850 million first phase of the MFP urban development completed the transformation of the MFP from an international concept in 1987 to local reality in 1997 (MFP 1996, 1997a, 1997b).

This paper examines how an international proposal for a high tech city of the Pacific was transformed to meet the social and environmental objectives of local residents. The interac-

tion between international and domestic politics has received increased attention and is considered important as countries around the Pacific Rim interact in a wide variety of local contexts. Many urban mega-projects were initiated in the 1980s and evaluations in the 1990s demonstrate great differences in the level of investment and implementation achieved (Olds 1995: 1713–43). The Multi-function Polis (renamed MFP Adelaide, then MFP Australia, or simply MFP) was developed by the MFP Development Corporation in South Australia. It illustrates one set of interactions between international and domestic politics as the Japanese initiative became transformed when it was located in a particular Australian setting.

### **Analytical framework**

The analysis of agreements between two countries typically focuses on the policies and positions of the two national governments involved. International relations scholars thus focus on nation states as the most important unit of analysis. The realist model of international relations depicts unitary and rational national actors negotiating in their own self-interest. This model has been criticised as inadequate to explain the success or failure of negotiations without recognition of domestic structures and processes (Mayer 1992: 793–818). To overcome this limitation a revised model has been constructed to depict two levels of bargaining: an international level of negotiation and a domestic level (Putnam 1988: 427–60). Most scholars assume that international politics are more influential than domestic politics and that international actors are able to exert pressures to achieve their desired outcome at the local level. National governments are able to use international treaty powers and the distribution of tax revenue to achieve many of their objectives. However, state and city governments are also able to shape domestic politics, including decisions to support or prevent projects advocated by national governments. For example, the siting of nuclear power stations in Japan faced severe local opposition which prevented several new sites from becoming available. The more general NIMBY (not-in-my-back-yard) attitude has been found in many studies. Conversely, some researchers have found that state or city level governments have been able to use international politics to their advantage as other countries join in the promotion of projects which are advantageous to the particular state or city. In these cases, cities or states may gain additional financial resources from national government and increase their domestic profile and bargaining power as a result of local support for the project (Christoffersen 1994: 513–22).

The emphasis on models of negotiation ignores the more challenging problem of explaining the success or failure of implementation once agreements are reached. New agreements are often interpreted as demonstrations of shared objectives among the parties and as mechanisms for international cooperation to result. In contrast, others point to the limitations facing the implementation of agreements and argue that uncertainty over national policies, centre-periphery relations within the country, and the availability of resources will result in much smaller achievements than initially expected. Recent reviews of proposals for development in Far East Russia and the Tumen Basin of North East Asia illustrate these opposing interpretations as Marton et al. and Christoffersen highlight the progress achieved while Linge emphasises the constraints Marton, McGee and Paterson 1995: 8–33; Christoffersen 1994; Linge 1992: 125–41). The MFP proposal stimulated a similar range of initial evaluations with Edgington (1990), Castells and Hall (1994), and Yencken (1989) pointing to the potential of the new urban form while Harwood (1990: 8–9), James (1990), Moer and Sugimoto (1990), and Smith (1990, 1991) highlight the negative impacts that could result. The actual performance of MFP Australia over its decade (1987–97) of planning and initiation will be examined in this paper.

The evaluation of Pacific Rim urban mega-projects where large tracts of low value urban land were (re)developed for a higher density mixture of commercial, residential, retail, industrial, leisure and infrastructure uses by Olds found that local level governments generally supported such proposals (Olds 1995: 1719). The reasons for this support included the expected benefits from inward investment, the opportunity to regenerate the city and the symbolic role of the project as an indicator of a robust local and regional economy. If a local or state government found that such a project was not likely to proceed because of reduced interest by the national government, then the local and state governments might be expected to increase their involvement to ensure that the project went ahead. MFP Australia will be examined to monitor the respective roles of the national and state governments.

MFP Australia illustrates how an international proposal can be transformed as it shifts from international initiation to being implemented at the domestic political level. Despite the international support for the project, the state and local context is argued to be important in transforming the project from its initial priorities in the 1980s to the actual projects undertaken in the 1990s. The changed emphasis is highlighted by contrasting two phases in the evolution of the project. The first phase (1987–91) consisted of support by national and international actors, competition among state governments and strong local opposition when a site was selected. In the second phase (1992–96), support waned at the national and



international level as the project became a low priority in the recession of the early 1990s and Asian direct investment increasingly went to other Asian countries instead of to Australia. In contrast, state and local support grew and the project was transformed to more closely match local concerns over social integration and environmental rehabilitation. By 1994 MFP Australia proclaimed itself as 'A community initiative to build a better future for our children' (MFP Australia 1994). This paper explores the process of how an externally initiated proposal changed to reflect local objectives and thus resulted in conflicting evaluations of its success.

## **Context**

The Japanese government promoted several high tech urban initiatives in the late 1970s and 1980s, including: dormitory cities, industrial new towns, science cities, technopolises, teleport centers and private multifunction developments (Morris-Suzuki 1990a: 178–91, 1990b: 67–78; Yenken 1989: 11). To facilitate private investment in new industries, the national and prefectural governments typically provided public infrastructure. This practice was well established and in 1980 the government decided to target high tech industries with a Technopolis program to establish a series of 26 high tech cities throughout Japan. The program envisioned the formation of a satellite city of 50,000 which would integrate the formerly diverse elements of R&D, educational facilities and production facilities for high technology industry and a high quality housing area near a mother city of over 200,000 population (Edgington 1983: 6–8; Tatsuno 1986). MFP Australia could be perceived as an extension of Japanese domestic development initiatives into the international arena with a new urban centre of 30,000 to 50,000 expected to be created near an established Australian city where urban infrastructure was available.

In January 1987 Mr. Hajime Tamura, the Japanese Minister for International Trade and Industry (MITI), suggested to Senator John Button, the Australian Minister for Industry, Technology and Commerce that a high tech, 'high touch' city for the 21st century be established in Australia (MITI 1987). The Australian federal government viewed this as an opportunity to achieve structural change in the Australian economy, to develop internationally competitive export industries through the expansion of its research and technology base and to explore opportunities for new service industries to meet Pacific Rim needs. In return the Japanese government was believed to want access to international research, extended exposure to an English-speaking culture, international business exposure, the application of

technology to lifestyle or 'high touch' industries and new experiments in urban development. The objectives for the new urban centre, or Multi-function Polis (MFP), were thus established with no connection to a particular place. A high tech city of the 21st century was envisioned and a block of land was sought to locate it on.

The aim of this project is for Japan and Australia, located at the northern and southernmost edges of the Pacific Rim, to cooperate in the construction of a multifunctional 'City of the Future' which would present new ideas for new industry and life in the 21st century while serving as a center for cultural and technological exchange in the Pacific. (MITI 1987: 26)

In Australia, four of the six state governments responded to the MFP proposal with bids for the MFP to be located in their state. The South Australian proposal was selected in 1990 with its core site of 1840 hectares largely owned by government and thus available for development without fear of speculative land prices. The site was only 12 kilometers from the central business district of Adelaide and could use existing urban infrastructure such as the international airport. Adelaide, with its population of 1.2 million, could act as the 'mother city' for the new proposal and thus offered an opportunity to create a technopolis in Australia. However, the Gillman/Dry Creek site chosen for the MFP in Adelaide posed its own set of constraints and opportunities. The objectives represented by the MFP proposal did not match those of local residents, as demonstrated during its first phase of operation.

## **Phase I (1987–91)**

### ***International and national promotion***

The evolution of the MFP proposal can be divided into two distinct phases: the initial phase (1987–91) of national and international promotion versus strong local opposition and the second phase (1992–96) of national and international ambivalence versus state and local promotion. The list of major events from the initial MFP proposal in January 1987 to the selection of the site and renaming of the project are presented in Table 1. The MFP started as a bilateral agreement on objectives prepared by the Japanese and Australian governments which then served as a basis for a feasibility study. Ministerial discussions in January and

February 1987 were followed with discussions and proposals prepared by Japanese and Australian government officials (MITI 1987). A set of principles was agreed in January 1988 to form the basis for the joint feasibility study and to set the framework for participation by corporate partners and potential investors.

**Table 1 Chronology of phase I MFP events, 1987–91**

1987	January	Multifunction Polis proposed by MITI
1987	September	MFP concept report sent to Australia
1988	January	Australia and Japan agree to conduct a joint feasibility study
1988	July	national steering committees established to oversee investigation
1989	December	Joint Feasibility Study presented
1990		International Advisory Board meets
1990	July	Joint Steering Committee Final Report
1990	August	MFP Adelaide Management Board formed
1991	May	Management Board concludes site can be developed on a commercial basis
1991	July	Australian and South Australian governments announce – project to go-ahead
1991	November	name change to MFP Australia

*Sources:* MITI 1987, Yencken 1989, McCormack 1990, SAOPUD 1992.

A Joint Steering Committee with two national steering committees was established in July 1988 to oversee an investigation into the feasibility of the proposed development. The Japanese Domestic Committee had a membership of 86 companies including some of the largest firms in Japan (McCormack 1990: 129). The Australian Domestic Committee had a similar size with 84 members, including 62 companies, which paid a membership fee of A\$10,000 each (Yencken 1989: 261). In July 1990 the Joint Steering Committee reported that there was merit in the MFP development (SAOPUD 1992: 1). A sensitive issue in Australia was that the project be truly international in scope and not simply a Japanese investment project. An International Advisory Board was formed with two members from Australia and Japan and one member from Germany, the Republic of Korea, Sweden, Taiwan, Thailand, the United Kingdom and the United States. The Board served to promote the MFP internationally and to bring international expertise to the project.

Following the selection of the Adelaide site, a site feasibility study was undertaken to evaluate the potential offered by the site and to undertake more community consultation at both

the national and local level. The MFP Adelaide Management Board was formed with the chair and deputy chair being business representatives and other members drawn from a major bank, a transport company, a consulting firm, the Commonwealth Scientific and Industrial Research Organization (CSIRO), the United Trades and Labour Council, the federal Department of Industry, Technology and Commerce, the South Australian Department of Premier and Cabinet and the South Australian Council of Social Services. In each case, the head of the organization was appointed to the board. When the site feasibility study was complete, the Board recommended that the project proceed and that a more detailed environmental evaluation be undertaken. The federal government wanted to maintain a national profile for the project and in November 1991 changed the name of the project from MFP Adelaide to MFP Australia. Despite the national and international promotion of the project, not all groups supported the MFP.

### ***Local opposition***

When they learned that the MFP was to be located on the Gillman site in Adelaide, some Adelaide residents rejected the proposal outright. This opposition was articulated by a variety of community groups and two Adelaide academics, Harwood (1990a–g) and Smith (1990, 1991). This local opposition was recognized by the MFP Community Consultation Panel. The Panel concluded that community views support the national concept based on its international linkages, the enhancement of Australia's international competitiveness and the promotion of an innovative culture, yet held serious objections to the MFP-Adelaide urban development. Despite the economic, environmental and social opportunities promised, the primary objections were the inappropriateness of an advanced technology approach for the development of human values, the MFP contribution to population pressures and environmental risks, the ecological unsustainability of the project, the contribution to an increasing dominance of the Australian economy by multinational corporations and foreign investment, and the diversion of scarce resources and increasing pressure on the economy by the pursuit of elitist enclave developments (MFPACCP 1991: 1).

Despite the efforts of the Community Consultation Panel to address social issues, the timing of events implied that community issues were of little importance. The Community Consultation Panel presented its report in August 1991 after allowing community groups an opportunity to react to the feasibility study completed in May. However, in July the state and

federal governments announced the go-ahead of the project with an initial budget of A\$12 million (Smith 1992: 5).

In addition, the conclusion of the Panel that the majority of the community saw the project as acceptable and that it should proceed was challenged by Smith. A motion to reject the MFP was put forward and seconded at a public meeting of the Community Consultation Panel in Adelaide, but the chair did not allow a vote to be taken, or recognize the impromptu stand up vote by many of those present. Radio show polls also indicated a strong negative reaction against the MFP (Smith 1992: 5). Even the submissions to the Panel can be interpreted in two ways.

The Parks Residents' Environmental Action Group approaches the suitability of the Gillman site with some trepidation. The site is sorely degraded and polluted to a life endangering level. However, the Multi-Function Polis may be the local resident's one hope of having the Gillman site's problems addressed. Within our noted reservations, we, the residents, albeit guardedly, give our qualified support to the proposed site. (MFPACCP 1991: 20)

As demonstrated by the local environmental group quoted above, many of the submissions supported the MFP provided that certain conditions were met. The Panel recognized this support and made recommendations to meet many of the conditions. In contrast, Smith regarded the submissions as rejections of the MFP because the conditions could not be met. Clearly, further consideration is needed to clarify some of the environmental and social issues surrounding the proposed MFP.

### ***Environmental issues***

Environmental suitability became a focal point of the MFP debate. The 1840 hectare Gillman/Dry Creek site consisted largely of low lying, former saltmarsh located behind levee banks. Part of the area was a major stormwater retention basin for metropolitan Adelaide and was periodically inundated with stormwater. Other portions of the site operated as a landfill operation and a rifle range. The Dry Creek area was used as evaporation basins for salt harvesting (700 hectares) and as stock paddocks. Major electricity lines, gas and brine pipelines crossed the site. The area adjoins environmentally sensitive estuarine and marine environ-

ments of the Port Adelaide, North Arm and Barker Inlet with associated extensive colonies of saltmarsh and mangrove vegetation to the north and east. These are economically important to the South Australian fishing industry as a major breeding ground. The habitat is also important for some migratory bird species which are protected by international treaties (SAOPUD 1992).

The need to rectify the environmental damage already inflicted on the Gillman site presented both a problem and an opportunity. The problem was that the site appeared unattractive and it was perceived to be hard to attract investors to a 'wasteland'. However, the problems of renovating damaged urban environments are worldwide, so the successful restoration of environmental quality on the site could demonstrate innovative environmental management and restoration services and expertise which could be exported.

Environmental management had been identified as one of the growth industries of the 1990s and was selected in the 1991 feasibility study as one of the three sectors to target for MFP initiatives (Little 1992). As a result, the problems on the site created opportunities to demonstrate environmental rehabilitation expertise. One of the principal strategies proposed was to excavate lakes on the site to provide stormwater retention areas and to use the fill to construct urban village platforms for residential, industrial and commercial use. The proposed allocation of the total 1840 hectares by land use was: 43% urban, 23% lakes and canals, 34% open space/urban forest (SAOPUD 1992: 8).

The July 1991 decision by state and federal governments that the project should go-ahead meant that a more detailed environmental impact study was required. The formal environmental impact assessment procedure examined many of the issues raised in earlier debates including: geotechnical uncertainty, groundwater and water quality, public health and air quality, biological environment, social impacts, transport needs, economic issues, infrastructure requirements, waste disposal, management of the site, and the desirability of alternative sites. Despite the limitations of evaluating a concept plan with general rather than specific data on what firms and processes would be located on the site, the Office of Planning and Urban Development concluded that the major potential environmental impacts identified can be managed (SAOPUD 1992: 8).

### *Social issues*

Social issues received attention from the first proposal of the MFP. Parallel studies were undertaken on the feasibility of the proposal and the social issues being raised. While consultants Andersen and Kinhill were preparing the feasibility study, Prof. Yencken undertook the social issues study. The study was constrained by the general nature of the proposal, but it served to identify many of the social issues (secrecy, creation of enclaves, reallocation of scarce resources for service provision, etc.) which remained important during the further development of the proposal (Yencken 1989).

When the Adelaide site was chosen and a site feasibility study undertaken, the Community Consultation Panel was established. Their mandate was: to facilitate informed community debate on the MFP-Adelaide project and to undertake a joint program of community consultation in collaboration with State and Territorial governments. Recognizing the sensitivity of social and environmental issues, the Panel commissioned the peak social and environmental organizations in the state, the South Australian Council of Social Service (SACOSS) and the Conservation Council of South Australia to prepare consultant reports documenting their evaluation of the proposal. An extensive contact list of individuals and organizations was developed and 7000 information packages distributed. Submissions were invited from interested organizations and individuals with 145 being received by March 1991 (MFPACCP 1991). A further round of submissions was invited following the presentation of the site feasibility study in May 1991. At each stage, a few issues generated a high degree of social concern.

The creation of social enclaves was a major issue raised in response to the MFP proposal (Sugimoto 1990: 125–31). The initial concern was raised by the suggestion in the 1989 Andersen/Kinhill feasibility study that foreign residents could account for 80 percent of the MFP population. Some of these fears were dispelled by later estimates that foreign residents would amount to only 20 percent of the MFP population, similar to that of Adelaide as a whole (MFPACCP 1991: 28). The initial fears were fuelled by previous proposals that Japanese retirement villages be established in Australia where elderly Japanese could retire to enjoy the warm climate. These 'Silver City' proposals were rejected in both Australia and Japan, but some observers suggested that the MFP was another version of the retirement village proposal.

More widespread and substantial concerns were raised about the possible formation of enclaves of technocrats, academics or knowledge workers which had little in common with the blue collar and low income community living adjacent to the MFP site (Van Moorst 1990: 135–43; MFP PACCP 1991: 29). Elitism was seen as contrary to Australian egalitarianism and a cause of further social polarization of already disadvantaged groups. The possibility of elitism was identified as ‘one of the churches’ greatest concerns’ (MFPACCP 1991). This view was echoed by dozens of other groups and individuals that made submissions during the review procedure.

Issues of social and economic inequity were highlighted not only because of the fear of enclave formation, but because of the contrasting images of the proposed MFP and the reality of the adjacent urban area. The Gillman site was adjacent to Port Adelaide and The Parks communities which were considered to be the lower income and more socially disadvantaged districts of the Adelaide metropolitan area. Unemployment rates were higher and income levels lower than the metropolitan average. Concerns were raised about employment opportunities. There were fears that a dual labor market would form with a core of well paid and secure workers living and working in the MFP while others received low pay and had little job security.

Social housing accounted for 21 percent of the dwellings in Port Adelaide (west of Gillman) and 50 percent of those in the adjacent Parks district (south of Gillman) (SAOPUD 1992: 23–24). A report to the Adelaide Planning Review stated that this district contained some of the most run-down housing in the metropolitan area. The growth generated by the MFP could further disadvantage the poorer residents in neighbouring areas because the demand for housing would rise and rents could increase as private owners responded to new demand. The result would be the effective displacement of existing residents by new residents. Company housing could be provided during the development phase, but this would restrict social mix objectives to integrate the groups. Affordable housing thus remained a major concern among local community groups. Service provision in the adjacent communities was regarded as low and the high level of services envisaged for MFP residential areas raised urgent questions over access and inequality.

Community groups also wanted to participate in the planning of the MFP rather than simply have plans presented to them in a complete form. Consultation after the plans were prepared was considered inadequate and participation in the process was desired.



## Phase II (1992–96)

### *National and international ambivalence*

The second phase (1992–96) of MFP development was characterised by increased state and local promotion of the project and reduced national and international interest (Table 2). The Australian federal government continued its A\$4 million per annum contribution to MFP operations from 1992 to 1996, but the initiative was clearly a low priority as no location specific grants were to be given to support MFP Australia. This contrasts with large federal or national investments in such projects in Japan or other Asian countries. Instead, project and infrastructure funding would have to come from existing programs, such as the Building Better Cities program

**Table 2 Chronology of phase II MFP events, 1992–96**

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1992	May	MFP Development Act passed by the South Australian government
1992	May	MFP Development Corporation established
1992	May	Community Advisory Committee established
1993	June	first permanent CEO appointed
1993	July	Technology Park and Science Park transferred to MFP Development Corporation
1993–94		Port Community Arts and Transport project
1994		New Haven Village housing construction commences
1994		wetland earthworks construction commences
1996		federal government announces end of federal funding
1996	October	SA Cabinet approves Phase One urban development (Mawson Lakes)

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*Sources:* MFP 1994; MFP 1996; MFP 1997.

Similarly, the list of high profile companies which had become members of the Australian and Japanese Domestic Committees had not invested in new facilities at the MFP site. The 1992 report released by the trade mission of Japanese business leaders who had toured Australia in December 1991 was concerned about the lack of information about the sort of infrastructure and incentives that would be provided at the Gillman site in Adelaide (Franklin 1992: 15). In contrast, two Japanese manufacturing firms had recently chosen Melbourne as the location for their Australian manufacturing operations. The lack of action at the Adelaide site resulted

in the whole initiative fading from public attention. The rapid rise in Japanese investment in Australia during the 1980s may have contributed to interest in the MFP, but the decline in such investment in the 1990s reduced the opportunities for external investment to be attracted to the MFP. Increasingly Japanese and other international firms were selecting Asia for the location of manufacturing investment. Investment in overseas research and development functions by Japanese firms was concentrated in the United States and Europe rather than Australia. In addition, the announcements by Motorola and EDS to invest in new information technology projects at MFP Australia's Technology Park were largely the result of state initiatives (MFP Australia 1994). The subsequent EDS decision to locate in the core of Adelaide instead of Technology Park further tarnished the image of the MFP as an attractive site for international investment (Coorey 1996: 2).

The highest profile cut to the MFP came in 1996 when the Coalition of Liberal and National Parties was elected as the new Australian federal government on a platform of fiscal restraint and they cut the federal contribution to the MFP budget. Federal bureaucrats had advised a reduced federal role with the 1996 evaluation by the Bureau of Industry Economics recommending that MFP Australia become a 'Commonwealth-endorsed State project' (BIE 1996: xiv). Specific MFP funding was to be phased out, with the project to remain eligible for federal funding under relevant programs. The International Advisory Board was disbanded when the federal funding was cancelled. This period of ambivalence and decline on the part of national and international actors contrasts with efforts at the state and city level.

### ***State and local promotion***

The key actor in the promotion of MFP Australia during the 1992–96 period was the state government of South Australia. The state support was symbolised by the MFP Development Act, 1992, which established the MFP Development Corporation to undertake the proposed development and the Community Advisory Council to facilitate input from community representatives. The newly enacted MFP Development Corporation integrated the MFP Gillman/Dry Creek site with two other high tech initiatives in the state (Technology Park and Science Park) to avoid duplication and to improve coordination among the sites. The MFP site thus expanded eastward from the Gillman/Dry Creek site to encompass the Greater Levels site which included the South Australian Technology Park adjacent to the Levels campus of the University of South Australia. Technology Park instantly gave the MFP a list of

approximately 50 tenants as it was the oldest research park in Australia and one of the most successful (MFP Australia 1994). The continued success of Technology Park was indicated by its first place ranking in a 1997 corporate location survey comparing the 18 technology and science parks in Australia (*The Australian* 1997). The expansion of MFP interests also included the smaller Science Park located adjacent to Flinders University in southern Adelaide. The expansion of the MFP site and the merger of three high tech initiatives redirected a large proportion of MFP activities to the Greater Levels site at Technology Park and away from the controversial Gillman site.

The debate over whether the MFP would benefit or harm local residents is best resolved by identifying and evaluating those projects which actually went ahead. As demonstrated by the long list of environmental projects supported by MFP Australia in 1995 (Table 3), there was no shortage of issues to address. However, many projects remained at the study phase and it is worthwhile paying attention to the major projects which proceeded to construction by the mid 1990s.

### ***Barker inlet wetlands***

The environmental remediation objectives of the MFP were highlighted by the major projects undertaken in the mid 1990s. The Barker Inlet Wetlands project was designed to capture and purify stormwater before its entry into the sensitive estuarine environment. The project was jointly funded by Commonwealth and State governments through the 'Building Better Cities' program. The total cost of the project was A\$9 million with the major earthworks contract accounting for A\$6 million (MFP Australia 1994: 4). The City of Salisbury was the project manager and a larger group of seven local councils, six State Government authorities, two consultants and MFP Australia formed the Barker Inlet Catchment Liaison Group to address stormwater quality in the upper catchment before it reached the new lakes on the Gillman site.

Ultimately, wetlands are planned to cover 172 hectares of low lying saltmarsh and reclaimed land on the MFP site and to extend 5 kilometers across the northern portion of the MFP site from Barker Inlet to the Greenfield Wetland established in 1989 at junction of Wakefield Road and Salisbury Highway. The series of wetlands will act as a flood control mechanism and a natural filter for approximately 30 per cent of metropolitan Adelaide's stormwater. It is designed to minimize the environmental damage caused by untreated urban

**Table 3 MFP environmental projects, 1995**

Project title	Status January 1995
Environmental management plan	plan complete
Environmental induction program and handbooks	complete
Conservation zone project - extension of mangrove habitat	feasibility study
Revegetation - perimeter and habitat formation	planned for future
Baseline flora and fauna studies (computerised)	proposed for 1995
Landscape buffer adjacent to berth 29	design complete, project on hold
Gillman remediation and tyre removal	ongoing
Barker Inlet Wetlands	earthworks construction
Magazine Creek Wetland	design stage
The Range Wetland	design stage
Upper catchment management	ongoing
Eco-tourism feasibility study	conclusion - not commercial
Garden Island landfill rehabilitation	draft plan complete
Improvement of solid waste management	plan started
Dean Rifle Range Remediation	preliminary investigation
MFP Services Company Consortium (environmental services) urban waste recycling and utilities provision	feasibility study complete
Virginia Pipeline Scheme	feasibility study complete
CSIRO urban water systems research	draft report
Biomass energy study - CSIRO/MITI partners	study underway
Global atmospheric research (Australia-Japan partners)	active research
SA Centre of Excellence in Cleaner (Food) Production Centre in Water Management	initial liaison plan complete
International Environmental Centre (ICLEI/NEPA)	proposal on hold
Patawalonga water quality advice	review underway
Mosquito control program - test biological control	active
Le Fevre Water Reuse Project	conclusion - not commercial
Estuary and lakes water movement and quality model	testing complete
Earthworks trials and geotechnical testing	monitoring continues
Imported fill options and resource recovery depot	discussion paper complete
Gillman/Dry Creek levee maintenance	ongoing coordination
Pelican Point levee maintenance	ongoing maintenance

Source: MFP Environment Division, Project list, (1995) unpublished.

stormwater and industrial run-off flowing directly into Barker Inlet, an important wildlife haven and fish nursery which includes one of the world's most southerly stands of mangroves (MFP

Australia 1994: 12). The chain of wetlands was also expected to add visual and recreational amenity, to lift surrounding land values and to contribute to future urban development at Gillman. MFP Australia reported that the project had attracted attention and inquiries from countries interested in innovative environmental engineering.

### ***Virginia pipeline scheme***

Another major project planned for construction in the mid 1990s was the Virginia Pipeline Scheme. It was devised to divert treated wastewater from Adelaide's major sewage works at Bolivar and to avoid the associated harmful discharge of wastewater at sea by directing it to productive use in horticulture. The project thus offered benefits to both marine and terrestrial habitats. An A\$40 million pipeline was to be built from the Bolivar Sewage Treatment Works to the Virginia Vegetable Triangle located 14 kilometers to the north. Crop irrigation in the triangle was estimated to be depleting the aquifer at three times its rate of replenishment. The project was designed to demonstrate the use of aquifers for temporary storage and subsequent reuse of wastewater. The South Australia Centre for Economic Studies estimated the value of project benefits at A\$40–60 million. The Commonwealth Building Better Cities program was expected to provide A\$10.8 million for the project (MFP Australia 1994: 18).

### ***New Haven village***

Social integration became a high priority for MFP planners to overcome the fears of exclusion and enclave formation raised in earlier discussions (Hodge 1996: 7). The social objective to integrate MFP activities with the established community was reinforced by the poor environmental condition of the Gillman site, so the first MFP-related housing project, the New Haven Village, was located in the adjacent community of Port Adelaide. A two hectare site suitable for urban infilling was identified and a national competition held to promote innovative social and environmental designs: the 1993 BHP–MFP National Housing and Urban Design Competition. The Woods Bagot design was selected from the 85 submissions (MFP Australia 1994: 10). Development was coordinated by the South Australian Housing Trust with the private builders, Alpine Constructions, Ian Wood Homes and R.F. Harding Homes undertaking the construction of 65 homes on the two hectare site. The project had an extensive range of social and environmental objectives and standards (Table 4). Housing was to be affordable with prices under A\$120,000. The environmental impacts of residential

development were to be reduced through the use of several innovative technologies and designs (underground watering, in-ground heat pumps, solar water heating, passive climate control designs, etc.) to cut water and reticulated energy consumption by 30 per cent. Construction began in 1994 and the first families had moved in by 1996. Although promoters emphasized the environmental attributes of the development, most new residents were attracted by the affordable house prices and lower utility bills (Hodge 1966: 6).

**Table 4 New Haven village key features**

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Passive solar orientation for at least 75% of dwellings
House and land package cost under \$120,000
Household reticulated energy use reduced by 30%
Up to 30% household energy supplied by renewables
Banks support green mortgage options – solar hot water, geothermal heating/cooling
Household CO2 emissions reduced by 3 tonnes p.a.
Household water reduced by 30%
Sewerage treated on site and 75% of stormwater retained
Created water used for toilets and irrigation
Cars per household reduced by 20%
Foot/bicycle trips to rise from 10 to 25% of total trips
Garbage reduced to one small bin
Promote 5 and 6 star rated major energy consuming appliances
Remote reading of meters by utilities
High efficiency, low energy street lights
Construction uses ‘sludge’ bricks made of recycled effluent and clay
Service corridor reduced to 6.8 metres from traditional 12.4 metre roadway
Hi-tech underground dripper system for irrigation

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*Sources:* SAHT (South Australian Housing Trust) New Haven Village. pamphlet. 1994; MFP Australia. *The face of our Future: MFP Australia Annual Review 1993–94* (Adelaide: 1994).

## **Phase I Urban development: Mawson lakes**

Incorporating some of the technologies and design features trialed at the two hectare New Haven project, the Mawson Lakes Technology Village was to be built on the Greater Levels extension of the MFP at and around Technology Park (MFP 1996). The pre-feasibility study was completed

and then endorsed by MFP Board in May 1994. In 1995 the Delfin Lend Lease Consortium was chosen initially to prepare the design and business plan and then as a joint venture partner for the urban development project. The business plan called for the construction of 3700 residential dwellings and 120,000 square meters of commercial floor space over a ten year period (MFP 1996; BIE 1996: 18). Excavation of the urban lakes for the Mawson Lakes development began in July 1997. Knowledge-based investment was expected to create 4500 jobs on site over 10 years. Key features of the development included the integration of residential, commercial, industrial, educational and recreational land uses (Table 5). The objective was to create a model urban development with reduced environmental impacts and enhanced information and telecommunications technology. The list of innovations incorporated in the project to achieve its environmental, social and technological objectives are presented in Table 6. The Mawson Lakes urban development also offered the opportunity to achieve higher density urban development by filling in an underused area within the city as an alternative to the continued suburban expansion on the edge of the Adelaide metropolitan area.

**Table 5 Mawson lakes urban development key features**

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*Progressive development over a 620ha site*

Construction planned over 10–12 years (1997 to 2010)

3,700 dwellings when completed (10,000 people)

160 dwellings in first village (7 ha)

Salisbury Council committed \$4.7 million for roads, drainage and other infrastructure

Integration with University of South Australia Levels campus (5,000 students by year 2000)

Integration with the companies and facilities of MFP Technology Park

Quadruple the commercial space at MFP Technology Park to 160,000 m<sup>2</sup>

4500 permanent new jobs generated in high-technology and knowledge based industries

Focus on the physical and social development objectives of the MFP Development Act

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*Source:* MFP 1996 ‘MFP Smart City Go-Ahead’ Media Release, 28 October.

Overall, the projects underway in the mid 1990s are more oriented toward meeting local social and environmental needs than the abstract high tech city proposed in 1987. Affordable housing with reduced environmental impacts, stormwater treatment, and habitat creation

projects each offer local benefits. The reasons for this transformation and the associated institutional changes need to be considered.

## **Discussion**

If the MFP is about trying to build an innovative, ultra-modern extension to Adelaide, providing the best urban environment for attracting good people and assisting them to create the wealth generating industries which justify the original public investment, it is entirely in keeping with our history. (Chapman 1994: 18)

This opening sentence to an article in the Adelaide Review represents qualified support for MFP Australia. A similar position was adopted by Hamnett in his review of the work by Castells and Hall on the MFP and other technopoles around the world (Chapman 1994: 18; Hamnett 1994: 9). This sympathetic attitude in the local media contrasted with the strong opposition being voiced in the same paper in a series of articles by Harwood in 1990. If these views are representative of the local community, how was this change in local attitudes achieved?

Many factors contributed to changed attitudes. The perception that MFP Australia was a large foreign project about to land on an unsuspecting part of Australia eased as the economic boom of the late 1980s turned to the recession of the early 1990s and no foreign investment materialized. In particular, new Japanese investment in Australia declined from its peak in the late 1980s as a larger share of investment went to North America and East Asia instead (Edgington 1990). The recession also increased Australian interest in projects with the potential to create jobs. The change in state government was potentially damaging, but the Liberal Party which had been very critical of the MFP when in opposition became supportive of the project when they gained power in the state legislature. The expansion of the MFP beyond the Gillman site served to dissipate the opposition that was site based. Selected community projects were undertaken to promote links between the community and the MFP. Finally, changes were made in MFP structures themselves.

The structures for local input changed from a top-down, elitist approach which relied on consultation to identify the aspects of pre-determined proposals which raised local opposition, to new structures which allowed greater community participation in the planning process. The



**Table 6 Mawson lakes urban development innovations**


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Total water cycle management, including aquifer recharge, stormwater and sewage re-use
Water management system including lakes, wetlands and water re-use
50% less metered water to the site
Advanced energy saving and environmental systems in residential and commercial buildings
A cogeneration plant serving town centre with optional extension to commercial area
30% less energy required by dwellings in community
Innovative transport systems – efficient internal system linked to Northern Adelaide system
Integrated pedestrian and cycle path network linked to surrounding community
Strong community identity by overall community layout and links to surrounding areas
Site-wide broadband, LAN, video conferencing, high speed data and mobile IT services
Business information access services with full service business network
‘Smart buildings’ with advanced IT&T services in all buildings
Electronic community information, advanced computer access and facilities
Online delivery of health and emergency service information
Advanced integrated education facilities linking business, university and the community

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*Source:* MFP 1996 ‘MFP Smart City Go-Ahead’ Media Release. 28 October.

Social Issues study and the Community Consultation Panel both identified sensitive social issues, but both failed to gain local approval as the approach had been considered secretive and elitist. An institutional mechanism to replace consultation after plans had been prepared with participation in the process was the Community Advisory Council established under the MFP Development Act to ‘form a key element in the network of linkages which the Development Corporation will need with the surrounding and wider Adelaide communities’ (MFPACCP 1991: 48).

The establishment of the Community Advisory Council was to provide a new means of local involvement with representatives from five named organizations (Conservation Council of South Australia, South Australia Council of Social Services, Local Government Association of South Australia, United Trades and Labor Council of South Australia and the Chamber of Commerce and Industry of South Australia Inc) and three others with expertise in environmental health, education and local community interests (South Australia Parliament 1992). The Council reports directly to the Minister for Industry as the designate of the Premier. This ensures high level reporting of community issues, but because the structure is external to the MFP Development Corporation, additional links needed to be established and maintained

between the two structures to enable information to flow between the commercial and community organizations. The creation of these formal and informal links between Council members and MFP staff started in 1994 (Gould 1995). Concerns were raised about the delays in appointing Council members, however, by 1995 there was optimism that the new structures would provide for greater community involvement than in the past (MFP 1995). Local involvement also increased as representatives from local universities and institutions gained positions on decisionmaking bodies, including the MFP Board and its working groups.

In March 1997 the MFP Development Corporation was restructured to further integrate the corporation with development related branches of the South Australian government. The corporation was expanded to include the Urban Projects Authority along with the strategic planning and development units from the former Department of Information Industries and SA Tourism Commission (MFP 1997). The closure of the federal government's MFP office and the disbanding of the International Advisory Board further emphasised the shift away from Japanese ideas and the original international focus of the MFP. However, not all international links were severed. The MFP Development Corporation signed a memorandum of understanding with Joint Venture: Silicon Valley and hired Collaborative Economics (a Stanford Research Institute affiliate) to facilitate MFP development by adopting the Silicon Valley model of development based on clusters of innovative firms. These Silicon Valley links were further strengthened by the MFP Development Corporation becoming the first international member of the Bay Area Multimedia Technology Alliance (MFP Development Corporation 1996). These changes highlight the central role of the state government in the continued promotion of the project and the reduced role of the national and international partners envisaged in 1987.

The anticipated size of the MFP was reduced to match its local emphasis. Instead of being the A\$9500 million manufacturing, leisure and retirement city with a population of 250,000 as suggested in 1987, or the series of villages of 10,000 population proposed for rapid succession in 1990, the development of Mawson Lakes was expected to take 10 years and result in a new urban area with a total population of 10,000 (Jory 1987: 1; MFP 1996, 1997). This slower pace and smaller scale of development also served to overcome some of the social and environmental fears initially raised by opponents to the project.

The shift in MFP focus to local rather than international interests also made it more vulnerable to changes in local political perceptions. The state government had control over the MFP Development Corporation and expanded the role of the corporation to promote high tech

development throughout the Adelaide urban area in early 1997. However, the lack of rapid growth in Adelaide increased pressure for the government to take action. Rather than continue to operate under the MFP banner with its political history of local opposition and failed attraction of international investment, the government decided in August 1997 to shift the focus of its development strategy to the core of the city, to abandon the MFP name and to rename the MFP Development Corporation. The future of the MFP urban development thus depends on the private partners proceeding with Mawson Lakes and the local demand for the housing offered. Assessments of the implications of the development range from the pessimistic forecast of the long term depression of the north Adelaide property market through the supply of additional housing stock at a time of weak demand to the optimistic forecast of increased economic activity in the MFP urban development to rival the state's automobile industry in importance (Altman 1996: 5; Starick 1995).

## **Conclusion**

MFP Australia demonstrates the substantial transformation that can occur between the creation of an international agreement between two Pacific partners and its implementation at the local level. The initial objectives of Australia and Japan to create a model Pacific city for the exchange of technology and culture were not achieved during the MFP decade, 1987–97. In contrast, the South Australian cabinet decision to approve phase one of the urban development in October 1996 was based on many of the original objectives and could be interpreted as the implementation of the initial proposal. The Premier announced that the project was to provide a platform for new international and interstate investment, a test-bed for innovation of international significance, a reference site for Australian companies wishing to develop and export technology and services to Asia Pacific markets, and to be a platform for continuous innovation in areas including education, health, transport, the built environment, information technology and energy (MFP 1996). This broad range of aspirations remained close to the initial objectives promoted by the national government and gave the MFP the appearance of having changed little in direction over its first 10 years.

However, the projects actually underway demonstrated that investment in the 1990s was confined to a narrower focus than that expected in the 1980s. First, the physical environment had to be improved as indicated by the range of environmental projects underway. Second links had to be formed with local partners, especially the land developers (Delfin Lend Lease), the

information technology provider (Telstra), the local universities (University of Adelaide, University of South Australia) and the local city council (Salisbury). The importance of local industrial partners was also recognised as essential to form the clusters of innovative firms sought to stimulate future development based on the Silicon Valley model. Finally, the magnitude of private and public investment was far smaller than initially expected.

The MFP is an example of an international development agreement that changed as the initial idea was transformed from the objectives of national governments to fit the context of a particular city. The two levels of negotiation and interaction are important as the initial agreement at the international level, although accepted at the level of general objectives is not implemented because of the local social and environmental constraints faced and the changed priorities of national governments and private investors. Instead, implementation became a function of domestic politics and was achieved only to the modest level possible with state and city based promotion. The leading proponents of the project changed over time and the case study illustrates the need to look beyond initial agreements to examine the role of local actors in the implementation of such proposals. The redirection of efforts into projects that meet local needs could be interpreted as the necessary adaptation of the project to the locality where it was situated. The interaction between international and domestic levels is apparent as the international proposal stimulated changes at the local level while the constraints inherent with a particular setting altered the implementation of the international agreement in unexpected ways.

The legacy of MFP Australia is the expansion and redirection of Technology Park to include the creation of an adjacent urban development which integrates residential and commercial uses with advanced environmental and information technology. In addition, degraded urban lands are being rehabilitated and metropolitan stormwater is redirected from sensitive coastal ecosystems. The expected creation of a new urban centre was reduced to the much smaller form of modified urban development in Adelaide. The small scale of implementation highlights the constraints identified by some reviewers of the MFP and other Pacific development proposals. In contrast the optimism of early proponents needs to be qualified by the degree of commitment and allocation of resources by key actors. The signing of an international agreement is only the first step in development initiatives and the detailed analyses of both international and local actors are required to better evaluate project viability.

The conclusion to the MFP debate is that conflicting international and local interpretations each have merit. From an international perspective, the MFP has failed to provide the base

of high tech research, manufacturing and cultural exchange initially envisaged. Neither private firms nor central government invested on a scale to change Adelaide's role in the urban hierarchy of Australia or the broader Pacific economy. However, from the local perspective, a degraded urban site has been rehabilitated and the expected urban development should reduce the environmental and social costs associated with conventional suburban development. Similar international proposals in the future should learn from the MFP experience.

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