

The Total Planning Doctrine and Putrajaya development

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Abstract

The Federal Government of Malaysia has endorsed the concept of holistic development for land use planning which is known as The Total Planning Doctrine. It is a new approach to the planning and design which is expected to guide the physical planning system focusing on the concept of sustainable development. This is a paradigm shift that should enable physical and social planning to be integrated with moral and spiritual values that will not separate economic growth from social needs and justice that will contribute towards sustainability and increase the quality of life for society. The application of this Doctrine has been included in the development planning of Putrajaya. The Doctrine has embedded the underlying premise of attaining sustainable communities. Putrajaya, a new administrative capital city for the Malaysian Federal Government was planned as early as 1981. Putrajaya was the first major intelligent garden city developed in Malaysia. The total area is 14,780 hectares where about 30 per cent of the area is for the administrative centre. The physical planning was to ensure that it is a sustainable city providing high quality living to its population. In 1996 the Federal Government set up Putrajaya Corporation to monitor the mega project implementation. Putrajaya Corporation Act 1995 (Act 536) came into effect on January 5, 1996 and listed the power of the Corporation which is to administer and manage the Putrajaya Corporation Area on behalf of the Federal Government. The corporation functions like a local authority to ensure the success of Putrajaya towards 2020 and beyond. When complete, Putrajaya is expected to have 570,000 population where 250,000 will live in the core area and the remaining 320,000 in the surrounding residential areas.

Keywords: holistic development, total planning doctrine, Putrajaya, new administrative capital city, sustainable city.



1 Introduction

Malaysia consists of 13 States and the Federal Territories of Kuala Lumpur, Putrajaya and Labuan which is an island off the coast of Sabah over in East Malaysia. Of the total population of Malaysia in Census 2000, about 21,890 thousand or 94.1% were Malaysian citizens. Of the total Malaysian citizens, 'Bumiputera' (Malay and native indigenous groups) comprised 65.1%, Chinese 26.0% and Indians 7.7%, the ethnic composition being 60.6%, 28.1% and 7.9% respectively in 1991. Non-Malaysian citizens totaled 1,385 thousand (or 5.9%) in Census 2000 as against 805 thousand (or 4.4%) in 1991. In terms of population distribution by state in Census 2000, Selangor was the most populous state (4.19 million) followed by Johor (2.74 million) and Sabah (2.60 million). Their share of the total population of Malaysia was 18.0%, 11.8% and 10.6% respectively. The least populated states were Wilayah Persekutuan Labuan (0.08 million or 0.3%) and Perlis (0.20 million or 0.9%). Urbanization in Malaysia has been growing rapidly, and is expected to accelerate in the future. It is envisaged that the urban population of the country will grow from 54.7% in 1995 to about 73% in the year 2020 [1].

2 Putrajaya

Putrajaya, the new administrative centre of the Federal Government of Malaysia was officially launched by the ex-Prime Minister Mahathir Mohamad on October 8, 1997. The idea was mooted in mid 1980 to establish a new administrative centre away from Kuala Lumpur. Putrajaya was planned based on the concept that incorporates the best practices in city planning, landscape, architecture and the preservation of eco-culture. The urban planning of Putrajaya was guided by the total Planning Doctrine—Man and His Creator, Man and Man, and Man and Nature – evolution of the intelligent city concept of the future [2]. The physical planning was to ensure that it is environmental-friendly as well as to provide high quality urban living for the future residents. Putrajaya is located about 25 kilometers to the south of Kuala Lumpur. Putrajaya was the first major intelligent garden city to be developed in Malaysia. The total area for development is 14,780 hectares where about 30 percent of the area is for administrative centre (4,400 hectares) [3]. In 1996 the Federal Government set up Putrajaya Corporation to monitor the mega project implementation. Putrajaya Corporation is to administer and manage the Putrajaya on behalf of the Federal Government [4]. Putrajaya was declared as a district status at the end of 1998 [5]. The official declaration of Putrajaya as the third federal territory after Kuala Lumpur and Labuan was on February 1, 2001. The development of Putrajaya would spur development in the neighbouring areas with the building of infrastructure, commercial centres and social facilities. The design of residential units applies a neighbourhood concept where fifteen neighbourhood units are planned to accommodate 52,000 houses. Seventy per cent or 35,000 houses will be allocated for government or institutional housing [6].





Table 1: The principles and development implication.

| Principles | Development Implication |
|---|--|
| Man and the Creator | |
| 1. Justice | Giving each what is rightfully his at the respective rate. |
| 2. Compassion | Inner feeling, sensitivity to the environment and other creatures, which have their own roles and functions. |
| 3. Trustworthy and credibility | Planning based on facts and consultation. |
| 4. Unity | Togetherness in purpose – city of purpose, civic sense of unity but diversity in processes. |
| 5. Respect for knowledge and conscious of the Creator | City as centre for learning. Provision of education space and opportunities. |
| Man and Man | |
| 6. Respecting privacy and division of space | Provision of spaces for private, semi-private and public. Protected from physical and visual intrusion. |
| 7. Encouraging interaction and acquaintance | Conducive atmosphere of cooperation, peace and harmony. Neighborhood interaction. |
| 8. Peace and security | Creation of peaceful, safe and healthy city. |
| 9. Respecting the right of individuals | Planning needs regulations. Interdependence among members of community should be encouraged. |
| 10. Cooperation, sensitivity and mutual respect | Positive integration of society regardless of income, religion and ethnic group will lead to perpetual development of a friendly, sensitive and civil society. |
| 11. Consultation | Planning requires consensus and comprehensive public participation. |
| Man and the Environment | |
| 12. Cleanliness and beauty | City and living environment should be clean and beautiful. |
| 13. Preservation of the environment and sustainable natural resources | Protection of the environment from pollution and destruction and sustainable use of natural resources. To enable future generation to live in peace, comfort, safety and harmony with his environment. |
| 14. Economic and effective use of resources | Effective use of resources will reduce costs and wastage. |



3 The total planning doctrine and Putrajaya development

The Federal Government of Malaysia has endorsed the concept of holistic development for land use planning known as The Total Planning and Development Doctrine in 1997. It was prepared by the Town and Country Planning Department, Peninsular Malaysia as the results of the sensitivity towards the significance of human development in national development. The objective is to create a balance between physical development and human development in terms of spiritual and noble universal values for the sustainable progress of the country. The doctrine has given rise to new emphasis on planning practice and it sets out guidelines in physical planning terms. It is a new approach to the planning and design which is expected to guide the physical planning system focusing on the concept of sustainable development. The application of this Doctrine has been included in the development planning of Putrajaya [7].

Putrajaya masterplan, based on the Garden City Concept, delineates the area into twenty precincts, of which five are in the Core Area included Government, Commercial, Civic, Mixed Development, and Sports and Recreational. The remaining 15 are precincts of various sizes also known as peripheral area. Twelve of the 15 precincts make up the residential neighbourhoods. Each unit was planned for some 3,000 dwellings or 15,000 population with a mix of low, medium and high cost housing and a variety of designs. A total of 67,000 homes of varying ranges, sizes, types and densities have been planned. Each neighborhood is equipped with necessary public facilities and amenities. Among the facilities provided in the residential areas are schools, hospitals, shopping centres, mosques, multipurpose halls, learning centres and parks. This fulfilled the underlying principle of the doctrine towards more sustainable communities and a better quality of living environment [8].

There are 14 principles and development implications of the Total Planning and Development Guidelines as summarized in Table 1 [9]:

4 The sustainable city of Putrajaya

The design features are:

1. The urban/neighbourhood center are located at the right location for the benefit of all users. The centers were planned with bus stops, car parks, pedestrian streets, cycle paths, water bodies and beautiful landscape.
2. Buildings at the main centre are workplaces, a mosque, commercial areas within walking distance to each other, creating an urban sense of spatial definition.
3. Housing areas are at appropriate distance from the neighbourhood centers. Roads are designed for motor traffic. Provision of special paths for walking and cycling which are safe, continuous and convenient. Surrounding areas are kept clean and with good landscape.
4. Housing layout and design provides space for interaction. The houses are of different types in terms of cost, design and location to suit the



affordability level of the people. These include bungalows, semi-detached, terrace houses, and apartment. Distribution of housing areas is easily accessible to the working areas- the government offices.

5. Putrajaya is a new city will ultimately provide for an approximately 330,000 people and functions as the principal seat of government. There are places to work within and adjacent to the neighborhood.
6. There are commercial areas at all centers to meet common household needs and other services including post offices, banks etc.
7. There is a network of water bodies, parks, open spaces, pedestrian streets and cycle path in the planning of the urban center.
8. Creating quality living through environmental conservation, provision of modern social facilities and adequate recreational spaces, ensuring safety of occupants and attractive landscape.
9. There are primary and secondary schools and also integrated schools close enough so that most children can walk from their houses.
10. There are parks, trails and playgrounds near every houses. The houses are with limited fencing to encourage residents to interact.
11. The design of porch, lobby entrances, balconies, backyard, traffic system and car parks for creating a harmonious atmosphere to encourage a healthy and positive interaction among neighbours.
12. Encouraging the garden concept in housing areas with space for planting and gardening to create a pleasant and attractive surrounding.
13. A balanced provision and equitable distribution of open spaces and recreational areas consistent with the population needs to be enjoyed by all groups of people.
14. Putrajaya is a self governing by Putrajaya Corporation to decide on matters of maintenance, security and physical evolution.

Table 2: Estimated housing development In Putrajaya.

| 4.1 | 4.2 Cumulative No. Of Units | | | | | | | | | |
|-----|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| P 2 | - | - | - | - | - | - | - | 328 | 459 | 852 |
| P 3 | - | - | - | - | - | - | - | - | 621 | 947 |
| P 4 | - | - | 629 | 629 | 1,264 | 1,761 | 3,475 | 3,475 | 3,475 | 3,475 |
| P 5 | - | - | - | 3,054 | 3,054 | 3,054 | 3,054 | 3,065 | 3,700 | 5,962 |
| P 6 | - | - | - | 1,068 | 1,729 | 2,911 | 2,911 | 2,911 | 2,911 | 2,911 |
| P 7 | - | - | 302 | 302 | 302 | 688 | 1,188 | 1,188 | 1,188 | 1,188 |
| P 8 | 1,709 | 2,223 | 2,423 | 2,780 | 2,780 | 3,111 | 3,384 | 4,314 | 4,314 | 4,314 |
| P 9 | 4,300 | 5,591 | 7,561 | 7,561 | 7,561 | 7,561 | 7,561 | 7,561 | 7,561 | 7,561 |
| P10 | 175 | 369 | 369 | 483 | 483 | 483 | 483 | 483 | 483 | 483 |
| P11 | 3,430 | 4,500 | 7,279 | 7,899 | 8,214 | 8,550 | 8,825 | 8,336 | 9,858 | 10,390 |
| P12 | - | - | - | 1,841 | 1,841 | 2,481 | 2,481 | 2,891 | 2,891 | 2,891 |
| P14 | - | 2,072 | 2,754 | 2,754 | 2,754 | 2,754 | 2,754 | 2,754 | 2,754 | 2,754 |
| P15 | - | 1,068 | 2,740 | 2,740 | 3,896 | 3,896 | 3,896 | 3,896 | 3,896 | 3,896 |
| P16 | 904 | 1,075 | 1,634 | 2,197 | 2,529 | 2,783 | 2,993 | 2,993 | 2,993 | 2,993 |
| P17 | - | 592 | 2,692 | 2,692 | 2,692 | 2,860 | 3,168 | 3,500 | 3,500 | 3,500 |
| P18 | - | 2,616 | 4,112 | 5,009 | 5,332 | 5,332 | 5,332 | 5,332 | 5,332 | 5,332 |
| P19 | - | - | 317 | 3,157 | 3,157 | 3,157 | 3,157 | 3,157 | 3,157 | 4,535 |
| | 10,518 | 20,106 | 32,812 | 44,166 | 47,588 | 51,382 | 54,662 | 56,184 | 59,093 | 63,984 |

Note : P - Precinct



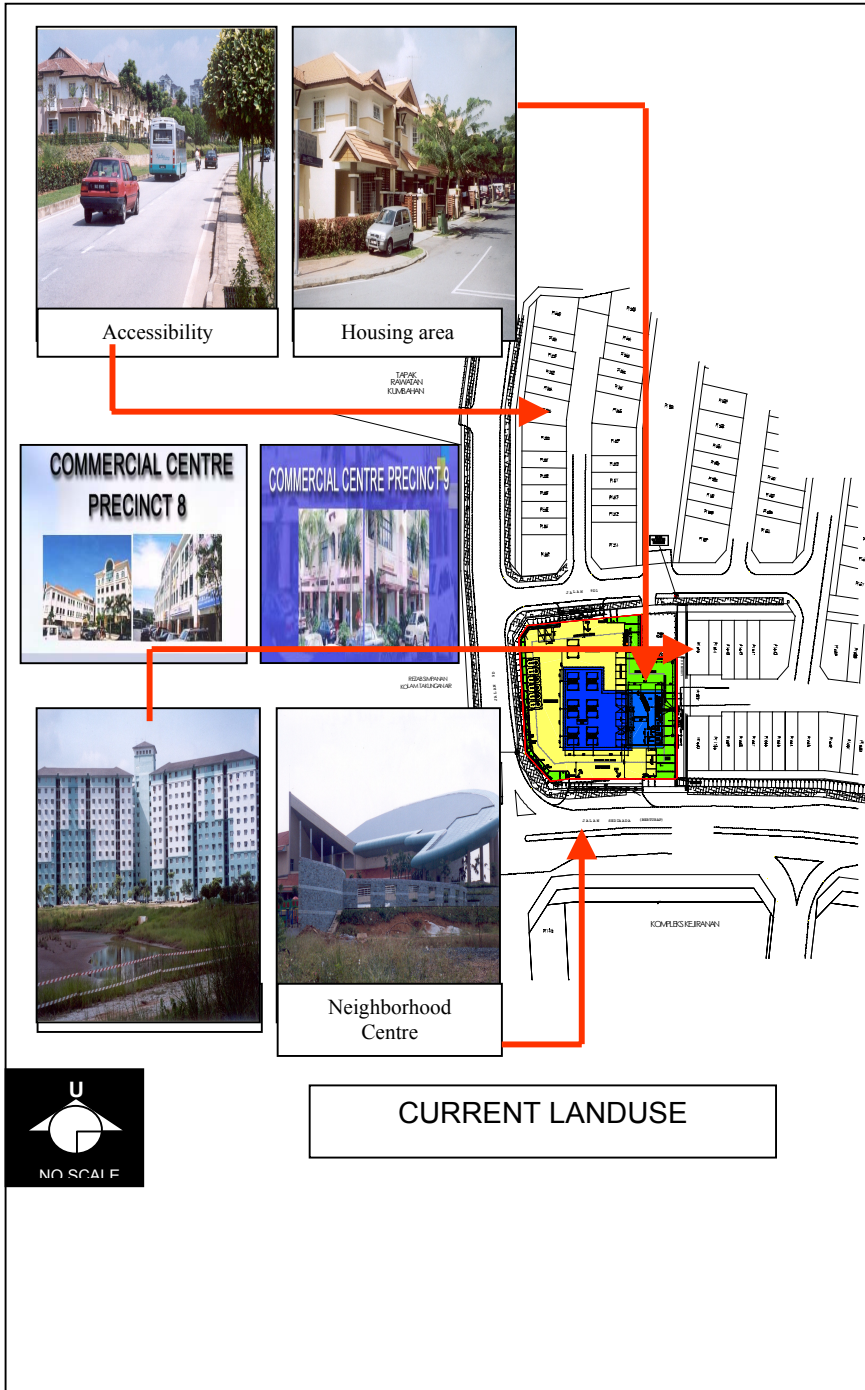
The design of residential units applies a neighbourhood concept where fifteen neighbourhood units are planned to accommodate 52,000 houses. Seventy per cent or 35,000 houses will be allocated for government or institutional housing. By the end of 2003 the population of Putrajaya had reached 52,590 with 10,518 houses (20.0% of the total) built. The population and the housing units are expected to increase as shown in Table 2 and Table 3 [10].

Table 3: Estimated population growth In Putrajaya.

| P | | | | | | | | | | |
|-----------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| P ₂ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,640 | 2,295 | 4,260 |
| P ₃ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,105 | 4,735 |
| P ₄ | 0 | 0 | 3,145 | 3,145 | 6,320 | 8,805 | 17,375 | 17,375 | 17,375 | 17,375 |
| P ₅ | 0 | 0 | 0 | 15,270 | 15,270 | 15,270 | 15,270 | 15,325 | 18,500 | 29,810 |
| P ₆ | 0 | 0 | 0 | 5,340 | 8,645 | 14,555 | 14,555 | 14,555 | 14,555 | 14,555 |
| P ₇ | 0 | 0 | 1,510 | 1,510 | 1,510 | 3,440 | 5,940 | 5,940 | 5,940 | 5,940 |
| P ₈ | 8,545 | 11,115 | 12,115 | 13,900 | 13,900 | 15,555 | 16,920 | 21,570 | 21,570 | 21,570 |
| P ₉ | 21,500 | 27,955 | 37,805 | 37,805 | 37,805 | 37,805 | 37,805 | 37,805 | 37,805 | 37,805 |
| P ₁₀ | 875 | 1,845 | 1,845 | 2,415 | 2,415 | 2,415 | 2,415 | 2,415 | 2,415 | 2,415 |
| P ₁₁ | 17,150 | 22,500 | 36,395 | 39,495 | 41,070 | 42,750 | 44,125 | 41,680 | 49,290 | 51,950 |
| P ₁₂ | 0 | 0 | 0 | 9,205 | 9,205 | 12,405 | 12,405 | 14,455 | 14,455 | 14,455 |
| P ₁₄ | 0 | 10,360 | 13,770 | 13,770 | 13,770 | 13,770 | 13,770 | 13,770 | 13,770 | 13,770 |
| P ₁₅ | 0 | 5,340 | 13,700 | 13,700 | 19,480 | 19,480 | 19,480 | 19,480 | 19,480 | 19,480 |
| P ₁₆ | 4,520 | 5,375 | 8,170 | 10,985 | 12,645 | 13,915 | 14,965 | 14,965 | 14,965 | 14,965 |
| P ₁₇ | 0 | 2,960 | 13,460 | 13,460 | 13,460 | 14,300 | 15,840 | 17,500 | 17,500 | 17,500 |
| P ₁₈ | 0 | 13,080 | 20,560 | 25,045 | 26,660 | 26,660 | 26,660 | 26,660 | 26,660 | 26,660 |
| P ₁₉ | 0 | 0 | 1,585 | 15,785 | 15,785 | 15,785 | 15,785 | 15,785 | 15,785 | 22,675 |
| | 52,590 | 100,530 | 164,060 | 220,830 | 237,940 | 256,910 | 273,310 | 280,920 | 295,465 | 319,920 |

By the first quarter of 2004 there will be 25,797 Federal Government employees working in Putrajaya. They are occupying approximately 12,863 meters square of office floor space in Precinct I and 2 areas. As at February 2004, among the federal government's offices operating in Putrajaya are The Prime Minister Department, Ministry of Rural Development, Ministry of Home Affairs, Ministry of Science and Technology and Ministry of Transport.







Hospital



Police Station

Neighbourhood Unit

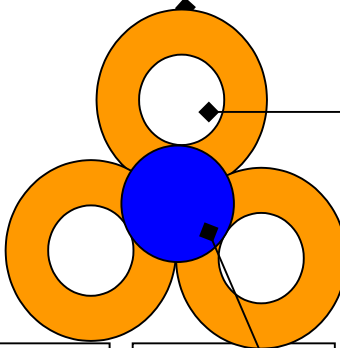
- 15,000 Population
- 3,000 Residential Units

Neighbourhood Centre

- School Complex
- Community Hall
- Surau
- Kindergarten
- Health Centre
- Convenience Shops
- Neighborhood Park

Community Centre

- Mosque
- Polyclinic
- Shopping Centre
- Multi-Purpose Hall
- Other Religious Reserves
- Police Station
- Community Park

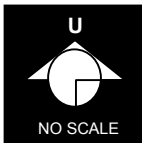


Public Transport Terminal



Fire Station

Neighborhood Concept [11 & 12]



FACILITIES IN PUTRAJAYA



5 Conclusion

Traditionally, planning in Malaysia was based on physical planning criteria. However, with the Total Planning Doctrine and the positive application in Putrajaya development, the approach places emphasis on adherence to planning standards and regulations. The future cities and new towns require the Total Planning and Development Doctrine as the basis for community settlement. The underlying aim of the Doctrine is to develop a community which should be able to meet changes in values within society and be able to contribute to improving the quality of life.

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