



14th WEDC Conference
Water and urban services
in Asia and the Pacific
Kuala Lumpur 1988

Town planning and pollution control

Mansor Ibrahim, Ahmad Tajuddin Kechik
 and Amran Hamzah

INTRODUCTION

Urban planning concerns with allocation of completing land uses in urban areas. The location, pattern of development, urban form and lifestyle all have environmental implications (Figure 1). Control over environmental pollution can spread over a number of agencies and associated control authorities. It is this wide-ranging, diffuse and incomplete nature of pollution control which offers considerable opportunities for urban planning and pollution control (Wood, 1976).

ROLE OF TOWN PLANNER IN POLLUTION CONTROL

Planners can exert effective pollution control in the plan-making and development control stages. Land use planning - be it structure plans or local plans, and environmental planning are not only have similar process but they can be integrative (Figure 2). In determining the nature and location of development, renewal or redevelopment for instance, planners control over land use enable them to influence the spatial origin of wastes, pollution levels and distribution. Pollution arises from production and consumption activities; if the location of these activities is determined, the spatial distribution of waste generation can also be determined. Thus planners can control over the location of the pollution process.

Planners have three options in dealing with a polluting activity with respect to new development; granting permission unconditionally (yes) or with conditions (yes, but) or refusing permission (no). Locations at which power is generated, goods are produced and consumed and thus wastes occur can be regulated by granting or refusing planning permission. For example, by attaching conditions relating to the site and period of operation, planners can exercise indirect control over environmental noise level emission duration from a noisy activity.

Planners can grant or withhold planning permission or attach conditions to it whenever or wherever a proposed or existing source or pollution threatens its receptors

and adjacent land use and activities. For example, a planner might refuse housing sited next to an airport, or that such potential resulting pollution and conflicting use be granted, provided there is adequate separation or buffer between them. It is clear that planners themselves can control pollution at various stages in the pollution process vis-a-vis the plan making and development control stages through various land use techniques (Figure 3).

In conjunction with the planning approach, it is imperative that the legal and technological approaches are executed as well. The power is vested in the Town and Country Planning Act, 1976, the Local Government Act, 1974 as well as the Environmental Quantity Act, 1974.

COORDINATION AMONG ENVIRONMENTAL RELATED AGENCIES

Nevertheless, within the context of the institutional and administrative set up, planners are generally disposed to play a consultative as well as coordinating role in the control of pollution. In both plan making and development control, planners usually consult and coordinate efforts with other relevant agencies and authorities. For example, they might prepare an overview of pollution problems and invite other pollution control authorities to solve them in concert. Seemingly, there is ignorance about the precise scope of powers for pollution control and variation in practice exists in relation to planning process.

Besides that, there are lack of information and technical knowledge regarding urban planning and pollution control, the absence of specific pollution control standards and objectives, and the lack of consultation between planners and the relevant pollution control agencies. Such drawbacks, however, cannot negate the availability of various urban planning strategies and techniques to control pollutions (Wood, 1976).

As various organizational units are involved in overcoming and tackling pollution problems, effective coordination and integration among agencies are deemed

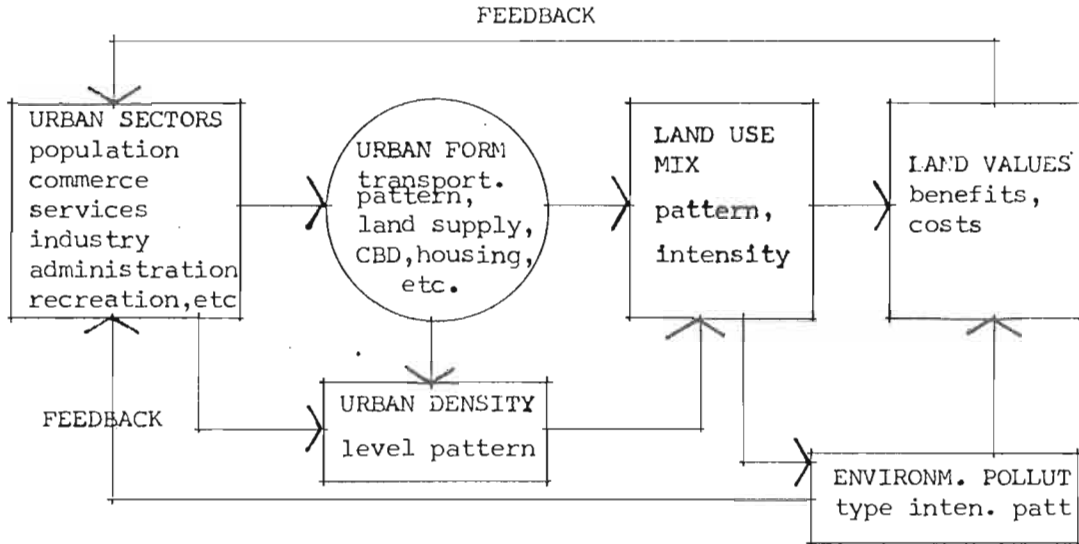


FIG. 1. URBAN LAND USE PLANNING AND ENVIRONMENTAL POLLUTION

Source: After Berry, et al. 1974

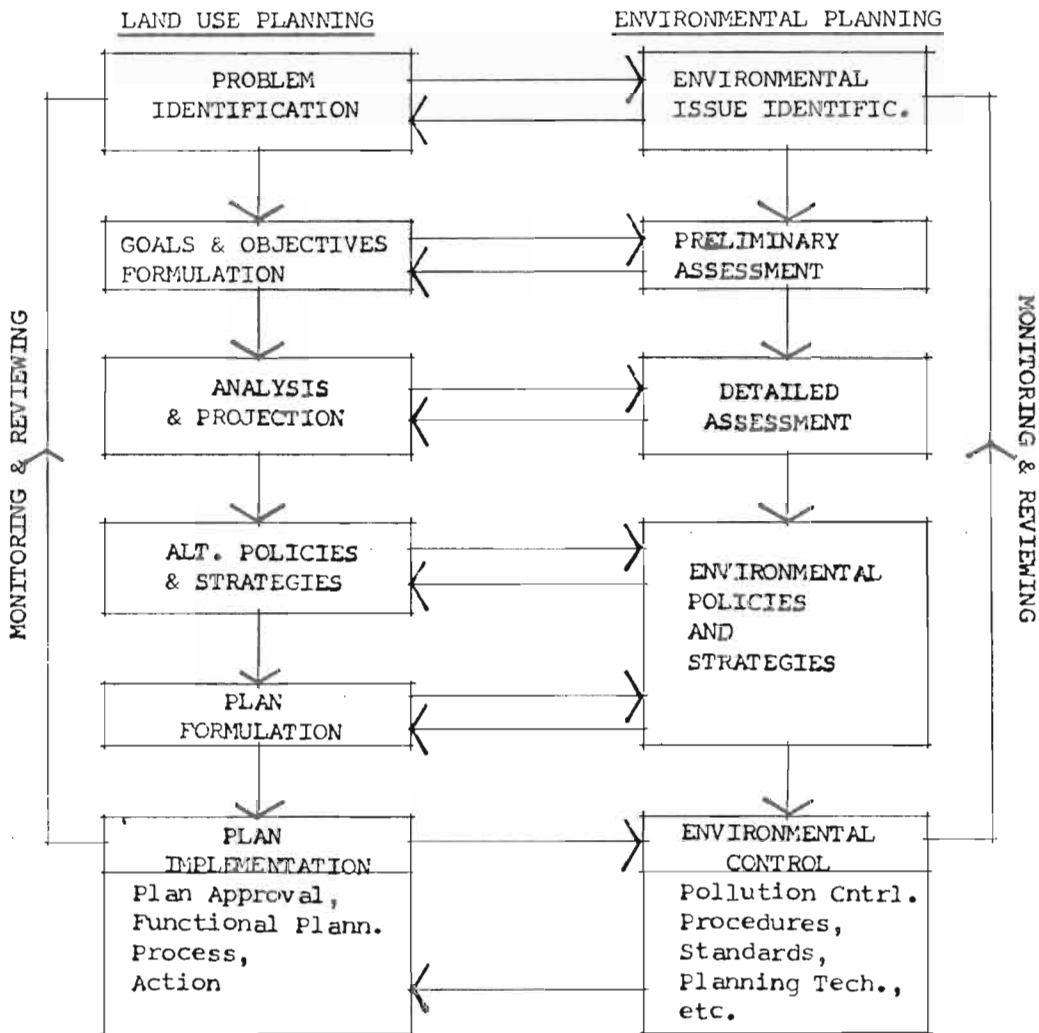


FIG. 2. LAND USE AND ENVIRONMENTAL PLANNING PROCESSES

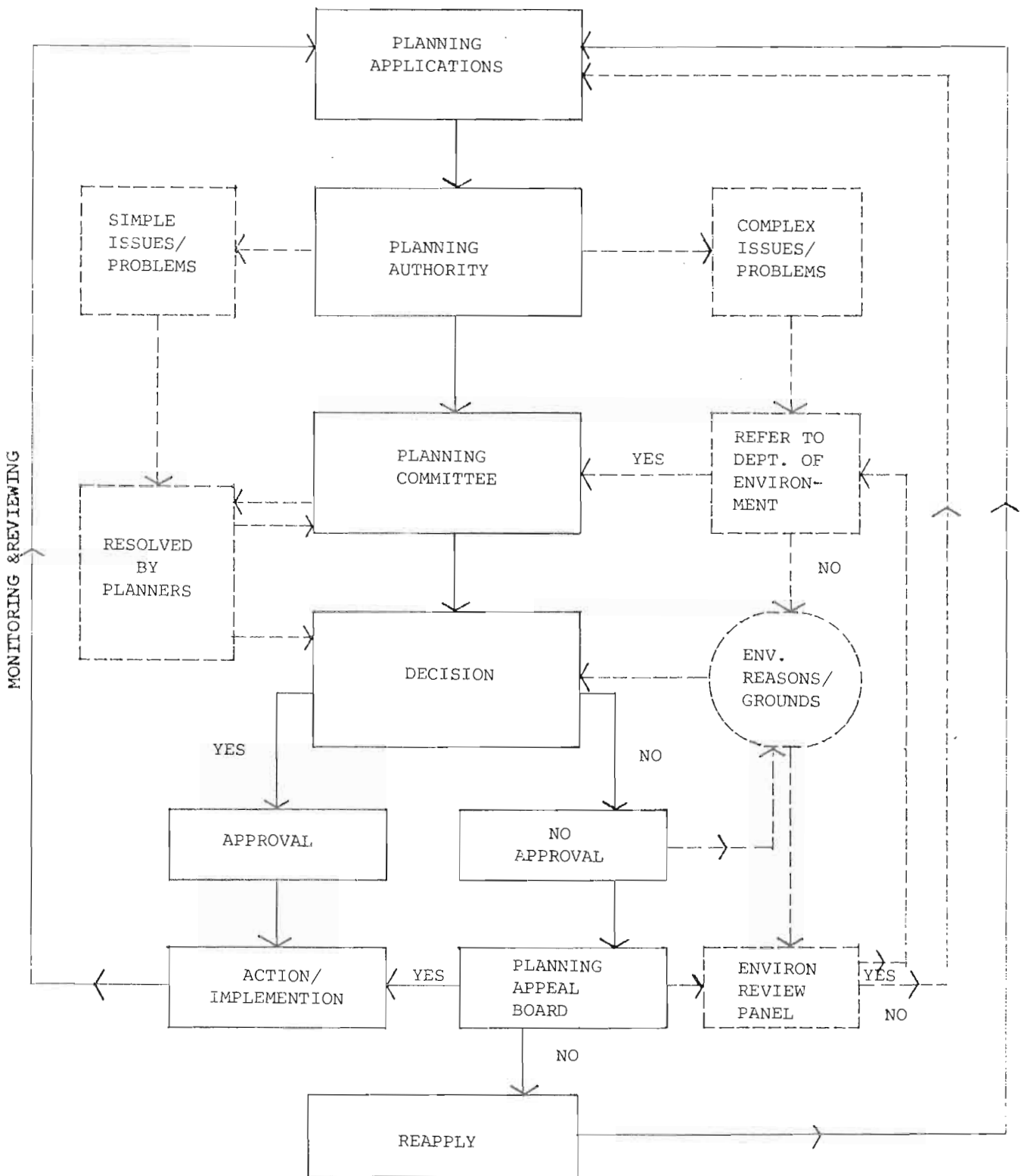


FIG. 3. POLLUTION CONTROL IN PLAN IMPLEMENTATION PROCESS

necessary (Mansor & Ahmad Tajuddin, 1987). Various options exist to overcome conflicts and jurisdictional encroachments among planning and pollution control authorities. The convention has always been through establishing working or joint committees between units and among levels of government. Other modes include improved information flows and communication, organisational restructuring or new arrangements. We also can make it mandatory for pollution controlling authorities to consult when potential polluting development proposals are envisaged. It is also proposed that developers be required to describe their development proposals and to incorporate pollution mitigating measures even in the plan making stage. This step is actually in line with the Department of Environment's formulation of the Environmental Impact Assessment Procedure (EIA).

CONCLUSION

The paper has briefly touched on the fact that planners do have a distinctive role in the control of all types of pollution. Ample planning powers and responsibilities relating to the control of pollution exist. There is a need to make planners aware of it. This might be met by such means as the Town and Country Planning Department and the Department of Environment circular on planning and pollution, pollution control manual, guidelines on planning techniques for pollution control; and perhaps more important is fuller coverage of the subject matter in planning education. The media should also disseminate and/or educate the general public on the issues.

Appropriate institution is also important in the environmental management process (Beale, 1980). It should involve a total commitment of all concerned parties to the environment viewed in its totality. The coordinated and integrated approaches must bring together governments at all levels, the private sector and the community at large. This should be coherently catered for in any planning process.

REFERENCES

1) BEALE J.G. The Manager and the Environment: General Theory and Practice of Environmental Management. Pergamon Press, N.Y., 1980.

2) MANSOR IBRAHIM AND AHMAD TAJUDDIN KECHIK. Integrated Approach For Environmental Protection In Urban Planning. Regional Seminar-Workshop on Integrated Development of Urban Settlement. University of Tarumanagara and UNESCO, Jakarta, Indonesia, Sept. 28 - Oct. 1, 1987.

3) WOOD C. Town Planning and Pollution Control. Manchester University Press, 1976.