

## PROCEDURAL URBAN AND REGIONAL PLANNING PARADIGMS AND LAND USE PLANNING

**Dr. Faranak Seifoddini**

### **Abstract**

#### **Procedural Urban and Regional Planning Paradigms and Land Use Planning**

The study of procedural urban and regional planning paradigms shows that the most common accepted paradigm has been comprehensive planning. But with the passage of time, changes in the application of paradigm have occurred.

Two other major paradigms are:

- (1) Incremental Planning paradigm and
- (2) Mixed Scanning Paradigm have been used

Considering the planning experience, a flexible mixed scanning paradigm is suggested in relation with practical land use planning. Paradigm is a framework made of theories, beliefs, values and solutions for a problem. It is mostly a scientific belief. Societies pass evolving stages in their approach toward different issues. Different theories and approaches are used with an evolving trend. In many cases, when there are differences between realities, new theories emerge.

The most common theory used in land use planning has been comprehensive planning. There are discussions pro and against it. Incremental planning and mixed scanning have been suggested and have been compared with comprehensive planning. Suggesting mixed scanning is the updated trend.

## Planning Theories

Planning theories can be divided into two groups: (1) Procedural and (2) Substantive models. Procedural theories deal with the process of planning, while substantive theories are in relation with different planning subjects. This paper focuses on procedural theories. In 1959, Banfield cites that comprehensive planning as the best approach to achieve pre-determined goals. Rational selection, people's abilities to determine priorities, comprehensive information, abilities to determine the risk are some of the characteristics of the comprehensive rational paradigm. This paradigm assumes that:

- A defined problem
- A range of defined alternatives
- Comprehensive information exist
- The consequences of applying each alternative are determined.
- Comprehensive information about values and preferences of the citizens exist.
- There are enough time, skill, and sufficient resources.

Considering these assumptions, one might be able to find the best solution for a problem. In 1950s, comprehensive planning theory was criticized by many, such as Simon who believed that rational decisions cannot be made, all alternatives cannot be evaluated, comprehensive information do not exist. Other criticisms:

- Problems are usually not defined
- Information about the probable consequences of each alternative does not exist.
- Complete information about values, preferences, and interests do not exist.
- There is limitation of time, skill and resources.
- The political system affects.
- Lack of capacity of the administrative organization.
- Open system and lack of ability to control many variables.
- High expenses.

Therefore, considering these conditions, decision makers have limitations related to comprehensive rational decision making.

Incremental planning paradigm was offered by Lindblom in 1959, and set conditions for this paradigm:

- A limited set of alternatives will be examined.
- For each alternative, only important consequences are examined.
- Problems can be redefined, considering the alternatives defined.
- There is not only one solution for the problem. But through analysis and evaluation, solutions are suggested.
- Decision making usually solves or in other words cures a problem and does not pay attention to the future a lot.
- Decisions are made incrementally.
- Problems are solved incrementally.
- Goals are defined realistically.

This paradigm has been criticized too:

- It does not provide a basis to show that all the needs have been considered.
- Decisions are made gradual and not through a central decision making process.
- The focus is on the short-term but not long-term. Small steps are taken.
- There are evidences that the majority of organizations do not make incremental decisions.

Mixed scanning is introduced as the third approach that combines comprehensive and incremental planning. The characteristics of this paradigm:

- Decisions made are not idealistic. They are more realistic.
- It reduces the details needed, compared with the comprehensive approach.
- Policy making are made at the top level of hierarchy and the general direction is determined at the top.
- It functions incrementally.
- The amount of time and budget depends on the total time and budget.

There are two other advantages:

- It provides a path for evaluation.
- Its flexibility solves the criticism of comprehensive approach.

To understand the mixed scanning better, we need to distinguish between decision making for basic issues and incremental non-basic decisions. In case of mixed scanning, incremental decisions are made within a comprehensive framework. In this case, goals are ranked. Weber writes that there is a need to improve the information system, to increase the predictability. He writes that long term approach reduces the flexibility but suggest using computer and predicting models can improve the planning abilities. Another characteristic of mixed scanning is that the goals are chosen very realistic.

### **Comprehensive Planning**

Benfield in 1959 calls the comprehensive planning process the process of selecting best ways to achieve predetermined goals. A process for selecting best consequences in relation with each solution. Rational selection refers to the ability to determine and measure priorities, continuity and compatibility between priorities, determining the consequences of each alternative, ability to determine the risk in relation with a decision.

In general, to act rational, means rational analysis, and awareness of this point that knowledge and information can cause the control on the environment. In relation with organizations, to act rationality, needs centralization, specialization, formal relations, Methodism and insight.

Comprehensive planning has assumptions for the decision making and its implementation:

- There is usually a defined problem.
- There are a complete range of options and alternatives.
- There are complete results and findings for each alternative.
- There are complete information for values and priorities of citizens.
- There are adequate time, skill, resources.

Considering these assumptions, better solutions for a problem will be obtained. This is called "Comprehensive Rational Plan". Those who defending comprehensive rational Planning believe that there should be efforts to have evolution in all economic and social dimensions.

Some of the defendant believe that comprehensive planning should present a whole picture of changes in strategic variables.

The applications of comprehensive planning are:

- 1- Preparation of a comprehensive plan that works as a guideline for planners.
- 2- Evaluation of the planners' suggestions, considering comprehensive plan.
- 3- Coordination of involved organizations.

Criticisms against comprehensive planning existed in 1950s. In 1957, Simon writes that fulfilling the rational expectations of comprehensive planning is not practical. Simon (1975) believed that no real decision making process cannot be done on the basis of requirements of rational decision making (comprehensive data, considering all the alternatives). Simon believes that all alternatives cannot be determined. The other criticism is that the assumption of values, facts, and ways to achieve, are distinguishable, which is not practical. Those who criticize comprehensive rational planning believe that assumptions of this theory is not practical in reality since the problems are not defined clearly; and are ambiguous, information and data are not complete, the background information is not usually complete; values, priorities, and interests are not defined clearly; the problem of predicting future. Therefore, decision makers have limitations in relation with rational decision making. Friedman (1976) adds another criticism to the above criticisms that common public interests should be defined versus the interests of those in power and influence which might be in conflict.

Other criticisms are that comprehensive rational planning is not sensitive to the capacity of the implementing organizations; the capacity of planners in defining alternatives are limited; requirement of central decision making of comprehensive planning in defining problems, solutions, evaluation of alternatives are difficult and implementation of decisions are also

considered as problems. Lindblom, 1959, adds that the open system of variables makes the planning difficult. Jenathan, 2003, writes that the planners cannot act according the assumptions of the comprehensive planning and get to a decision because they unrealistic. Another criticism is that if there is a change in one of the components of comprehensive plan, the whole plan should change and it is difficult. The influence of culture and values on rational decision making are also mentioned as factors that make rational decision making difficult.

### **Incremental Planning**

Incremental planning theory was suggested by Lindblom, 1959. He justified that there is a gap between the requirements of comprehensive planning and planners' capacity. Lindblom suggested that incremental planning considers the limitations of planners. Then, he suggested the requirements of incremental planning:

- 1- Instead of doing a comprehensive survey and evaluation of all alternatives, decision makers emphasize policies that are incremental.
- 2- Only few alternatives are considered.
- 3- For every policy alternative, only important consequences are evaluated.
- 4- Sometimes a problem is redefined and again different alternatives to achieve a goal.
- 5- There is not only one right decision to solve a problem. Through analysis and evaluations, solutions are suggested.
- 6- The decision making has mostly treatment and improving the condition. Decision making try to improve the deficiencies.
- 7- Changes created as the result of incremental planning are minor and incremental.
- 8- Problems are not considered cross sectional but are considered continuous.

Planners do not act comprehensive but piecemeal and gradual, and emphasize. On particular dimension of a problem. The analysis are experimental and the solutions are minor and curing. Goals are not defined general, but goals that would try to solve an existing problem. Another example of is that incremental planners usually try to choose alternatives that are compatible with existing solutions.

Criticisms are that:

- One of the problems with incrementalism is that one cannot claim that all peoples' needs have been considered.
- Usually, the compatibility with existing condition are considered.
- Usually the influence of political views exist.
- This method emphasizes on short-term approaches that are not very different from current condition. The steps that are taken might be circular or they might be spread and not agglomerated.
- Usually, incremental planning is used in relation with minor decisions. Usually fundamental decisions provide the context and background for Incremental decisions. But it is possible to create fundamental changes in planning. For example, the success of England in changing city planning laws and Portorico's success in transfer from agricultural society to industrial.
- Usually long-term prediction models are not used.

### Mixed Scanning

This paradigm combines comprehensive rational planning and incremental planning. The theory is not as idealistic as comprehensive planning and is not as conservative as incremental planning. To improve the incremental planning, more long-term alternatives are considered. At the policy making level deciding about fundamental general directions are determined and more detailed decisions are made incrementally. Decisions about the time and budget devoted, depends on the total time and budget available. So, mixed-scanning combines different levels of decision making. Usually, mixed scanning makes the evaluation more possible. Also, there is more flexibility in this planning paradigm. Goals can be ranked. Primary goals can be defined. Lindblom believes that one cannot act perfectly comprehensive and also perfectly incremental. Lindblom believes that there are limitations in relation both. The degree of using comprehensive planning or incremental planning depends on the nature of a plan, time, and the budget that you have.

With the progress in data collection methods, soft-wares for the storage, processing and analyzing data, prediction techniques, the possibility of applying comprehensive rational planning has increased. It is possible to gather, process, and analyze a high volume of comprehensive information:

- To define a problem.
- To define alternatives for solving a problem and analyzing them.
- To determine the short-term and long-term consequences of each alternative.
- To evaluate the consequences of each alternative.
- To define values and preferences of the citizens.
- To determine the best solution for a problem through analysis and evaluation.
- To redefine a problem and do the whole process again.
- To decide realistically.
- To do the analysis with all details.
- To determine policies and general direction at the top level of hierarchy.
- To increase the predictability and planning ability with the improvements in the information system.

Because of the evolving computer technology, storing, processing and analyzing techniques, the whole process of applying comprehensive rational planning does not take a lot time, and resources. Also, with these improvements, the administrative capacity of the related organizations increases.

Mixed scanning combines the comprehensive and incremental planning. The general framework is determined through comprehensive planning. Decision making for basic issues are determined through comprehensive planning and decisions that should be made considering the changes which happen during a time period are incremental.

Wisconsin county zoning committee's decisions use of mixed scanning shows a successful case. Mixed scanning suggests a dual-level action process. A primary level decision determines whether a problem will be addressed. If the answer is negative, a problem is not addressed. If the answer is yes, the decision process moves to the secondary level. Thus, a root level decision must be made before consideration is given to a branch-level decision. Most county zoning committee decisions were made rationally. Rational comprehensive and mixed scanning, and a flexible approach was applied. Piecemeal decision-making that permits scattered, unplanned development can have an adverse cumulative effect. Incremental zoning decision making will not likely result in an optimal county land use pattern in the future. Better zoning choices (more effective, longer-lasting, less resource consumptive) are more likely result from the use of a rational comprehensive approach to decision making. Zoning committee members must develop a better understanding of the "big picture". There is a need to acquire a vision for uses of land that has spatial and temporal dimensions much greater than was evident when their decision focused on only one land parcel at a time (Last, 1995).

### Conclusion

Three paradigms of planning were reviewed. Proponents of comprehensive rational planning believe that this paradigm stays as dominant paradigm in urban planning. No other theory has replaced it, but some other theories have been applied as complementary. Comprehensive rational planning stays as dominant paradigm, as a benchmark. The power of comprehensive planning stays. A survey of urban planners, members of American Planning Association showed that comprehensive planning is implemented on the basis of scientific knowledge, enables the coordination of central implementing organizations and provides a base and foundation for decision making and governmental management. As planners try to define planning as a professional field, they try to link planning to rational values. A group of planners defend that with the increase of emphasis in privatization, planning will have more link with rational comprehensive planning. The proponents of this paradigm write that the world of organizations, professionals and scientific planning makes the comprehensive rational planning

Sustainable. Planning schools, governmental organizations, planning departments emphasize objective analysis, adequacy, and merit of the planning. Those teaching planning, support planning directly.

There should be a distinction between the general framework of planning and a long-term plan, and more detailed, mid-term and short-term planning. To coordinate between sectoral plans, comprehensive plans should be used. To complete the structure of planning in an organization, both comprehensive and incremental planning are needed. The abilities of planners in different fields depends on the continuous, organized relation between these different fields in a comprehensive framework. The capacity of decision makers another important factor. Higher capacity of an organization makes the decision making more effective. The creative role of planners in determining the degree of combining comprehensive planning, and incremental planning is very important. If the condition is stable, precise information is available in all dimensions, the economic, social and economic, stability exist, degree of using comprehensive planning is higher. Using comprehensive rational planning means that planning is designed in relation with a system of economic, social, physical and environmental variables, and all variables should be considered.

Within the framework of comprehensive planning, yearly incremental plans can be designed to prepare special plans. Short-term and long-term plans with more details can be used as a basis for implementing organizations. Two to three years predictions can be used as a basis for evaluation. To have a comprehensive and complete structure, there is a need to act in both comprehensive and incremental.

The impact of environment should be considered. In stable condition, more use of comprehensive planning is recommended and in changing condition, more use of incremental planning is recommended. No policy and strategy can be designed separate from the “context” of planning.

## References

1. Altshuler, A. 1965. The City Planning Process. A Political. Ithaca, NY: Cornell University Press.
2. Allor, David, J. 1984. The Planning Commissioners Guide: Process For Reasoning for Reasoning Together. The American Planning Association, Chicago, IL.
3. Alexander, Ernest, R. 1984. After Rationality, What? JAPA, 50, 1, pp: 62-67.
4. Altshuler, Alan. 1965. The Goals of Comprehensive Planning, AIP Journal, Spring.
5. Banfield, Edward, C. 1959. Ends and Means in Planning. International Social Science Journal. 11, 4, pp: 361-68.
6. Baum, Howell, S. 1982. What is to be learned? Alternative Views of Planning Theory in Use. Paper Presented at the Association of Collegiate Schools of Planning, 24<sup>th</sup> Annual Conference, Chicago, October.
7. Bolan, R.S. 1969. Explaining the Puzzles of Policy Change: Local Finance Reform in Britain. Journal of Public Policy, 10 (1): 45-65.
8. Bolanm, Richard, S. 1967. Emerging Views of Planning of the American Institute of Planners, 33, 4, pp: 234-46.
9. Branch, Melville, C. 1981. Continuous City Planning Integration Municipal Management and City Planning, New York, John Wiley & Sons. Pp: 60-64.
10. Branch, Melville, C. 1983. Comprehensive Planning, General Theory and Principles, Palisades, California.
11. Bramley, G. 1990. Explaining the Puzzles of Policy Change: Local Finance Reform in Britain. Journal of Public Policy, 10 (1): 45-65.
12. Dalton, Linda. 1986. Why the Rational Paradigm Persists. The Resistance of Professional Education and Practice to Alternative Forms of Planning. Journal of Planning Education and Research. 5 (3): 147-53.
13. Etzioni, Amitai. 1967. Mixed-Scanning. A Third Approach to Decision Making. Public Administration Review. 27. PP: 385-392.
14. Fainstein, Susan, S. 2000. New Directions in Planning Theory. Urban Affairs Quarterly.

- 35.4. Sage Publication.
15. Fleischmann, A. 1989. Politics, Administration, and Local Land Use Regulation: Analyzing Zoning as a Policy Process. *Public Administration Review*. 49: 337-344.
  16. Faludi, Andreas (ed). 1973. *A Reader in Planning Theory*. New York: Pergamon Press.
  17. Flyvbjerg, Bent. 1998. *Rationality and Power, Democracy in Practice*. The University of Chicago Press. Chicago, 1998.
  18. Foglesong, Richard E. 1986. *Planning the Capitalist City*. Princeton University Press.
  19. Friedman, John. 1976. A Response to Altsuler: Comprehensive Planning As a Process. *January XII*. P: 40.
  20. Friedman, John. 1987. *Planning in the Public Domain: From Knowledge to Action*. Princeton, NJ: Princeton University Press.
  21. French, S. P. 1991. An Approach to Environmental Impact Assessment for Local Government. *Journal of Soil and Water Conservation*. 36, 5: 292-296.
  - Griffin, R.W. and G. Moorhead. 1986. *Organizational Behavior*. Houghton Mifflin Company, Boston, MA.
  22. Jonathan, Marks. 2005. *The Good Society*. 14 (1-2). P: 15-18.
  23. Kuhn, T.S. 1970. *The Structure of Scientific Revolutions*. Chicago. Chicago University Press, PP: 12.
  24. Last, Donald G. 1995. Incremental Land-use Decision Making Displayed by County Zoning Committees
  25. Lindholm, Charles, E. 1959. The Science of Muddling Through *Public Administration Review*. 19. PP: 79-99.
  26. Meyerson, Martin. 1965. Building the Middle Range Bridge for Comprehensive Planning. *Journal of American Planning Association*. Spring. PP: 58-64.
  27. Muller, J. 1998. Paradigms and Planning Practice: Conceptual and Considerations. *International Planning Studies*. 3 (3): 287-302.
  28. Olson, D.R. 1987. *The Incremental Budgetary Theory Revisited: An Empirical Study of Congressional Appropriations*. Ph.D. Dissertation, University of Illinois, Urbana Champaign, IL.

29. Rubin, J.Z. 1984. Introduction. In: Walter C. Swap (ed) Group Decision Making, PP. 15-44. Sage Publications, Inc. Beverly Hills, CA.
30. Saasa, O.S. 1985. Public Policy Making in Developing Countries: The Utility of Contemporary Decision Making Models. Public Administration and Development.5.4.
31. Sampson, R.N. 1975. Will the Real Land Use Planning Stand Up? Journal of Soil and Water Conservation. 30. 5. 207=210.
32. Simon, H.A. Administrative Behavior: A Study of Decision Making Processes in Administrative Organizations. The MacMillan Company. New York, NY.
33. Starr,Chuansey. 1982. An Upheaval in U.S. Strategic Thought. Science. 216. P.34.
34. Thomas, S. 1970. The Structure of Scientific Revolutions. Chicago: University of Chicago Press.
35. Weber, Melvin. W. 1989. Planning in An Environment in An Environment of Change. Town Planning. 39. PP: 277-96.
36. Wilson, D.E. 1980. The National Planning Idea in U.S. Public Policy: Five Alternative Approaches. Westview Press, Boulder, Co.