Erling Berge,
Department of Land Use Planning,
Agricultural University of Norway

THE PROCESS OF PLANNING AND DECISIONS ON LAND USE[1]

Introduction

Most public planning involves aspects of spatial activities and hence has consequences for land use. On the other hand, a rather small fraction of land uses directly involves a significant part of public planning. However, probably this fraction has been increasing. Planning intervenes mostly when changes in land use is an issue.

Most planners tend to believe that more planning is better than less. From this perspective it would pay to study how planning may affect land use decisions. But even those who have doubts about the blessings of more planning, would agree that in those few instances where planning is necessary, it will pay to know more about how planning affects decisions on land use. The key to such knowledge is the decision making process. A thorough understanding of who the actors are and their interests in the land use as well as how they go about accommodating their interests to arrive at a feasible compromise is required. One has to study factors shaping their interests, processes distributing resources and actors as well as institutions for accommodation and articulation of interests. We shall start with some preliminary observations on planning in relation to land use.

The Process of Planning

A formal description of a planning problem may be stated as follows (Johansen 1977, 1978): Given a set, X, of goals, a set, A, of feasible actions and a set, Z, of exogenous factors affecting x so that $x=f(a,z)$, the planning problem consists of choosing the action a so that $W(x)$ satisfies the requirements of the decision maker, when W is the preference scale of the decision maker. The problem can further be

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[1] The paper was presented at the XXVIII World Congress of the International Institute of Sociology in Albufeira, Portugal, 1986. It is available in Norwegian in a preliminary version as INAS-notat 1983:5 (Institusjonelle og kulturelle implikasjonarav arealbruk), and in revised form published in Berge, Erling. 1990. Land Use Controls: Institutional and Cultural Implications. In *The Social Nature of Space*, edited by Bernd Hamm and Bohdan Jalowiecki, 141-155. Warszawa: Panstwowe Wydawnictwo Naukowe.

specified to consist of 1) delimiting the set of possible actions, X, 2) specification of the functioning of the system, f, 3) listing of the exogenous factors, Z, 4) establish the preference scale, W, 5) predict the values of z for all values of a and 6) choosing the (a,z) which optimizes W(x). As a formal description, it gives an impressive characterization of the complexities of the problem, yet it is an understatement of the real difficulties involved in public planning.

In general, there is no agreement on what the set of goals or the set of feasible solutions consist of, and, of course, there are fights over the preference scale. The sets X, A, and the function W which planners would like to take as given are, if not unknown, at least extremely fuzzy sets. This fact shapes the planning process as much as the objective complexities of the problem. The uncertainties introduced into planning by the fuzzy quality of the premises of the problem can, according to Christensen (1985), be said to delimit four types of planning approaches.

1. Rational application of knowledge.
If there is agreement on goals (X) and means (A), the problem is the one described by Johansen. It "merely" consists of finding out how the system functions and predicting how the exogenous variables will behave during the implementation of the chosen action a. This leaves out the problem of changes in W (but some simplifications must be allowed).

2. Planning as societal learning.
Assuming that there is agreement on goals but disagreement on means, one may conceive of planning as a societal learning process. Trying out action after action, often in small-scale experiments, one tries to observe (evaluations) whether the goal is closer or not. If the goal is reachable at all, one will in time, and everything else constant, find out how to reach it. Planning in such conditions is often called incrementalistic. However, since other things never are equal, policy often come out as muddling through or simple and pure chaos.

3. Planning as a bargaining process.
If there is no agreement on goals, but agreement on means for reaching the various goals, the planning process, consists in functioning as a go-between for the various agents, proposing compromises and accommodations until some goal can be agreed upon. Here one finds the various branches of advocacy planning, participatory planning etc.

4. Planning as creation of order out of chaos.

Often enough there is no agreement on either goals or means. In this case planning may be seen as a conscious effort by a public to find out about itself. It may be a combination of case 3 and 2. However, one should be aware that any statement on goals and means will emphasize some goal x and some means a, to the exclusion of others, and this may not only be a result of the preference scale W of the planners rather than the public. It may also be that the methodology of the planners or the available data, biases the statement. In order to balance the inevitable biases of planners and planning in this case, one ought to have competing planning teams with different approaches to planning to ensure the public has some access to the variety of interpretations a chaotic reality may offer. Even so the planners should be prepared to go several rounds with bargaining and learning before concluding on any proposal for action. Meanwhile the system changes and conditions deteriorate elsewhere. Agreed upon plans are very likely to be obsolete before they can be implemented.

There seems to be no way for all planning to be conducted as the simple application of agreed upon means to agreed upon goals. Fortunately, one could say. It would have been dull just to fight over preference scales.

Planning of Land Use

A further useful classification of planning may be obtained by a suitable classification of the goals of the planning process. It could be helpful to think of those qualities of motivational entities that make them more or less desirable as their value. A useful classification of different types of value of motivational entities is obtained by distinguishing between those containing divisible or indivisible values and those containing alienable or inalienable values (Berge 1981). This gives four basic types of value that may be labelled use value, strategic value, prestige value and community value. The price or exchange value (E) of a motivational entity may then be thought of as a function of use value (U), strategic value (S), prestige value (P), and community value (C): $E=f(U,S,P,C)$ where the function f is determined by negotiations between buyer and seller. The preference scales of the buyer and seller as well as the available information on U, S, P, and C shape these negotiations.

TABLE 1 FOUR BASIC TYPES OF VALUE AFFECTED BY LAND USE PLANNING

VALUES MOTIVATING ACTION	ALIENABLE	INALIENABLE
DIVISIBLE	**USE VALUE**	**STRATEGIC VALUE**
INDIVISIBLE	**PRESTIGE VALUE**	**COMMUNITY VALUE**

The distinction between these types of value is important because the social process generated by the production and distribution of the various kinds of value are different. Public planning is involved in the production of all these types of value and should take due consideration for the difference in the process generated. One difficulty, however, is that many motivational entities, and land in particular, contain all four types of value.

Land as such is not a result of a planning process. However, *land use* may be seen as something we produce through the construction of necessary infrastructure. Hence planning of land use is concerned with the production of all four types of value. This may be one of the fundamental difficulties facing land use planning. For not only will different kinds of goals require different approaches to planning, but the various types of value of the goals, has to be treated at the same time and in the same plan.

However, the various kinds of land use are not all concerned with all kinds of value to the same degree. It is possible to delimit classes of land use where use value, strategic value, prestige value or community value is predominant.

1. Use value in land use.
To this group belong most ordinary buildings designed and built for private or public ownership and consumption. The problematic aspects here lie in the adjustments to other kinds of goals with different types of value.

2. Strategic value in land use.
To this group belong all kinds of communication infrastructure. The problematic aspects of planning lies in the distributional consequences of differential access to

areas containing other types of value as well as the dynamic consequences of timing and sequences of communication infrastructure projects.

3. Prestige value in land use.
To this group belong all kinds of infrastructure with prestige symbols. Mostly it will be public buildings and monuments. The problematic aspects here both lie in finding the proper balance between conservation and transformation and in designing structures with new symbols. The creation of new prestige symbols always has consequences for old symbols.

4. Community value in land use.
To this group belong all kids of visual or emotional characteristics of areas. For planning there are problematic aspects both in the creation of specified characteristics and in the preservation of specified qualities of an existing area.

Making decisions on land use.
Decisions on land use are decisions on flows of income. This is at the heart of the value of areas. Who gets control of the value ultimately commands a resource with consequences for his or her income. Elsewhere I have discussed how problems generated by differential access to the income generating potential of areas may contribute to a concept of private property as a device for controlling conflicts over access to land (Berge 1983) .

The income generating potential of an area is almost exclusively determined by use value and strategic value. Only rarely can prestige value be converted to money, and community value cannot be converted at all.
The market value of an area, on the other hand, is often heavily affected by prestige and community value. This leads up to a distinction between land considered as an income-generating asset, and land considered as an object for profit making transactions. Particularly where prestige value is important (e.g. urban areas) or where community value is important (e.g. some rural districts), profit making transactions on the one hand and land valuations based on community/prestige components on the other hand tends to affect the land market unfavorably with regard to income generating processes. This at least assures a steady flow of conflicts related to decisions on land use.

If we look at land use decisions in a broader context, it seems to confirm a general tendency for societies: the more important to the survival of the society an issue is, the more complex the decision making process on that issue will be. The decision

making process is then taken to be the sum total of all processes affecting the outcome. Since the society is an ongoing concern with an established land use, the decision to continue the existing land use is not interesting unless challenged by someone who wants to change the land use. The decision making process therefore is focused around decisions on changing land use.

A simple description of how an agent goes about acquiring a parcel of land, obtaining the proper public signatures, and transforming the parcel to suit the intended activities, is just a point of departure for asking questions. Such as: 1) Which factors have shaped the motivations of the actor?, 2) Which factors have contributed to the precise shape of the public controls?, and 3) How will consequences of particular changes of land use affect the ongoing process of land use decisions? But even in the simple description of what an actor has to do to change an existing land use, the complexities of the processes involved are apparent.

How to change land use in Norway: the actor level.
If an actor wants to initiate changes in the use of a parcel of land, the first step is to acquire legal title to the land. Legal title to an area may appear in several forms with varying degrees of control over the possible changes: 1) Full ownership gives the highest degree of control to the holder of the title. Still several laws circumscribe the decisions. 2) Leasing of land for a long period of time may give approximately the same possibilities for changing the land use as full ownership, but may further be circumscribed by the leasing contract. 3) Renting land for shorter periods usually gives poor possibilities for changing the land use substantially. Even if the contract does nothing to limit changes, the economics of the process will severely circumscribe the possibilities.

One of the key areas of the decision making process is the process of gaining title to land. Here there has evolved a complex game between landowner, developer, and public authorities. Experiences have shown that ownership and control of transfers of title are not sufficient control institutions for urban-industrial societies (Berge 1983).[2]

Having acquired such title to the land that the intended changes in its use is not prevented; the second step is to apply to the municipal building council for

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[2] It is interesting to note that one of the laws designed to control transfers of title to land, the "concession act", makes it possible to discriminate between buyers according to motive for buying (see § 7 in LOV-1974-05-31-19, The Concession Act).

permission to construct the necessary infrastructure. This initiates the following procedure:

First, it is determined whether the intended use of the land is in accord with the land use plan and/or zoning regulations of the municipality. If that is the case, a detailed land use plan of the area has to be evaluated. The most important considerations concern: a) access to the area for necessary traffic, and how this affects neighbours, b) supply of water and electricity, c) removal of sewage, and d) any comments or protests from neighbours. If the plan meets stated requirements, permission to construct according to submitted plans is given.

If permission for one reason or another cannot be given, another game between landowner/developer and public authorities/political constituency may start. The outcome is affected by several factors. In so far as the proposed change in land use only affects the use value or the strategic value of the land the following figure from Goodchild and Munton (1985, 13) gives a valid summary of important factors also for Norway:
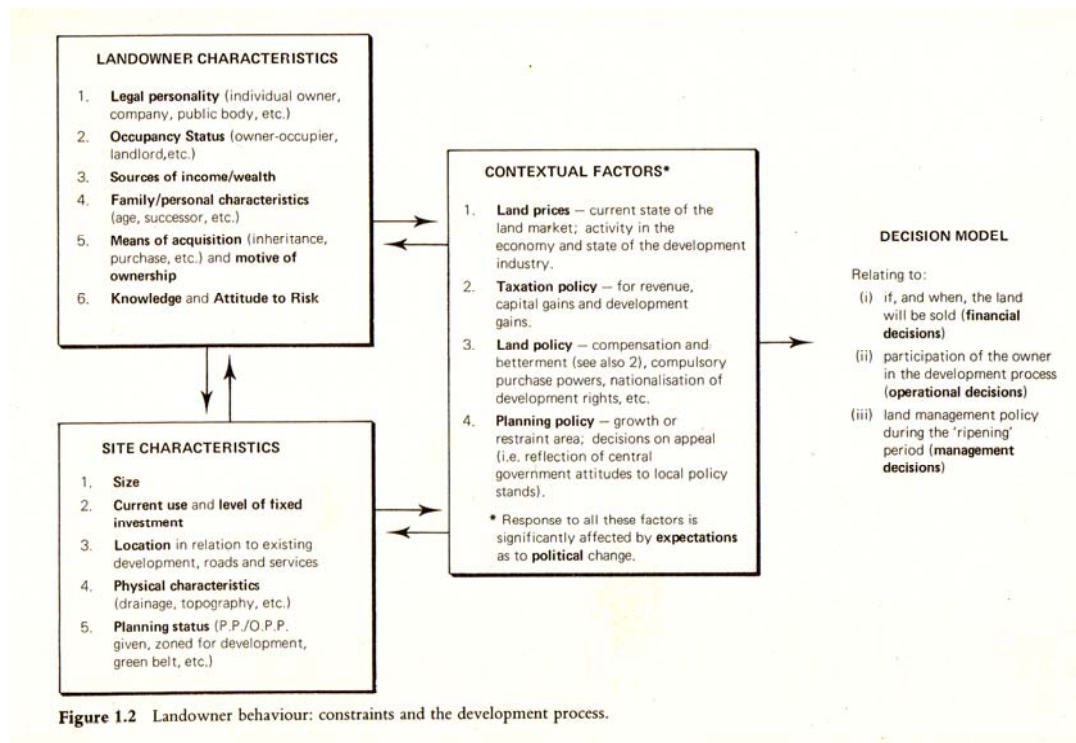

Figure 1.2 Landowner behaviour: constraints and the development process.

Source: Goodchild and Munton (1985, 13)

If the land use changes also affect the prestige value or the community value of the land, the scheme ought to be extended to include factors like:

SITE CHARACTERISTICS:
     6. Symbol content (referring to prestige or community, relations between symbol function, site and scenic totality)
     7. Symbol benefit (who benefits from the inalienable values of the site?)

CONTEXTUAL FACTORS:
     5. Culture (valuation of symbol content is culturally determined,
     6. Distribution of power (priorities among mutually exclusive goals may be determined by strategic considerations on the distribution of power)

In any case the processes where the landowner/developer is directly involved is only the first level on which land use decisions may be considered.
At the next level, we may consider the activities of the system responsible actors: The elected assemblies of municipality, county, and state.

How to change land use in Norway: the system level.

In a democracy, the elected officers of the municipality, county, and state are vested with authority to decide on matters deemed important to the functioning and long-term survival of the society. A society is not any kind of organization. Hence, the municipality, the county, or the state is not any kind of actor. It seems useful to distinguish them as system responsible actors.

At the municipal level, a large fraction of decisions and perhaps a major part of the time is spent on land use issues; for example discussions of the zoning principles to be used in the next version of the municipal land use plan, the sale of a publicly owned house, or the dispensation from a general rule for waste disposal. Even budget allotments for municipal services or maintenance of buildings have an impact over time.

The reasons for the importance of land use at the local level are both the immense importance of land use for the distribution of income and the many "external economies" of activities in terms of land values (Berge 1983) . In order to fulfil its role as system responsible actor the municipality has to engage both in the game over the distribution of title to land and in the game over the right to develop the land.

For the state, the involvement is more indirect. Primarily it consists of giving laws. Secondarily they affect land use through the allocation of money to different purposes. Priorities between e.g. energy conservation and hydroelectric power plant construction obviously have consequences for land use. It is however, as maker of laws the state is most important. If we try to classify the various laws primarily occupied with land use control, one can say that the laws of farmland and woodland primarily are concerned with the use value of land in rural areas while the planning and building law primarily is concerned with the use value of urban land. The road law is concerned with the strategic value of land (both urban and rural). Of laws concerned with the prestige value or community value of the land there are some special laws like the "odelslov" (the law of allodial rights) and the law of historical monuments, which may be said to be concerned with community value. The "odelslov" which is concerned with the symbolic relations between a family and a particular piece of land (the community value of the land for the family). The law of historical monuments are concerned with the symbolic relation between the nation and its history as this can be read from characteristics of the land (the community value of land for the nation).

Since community value is inalienable and indivisible, it is a question of protection of the value. Redistributional questions cannot be addressed, and processes vesting such value in land are poorly understood. Hence, nothing much can be done in the direction of regulating them.

The processes generating the prestige value of an area are better understood. Largely it comes as secondary effects of the general processes of distributing prestige in a society (Goode 1978). In general, prestige must be considered inalienable. However, as far as land becomes a symbol of prestige, prestige becomes alienable. There seems to be no laws concerned with the production and distribution of prestige value in land. There are, however, processes transforming prestige values into community value.

An interesting aspect both of states when laws are constructed and of municipalities (and courts) when laws are interpreted, is the relation between culture and law. As maintained elsewhere (Berge 1983) there are few areas where the connection between a culture and society are as easily visible as in the land use control system. In many instances, the logical requirements of a control system adapted to an urban society will be in conflict with the established culture where the rural control system is an integrated part. The causal chain goes from cultural values to laws and interpretations of laws to functional and distributional problems

for the society. Planners charged with the provision of workable solutions for the problems experienced are also marked by their cultural heritage. However, even if they were able to see the total problem, they would be unable to solve the basic problem of inconsistency between political priorities and societal practices.

The preference scale of the system responsible actor is not pointing in any one direction of development. However, compromises may lead the development in directions no one had foreseen, let alone wanted. One reason for this is found on a third level of factors affecting land use decisions.

Land Use Decisions - the civilization level.

In broad terms, one may distinguish between technology, organization, and population as factors affecting the decision making of actors rather independently of what the single system responsible actor decides even at the state level. One may think of these factors as constraining circumstances or perhaps better as passive forces channelling the decisions of the various actors at different systems levels.

The development of science and technology is not controlled by any one actor (whether system responsible or not). It develops as an open non-actor system. The development changes the distribution of resources by changing what is a resource or the value of it. It causes changes in activities and creates new ways of utilizing land. This creates premises the various actors deciding on land use has to take into account.

This development affects land use directly both through development of new transportation technology (e.g. permitting new types of settlements) and through the transformation of productive activities (e.g. by changing economies of location). This has often rather direct implications for existing organizational practices and presents the premises households has to adapt to in their task of reproducing the population.

Increasing numbers of people also is a continuous pressure for more intensive utilization of land. But population distribution and the consequent demand for land is perhaps more affected by technology (e.g. in transportation and housing) and organizational development (the management of urban societies) than of increasing numbers of people per se.

At this general level, organization has two main consequences for social systems. It helps societies produce and distribute values, and it helps society direct motivations and overcome aggregation problems caused by spatial and temporal mismatching of aggregate demand and aggregate supply of motivational entities. The impact of organization on land use cannot easily be separated from the impact of population and technology. At least theoretically, there would seem to be, for a

given technology and regional distribution of population, a wide margin for choosing among different patterns of housing with important consequences for land uses. The intervening variable between what is theoretically possible and what is democratically feasible is culture.

In addition, if the choice of one type of land use pattern is indisputably given by cultural attitudes and valuations, the choice will constrain the organizational framework of the society. Once established, the land use pattern and organizational setup will reinforce each other in a functional link (Stinchcombe 1968), see figure below. The tensions (T) brought to bear on the given land use pattern changes it only marginally since the system (S) will change the organization of land use control in order to maintain the existing land use pattern (figure below: H= homeostatic variable) as nearly unchanged as possible. To pick out the group of actors benefitting from the existing land use structure is easy enough. The difficult part in establishing the functional link is to prove the conservative nature of changes in land use control structures and that the conservative nature of the changes to some extent are unintended by those having the final word on them. Again, culture may be a major factor in the process by making the existing land use pattern evident beyond questioning and the distributional consequences just.
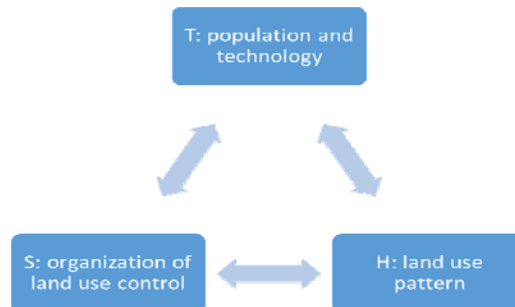
External factors like population, organization, and technology may in the long run be the main determinants of land use. In the short run, however, the land use controls designed by system responsible actors and the battles fought by developers over 1) the right to gain title to land, and 2) the right to develop the land, constitutes the problems planners and public have to deal with.

<u>Cultural factors in land use decisions.</u>
Culture is at the borderline between the civilization level and the system level. The formation of nation states had as one goal to encompass a cultural area within the borders of one state. It never quite achieved this and today the internationalization

of consumption and entertainment is a strong force towards an international culture. However, the necessary link between language and culture is a very conservative force in the development of culture. Applied to land use this may be particularly so since land use in itself develops very slowly.

The problem of cultural determinants of decisions on land use may be approached on two levels. The Norwegian culture represents a general background of beliefs and attitudes shaping the judgement of what are desirable and important for landowners, planners, politicians, and landless public alike. There is, however, also subcultures e.g. among planners. The education and professional experience infuse certain beliefs and opinions into planners, which along with the general cultural background shapes their activities. However, these subcultural aspects of the problem are closely tied in with individual interests in certain outcomes of their activities. That is also the stuff of culture in general.[3] It means however, that one must include both the general attitude and valuation questions and the more specific interest questions in an investigation of cultural determinants.

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[3] Maybe the differentiation of activities and social structure will be followed by a similar cultural differentiation? The development of language might be studied for clues to this.