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SWEDEN'S NATIONAL PHYSICAL PLANNING FOR RESOURCES MANAGEMENT

By *Lennart J. Lundqvist**

LOCAL PLANNING MONOPOLY AND NATIONWIDE COMPETITION FOR NATURAL RESOURCES: AN INCREASING DILEMMA

As in so many other countries, land use planning in Sweden has traditionally been regarded as an almost entirely municipal concern. In 1947, this century-old tradition of comprehensive land-use planning power for local communities was codified in the Building and Planning Legislation. Under this legislation, the local Building Committee is responsible for all local planning. The local Building Committee is requested to create a *master plan*, which serves as a survey of existing development and provides guidelines and coordination devices for the desired expansion of the community. On the basis of that master plan, *detailed development plans* are drawn up, showing the exact locations of buildings and public facilities within parts—or the whole—of the community. To become legally binding and enforceable, detailed development plans must be ratified by the State Regional Board or, in the case of larger or more important plans, by the Swedish Government. Some 3,000 planning matters are dealt with annually by the State Regional Boards; of these, about 250 pass on to the Swedish Government for final approval.¹

Soon after 1947, however, it became clear that the planning monopoly of the local communities was inadequate. Many factors contributed to this, some of which were inherent in the planning legislation and processes. The planning was mostly geared towards questions such as adequate housing, space for industrial and commercial activities, and public facilities. Not much was said in the legislation as to how to secure the best use of available resources. Many local communities, out of their desperate need for greater tax revenues, allowed and encouraged private enterprises to settle

within their boundaries, without regard to their impact on the community's natural resources.

But perhaps more important to the increasing conflict between community planning power and a wise use of resources were the structural changes of the Swedish society as a whole. Swedish industry has gone through a rapid process of mergers and concentration, resulting in huge, technologically advanced plants with an ever increasing demand for sites providing advantageous natural resources, such as an abundance of water and good harbors. This has meant an increasing pressure for industrial use of coastal areas. At the same time, however, increasing leisure time, better wages, and an increase in automobile ownership have caused an increasing demand for recreational areas. Numerous clashes have developed between competing interests over the use of natural resources, especially in coastal areas. Also contributing to this conflict has been the rapid concentration of the population in certain urbanized areas, resulting from the concentration of industrial activities. More recently, the increasing knowledge of the environmental damages resulting from large-scale industrial operations, and the dawning recognition that natural resources are indeed very limited, have tended to sharpen the conflict between demands for different resource uses.

Evidently, these conflicts over land and resource use have assumed a national character. Local governments often have a limited perspective and little incentive to protect scenic or ecologically vital areas within their borders. Their need for tax revenues has often spurred development detrimental to the wise and efficient use of natural resources. Local monopoly of land-use planning, therefore, has not been able to deal effectively with many of today's natural resources and environmental problems. Recent Governmental initiatives are aimed at overcoming this dilemma.

OVERCOMING THE DILEMMA: INCREASED PLANNING POWERS AT REGIONAL AND CENTRAL LEVELS

During the 1960's, and especially after 1965, new procedures for comprehensive, high level planning have been pursued. These procedures, embracing (a) *central economic long-range planning*, (b) *regional development planning*, and (c) *comprehensive national physical planning*, have been introduced on central initiatives, with the Swedish Government responsible for their development

through the ministries and the central and regional civil service departments. Over all, these procedures have reduced local power in planning, shifting it upwards to the regional and central level.

Central economic planning is governed by certain principles that affect the use of natural resources. The planning is directed to enhance economic growth and at the same time secure consumers' freedom of choice and freedom to establish and conduct business. This "freedom of establishment," together with market forces, can be said to have contributed to the increasing need for nationwide resource planning. In relation to local governments, therefore, central economic planning has a greater impact in the public sector, especially in basic education, agriculture, and housing, where governmental subsidies play an important role. The instruments of central economic planning are two: the Economic Survey and the Long-Range Survey. The Long-Range Survey of 1970 contains a number of features aiming at a wider range of evaluations than before; for example, there is a thorough examination and discussion of the economic impacts of environmental protection measures. More important to the upward shift of planning powers is *regional development planning*. Established in 1964, its general aim is the development of a future regional pattern for work, housing and social facilities so that an equal standard of living will exist in each of Sweden's 25 regions. A number of means have been relied upon to achieve regional equality: Governmental loans and subsidies to industrial establishment in backward regions; information and advice to enterprises on site conditions; more active community planning at the regional level; and finally, development of a system of classification for urban places as a basis for differentiated measures. The prime concern is the long-range implications of a particular plan for the use of available manpower and social capital resources. It should be noted that even if regional development planning is not concerned with stationary or fixed resources, it cannot disregard the natural resources.

The planning work so far has been carried out in three major steps. First, the study "*County Planning '67*" was carried out, containing projections and objectives with regard to population, manpower and construction, in 5- and 15-year perspectives at regional and local levels. Second, the State Regional Boards and their planning councils have prepared action programs and specified measures necessary to achieve the goals of "*County Planning '67*." A "*County Program '70*" has a time horizon of 5-10 years. Third,

special studies on municipal long-range economic planning have been conducted to "develop" the interaction between local and regional levels. In fact, this has meant increased regional control over local planning, basically through the establishment of standards, quotas, etc., for local community development.² The classification of urban areas has had the same effect, since the classification determines what specific contributions the Government will give to a local community.

NATIONAL PHYSICAL PLANNING: UNDERLYING CONSIDERATIONS AND WORKING PROCEDURES

The third manifestation of the trend toward comprehensive, high-level planning in Sweden is *national physical planning*. Such planning includes the long-term management of a country's natural resources, such as land, waters, and minerals. As outlined above, the local planning monopoly has proved to be inadequate to a rational use of resources. Since 1966, work has been done to establish a National Physical Plan for the whole of Sweden. As outlined by the Swedish Government, the tasks of such planning are: (a) to chart the long-term claims which various interests and activities may make on natural resources, locations and the environment, and the assets available to satisfy these demands; and (b) with reference to the national interest, to draw up guidelines for the management of these natural resources.

To a substantial extent, the riches of nature determine man's physical environment. They also are necessary factors for the production of the goods necessary for man's life. These fundamental conditions must be part of any physical plan. Swedish national physical planning starts from the principle that the management of natural resources must provide: (a) the achievement of contemporary welfare policy objectives (continued economic growth being a prerequisite); and (b) the preservation of freedom of action for future generations with the regard to the use of these resources. When weighing resource demands against each other, the planning has to choose that course of action which—in the long run—seems ecologically sound.

Obviously, there is a close connection between the management of natural resources and the goal of regional equality. Therefore, the objectives of regional policy form another prerequisite for na-

tional physical planning, at the same time as it sets conditions for regional development planning. As mentioned, resource management should be carried out with an ecological perspective. Thus, the goals of environmental policy also form a prerequisite for national physical planning. In the eyes of the planning authorities, these goals—a halt to environmental deterioration and a restoration of already damaged environmental qualities—are compatible with economic growth and regional development, if environmental requirements are met in the construction of economically needed industries. Additionally, it is considered necessary to take a very long-term perspective for physical planning.³

The work has proceeded in at least five stages. The first three steps were taken by a Governmental preparatory investigation committee. The Committee first made a survey of the demands on natural resources that different interests can be expected to have in the next 20–30 years, with regard both to location, and to needs for land and water. Interests concerned include industry, out-door recreation, environmental quality and urban development. It should be noted that, while business and industrial interests worked out their resource claims by themselves, the claims of other interests were determined by governmental agencies. This reflects the notoriously inferior position of environmental interests to industrial resource exploitation interests. During the first stage, the Committee also reviewed Sweden's natural resources to determine the future pressure on resources, and to find out in what parts of the country clashes of interests might occur.

In the second stage, the results of the surveys were examined in detail, and the possibilities of meeting the demands were studied by testing alternative land-use patterns. In the third stage, the Committee presented solutions to conflicting resource demands. These solutions had the character of proposals for adequate locations of industrial and out-door activities. These proposals were submitted for public discussion, in the fourth stage, in December 1971. Every individual or interest group was encouraged to review the Committee report and submit their opinion to the Government before June 20, 1972. In the fifth stage, the Government has been preparing a proposal to the Parliament. The final decision was taken by Parliament during its 1972 autumn session.⁴ As had been expected, it did not depart much from the Committee's December 1971 report.⁵

DETERMINING THE STATUS OF NATURAL RESOURCES:
SOIL, WATER AND RECOMMENDED USE

For the first time in the history of Swedish planning, data concerning the status of natural resources have been collected to serve as a basis for the planning process. The Committee has consulted experts in various disciplines such as geology, ecology, limnology, and other sciences to get such information. The results are, in many cases, very preliminary. Often, experts found themselves in disagreement when trying to interpret data. Nevertheless, a fairly clear picture of the situation was established. It was found that in certain areas of southern and western Sweden, the soil was extremely sensitive to acid substances. A large part of acid deposition on Swedish soils comes with the southwest winds from other European sources. But in view of the already evident effects from acid on western soils, the Committee considered it inadvisable to permit industries emitting air pollutants to locate on the west coast. In addition, certain parts of the southeast coast appeared to be unsuitable sites for air polluting industries.

Compared with most other countries, Sweden would appear to possess an abundance of water resources in relation to its population. But the areas around the Mälars Lake and the Gotland Island are deficiency areas as compared to the rest of the country. Recent projections for the Malmö region show that this area will be short of water before the year 2000, unless fresh water resources from the inner part of southern Sweden can be diverted for use. The reviews also show—not surprisingly—that some of the largest sources of fresh water are also the most polluted ones. This is particularly true of the Mälars Lake (water source for 1.4 million people) and the Göta River (water source for 700,000 people). Coastal waters are most heavily polluted in urbanized areas (Stockholm, Gothenburg, Malmö); and the Baltic, serving as a recipient for seven states, is regarded as very sensitive to increases in pollution.

With regard to different types of industrial discharge, and to the risks of irrevocable pollution, the Committee presented the following considerations. Industries, discharging oxidizable substances or large quantities of phosphorus, should be located in coastal areas where these discharges do not have deleterious effects. This would include the west coast and the Bothnic coast of the north as possible sites of location. The Committee also concluded that, since the ecosystems of the west coast have a higher diversity and therefore a

higher tolerance level, the west coast provides the best location for industries which discharge heavy metals.⁶ It should be noted that the Committee has not given much thought to the possibility of technological innovations that might create recycling production processes. With recycling, most of the country would appear to be feasible for industrial location, since recycling makes most discharge unnecessary.

EXAMINING THE CLAIMS FOR NATURAL RESOURCES:
WHAT, WHERE AND WHEN?

To find the answers to these questions, the preparatory investigation committee surveyed a number of activities to determine their future resource demands. The survey could be charted only in outline and with varying degrees of exactitude. Among the more detailed demands were those made by environmentally-disturbing industries, outdoor recreation interests, and scientific and cultural nature conservancies. Beginning with conservancy activities, the National Environmental Protection Board compiled material concerning areas that are considered to be of national interest. To qualify, an area must contain a number of characteristics which, in combination, give it a specific conservancy value. In selecting these areas, the Environmental Protection Board has sought to include as many elements of highly representative nature as possible. The claims include 605 areas, with an average of 25 per region. The most important areas are in the northern mountain region, along the east coast from the north of Stockholm to the Öland Island, Lake Vättern and several parts of the west coast, especially in the Bohuslän region. The conclusion of the Protection Board was that these areas must be considered as a minimum program for nature conservancy.⁷

Over the past 20 years, vacation trips and outdoor recreation have been the most rapidly increasing parts of private consumption. The number of private vacation cabins has increased, and continues to increase, tremendously. These vacation cabins are usually on coastal areas or on lake shores. A field investigation carried out by the National Board of Urban Planning revealed that, of the coastline suitable for bathing, about 40 percent is inaccessible due to mushrooming recreational housing. If account is also taken of natural obstacles, less than one tenth of the total Swedish coastline—which amounts to roughly 9000 miles—is acces-

sible to the general public for bathing and outdoor recreation. It seems evident that an increase in the construction of private vacation cabins means a conflict with the interests of open-air recreation. In particular, the land surrounding urbanized areas (Stockholm, and the west coast from Gothenburg down to Malmoe) already have an overload of recreational settlements. Therefore, the demand should be geared toward inland areas.⁸

In recent years, industries with claims for specific natural resources—often those who are the major polluters—have caused conflicts with various recreational interests. This is due to the fact that such industries have tended to locate outside already industrialized areas. They have generally picked sites on the west coast, thereby destroying some very popular recreational resorts. To chart the industrial demands for specific natural resources—such as raw materials, deep-water harbors, large quantities of fresh and/or cooling waters—the Preparatory Committee requested information from certain branch organizations, such as power generation plants, oil refineries, heavy chemical industries, metal works, and pulp and paper industries. The branch organizations were asked to give both maximum and minimum alternatives.

As could have been foreseen, the industries concerned want locations in southern or central Sweden, primarily on the west coast, where the supply of demanded natural resources is good. Furthermore, location on the west coast would bring these industries closer to their potential markets on the European continent. In this coastal area, the region of Bohuslän seems most attractive to new industries.⁹ The number and kind of new industrial locations, as expressed by the industrial organizations, is shown in Table 1.

Thus, the investigations of different claims for natural resources clearly showed that the coastal areas will be conflict zones. This holds especially for the Bohuslän region on the west coast, the Malmoe region in the southwest, and the Stockholm region on the east coast. In Bohuslän, all interests concerned have a great stake in the future development of the region. Certain events in recent years have increased this potential conflict. In 1971, the Government allowed an oil refinery to be built in the middle of a very popular recreational area. The Government announced its decision as "having the character of a national physical planning decision."¹⁰ This upset the recreational and environmental interests, who began to wonder whether national physical planning was an "alibi" for spreading polluting industries to "virgin land."

TABLE 1
INDUSTRIAL DEMAND FOR NEW LOCATIONS FOR LARGE INDUSTRIAL PLANTS
UP TO YEAR 2000, AS EXPRESSED BY INDUSTRIAL
BRANCH ORGANIZATIONS

Type	Number		Site						
			West Coast		Inland		East Coast (Stockholm area)		
	Max.	Min.	First	Second	First	Second	First	Second	
Power generation plant	16	10	8					8	
Oil refinery	3		3						
Petrochemical industry	3		3						
Pulp Mill	1		1						
Aluminum smelting plant	4		2						2
Ferro-alloy plant	4		2			2			
Ordinary steel works	2		1						1
Special steel works	3		1		1				1
Shipbuilding yard	2		2						
Ship repair yard	2		2						

Clearly, the solution of the "west coast equation" will be somewhat of an ordeal for Swedish national physical planning.

PUTTING CLAIMS AGAINST RESOURCES: THE PRINCIPLES FOR "WHAT" AND "WHERE"

What operational principles should guide the solution of that equation? With respect to outdoor recreation and environmental protection, the following premises form the basis of all planning considerations.

First, the recreational value of a certain area should not be assessed only on its purely technical facilities. Particular importance is to be given to existing unspoiled areas of value for outdoor recreation, since the existence of such areas is seen as typical of Sweden. Within such areas, conflicting activities should not be permitted. Second, comparatively untouched areas—such as the northern mountains—should be preserved, so that they remain intact. Third, areas that are unique in some environmental aspect should be safeguarded against deterioration. Fourth, recreational areas that are located close to large concentrations of population should be protected, even if their environmental qualities are less than others, in order to satisfy the recreational need of densely populated regions. Fifth, areas that have been designated as particularly valuable for recreation and nature conservancy must be protected

from large-scale industrial exploitation. In addition, minor encroachments, which may cause synergistic effects when multiplied, should be prohibited.¹¹

In weighing against each other the sometimes conflicting demands of industrial development and environmental protection, national physical planning is to be guided by the following considerations.

First, account must be taken of the resource and transportation prerequisites for industrial development. Location sites should be selected which have a favorable combination of such prerequisites. Second, new industries must be located in areas where industrial growth is needed for equal regional development. This means locations outside existing metropolitan areas. Third, location of new polluting industries must, insofar as it is compatible with regional equality, take place in already industrialized regions. Thus, national physical planning should rest on the principle of concentration. Fourth, new location sites are to be avoided in areas of particular recreational or environmental value, such as the large continuous coastal sections. If coastal sites are absolutely necessary, they should be picked outside such sections. Fifth, location sites are to be within commuter distance (15 miles) of so-called regional centres. Sixth, industrial plants on coastal sites should be planned so that only those operations that are dependent on coastal location are actually established there. The principle is inland development of coastal industrial areas.¹²

The Preparatory Investigation Committee has stressed the protectionist aspects of its conclusions regarding land and water use. However, if one examines the principles more closely, some interesting features appear. Whereas the recommendations concerning recreation and environmental protection are very vague and undetermined, those concerning industrial location are precise. The real test of the protectionist character of national physical planning is, however, the way in which it actually proposes to place different resource-demanding activities. A protectionist physical planning would be prepared to enhance the protectionist interests versus exploitative ones.

DETERMINING THE USE OF RESOURCES: THE PLACES FOR DIFFERENT ACTIVITIES

In view of the investigations made and the principles stated for national physical planning, the Committee recommends and outlines the actual locations of different activities. It is proposed that

three coastal regions—northern Bohuslän on the west coast, Kalmar and Östergötland on the east coast, and Ångermanland on the north coast—should be protected from all kinds of polluting activities. The reason for this protection is the unique recreational, scientific, and ecological values of these areas. Further, those mountain areas in the north still relatively untouched by human activities should be protected in a way that preserves its present state. This means that neither recreational nor industrial activities will be allowed except under very special conditions. With regard to outdoor recreation and vacation settlements, certain areas are declared as over-exploited. In these areas—the west coast from Gothenburg to Malmö, the southern coast from Malmö to Karlskrona, and the east coast north and south of Stockholm—further expansion of private vacation settlements should be prevented. Instead, areas for the recreational needs of the general public should be secured wherever possible. In all other coastal areas, only a limited increase in private vacation settlements should be allowed. Five inland areas in southern and mid-Sweden are pointed out as particularly suitable for the expansion of recreational settlements.

Of course, the most controversial parts of the recommendations are those concerning the location of new industries which have adverse impacts on the environment. As mentioned earlier, the race for west coast locations presents a tricky problem for national physical planning. One area is set aside because of its unique environmental qualities. In the remaining parts of the west coast, it is proposed that new industrial locations should be permitted only near already established polluting industries. Four places on the west coast are pointed out as suitable for heavy polluting industries. The situation is similar for the rest of the Swedish coast line, where 16 places are regarded as possible new locations for industry. Interestingly enough, the only new areas to be opened up for industry are located on the west coast. Those are Brofjorden and Väröbacka, where the Government has allowed an oil refinery (Brofjorden), a nuclear power plant and a pulp mill (Väröbacka). Both of these locations are contrary to the principle of concentration, so heavily promoted elsewhere by the Preparatory Committee, and have heated the already intense environmental debate in Sweden for the last four years. But there will be no more locations on the west coast, unless they are justified for reasons of environmental or national economic policies.¹³

The proposals for industrial location have been heavily debated

during 1972. To some, the proposals have meant a significant enhancement of the ecological position. To others, they look very much like an unconditional surrender to capitalist interests. The arguments of the former have concentrated on a comparison with earlier practices in Swedish planning. They stress that the proposed National Physical Plan is a strong new instrument to balance the interests of recreation, environment, and production.¹⁴ The critics have pointed to the alleged ecological viewpoints of the National Physical Plan. Why is it, they ask, that the ecologically most valuable areas coincide with areas *not* demanded for industrial activities? And why is it that Bohuslän, with similar natural endowments throughout its coastline, is not ecologically valuable in areas where heavy industry has demanded location? The critics have tended to look upon the ecological considerations of the Plan as merely an "alibi" for a give-in to industrial interests.¹⁵ It should also be pointed out that spokesmen for big business in Sweden have proclaimed industrial satisfaction with the proposals of the Plan.

ENFORCING NATIONAL PHYSICAL PLANNING: CHANGES IN PLANNING AND BUILDING LEGISLATION

A mere proposal for national physical planning is not enough. Legal safeguards are needed to insure that land is earmarked for different uses, and that actual locations are determined pursuant to established principles of physical planning. Existing legislation is seen as inadequate since: (a) it does not allow the necessary flexible interaction between different levels in the physical planning process; (b) it does not provide governmental powers to control and determine the development of sparsely populated areas suitable for vacation settlements; and (c) it does not allow a pervasive scrutiny and a subsequent, informed decision on industrial locations at a sufficiently early stage. Work on improved legislation has been carried out in three stages.

The first stage terminated with the decisions taken by the Parliament in December 1971. These decisions altered existing laws regarding construction, nature conservancy, and expropriation legislation. The building and nature conservancy laws were changed to increase governmental power over previously unregulated sparse building development. Such development must now be in accordance with governmentally approved master plans. The new expropriation legislation has essentially strengthened the powers of local communities to pursue an active land-use policy. In principle, the local communities have had the option on all land needed for

urban development. Moreover, they have the opportunity of acquiring land at a very early stage of the planning process. The rules of compensation have been revised to retard the rise in land values, and more importantly, to free the communities from compensating for such increased values that have arisen from the communities' own development measures.

In the second stage, certain changes in the planning legislation are to be determined by the Parliament in connection with its discussion of the proposed National Physical Plan as a whole. It is intended that the Government's power to interfere in local master planning should be increased. Whenever national interest so warrants, the Government will have the right: (a) to require a master plan; (b) to direct the details of the plan in order to secure the national interest in question; and (c) to determine whether the plan should be approved or not. With these measures, it is thought that local planning will be brought into accord with the general principles of national physical planning.

The third stage will be the new planning legislation now being prepared by a special Royal Commission. The directives of the Commission stress that comprehensive planning must be given higher priority. It is supposed that the Commission will come up with proposals that determine the relation between all types of planning. The Commission has hinted at proposing a "National Plan," which would include central economic planning, regional development planning, and national physical planning. For lower planning levels, it will propose a whole network of plans, including detailed development plans for community areas.¹⁶ Presumably, the Commission's proposals will increase the concentration of planning powers at the central level.

In this connection, something should be said about the character of the proposed national physical planning. Official sources are very eager to point out that the existing proposal is *not* a definite National Physical Plan. They consider it more as a set of considerations from which to proceed to a more definite plan. Regardless of whether the proposals represent a final plan or merely a set of ideas for negotiation, its basic outlook will influence much of the development in Sweden for future decades.

EVALUATING THE PROPOSALS FOR NATIONAL PHYSICAL PLANNING: UNSOLVED OR UNTOUCHED PROBLEMS VERSUS ACHIEVEMENTS

According to the Committee report of December 1971, a basic principle for national physical planning will be to balance different

demands for natural resources against each other. Such a principle, however, seems to rest upon at least two assumptions: first, that different interests have equal opportunities to advocate their demands; and second, that there exist commonly accepted relative weights for interests involved. Neither of these assumptions is validated, or even discussed, in the report. On the whole, the perspective of the proposed national physical planning is one of environment rather than power. Thus, the whole problem of ownership of natural resources remains untouched throughout the proposals. The only hint of this problem, so fundamental to physical planning, is contained in the new expropriation legislation. It remains to be seen, however, whether local communities will use this new weapon. Expropriation has been possible before, but municipalities have definitely not been willing to use it.

The exclusion of the ownership problem is shown in the recognition of the right of free establishment for business as one of the cornerstones in planning considerations. It is further shown in the statements of the Minister of Planning and Local Government. According to him, a National Physical Plan will never carry in it a right for Government to direct industries to locate in certain places. Instead, it will make recommendations as to what the most suitable locations are. Whether or not the firms will locate there is none of the Government's business. In the last analysis, then, physical planning considerations might serve only as a device whereby industries must declare why they do not choose the locations suggested in the plan.¹⁷

As can be seen from the previous account of the ecological considerations of the planning proposal, recommendations for industrial locations must differ according to whether one stresses the effect on soil and air or on water resources. For instance, a "soil" perspective is unfavorable to industrial locations on the west coast, while a "water" perspective is not. Does the planning proposal solve this conflict? The answer must be that it does not, since so many of the industrial demands for west coast locations have been approved. The heavy petrochemical industries already allowed on the west coast will be followed by many smaller enterprises, concerned with the further development of refinery products. The acidification of the soil will continue.

Another unsolved problem is the relation between national physical planning and regional development planning. Since the proposals seem to prefer coastal locations for heavy polluting in-

dustries (inland locations are not seriously considered), the result might well be a "drain" of industries from inland areas to coastal industrial areas. This will certainly conflict with the goal of regional development—that of "regional equality."

What then are the achievements brought about by the new national physical planning? First of all, it produced the first comprehensive account of the status of Sweden's natural resources. The ecological considerations represent something truly unique in the history of Swedish planning. Through these considerations, the first steps can be taken toward a merger of economic and ecological planning. Another feature of national physical planning is that it has hastened the shift in planning powers from the local to the national level. In general it is concluded that this will further the national interest in resource management. The underlying assumption seems to be that top-level decision-makers have a clearer view of this sometimes dim concept. Whether this will hold true remains to be proven by the actual physical planning decisions made during the next few years.

CONTINUING THE WORK: THE ROLES OF NATIONAL, REGIONAL, AND LOCAL GOVERNMENTAL LEVELS IN THE PLANNING PROCESS

On November 1, 1972, the Swedish Government presented its final proposal on national physical planning to the Parliament. Comprising more than 1,700 pages, the proposal put together in one package Governmental considerations regarding the future policies for regional development and physical planning. The final version, accepted by the Parliament in December 1972, shows very few changes from the original proposals made by the Royal Commission in December 1971. This is especially true with regard to the considerations of where different kinds of resource-demanding activities should be allowed to locate.¹⁸

In the new legislation, however, there are much more detailed recommendations concerning the continuation of the physical planning process and the respective role of the three governmental levels in that process. Two stages are envisaged, a programming stage and a planning stage. During the programming stage, the 25 State Regional Boards will hold conferences with the local communities. In these conferences, the needs, premises and appropriate forms of further physical planning will be discussed. The resulting programs are supposed to show how the regional and local plan-

ning is to be carried out in order to fulfill the intentions of the National Physical Plan. This programming is scheduled to be finished in one year.

Formally, the programs will be a proposal from each of the 25 State Regional Boards to the Central Government. On the basis of advisory statements from such central agencies as the National Board of Urban Planning and the National Environment Protection Board, the Government will promulgate the programs, provided that they are compatible to the intentions of the National Physical Plan. If they are not, the Government itself can decide what the premises of the planning stage will be.

The planning is then to be carried out under the promulgated programs, but also under guidelines issued by the central agencies just mentioned. The powers and resources of the National Board of Urban Planning will be increased, as will the coordinating powers of the Ministry of Planning and Local Government. The length of the planning stage will vary somewhat, but even for those communities which have the greatest need for national perspectives in their planning, the work is scheduled to be finished by July 1, 1976. At that time, Sweden should have a detailed National Physical Plan for the use of her natural resources.

Returning to the question of local community power in planning, it seems to be too early to assess the role of local government in the physical planning process. Those local communities which have a considerable amount of nationally desired resources within their boundaries will probably suffer a loss of planning power. On the other hand, the new legislation gives increased powers to local governments with respect to the location of heavily polluting industries. Although the locations of nuclear power plants, oil refineries, and pulp mills are to be decided by the central Government, the local communities concerned by such decisions have been given veto power. If the local community rejects such a location, the central Government can not force its will on the community. This provision has no precedent, and it strengthens the power of local communities in the physical planning process. Overall, however, it seems as if the planning powers of the central and regional levels will increase.

Since it remains mostly unchanged from the original proposals, many aspects of the National Physical Plan will have to be worked out through administrative decisions. What has been achieved so far represents a first step towards the extensive management of

Swedish natural resources. In the short run, it has resulted in a thorough-going coordination of planning, building, and environmental legislation. In a longer perspective, it will probably result in a comprehensive land-use and resource policy for the whole of Sweden, which will have great impact on economic and regional policies.



FOOTNOTES

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¹ URBANIZATION AND PLANNING IN SWEDEN: INFORMATION TO THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (Stockholm: Ministry for Foreign Affairs, Ministry of Agriculture, 1972) 53 *et seq.* For an account of reforms in local community planning, see Föjer, L., *Local Authority Land Policy in Sweden*, 6 STUDIES IN COMPARATIVE LOCAL GOVERNMENT 40–53 (Summer, 1972).

² URBANIZATION AND PLANNING IN SWEDEN, *supra* n.1, at 42 *et seq.* See also the following Swedish government reports: BALANSERAD REGIONAL UTVECKLING, SOU 1970:3 (Stockholm: Ministry of Interior, 1970); REGIONAL EKONOMISK UTVECKLING, SOU 1970:15 (Stockholm: Ministry of Interior, 1970); SVENSK EKONOMI 1970–1975 MED UTBLICK MOT 1990:1970 ÅRS LÅNGTIDSUTREDNING, SOU 1970:71 (Stockholm: Ministry of Finance, 1970).

³ MANAGEMENT OF LAND AND WATER RESOURCES: INFORMATION TO THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (Stockholm: Ministry for Foreign Affairs, Ministries of Agriculture and Physical Planning, 1972) 7 *et seq.*

⁴ *Id.*, at 9 *et seq.*; URBANIZATION AND PLANNING IN SWEDEN, *supra* n.1, at 50 *et seq.*

⁵ This report is called HUSHÅLLNING MED MARK OCH VATTEN, SOU 1971:75 (Stockholm: Ministry of Physical Planning and Local Government, 1971). The English version, MANAGEMENT OF LAND AND WATER RESOURCES, is based on this lengthy report.

⁶ MANAGEMENT OF LAND AND WATER RESOURCES, *supra* n.5, ch. 2. For an account of the geographical distribution of the deposition of sulfur and excess acid, see AIR POLLUTION ACROSS NATIONAL BOUNDARIES: THE IMPACT ON THE ENVIRONMENT OF SULFUR IN AIR AND PRECIPITATION: SWEDEN'S CASE STUDY FOR THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (Stockholm: Ministry for Foreign Affairs, Ministry of Agriculture, 1971) 25 *et seq.*

⁷ MANAGEMENT OF LAND AND WATER RESOURCES, *supra* n.5, at 47 *et seq.*

⁸ *Id.*, at 53 *et seq.*

⁹ *Id.*, at 56 *et seq.*

¹⁰ National Board of Urban Planning, *Ärendet Brofjorden, aktuellt 6/1970*, gives an account of the pros and cons of this issue. See also n.13, *infra*.

¹¹ MANAGEMENT OF LAND AND WATER RESOURCES, *supra* n.5, at 60 *et seq.*

¹² *Id.*, at 62 *et seq.*

¹³ *Id.*, ch. 6. For a harsh critique of the Brofjorden decision, see Svensson, R., *FALLET BROFJORDEN: REGERING PÅ OSÄKERT VATTEN* (Stockholm: Wahlström & Widstrand, 1971).

¹⁴ See Svensson, G., and B. Tufvesson, *HUR PLANERAS DITT SVERIGE?* (Stockholm: Publica, 1971). This book presents the view of two top level planning officials. Svensson, as Secretary to the Minister of Physical Planning, has had the main responsibility for the planning reforms carried out within the Ministry in the last few years.

¹⁵ See Stromdahl, J., and R. Svensson, *MAKT OCH MILJO: KONCENTRATION OCH UTARMNING I SVERIGE. EXEMPLET FYSISK RIKSPLANERING* (Stockholm: Wahlstrom & Widstrand, 1972) ch. 14.

¹⁶ MANAGEMENT OF LAND AND WATER RESOURCES, *supra* n.5, ch. 7; *URBANIZATION AND PLANNING IN SWEDEN*, *supra* n.1, at 50 *et seq.*

¹⁷ *Cf.* Stromdahl and Svensson, *supra* n.15, ch. 17, 18.

¹⁸ The discussion here is based on Swedish Governmental Proposition 1972:111, *REGIONAL UTVECKLING, HUSHÅLLNING MED MARK OCH VATTEN* (Regional Development, Management of Land and Water Resources).