aim at fulfilling in the next 30 years. Among these goals is the capability to utilize the continental shelf and slope to depths of 2,000 feet within ten years and a similar capability to depths of 20,000 feet within the next 30 years. Such a definitive statement has been avoided in Canada and this, I think, is regrettable. It is high time that our country incorporated in its national goals a consciousness for the sea and a development plan to exploit the resources of the ocean. That plan must be developed in a manner which will meet our demands in respect of the ecology of the areas I have mentioned.

The 1970 report of the committee on marine science and technology could very well be used as a starting point in a major program of marine science. The committee suggested various mechanisms in the process of the formulation and implementation of a national marine policy. In my opinion, the first stage should be reached through a widely representative national board on marine activity that would make recommendations to the minister responsible to the House for science policy. The implementation and co-ordination of such policy should then be the responsibility of bodies or agencies with marine or maritime interests, such as, for example, the existing Canadian Committee on Oceanography.

I might add that the Canadian Development Corporation should be brought into the picture. This Crown corporation would be responsible for organizing marine development and innovation projects in industry. It would also be responsible for the rapid establishment of a solid technological base and for the promotion of marketing products and services at home and abroad. Marine environmental problems would be kept under review by the proposed environmental council reporting directly to the office of the Prime Minister. It is only through such structures, Mr. Speaker, that Canada will be able to set up a concrete and definite marine policy.

Given the growing importance of the ocean strategically and commercially and the vastness of the continental shelf, a great potential lies ahead and we should take steps now to ensure a rational and profitable exploitation of these resources. The time of decision is here. Multiple pressures force the nation to turn to the sea and multiple opportunities await the seaward-turning.

Mr. Maurice Foster (Algoma): Mr. Speaker, the notice of motion before the House in the name of the hon. member for Dartmouth-Halifax East (Mr. Forrestall) is most interesting. If I may give an outline of it in precis form, it says that the government should consider developing a national program for the use of the resources of our sea and marine environment. I think that in his speech the hon. member gave an excellent outline of his ideas and told us about the potential of our sea bed and marine resources.

I am sure hon. members are aware of the vast resources of Canada's continental shelf and of the resources adjacent to our sea coasts under the surface of the sea. I am referring to mineral resources and particularly to oil about which the public has heard so much lately. These resources are to be found in the Arctic, off the west coast and off the east coast, the part of our country about which the hon. member was speaking. Of course, an equally important part of these resources is to be found in the waters themselves, namely, the fisheries resources which

Marine Resources Development Study

have been important to this country historically and still hold an important place in our economic life.

These resources, however, are under pressure from many sides. This pressure comes principally from overharvesting and the destruction through pollution of the life-giving qualities of this milieu. It is this last threat that I wish to deal with briefly this afternoon. It is not feasible within the short time allotted, or even if there were considerable time at our disposal, as well as a large staff, to begin scratching much more than the surface of the subject of marine pollution.

Pollution in the coastal ocean—I refer to that part of the ocean over the continental shelf—arises from injections of waste by industries, municipalities, towns and villages along our maritime coasts as well as from the discharge of inland pollutants through tributaries and rivers flowing into the ocean. Considering the immense volume of the ocean and the relatively puny amounts of waste generated by man, it is surprising that these wastes cause such profound changes in the coastal ocean. The coastal ocean is relatively shallow and narrow and consequently there is a limited amount of water in the region to absorb the waste flowing into it.

Although waste disposal operations in coastal ocean areas are not a worldwide problem, they are serious for many developed countries. The coastal ocean is especially rich in marine life, providing most of the world's fish production and about 10 per cent of the world's protein. Coastal and estuarine waters and marshlands provide the nutrients, nursing areas and spawning grounds for twothirds of the world's entire fisheries harvests. Seven of the ten most valuable species of the American commercial fisheries catch spend part of their lives in estuarine waters.

• (1620)

The high productivity of estuarine areas is illustrated by the following example. The maximum yield of Georgia estuarine waters has been estimated at ten tons of dry organic matter per acre per year, nearly twice that of the best agricultural land and seven times that of the Grand Banks. Pollution is an ever increasing threat to the estuaries. Land filling, dredging, dumping and marsh draining have seriously reduced these areas. In the past 20 years in the United States, dredging and filling alone have destroyed 7 per cent of that nations important fish and wildlife estuarine habitats.

The reasons for the pressures on coastal zone usage are clear. There is a major shift of population from rural areas to the cities and many are located in coastal regions in one form or another, either salt water or fresh water. Private housing has and will continue to exercise the greatest demand for shore property, but there are other needs that must be met. Heavy industry, for example, traditionally is located on the water's edge where it seeks a cheap source of industrial water and transportation. It also provides a simple solution to waste disposal problems and ready access to raw material. Pollution abatement requirements have lessened somewhat the desirability of a waterfront industrial location, but recent trends in shipping have increased the demand for deep water frontage.