indicates that at least 1,447,550 km<sup>2</sup> of forest land or nearly 32% of Canada's forests have been allocated to forest companies, most of which is represented by the higher volume "productive" forest lands. For example, it is estimated that 65% of Canada's productive boreal forest is currently under long term tenure for logging, 10

Forestry operations entail the development of extensive road networks to access trees for logging. These can cause major impacts upon natural areas since they create access for other extractive users while the roads themselves (along with the cut-over areas resulting from logging) create a fragmented natural landscape. Once a logging road has been constructed, it subsequently becomes difficult to restrict access to other users after cessation of logging. Therefore, these road networks become permanent or long-term features which significantly further diminish the remaining intact natural landbase.

## GRASSLAND AND AGRICULTURAL LANDSCAPES

In those portions of Canada where favourable soils and climate conditions enable agriculture, farming has been the primary cause of natural area loss in Canada. Prairie wetland, low elevation southern valleys in B.C. and eastern deciduous forest habitats have all been exceptionally impacted by agricultural development. Consider the following:

- 87% of the Prairies is now farmland. In a 15 years period (1971-86) there was a 63% decrease in woodland area on the prairies.
- 85% of wetland losses nationwide are due to agricultural drainage of marshes and sloughs.
- Along the upper Bay of Fundy, 90% of the original salt marsh areas have been dyked and drained for agriculture.
- In southern Ontario, 90% of wetlands have been lost in Kent and Essex counties since 1800.11

The degree of agriculture-related disturbance that has occurred particularly on the prairies reflects a global trend, with the result that grasslands are one of the world's most extensively modified ecosystems. Therefore the opportunity to establish large, representative protected grassland areas has virtually been lost in Canada and elsewhere. For example, in Manitoba it is estimated that the largest intact remaining block entirely vegetated in native tall grass prairie is a mere 50 Ha. 12

As is the case for forestry, in grasslands and agricultural areas, native natural habitats typically become fragmented into small patches that are isolated by considerable distance (at least in biological terms). Such fragmented habitat