With respect to Canada, the report stated that:

- Canadian agriculture would be severely affected;
- Canadian forests would be vulnerable to radiation damage from fall-out and could suffer extensive fire damage;
- There could be damage to ocean eco-systems and fisheries, including a possible loss of fisheries and non-commercial fish within two to six months.

Most significantly the report concluded:

"It is possible that long-term climatic anomalies caused by a nuclear war might hinder or prevent the re-establishment of pre-war (or indeed any) high-intensity agriculture in Canada."

The Royal Society report recommended that Canada investigate the Nuclear Winter hypothesis much further, concentrating on those areas that are of particular concern or relevance to Canada and in which Canada has a particular expertise i.e. agriculture, forestry and ocean resources. It also recommended that Canada support fully any action by the United Nations or other international agencies to facilitate greater understanding of the global implications of Nuclear Winter.

Upon receiving the Royal Society's report, the Government undertook an interdepartmental review of the Committee's findings. After several months of discussion and consultation among nine departments and agencies, including External Affairs, National Defence, Agriculture, Health and Welfare and Fisheries, External Affairs Minister Clark tabled the Government response in the House of Commons on June 27. Mr. Clark said:

"There is general agreement within the Government that the Nuclear Winter hypothesis is scientifically credible, even though the details regarding its magnitude and duration are subject to great uncertainties."

Mr. Clark noted that the Canadian study would be forwarded to the United Nations in accordance with a resolution on Nuclear Winter passed during last autumn's session of the General Assembly. Canada played a leading role in the adoption of this resolution, which urged all states and intergovernmental organizations to submit to the Secretary-General scientific studies on the climatic effects of nuclear war. Canada stressed the importance for nations to undertake and report such findings as part of an ''international undertaking to reduce the possibility of nuclear war.''