

1. Population.

Out of Sweden's 6.31 million inhabitants about 2.5 million, or approximately 40%, live north of the Oslo-Stockholm line. It is probable however that in practice the number to be maintained would be somewhat higher since there would certainly be some influx from the south.

2. Food Supplies and Agriculture.

Most of the agricultural surplus which feeds the industrial and urban population is grown south of the line. In particular almost all the sugar is produced in the extreme south. But although statistics show that the area north of the line normally supplies at the most 25% of the total wheat and rye production and 30% of the oats and 25% of the potatoes, these data are misleading for the purpose of this paper. Sweden imports a part of her food supplies and it is practically certain but impossible to demonstrate statistically at short notice that the bulk of the imported foodstuffs are in fact consumed in the south in the large cities and in the industrial areas and that the northern area is not entirely, but to a large extent, self supporting. The bulk of the area is covered with small family farming units. It is the common practice of such units to retain upon the farm fairly large stocks for their own consumption. With the economies which the facts of the situation will necessarily impose, it should not be impossible to provide a not intolerable level of subsistence for the population for a period of months. If the local agriculture can be maintained, some supplementary supplies both of food and feeding-stuffs will become necessary, but it is not

possible to give any reliable figure.

Out of Sweden:

3. Fuels.

There would be plentiful supplies of timber available for fuel, but no coal or oil except from stocks. Imports of coal and coke are about 8 million tons per annum in peace and of liquid fuels about $1\frac{1}{2}$ million tons. Since most of the coal and coke is required for industry south of the line, it might not be necessary to allow much more than 1 million tons of coal per annum for the north. Railway coal stocks must be presumed to have been drawn upon in recent months and may be low.

The liquid fuel deficiency would ordinarily be governed by the size of stocks. At the beginning of January 1940 total stocks in Sweden were believed to be something over half a million tons but so far as can be learned at present most of this is held at receiving ports (Malmö, Gothenburg, Helsingborg, Landskrona, etc.) and depots in the south, and not much more than 15% (or, say, 75-100,000 tons) is likely to be in the northern area. This quantity would presumably be needed for essential military requirements so that 400,000 tons per annum, as an absolute maximum, might be required for civil needs. But in practice life could be sustained with a very much smaller quantity, particularly as electricity is fairly well developed.

4. Industry.

Broadly speaking, while a large part of Sweden's basic material resources lie to the north of the line, the greater part of her manufacturing industry lies to the south.

The main iron ore fields (Lappland and Central Sweden), about three quarters of the iron and steel producing capacity, the timber and saw mill and most of the wood pulp industries, and the greater part of the water power, would be left to her.

Against this she would have lost practically the whole of her iron and steel working industries, her engineering industry, including the Bofors works, and nearly all her other arms factories and her small but expanding aircraft industry, as well as her main shipyards and the naval dockyard at Carlscrona.

Lesser industries such as tanning and leather, paper, and food processing would also be wholly or largely lost.

Thus Sweden would not only be unable to supply her armed forces at all, once her reserves were exhausted, but would be unable to provide more than a small part of the requirements of manufactured goods of the civil population.

5. Import Requirements.

It will be seen that there is very little statistical basis for a calculation of the total import requirements of the civil population of the northern area in the circumstances envisaged. In the first months life could be maintained with practically no imports of food and only sufficient fuels to maintain transport. In the winter months more fuel would certainly be required.

The most that can be said is that the civil population might be maintained by a rate of import of as low as $1\frac{1}{2}$ to 2 million tons per annum, though an even lower rate might be found adequate in the first few months.

6. Transport.

The following routes would be available for the transport of goods from Norwegian ports, assuming that Oslo and Laxå junctions (though not Oslo or Christiansand ports) would be unsable:

- (i) Bergen-Oslo-Charlottenberg-Laxå.
- (ii) Andalsnes-Hamar-Charlottenberg.
- (iii) Trondhjem-Hamar-Charlottenberg.
- (iv) Trondhjem-Storlien-Ostersund.
- (v) Narvik-Kiruna-Gallivare.

The capacity of these routes may be estimated very approximately as follows:-

(i)	600,000 tons	
(ii)	30,000 "	
(iii) and (iv)	500,000 "	
(v)	<u>1,000,000</u> "	(assuming that the
	<u>2,400,000</u> "	coast line is open)

It would require time to organise traffic at this rate, but there is no reason to suppose that wagons and locomotives could not be provided after sufficient preparation and provided, above all, that rolling stock has been evacuated from southern Sweden. Extra coal supplies would be needed.

The limiting factors to further expansion would seem to lie (a) in the handling capacity of the ports, particularly Trondhjem, rather than of the railways and, (b) in labour supplies at the ports. At all events, capacity seems adequate for the 1½ to 2 million tons envisaged in paragraph 5.