

people, and the amount will be 5½ millions or 5,800,000 human beings that this Province is calculated to support.* But there is one important idea that may in some degree modify this result, and to this the next chapter of my Report is devoted. In a climate like this, it is quite as necessary to have fuel as food. In order to have fuel it is necessary to have wood; to have wood there must be forests, which cover a great extent of country. It is important, then, to enquire what extent of country is required, to grow wood for fuel: the result of my enquiry is, that the extent of land (upon the smallest average,) necessary to raise fuel for one man is nearly the same as is required to raise food for one man; therefore two acres of land is the smallest quantity for growing fuel for one person. If, then, the quantity of fuel required takes up so much of the surface of the country, it cannot be employed in growing food or stock; therefore we must make a great deduction on that head. A family of five persons will require ten acres of land; one-tenth of the whole country must be kept in reserve for fuel; but certain other considerations will somewhat reduce this average. If the whole fuel of the country were to be grown in the forests in all time to come, the country would not support 5,800,000 people, but only 3,640,000; being a difference of nearly 2,000,000. Much, therefore, depends on where the fuel of a country is to be got from; and thus an important question arises, viz., what chance is there in this country, to get its fuel from under the ground and not from its surface? Because, if fossil fuel (or coal) can be obtained in sufficient quantity, in future times the country will be able to support two millions of people more than it would otherwise support. It will be a long time before all the wood in the country will be cut down; but that is not the point of view in which to look at it: look, for instance, at Sussex Vale; that district is already so much cleared, that some parts of it have no wood at all, and the inhabitants have to go a long distance to get wood; so it will happen in other parts of the Province; the land will be cleared, and the people will have to buy fire-wood from a distance; therefore the general question, that it will be a long time before all the wood in the Province will be cut down does not apply to the wants of particular localities. But the necessity for obtaining fossil fuel will arise long before that period can arrive; therefore it is a matter of grave consideration to enquire, whether the possibility of obtaining fossil fuel is real or probable, and whether it can be obtained in such quantities as to enable the farmer to cut down the wood on his land just as he likes, or whether it would be more prudent for him always to reserve a certain quantity of

wood land on his property. Now, if you look at the Geological Map of the Province, you will see a great stretch of the grey colour between the two reds, and this grey district is called 'the coal field,' because seams of coal occur here and here throughout that district. In some parts of the world these coal seams are very numerous, the coal is easily got at, and is a very profitable production; as, for instance, in Cape Breton Island, in Nova-Scotia, and in Great Britain. Dr. Gesner explored this tract of country, and indicated the localities where he considered that coal might be found. It appears to me, that it is important to enquire, whether, among these beds of sandstone indicated on the map, beds of coal may be found which are likely to pay for the working, and profitably to aid the industrial pursuits of the country. On this Geological Map I have marked, by black dots, all the places where coal has been actually found; and in my Report I have collected, both from the Reports of Dr. Gesner and from other sources, every observation that has been made as to the nature of the coal in this Province, and the probability of finding it in greater quantities; because the question of a supply of coal or fossil fuel is a vital question in reference to the agricultural capabilities of the country, and not merely a manufacturing or trading question; it is a question, indeed, of whether the country shall support five millions or only three millions of inhabitants. The difference is very striking indeed; it is the difference between producing fossil fuel from under ground, and raising fuel on the surface of the land. France is an instance of this difference; for, though France possesses coal mines, yet about one-seventh part of the whole surface of that country is under wood, to furnish fuel for the people, even in that temperate climate. You will see, then, the great importance of the question in this colder climate; and I have therefore brought the question prominently forward in my Report, and have recommended an enquiry into the economical question, of how far it is likely that coal does exist, and that by exploration it may be found sufficiently plentiful and easy of attainment to be profitably useful. After doing this, I have considered other collateral topics in my Report, which I now pass over; and I come then to enquire, what is the actual productiveness of the country; what is the state of its agriculture; whether it does produce anything like these aggregates which we have estimated, and what is the amount of produce raised in the Province. When I addressed you on a former occasion, I mentioned that there were a great many points which it was impossible for me personally to pronounce an opinion upon; that it was necessary for me to obtain information on those points; and that my principal object then was, to obtain such information from practical men in the Province, who were best acquainted with the various matters in question. After that meeting,

* There appears some slight discrepancy in this calculation, arising, probably from the hurry of speaking; but the figures are given exactly as spoken by the Professor.—[Reporter.]