

of living. Before that point is reached our social structure will necessarily be strained to the utmost and our foreign policy will become of acute public interest, for its relation to the standard of living will then be more generally recognized.

We should not be deceived by the first statistics of machine effects upon the increased yield of farm crops, especially marked in the past ten years. The results do not prove that capital in the form of machinery and fertilizer can go on indefinitely taking the place of labor. Between 1910 and 1920 there was cultivated in the United States 14 per cent more crop land by 14 per cent fewer farmers and laborers. This was made possible by an increase of 40 to 50 per cent in the use of machinery and fertilizers. Such a tendency cannot be permanent. The expensive farm machine is playing a unique but temporary rôle. We must come at last to more intensive work upon the land and a lower standard of living, unless we develop our foreign markets in competition with European nations long in the field and expert in the use of cheap native labor and the production of crops in every zone.

Until manufacturing and commerce gained an ascendancy over agriculture the United States had a relatively isolated position in the world, and its need for markets and distant raw materials was not really acute. The national need for commercial outlets was first evident immediately after the war with Spain (1898) and since that time has rapidly increased, until we are now actually participating in general overseas commerce in active (and in places acute) competition with the other nations of the north temperate zone. With us the land and population problem has a more important relation to foreign affairs than in the case of other countries, because of our size and strength, but it is really part of a world problem. Though certain parts of the world may be practically empty, the best places are pretty well occupied.

A Limited World Capacity

The total land area of the world is more than 52 millions of square miles, of which less than 30 millions are considered fertile; and half of the fertile land is to be found in tropical and sub-tropical regions. Every new fertilizer or every new source of known fertilizers adds to the habitability of the temperate zone, and it is a fact that our mastery of fertilizing agencies is capable of great commercial development through lines of management laid down by applied chemistry. A second source of arable land is found in the swamp lands, capable of being drained.

