Torrent Control in France

When the French Programme is Completed, Total Cost Will Not Exceed One Year's Damage by Unruly Streams.

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The damage due to floods and torrents from denuded water-sheds is probably the least serious of the effects of forest destruction in Canada. Nevertheless very large sums are being expended annually by railways in protecting road bed and bridges and by municipal, provincial, and Dominion authorities in protecting roads and public works against damage by torrents. The total amount so expended in Canada each year, while unknown,,, must be very great indeed. Canadians may therefore be assumed to be interested in the manner in which the control of torrents has been accomplished in France. It will be observed that whereas the expenditure in Canada is usually at the bottom of the stream in protective works,, which will be a source of expense, the expenditure in France is chiefly at the seat of the difficulty, in reforesting the catchment area of the torrent, a work which will require outlay for a few years only, and which in some cases may actually become a source of revenue. Certainly the French system is more far-sighted than the Canadian.

Since the sixteenth century the problem of control of torrents has been periodically before the French public. Investigation of torrential action in 1797 gave rise to local laws for flood control . Very little action was taken, however, and discussion proceeded spasmodically until the tremendous floods of 1856 in the valleys of the Seine, Rhine, Rhone, Loire and Garonne, involved the whole of France in a loss reaching hundreds of lives and $40,000,000 in property. Always as elsewhere both with forest fires and floods, discussion of flood prevention in France had been most active after disasters which touched both the public imagination and the individual family or pocket. Sufficient had already been learned concerning the causes of the mountain floods, both from the investigaions of engineers and the work already carried out by the Government to point out the proper method of regulating destructive torrents and, accordingly, in 1860 a law was passed providing for the reforestation of the catchment areas of destructive torrents, the work to be carried out by the Forest Department. The defects of this law were that the money provided was not sufficient for undertaking the work on the scale designed, the reforestation of the mountain catchment areas decreased the grazing areas, upon which depended the mountain population, and the right assumed by the state to expropriate communal lands for reforestation purposes upon terms which threw the expense of the work largely on the mountain communities. Protest, culminating in armed resistance, led to the amendment of the law, substituting sodding for reforestation in areas where grazing was of paramount importance. Sodding did not prove