

“Your land shall be desolate”*

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“The LORD thy God bringeth thee into a good land, a land of brooks of water, of fountains and depths that spring out of valleys and hills; a land of wheat, and barley, and vines, and fig trees, and pomegranates; a land of oil olive, and honey; a land wherein thou shalt eat bread without scarceness, thou shalt not lack any thing in it” (Deut. 8:7-9).

“Glancing at the country from the windows of a rapidly moving train or car, casual visitors of today consider as normal the rocky, semi-arid run-down condition of much of Palestine . . . The present desolation of Palestine is due to the plunder, exploitation and neglect of recent centuries”.¹

THE ABOVE comparison emphasises what all students of Scripture already know, how that the once prosperous land of Palestine has become sterile and unproductive. The Land of Promise is not unique in its degeneration. Wherever man abuses the soil on which he lives, desolation inevitably follows. Amongst the major problems of America, Asia, Africa, and Australia, soil conservation looms large.² Many thousands of square miles of rich earth have been lost irretrievably through the greed or thoughtlessness of man.

We are particularly concerned in this article with Palestine because it is the land over which the Almighty watches with jealous care. How is it that a land which abounded in all the necessities for life has so far declined that it is only capable of supporting a fraction of the population which once lived upon it? The answer is to be found in the Word of God: “I will scatter you among the heathen . . . and your land shall be desolate, and your cities waste. Then shall the land enjoy her sabbaths . . . As long as it lieth desolate it shall rest” (Lev. 26:33-35; cf. 25:4-7).³

Causes of desolation

The result of this utterance with its gradual working out is a demonstration of how the Deity uses natural forces to accomplish His purpose. He could, of course, have blasted all the vegetation and poisoned the soil in an infinitesimal fraction of a second. But that is not the way in which He normally deals with mankind. To fulfil the prophecy quoted, it was only necessary to permit

the inhabitants of the land to abuse and neglect the soil; the rain has done the rest. Agriculture on steep slopes always results in soil erosion unless precautions are taken.

What happens is this: the farmer clears the ground of vegetation, ploughs up the soil, produces a fine tilth and sows his seed. The soil is now lying loose and exposed to the elements at a time when the heavy rains lash the earth. Water from the heavens pours down onto the land in such copious amounts that much of it runs off the sloping surface before

it has time to sink in. This surface water takes with it all the finer particles of soil, leaving the ground so much poorer. Freshly ploughed virgin grassland, because of the binding action of all the grass rootlets, loses far less than continuously cultivated soil. It may well be that the provision in the Mosaic Law for fallowing the land every seventh year was based on this knowledge.

One of the chief causes of excessive erosion is over-cultivation. It acts in two ways: firstly by reducing the efficacy of the root binding of the soil, and secondly by giving progressively poorer crops, until the farmer considers that his energy is best spent elsewhere. Deserted soil that has lost much of its fertility falls easy prey to the heavy rains of winter, there being insufficient cover of herbage to protect it from the run-off. Over-grazing has a similar effect; if herds of goats or other cattle are allowed to eat all the grass during the early summer, the ground becomes like dust, and before the roots have time to send

* First published July 1948, shortly after the founding of the State of Israel sixty years ago this month. It highlights the remarkable changes that have been achieved over those sixty years, for the present situation in Israel is vastly different from that given in the article.

1. *Palestine—Land of Promise*, Dr. Walter Clay Lowdermilk (1944), p. 24.
2. “20,850,000,000 tons of soil have left Missouri farms since they have been cultivated”, writes Professor Q. C. Ayres in his *Soil Erosion and its Control* (1936), p. 5.
3. There is a suggestion in the passage quoted that the Israelites did not generally observe this wise precaution.

forth new shoots the winter rains have washed away the soil.

There is still a third factor which has influenced the progress of erosion in Palestine: the destruction of its once large forests. Many countries of the world which now have few forests were once clothed with trees. Even in Britain this condition prevailed until comparatively recent times; and if heather-burning and sheep-grazing were discontinued on our hills, half a century would see most of them again clothed with oak and mountain ash and silver birch. That Palestine was once well wooded is shown by the Bible descriptions referring to "oaks of Bashan" (Ezek. 27:6), "cedars of Lebanon" (Ps. 104:16), "Jericho, the city of palm trees" (Deut. 34:3), and so forth, and also by the discoveries of numerous roots and stumps of large trees in areas now desert.

Palestine's forests have suffered by reason of the country's geographical position as a buffer state between the great nations of ancient times. Armies are notorious for the scant consideration given to the districts through which they pass. In those far-off days, if they wanted fuel, they chopped down any trees which were handy. The land itself was frequently the scene of battle; Jerusalem has been besieged twenty-three times, and on some of these occasions all the trees for miles around were felled to provide timber for siege works, or fuel for burning down the gates. Even when the land was at rest after the Jews had been expelled and the Arabs had taken up occupation, destructive forces were still at work in the shape of the camels and goats stripping the bark from the trees, causing them to wither and die. Finally, under the Turkish régime, a tax was imposed on every tree, with the result that many of the peasants, unable or unwilling to pay, cut down their woods and deserted the fields.

Soil erosion

This wholesale removal of soil cover at various periods down the ages led inevitably to the loss of the rich red earth of Palestine during the heavy latter rains. Much of the country's surface is steeply sloping, and neglect of precautions to prevent the soil being washed away resulted in the formation of gullies down which the earth was carried with ever-increasing rapidity. This destructive process is still going on:

"We saw drainage channels running full of brown silt-laden gully washers, cutting their banks and joining with water from other drainage to make a storm flood that roared

down the main valleys. Here before our eyes the remarkable red-earth soil of Palestine was being ripped from the slopes and swept down into the coastal plain and carried out to sea, where it turned the blue of the Mediterranean to a dirty brown as far as the eye could see. We could well understand how during many centuries this type of erosion has wasted the neglected lands. It is estimated that over three feet of soil has been swept down from the uplands of Palestine since the breakdown of terrace agriculture"⁴

The soil which is not washed out to sea is deposited as silt in the lowland streams, raising the level of the river-bed and giving rise to mud-banks, flooding and pestilential marsh. These marshes were one of the worst hazards to the early Jewish settlers, many thousands of whom perished from malaria.

As we have previously noted, precautions can be taken to prevent soil erosion. Under the best and most natural system, the land surface is divided into three groups—very steep, moderately inclined, and comparatively level. The steepest slopes should be clothed with forest, the moderate slopes used for controlled grazing, and the lowlands for cultivation. Where this division is not feasible, more complicated means become necessary. On slight inclines, ploughing along the contours may be satisfactory; but cultivation on slopes other than the most moderate must be protected by terracing. This usually takes the form of low walls along the contours, built of suitable local material. The earth between each pair of adjacent walls is more or less levelled, and is consequently less susceptible to erosion than if at its original slope. Drainage gullies conduct the run-off to specially reinforced outlets where its eroding powers can do no harm.

Such terracing was used in Palestine from time to time, and traces of it can still be observed. It is unfortunate that a neglected terracing system can become of potent assistance to normal erosion. When breaches occur in the retaining walls, the run-off erodes a gully which ere long will cut through the other walls before and behind, and leave the way open for the rain to sweep the hillside bare. During the chequered history of Palestine, agriculturists have frequently had to desert their land, with this deplorable result. Following the destruction of Jerusalem by Nebuchadnezzar,

4. Lowdermilk, *op. cit.*, p. 13.



**Ancient terraces
on a hillside near
Jerusalem.**

Picture: Tony Benson

many of the inhabitants of Judea were transported to Babylon. We are told, however, that Nebuzaradan, captain of the guard, "left of the poor of the people . . . and gave them vineyards and fields at the same time" (Jer. 39:10). It seems likely that this was done as a precaution against destructive erosion: one of the duties of these husbandmen would no doubt be the keeping in good repair of the terracing system, which must have been extensively used in the hill country.

The work of the Jewish pioneers

The pioneer Jewish settlers came to a land which was largely bare rock and pestilential marsh, peopled by a few miserable Arabs. By sheer hard labour and phenomenal courage, backed by faith in the work they were doing, they won back the soil and made it highly productive. Sir Charles Warren gives a vivid description of the transformation:

"Where the hill country has been neglected, the mountain sides have been washed quite bare of all soil which is heaped up in the valleys, so that there is very little vegetation or produce; but where capital and labour have been expended, a great change takes place . . . In the hill country, even now, the white skeletons of the old system of terracing are visible in parts: but the rich loamy soil is washed down into the wadis leaving the hillsides bare and desolate and glaring in their nakedness.

A cultivated strip may be seen at the bottom of the wadi, subject to being swept away by any storm of rain, forming a torrent down the bare hillsides, or withered away before its time by the reflection of the sun from the bare rocks.

"Place the valley in proper hands and note the result. The earth from the bottom will be carefully carried up the hillsides, and laid out in terraces supported by stone walls, on which are planted young fruit trees . . . those of a more delicate kind being placed on the northern declivity in order that they may not suffer from the sun's rays. The trees thrive rapidly: as they do in Palestine: the rain falls, but not as before, rushing fiercely down the bare rocks and forming a torrent in the valley. No; now it falls on the trees and terraces, percolates quietly into the soil, and into the rocky hillside, and is thus absorbed, without injuring the crops at the bottom of the valley. The rain that sinks into the rocks will shortly reissue in perennial springs, so refreshing in a thirsty land. The trees, having now moisture at their roots, spread out their leaves in rich groves over the land.

"The sun's rays do not fall on the ground, but on the green leaves and fruit, by which they are intercepted and absorbed, giving no glare or reflection. The heat of the sun causes a moisture to rise from the trees and soil

Agriculture on Israel's coastal plain, much of which was swamp and sand dunes until settled by the Jews.

Picture: Tony Benson



beneath them, which, on reaching the higher and cooler winds, is condensed into visible vapour—clouds—constantly forming as the breeze passes over the grove, so that, so to speak, each grove supplies its own umbrella. The climate is thus changed. Where were hot glaring sun, dry wind, dry earth, stony land, absence of verdure, are now to be found fleecy clouds floating through the balmy air, the heat of the sun tempered by visible and invisible vapours, groves with moist soil, trickling streamlets issuing from the rocks, villages springing up apace, with fair arable lands below them—Palestine regenerated. This is no dream: I have seen this change take place in Palestine on a small scale in three years”.⁵

The work goes on. Gullies are dammed, swamps are drained, the desert is irrigated, and the salt is leached out of salt-filled soil. On reading the sixth chapter of Dr. Lowdermilk’s book one gets the impression that once again Palestine is a land of milk and honey. There is, however, a long way yet to go. Will the Land of Promise ever return to its original fertility? The Bible answer is “Yes!” “I will make them and the places round about My hill a blessing; and I will cause the shower to come down in his season; there shall be showers of blessing. And the tree of the field shall yield her fruit, and the earth shall yield her increase, and they shall be safe in their land” (Ezek. 34:26,27).

Can we see how such a desirable state will be achieved? It will come, we think, partly by the efforts of men during the Millennium, partly by climatic changes resulting from afforestation of the bare hills, partly by reason of other changes attendant upon the stupendous earthquake which is to split Palestine from the Mediterranean Sea to the rift valley of the Jordan. One of the results of this cataclysm will be to fill the Dead Sea basin with water; and, unless the floor of the rift valley is appreciably raised, the whole Jordan valley from Lake Huleh to the Dead Sea, and beyond to the Gulf of Aqaba, will become a vast inland sea. The presence of such a large body of water would assuredly modify the local climate to an appreciable extent; the core of Palestine would become virtually an island, and islands are rarely desert in spite of the popular notions concerning some of them.

But beyond these natural causes we may be sure that the partial lifting of the curse will play a major part. The promise that there will be “an handful of corn in the earth upon the top of the mountains” (Ps. 72:16) will not be fulfilled by man’s unaided efforts; it will require the power of God. In that day Palestine will not merely return to the lush condition observed by the twelve spies; it will become the Garden of the Lord.

5. *Transactions of the Victoria Institute*, 1917.