

raising a barrier against the waves, which they force to spread themselves over the neighbouring fields, effecting terrible ravages. Such is the cause of the inundations annually occurring on the river Vistula, in spite of the embankments which have been raised to restrain its waters.

Water-courses in the Torrid Zone are subject to periodical floods in the rainy season, which result in the most extraordinary consequences.

[Egypt owes all its fertility to the periodical overflow of the Nile. This annual rise, which for ages has taken place every year within a few hours of the same time, and to within a few inches of the same height, is one of the curiosities of physical geography. Upon it depends the woe or welfare, the abundance or famine, of a nation. To its increasing waters the cultivable soil of Egypt is indebted for the irrigation that secures its fertility. They are conducted over the thirsty ground in hundreds of tiny channels. But for their beneficial influence, the valley would be a wilderness of leafless sand. They are charged with a rich black mud, which, deposited upon the soil, endows it with extraordinary fertilizing properties. Owing to this deposit, the surface of the land is annually increasing in elevation ; but it is a singular fact that the bed of the river is also proportionately rising.

The overflow of the Nile is caused by the periodical rains of eastern Abyssinia and the countries further south, and upon their greater or lesser quantity depends its height and extent. This height is carefully noted, as the area of land subjected to irrigation, and the length of time during which it will remain under water, are necessarily regulated by it, and hence the occurrence of a good or bad harvest may be predicted with certainty.

The ordinary rise at Cairo is about twenty-five to twenty-seven feet : less is insufficient ; more is dangerous, frequently overwhelming entire villages. A rise of only eighteen or twenty feet means—a famine.

The land, thus strangely fertilized and refreshed, will yield three crops annually : being first sown with wheat or barley ; a second time, after the spring equinox, with cotton, millet, indigo, or some similar produce ; and thirdly, about the summer solstice, with millet or maize. The river begins to rise about the end of June, and attains its maximum towards the end of September, after which it gradually subsides. At the time of its greatest height, the country wears a very singular aspect. On the elevated bank, you stand, as it were, between two seas ; on one side rolls a swollen turbid flood of a blood-red hue ; on the other lies an expanse of seemingly stagnant water, extending to the desert-boundary of the valley ; the isolated villages, circled with groves of palm, being scattered over it like floating islands, and the *gise*, or dike, affording the sole circuitous intercommunication between them. When the waters subside, the valley is suddenly covered with a