

Study about microscope sand production model and numeric analysis technique with consideration to truncating property of mountain slope as well as land cover condition change

[Point]

There have been serious damages such as ecological system destruction and deteriorated landscape in river region as well as in marine area, as a result of microscope sand runoff from collapse sites and agricultural fields, and a technique for estimating microscope sand production volume has been required for studying its countermeasures.

In this study, actual production condition of microscope sand was recognized from the field observation, production mechanism of microscope sand was clarified from the result of such observation and artificial rainfall test as well as model experiment, and numeric analysis method of microscope sand production volume was suggested, in Okinawa that had serious social as well as environmental problems as a result of microscope sand runoff (red sand).

Keywords: microscope sand, prediction method of microscope sand runoff, oversaturation layer, land cover condition, two dimensional river-bed fluctuation calculation