

ESTIMATION CONSEQUENCES OF NATURAL DISASTER (HURRICANES) ON FORESTRY WITH USE REMOTE SENSING DATA

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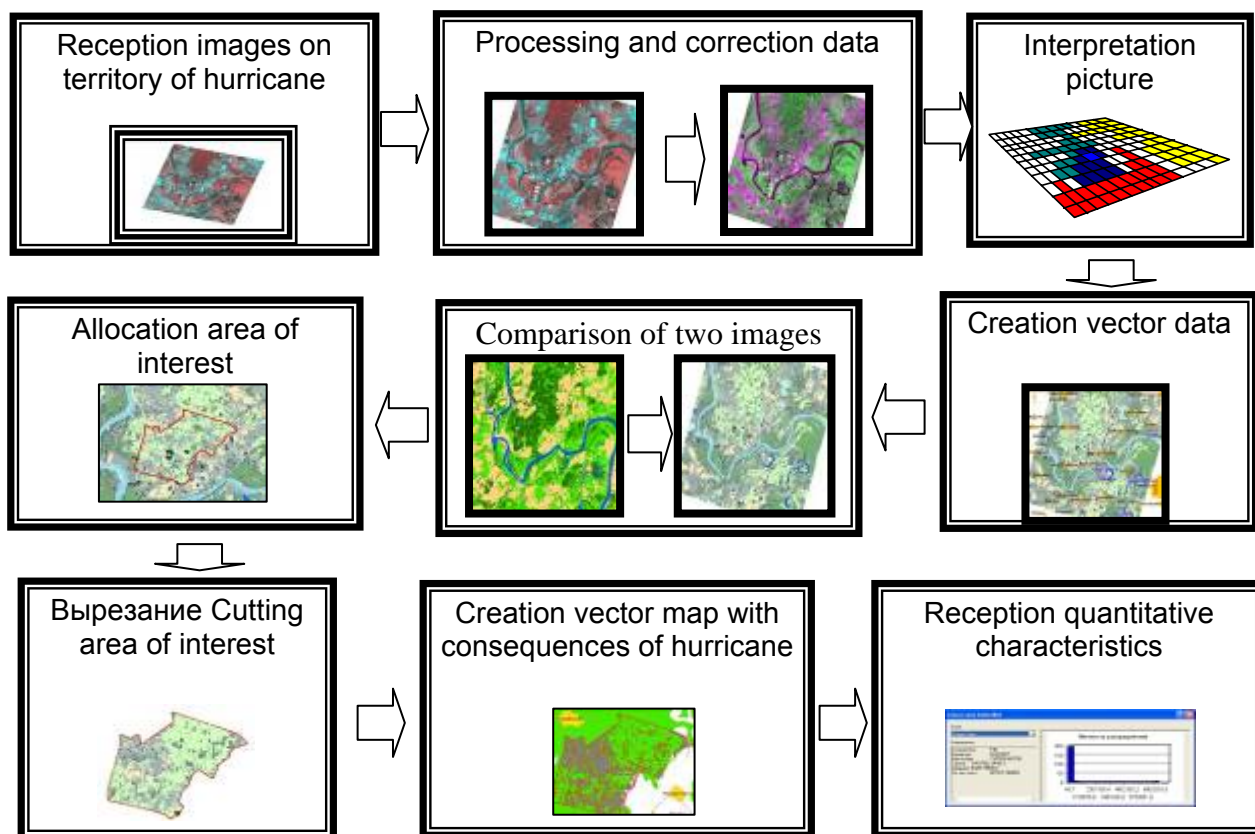
Characteristic feature of such natural disaster as storms and hurricanes is the significant damage caused by them to forestry. Liquidation of consequences windfalls demands the complex approach and should cover all spectrum of the problems caused by natural disaster. The estimation of consequences demands use of modern information technologies and development methods of analysis, available data about natural disaster.

In the report the method of an estimation consequences of natural disaster (on an example of hurricane) is offered to forestry by means of remote sensing data (RSD) and geoinformation technologies which consists in serial processing, comparison results processing of images before and after hurricane and reception of quantitative characteristics (for example, the area of the damaged territories).

The developed method is shown on an example of estimation damage to forestry after passage hurricane on June, 1-stst 2007 in Republic Bashkortostan. At comparison of results received by means of the described method and the results received by experts the Ministry of nature management, forest resources and preservation of the environment Republics Bashkortostan (MNR) on estimations of damage to afforestations after passage of hurricane are received following advantages:

- defines borders of the tumbled down trees (accuracy depends on the resolution of a space image) more precisely;
- defines area of the damaged tract (more precisely approximately on 35 %) more authentically;
- considers areas inside of investigated territories where, as a rule, it is dangerous to come people;
- allows to receive and process more operatively the information connected with that or other natural disaster (one day on processing of territory covered by one image) and to represent it in an evident kind for a management.

The Estimation consequences of natural disaster, in particular hurricanes, on forestry with basis of the offered method with use of geoinformation technologies and RSD will allow experts of MNR to reduce laboriousness of operations, additional time and material inputs at an estimation consequences of natural disaster on forestry and will enable to create maps with as much as possible exact both external, and internal borders of the damaged forestry.



References

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