

## APPLICATION STAGE / PREDICTION PHASE: 1. VULNERABILITY MAPPING

The vulnerability map for the Validity Period (VP) prediction phase is based on the situation at the start of the VP. This is the only difference from the HRP vulnerability map which was based on the situation at the start of the Historical Reference Period (HRP). The map is required to have 30 non-zero ordinal classes with 30 being the highest vulnerability and 0 being used to delineate areas outside the jurisdiction and land to be excluded from consideration, such as planned deforestation concessions.

The inputs here will vary depending upon whether the vulnerability map is to be based on the benchmark model or an alternative. The benchmark is based on a map of distance from the forest edge (non-forest). Alternative models should be based on transition potentials – maps with continuous values from 0.0 (no potential) to 1.0 (highest potential).

Note that in the case of the Benchmark procedure, the NRT establishes the boundary between vulnerability class 1 and class 2. Class 0 is reserved for areas outside the jurisdiction and for areas excluded from consideration such as planned forest concessions.

### INPUTS: BENCHMARK MODEL

#### WORKING FOLDER

The computer folder where inputs are expected and outputs are written.

#### DISTANCE FROM FOREST EDGE AT START OF THE VP

A map of Euclidian distance from non-forest at the start of the VP, expressed in meters. **Important:** Be especially careful to avoid map errors which cause small inclusions of non-forest in areas that are actually forest. These can cause substantial problems with the resulting distance map. Where appropriate, apply an area (sieve) filter to remove these errors beforehand (see the general instructions on the Start Page for suggestions).

#### MASK OF THE NON-EXCLUDED JURISDICTION

This is a binary map (contains 0's and 1's) where the 1's indicate areas inside the jurisdiction and suitable for consideration. Areas that are to be excluded from consideration (such as planned forestry concessions) should be marked with 0's. Note that maps with 1's and NAN's are not equivalent. All binary maps must be 1's and 0's with this tool.

#### NEGLIGIBLE RISK THRESHOLD (NRT) IN THE HRP

Use the same value for the NRT previously determined for the HRP.

### INPUTS: ALTERNATIVE MODELS

#### WORKING FOLDER

The computer folder where inputs are expected and outputs are written.

#### EMPIRICAL TRANSITION POTENTIAL FOR THE VP

A map of the potential to transition from forest to non-forest in the Validity Period (VP). Transition potentials are expressed on a 0.0-1.0 continuous scale.

#### MASK OF THE NON-EXCLUDED JURISDICTION

This is a binary map (contains 0's and 1's) where the 1's indicate areas inside the jurisdiction and suitable for consideration. Areas that are to be excluded from consideration (such as planned forestry concessions) should be marked with 0's. Note that maps with 1's and NAN's are not equivalent. All binary maps must be 1's and 0's with this tool.

#### FOREST AREAS AT START OF VP

This is a binary map (contains 0's and 1's) where the 1's indicate areas forest areas at the start of the Validity Period (VP).

## OUTPUT (EITHER MODEL)

---

### BENCHMARK VULNERABILITY FOR THE VP

This is the output vulnerability map name that should be used. Be sure to specify the desired file extension.