

## APPENDIX 3.

Score of contribution of main hazards to three types of damage (loss in wood quality, loss in tree growth, tree mortality) in each case-study region and for each FMA. We used a five levels scale: 0, 0.25, 0.50, 0.75, and 1 for null, low, moderate, high and very high respectively.

***Aquitaine - Pinus pinaster***

|                | defoliator | stem borer | wind | fire | root rot |
|----------------|------------|------------|------|------|----------|
| wood quality   | 0          | 0.75       | 0.25 | 0.25 | 0        |
| growth loss    | 0.5        | 0          | 0    | 0    | 0.25     |
| tree mortality | 0          | 0.25       | 0.75 | 0.75 | 0.75     |

***Portugal - Eucalyptus sp.***

|                | leaf rust | leaf beetle | gall insect | fire | stem canker |
|----------------|-----------|-------------|-------------|------|-------------|
| wood quality   | 0         | 0           | 0           | 0.5  | 0.25        |
| growth loss    | 0.5       | 1           | 0.75        | 0.25 | 0.25        |
| tree mortality | 0         | 0.25        | 0           | 0.75 | 0.5         |

***Baden Wurttemberg - Picea abies***

|                | root rot | wind | bark beetle | snow | game |
|----------------|----------|------|-------------|------|------|
| wood quality   | 0.75     | 0.75 | 0.5         | 0.75 | 0.75 |
| growth loss    | 0        | 0.25 | 0.25        | 0.25 | 0.25 |
| tree mortality | 0.25     | 0.75 | 0.5         | 0.75 | 0.25 |

***Austria - Picea abies***

|                | bark beetle | wind | snow | game | sawfly |
|----------------|-------------|------|------|------|--------|
| wood quality   | 0.5         | 0.25 | 0.25 | 0.75 | 0      |
| growth loss    | 0           | 0.25 | 0.75 | 0.25 | 0.75   |
| tree mortality | 1           | 1    | 1    | 0.25 | 0      |

***Silesia - Pinus sylvestris***

|                | Game | root rot | weevil | sawfly | wind |
|----------------|------|----------|--------|--------|------|
| wood quality   | 0.5  | 0.5      | 0      | 0      | 0.25 |
| growth loss    | 0    | 0.25     | 0      | 0.25   | 0    |
| tree mortality | 0.25 | 0.5      | 0.75   | 0      | 0.75 |

***Sweden - Pinus sylvestris***

|                | root rot | weevil | game | bark beetle | wind |
|----------------|----------|--------|------|-------------|------|
| wood quality   | 0.5      | 0      | 0.5  | 0           | 0.25 |
| growth loss    | 0.25     | 0      | 0.25 | 0           | 0    |
| tree mortality | 0.5      | 0.5    | 0.25 | 0.75        | 0.75 |

***Scotland - Pinus sylvestris***

|                | game | wind | weevil | foliar disease | fire |
|----------------|------|------|--------|----------------|------|
| wood quality   | 0.5  | 0.5  | 0      | 0.25           | 0.75 |
| growth loss    | 0.5  | 0.25 | 0.75   | 1              | 0.25 |
| tree mortality | 0.25 | 1    | 1      | 1              | 1    |

***Scotland - Picea sitchensis***

|                | game | wind | weevil | aphid | fire |
|----------------|------|------|--------|-------|------|
| wood quality   | 0.5  | 0.5  | 0      | 0.5   | 0.75 |
| growth loss    | 0.5  | 0.25 | 0.75   | 0.75  | 0.25 |
| tree mortality | 0.25 | 1    | 1      | 0.75  | 1    |