**S1 Table. Measurement scales used to score interventions in the model**

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| **Category** | **WNV criteria** | **Description** | **Measurement scale** |
| **Public Health Criteria (PHC)** |
|  | PHC1 - Incidence reduction | Reduction in incidence of human cases (or case proportion in population) | -1 : increase in cases0: no difference1: small reduction2: moderate reduction3: high reduction4: significant reduction |
|  | PHC2 - Entomological risk reduction | Reduction of entomological risk (infection rate or abundance of main vectors) | -1 : increased risk0: no difference1: small reduction2: moderate reduction3: high reduction4: significant reduction |
|  | PHC3 –Physical health impact  | Impacts to human physical health (including susceptible populations) **= Intensity \* Duration of Effect** | **Intensity**:• -4 : significant beneficial effect• -3 : high beneficial effect• -2: moderate beneficial effect• -1: minimal beneficial effect• 0: no effect• 1: minimal adverse and reversible effect• 2: moderate adverse effect• 3: high adverse effect• 4: significant adverse effect  | **Duration of effect** :• 1: short -term effect, reversible• 2 short-term effect, reversible• 3: sub- chronic effect, reversible• 4: chronic effect, irreversible |
|  | PHC4 - Mental health impact | Impacts to human mental and psychosocial health (including susceptible populations)**= Intensity \* Duration of Effect** | **Intensity**:• -4 : significant beneficial effect• -3 : High beneficial effect• -2: moderate beneficial effect• -1: minimal beneficial effect• 0: no effect• 1: minimal adverse and reversible effect• 2: moderate adverse effect• 3: high adverse effect• 4: significant adverse effect  | **Duration of effect** :• 1: short -term effect, reversible• 2 short-term effect, reversible• 3: sub- chronic effect, reversible• 4: chronic effect, irreversible |
|  | PHC5 – Social equity | Impact on social equity | • -2: very positive effect• -1: rather positive effect• 0: no effect• 1: rather negative effect• 2: very negative effect |
|  | PHC6 – Reduction of circulating virus  | Reduction in level of circulating virus in animal reservoir (infection rate or density of population) | • 1: increase• 0: no difference• 1: small reduction• 2: moderate reduction• 3: High reduction• 4: significant reduction |
|  | PHC7 – Proportion affected | Proportion of population that benefits from the action | • 0: no individual• 1: low proportion of affected individuals (<25% )• 2 : moderate proportion (25-50% )• 3: significant proportion (50-75%)• 4 : majority of the population (> 75%) |
| **Social Impact Criteria (SIC)** |
|  | SIC1 – Public acceptance | Level of public acceptance (agreement or non-agreement of the intervention by the population or stakeholders) | • -2: major disagreement• -1: low disagreement• 0: no effect• 1: low agreement• 2: important agreement |
|  | SIC2 – Impact to credibility | Impact to confidence in and credibility of organisation in charge (including adhesion to key messages) | • -3: significant increase in degree of confidence• -2: moderate increase in degree of confidence• -1: slight increase in degree of confidence• 0: no effect• 1: small reduction in degree of confidence• 2: moderate reduction in degree of confidence• 3: significant reduction in degree of confidence |
| **Economic Criteria (ECC)** |
|  | ECC1 – Government cost | Cost to the government (national or province/state) | • 0: no cost• 1: minimal costs (a few thousand)• 2: moderate costs (hundreds of thousands)• 3: high costs (millions) |
|  | ECC2 – Municipal cost | Cost to municipalities | • 0: no cost• 1: minimal costs (a few thousand)• 2: moderate costs (hundreds of thousands)• 3: high costs (millions) |
|  | ECC3 – Individual cost | Cost to individuals and private sector | * 0 : no cost
* 1 : minimal costs (individual <30$, private <100$)
* 2 : moderate costs (individual 31-100$; private <100$)
* 3 : high costs (individual >100$; private > 1000$)
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| **Strategic & Operational Criteria (SOC)** |
|  | SOC1 - Delay | Delay before appearance of desired effect | • 0: no delay• 1: very short term• 2: short term• 3 : medium• 4: long term• 5 : very long term |
|  | SOC2 – Complexity | Institutional and operational complexity of the action (including structural changes, hiring, etc.) | • 1: Simple (minor institutional changes)• 2: Intermediate (requires hiring and further planning)• 3: moderate (requires new working teams in a sector of intervention)• 4: Complex (requires inter-sectoral / inter-institutional changes)• 5: Very complex (requires the creation of new structures or organizations) |
|  | SOC3 – Sustainability  | Sustainability of the action (or efficacy in time) | • 0: no duration• 1: in days• 2: in weeks• 3: in months• 4: in years |
|  | SOC4 – Other policy impact | Impact on other public policies (including potential conflicts with recommendations, economic efforts, etc.) | • -1: concordance / synergy• 0: no conflict• 1: low conflict• 2: moderate conflicts• 3: major conflicts |
| **Animal & Environmental Criteria (AEC)** |
|  | AEC1 – Animal health impact | Impact on animal health and biodiversity**= Type of effect \* Scope \* Value of species** | **Type of effect :**• -1: health Improvement• 0: no effect• 1: morbidity• 2 : mortality**Scope (number of species affected) :**• 1: no species• 2: some species• 3: several species | **Value of affected species (economic/ecological value, or endangered status) :**• 1: low-value species or not at risk• 2: species of low values ​​or susceptible species• 3: moderate value or vulnerable/of concern species• 4: important value of species or threatened/ endangered |
|  | AEC2 – Environmental impact | Impact on physical environment and ecosystems**= Type of effect \* Scope \* Value** | **Type of effect :**• -1: improvement• 0: no effect• 1: low effect• 2: moderate effects• 3: High effects**Geographic scope**:• 1: none• 2: small scale• 3 large scale; | **Value** :• 1: none• 2 : terrestrial environment• 3 : aquatic environment• 4: terrestrial and aquatic environments• 5: complex ecosystems (water – air - ground) |