- VietGAP criteria = global criteria for commune

- Pollution per village: solid waste and wastewater

- Agricultural productivity per village

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Actions** | **Consequences on the simulation** | **Price and temporality** | **Info** | **Type of object** |
|  | **Waste management** |  |  |  |  |
| 1 | **Choice on waste collection team**  **(mandatory choice)**  (Benefits agricultural production indirectly) | Collects 2 times/week  Collects 4 times/week | 20 tokens/year  40 tokens/year | Scale: village  Who: all inhabitants | Solid waste |
| 2 | **Drain and dredge** | Reducing waste in the canals by 43%  Allowing irrigation into crops therefore improving agricultural production by 20% | 60 tokens/action | Scale: village  Who: all inhabitants | Solid waste and wastewater |
| 3 | **Install water treatment facilities for every home** | Reduces household wastewater in the canals by 90%  Wastewater decreases progressively over three years (y1 -30% ; y2 - 45% ; y3 - 90%).  After this action, the 90% factor of reduction is kept as long as the players pays for maintenance | 200 tokens for construction and 20 tokens each year for each commune that paid for it | Scale: commune  Who: all inhabitants | Wastewater |
|  | **Raising awareness** |  |  |  |  |
| 4 | **Organise sensibilization about waste sorting workshops in schools** | Raise people awareness on the long term, reduces solid waste pollution from the inhabitants  No material object implemented in the model, but initiating the action every year decreases pollution logarithmically | 15 tokens for one year.  Cumulative years allow exponential results. | Scale: village  Who: all inhabitants | Solid waste |
| 5 | **Trimestrial collective action**  100 people collect trash in polluted canals | Take off 33% of waste in the canals | 25 tokens for one year | Scale: village  Who: all inhabitants | Solid waste |
|  | **Agricultural activities** |  |  |  |  |
| 6 | **Help farmers to reduce pesticides use** | Reduces soil and water pollution originated by the farmers by 33%  Reduces agricultural production by 15% | 30 tokens for one year | Scale: village  Who: all inhabitants | Wastewater |
| 8 | **Help farmer buy manure** | Increases agricultural production by 15% for this year  Increases wastewater pollution from field by 20% | 30 tokens | Scale: village  Who: all inhabitants | Production |
| 7 | **Put ⅓ of the fields in fallow** | ~~Restore the soil quality by 33%~~  Change : Reduce soil pollution by 33%  Decreases the agricultural production by 33% for this year  Productivity increases by 50% next year | 25 tokens for one rotation | Scale: village  Who: all inhabitants | Production |
| 8 | **Making farmers participate in the installation of dumpholes for agricultural products** | Decreases solid waste and wastewater originated in the fields by 25% each | 15 tokens | Scale: village  Who: all inhabitants | Production |