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# HOW TO OFFSET YOUR ECOLOGICAL FOOTPRINT?

## Compensation actions

## Compensation actions

**COMPENSATION ACTIONS**



**GLOBAL PRESSURES**

**Planting trees**



Planting trees



Have you ever  
planted a tree?

## Compensation actions

### Planting trees

#### Why?

Deforestation, monoculture production, habitat loss and fragmentation, alien invasive species, ...

By planting trees you are contributing to generate clean oxygen, capture carbon dioxide, neutralize greenhouse gases emission, provide habitat, shelter and food for animals and support vital ecosystem services.



## Compensation actions

### Planting trees

**Flora**



```
graph LR; Flora --> Supporting[Supporting services]; Flora --> Provisioning[Provisioning services]; Flora --> Regulating[Regulating services]; Flora --> Cultural[Cultural services];
```

#### **Supporting services**

E.g. Photosynthesis; nutrient cycle; soil formation; water cycle.

#### **Provisioning services**

E.g. Food; biochemical; fiber; fresh water.

#### **Regulating services**

E.g. Air quality, climate, water and erosion regulation; water purification.

#### **Cultural services**

E.g. Educational; recreation; heritage; inspiration; aesthetic values.

### Planting trees

#### Tips:

- Plant the trees during the dormant season (autumn and early spring);
- Choose the location to plant according to the tree species characteristics;
- Dig a hole 3 times wider than the root ball, but no deeper than the root ball;
- Water it to settle the soil, but without over packing it.

**Always plant native trees!!!**



# Invasive plant species control

## Why?

The spread of invasive plant species is amongst the top threats to biodiversity, destroying native habitats and affecting native species of fauna and flora.

They also have a huge impact in our economy, giving us losses of million of euros every year.



# Invasive plant species control

### Tips:

- First, learn how to identify these invasive species;
- Second, learn about biological, chemical and physical methods to control them;
- Finally, it is not easy to fight against invasive species. The best way to do it is to prevent their invasion.

**Never bring exotic species if you don't know their impact!!!**



# Building an organic vegetable garden

## Why?

Buying vegetables from the groceries store increases our ecological footprint when compared to growing and consuming your own vegetables.



# Building an organic vegetable garden

### Tips:

- First of all, think about the vegetable garden size, type of plants and most important how much time you can spare to take care of your garden;
- Plant and sow according to individual species requirements;
- Build a compost bin (with organic waste from the vegetable garden and also from your kitchen).

**Never use synthetic chemical fertilizers, pesticides or herbicides!!!**



**Wildlife shelters**



### Wildlife shelters

#### Why?

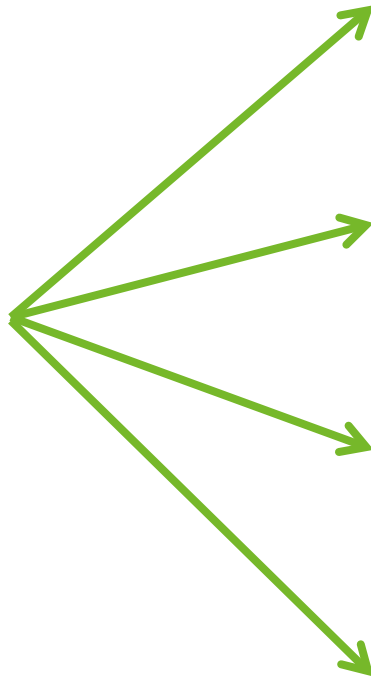
Habitat loss and fragmentation, overexploitation, alien invasive species, climate change,...

By building wildlife shelters and placing them in appropriate areas you are contributing to local biodiversity.

## Compensation actions

### Wildlife shelters

**Fauna**



#### **Supporting services**

E.g. Nutrient cycles; soil formation

#### **Provisioning services**

E.g. Food; biochemicals.

#### **Regulating services**

E.g. Pollination; pest control.

#### **Cultural services**

E.g. Educational; heritage; inspiration.

Wildlife shelters – Bug hotel



## Wildlife shelters – Bug hotel

### Materials:

- Wood pallets
- Bricks and tiles
- Roofing felt or PVC sheet
- “Filling”: wood, rocks, old pots, moss, dead leaves, pine cones, ...



## Compensation actions

### Wildlife shelters – Bug hotel



Wildlife shelters – Bug hotel



### Wildlife shelters – Bug hotel

#### Tips:

- Build a stable foundation
- Rain proof roofing will keep the hotel dry and make it will last longer.
- Plant bug friendly plants in the surroundings.



Wildlife shelters – Amphibian & reptile home



# Wildlife shelters – Amphibian & reptile home

### Materials:

- Spade
- Soil
- Rocks
- Logs or branches



**Wildlife shelters – Amphibian & reptile home**



### Wildlife shelters – Amphibian & reptile home

#### Tips:

- Don't cover all the openings with soil.
- **Consider the biology of target species.** Amphibians will require more humidity than reptiles.
- Plant the topsoil with native vegetation.



**Wildlife shelters – Bird house**



### Wildlife shelters – Bird house

#### Materials:

- Wood plank
- Saw
- Metric tape
- Hammer & nails
- Drill
- Ladder



Wildlife shelters – Bird house



### Wildlife shelters – Bird house

#### Tips:

- Drill drainage holes in the bottom.
- Hardwoods, such as oak and beech, will outlive soft woods such as pine.
- Entrance size and type will depend on the species you hope to attract.



**Wildlife shelters – Bat box**



### Wildlife shelters – Bat box

#### Materials:

- Wood plank
- Saw
- Metric tape
- Hammer & nails
- Ladder



### Wildlife shelters – Bat box

#### Tips:

- Hardwoods, such as oak and beech, will outlive soft woods such as pine.
- Use rough sawn wood so the bats can get a grip inside.
- Provide a clear flight line in.



# Compensation actions

## Pond



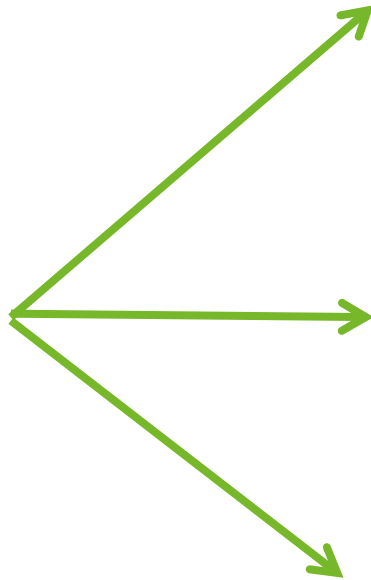
### Pond

#### **Why?**

Wildlife ponds are threatened habitats with high biodiversity, and are related to many ecosystem services.

## Compensation actions

Ponds



### **Supporting services**

E.g. Nutrient cycles; soil formation.

### **Regulating services**

E.g. Flood control, water purification.

### **Cultural services**

E.g. Educational, aesthetical value.

## Pond

### Materials:

- Spade
- Liner
- Rocks
- Measuring tape
- ...



# Pond

### Tips:

- Curves along margins and depth variation make the pond more attractive to wildlife.
- Don't introduce exotic fish in your pond!
- Engage the school and parents!!



### Compensation Actions

#### Not only

- Improving local biodiversity and ecosystem services.

#### But also

- Educating and inspiring children (and families) to care about the planet.
- Socializing and team-building.
- **ENJOYING NATURE.**

