

# WHY ARE WETLANDS AND URBAN STREAMS IMPORTANT FOR US?

## CONTRIBUTION TO DISASTER RISK REDUCTION

### DROUGHT RISK REDUCTION:

Wetlands and streams provide water storage and water purification through the plants and microorganisms that they house, a magnificent adaptive quality particularly when you face a long period of drought.

### FLOOD RISK REDUCTION:

Wetlands and streams absorb excess water and precipitation and provide nature-based solutions for flood reduction.

## WETLANDS AND STREAMS PROVIDE A RANGE OF OTHER VALUABLE ECOSYSTEM SERVICES SUCH AS



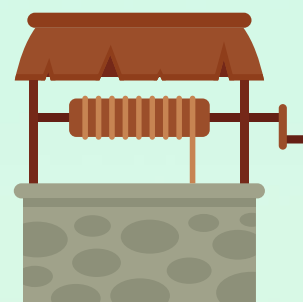
Conserve soil and water



Moderate local microclimate



Improve water quality



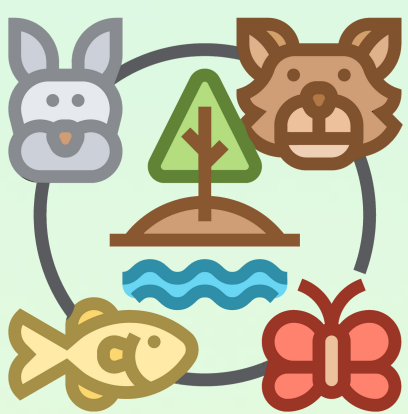
Recharge groundwater



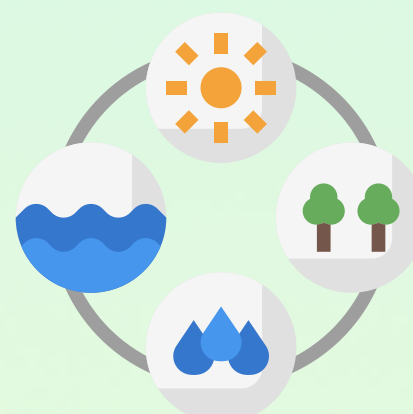
Provide recreational spaces for nearby residents



Provide a variety of food sources for local communities



Healthy wetlands are biodiversity hotspots. They provide shelter, breeding, and nesting grounds for many species of birds and aquatic fauna.



Wetlands are efficient in sequestering carbon in their soil and biomass and can contribute to climate change mitigation. Wetlands cover only 9% of the planet's surface but store up to 35% of terrestrial carbon.

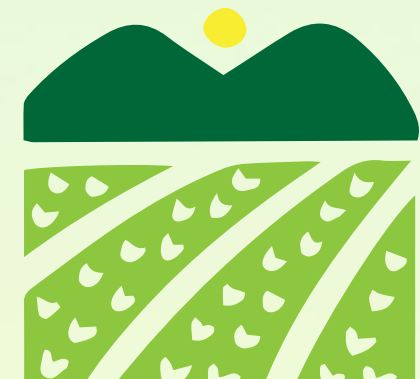
## URBAN WETLANDS AND STREAMS CONTRIBUTE TO GENERATING INCOME AND LIVELIHOODS OF LOCAL COMMUNITIES



They contribute to food security by supporting fisheries, agriculture, livestock, and fuel production.



Wetlands are Sources of Livelihood for local communities



According to Ramsar, wetlands sustain the livelihoods of more than a billion households throughout Asia, Africa and the Americas that rely on rice growing and processing.

# WHY DO WE NEED TO PROTECT NATURAL STREAMS, RIVERS AND WETLANDS?

OUR WETLANDS AND STREAMS HAVE BEEN FACING VARIOUS DEGRADATION CHALLENGES SUCH AS

WHAT ARE THE MAJOR CONSEQUENCES OF THE DEGRADATION OF URBAN WETLANDS AND STREAMS?



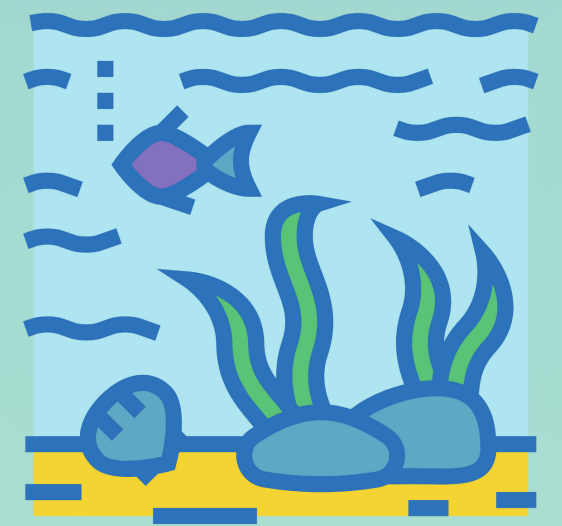
The number and areas of invasive species are increasing rapidly



Increased quantity and area of sedimentation caused by floods and erosion



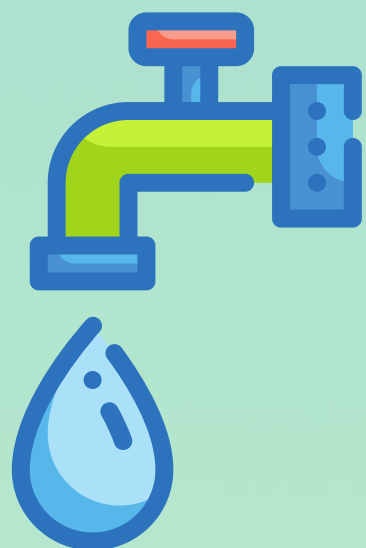
Affect biodiversity by reducing the number and abundance of local species



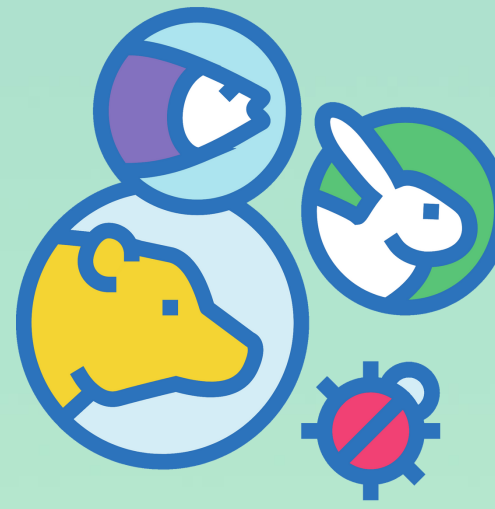
Reduce fish population



Water pollution due to a lack of proper waste management



declining quality of water



Cause habitat loss of threatened species



Cause long-term impacts on people's livelihood

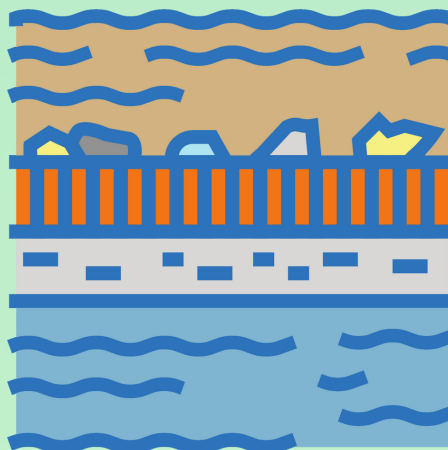
## WHAT WE CAN DO TO PROTECT OUR WETLANDS AND STREAMS?



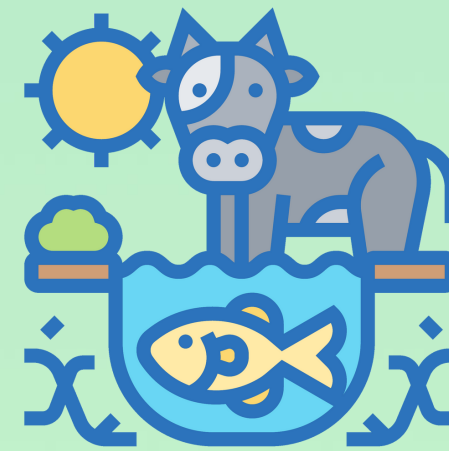
Manage solid waste properly. Don't throw them in streams and rivers



Organize community monitoring of wetland and streams regularly



Prevent soil erosion by protecting buffer zones to reduce sedimentation



Remove invasive species without disturbing local species and biodiversity



Enforce community regulations for wetlands and stream protection

# MANAGE YOUR SOLID WASTE PROPERLY



## WHAT IS PROPER SOLID WASTE DISPOSAL?



Disposal of waste in a designated waste receptacle, or other suitable container, which is regularly emptied by the municipality or some other refuse collector.



Disposal into a system designed to convey domestic sewage for proper treatment and disposal.

## WHAT HAPPENS IF YOU DON'T DISPOSE SOLID WASTE PROPERLY?

An improper solid waste management system may create serious negative environmental impacts like the spreading of infectious diseases, land and water pollution, obstruction of drains and loss of biodiversity.



## EXAMPLES OF PROPER WASTE DISPOSAL

Reducing waste generation



Recycling



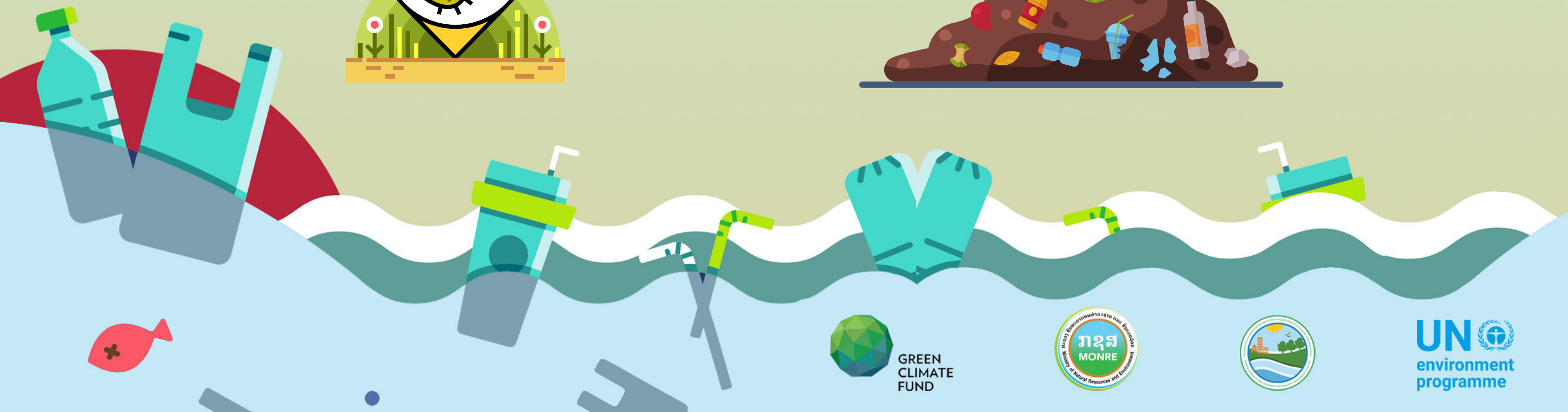
Controlled incineration



Composting



Sanitary Landfill



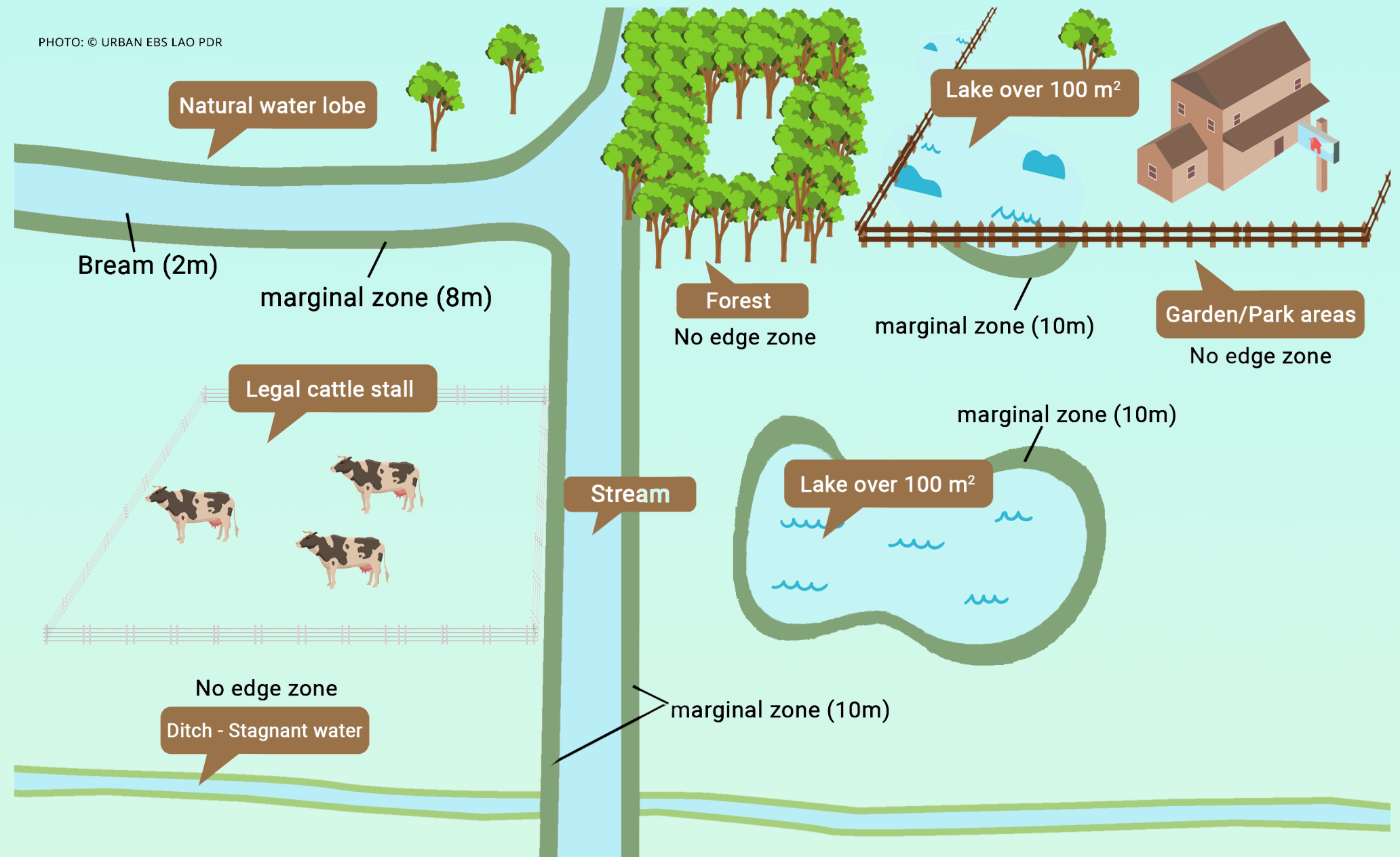
# PROTECT AND MAINTAIN WATERWAY BUFFER ZONES

## WHAT ARE WATERWAY BUFFER ZONES?

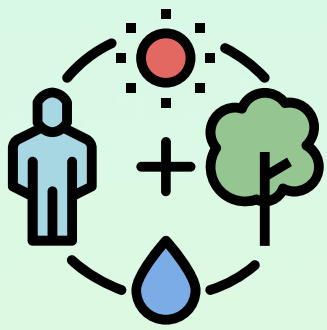
The waterway buffer zone is a land surface area adjacent to a watercourse along a stream or around a lake.

The buffer zone along the bank of wetland and streams are generally occupied by perennial native vegetation, including trees, shrubs, herbaceous vegetation, and enhanced or restored vegetation for the protection of wetland and stream.

The buffer zone separates water bodies from buildings, structures, parking lots and other land uses that may alter habitat, geomorphology, water quality, and hydrology.



## WHY IS A WATERWAY BUFFER ZONE IMPORTANT?



Buffer zones are important for protecting wetland and stream ecosystems.



Buffer zones help to prevent soil erosion, sedimentation and maintain biodiversity.

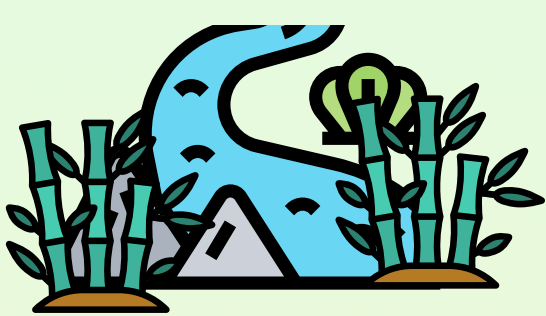


Buffer zones will also protect streams and wetland from encroachment.



Waterway buffers may also act as floodplain storage and a passive drainage way, reducing flood risk.

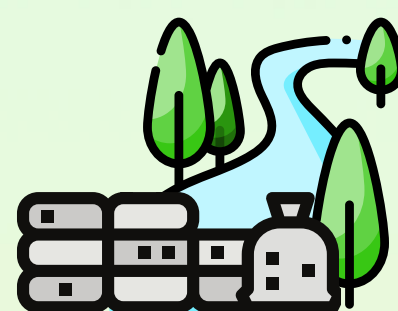
## WHAT YOU SHOULD DO TO MAINTAIN AND REHABILITATE WATERWAY BUFFER ZONES?



Plant vegetation and grass to protect the stream and lake banks. Use local vegetations which are good for soil protection such as bamboo



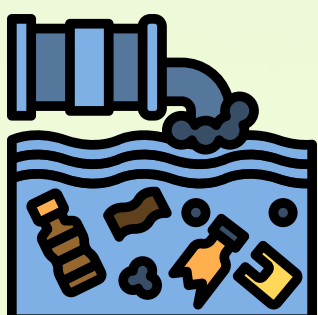
Avoid construction of any infrastructures in the buffer zones



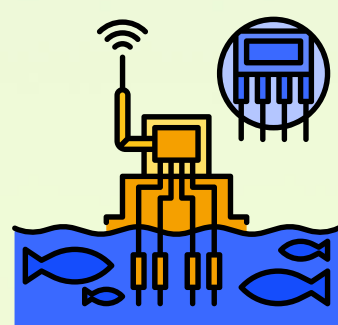
Rehabilitate the damaged and eroded banks using eco-friendly materials such as sandbag, gabion wall, logs etc



Access to wetlands and streams through assigned locations only



Don't throw any wastes in the buffer areas



Regularly monitor the wetlands and streams to check the condition of buffer zones



Know the boundary of buffer areas of streams and lakes



Delineate and demarcate with visible signs to let people know about buffer areas

# APPLY HOUSEHOLD-LEVEL ADAPTATION MEASURES TO PROTECT WETLANDS AND STREAMS AND REDUCE DISASTER RISKS

## WHAT ARE HOUSEHOLD-LEVEL ADAPTATION MEASURES?



The measures that you adopt in your household to reduce the disaster risks for your family and neighbours. You can apply various behavioural and physical measures based on your knowledge, experience, available information and supports from the local authorities.

You can get information on the type and severity of disaster risks, possible measures, and strategies to reduce the risks and impacts and available support directly from the local authority or local radio, TV and social media.



Follow weather and flood alerts and disseminate the message in the community to protect household/ livelihood assets.

## WHY THE HOUSEHOLD-LEVEL ADAPTATION MEASURES ARE IMPORTANT?



Household-level adaptation measures play an important role in reducing the vulnerability of your family and your neighbours to climate change and natural disasters.

These measures also contribute to maintaining a healthy household environment and preventing the spreading of infectious diseases.



## “YOU CAN START WETLAND AND STREAM PROTECTION FROM YOUR HOUSE”

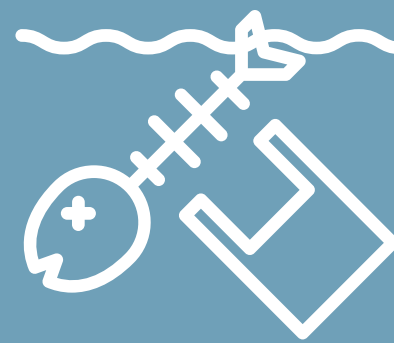
### APPLY THESE HOUSEHOLD-LEVEL MEASURES TO PROTECT WETLANDS AND STREAMS



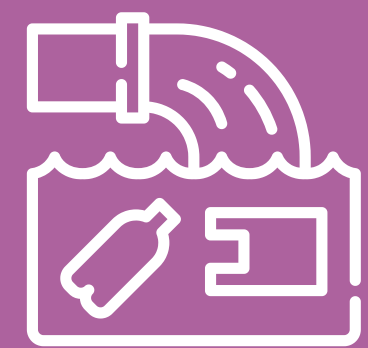
Physical protection measures such as elevating the houses, retrofitting, dry or wet floodproofing, insurance of your property.



Manage your solid waste such as segregating organic and inorganic in different bags.



avoiding disposal of wastes in public areas, streams and wetlands.



Keep your drainage clean and prevent clogs by placing your trash in the garbage rather than the drain, ex: Eggshells, coffee grounds, paper towels, napkins, fruit peels, etc.

