





13 AÇÃO CLIMÁTICA









GOOD WATER CORRIDORS PROGRAM





17 PARCERIAS PARA A IMPLEMENTAÇÃO DOS OBJETIVOS



THE FINAL OBJECTIVE will only be successful if it is implemented through strong partnerships and global cooperation. At the Federal, State and Municipal levels.

PARTNERSHIPS IN THE GOOD WATER CORRIDORS PROGRAM



- CREATE A PARTNERSHIP MODEL TO CREATE BIODIVERSITY CORRIDORS,

PROTECTION OF SPRINGS, SPRINGS AND WET AREAS, REPRODUCING RIVARIAN FORESTS AND FENCED APPS. AND EXECUTE THE MICROBASIN PROJECT, ENSURE THAT RAINWATER STAYS ON RURAL PROPERTIES AND DOES NOT TAKE FERTILE SOIL TO THE RIVERS.

THE STUDY WILL BE CARBON ZERO, REGISTERING AND MEASURING THE AREAS CONTEMPLATED, WITH THE DATA MADE AVAILABLE THROUGH FIELD RESEARCH

THIS MODEL WILL BE EXECUTED IN PARTNERSHIP WITH THE CITY HALLS OF THE COVERED MUNICIPALITIES.

Área de atuação da Usina Santa Terezinha

Escreva uma descrição para seu mapa.

Light green area is sugar cane planting



N

Área de atuação da Usina Santa Terezinha

Mapa noroeste paraná



20 km

Google Earth

mage © 2019 CNES / Airbus mage © 2019 DigitalGlobe

Ocupaçao do solo pela Usina Santa Terezinha

apeja

Marabá

Escreva uma descrição para seu mapa.

Legenda

Tuneiras do Oeste

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9 km

Tuneiras do Oeste

Google Earth

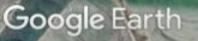
Image © 2018 CNES / Airbus © 2018 Google Image © 2018 DigitalGlobe AREAS TO BE RESTORED IN THE CORRIDORS DE ÁGUA BOA PROGRAM

Google Earth

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Legenda

A N AREAS TO BE RESTORED IN THE CORRIDORS DE ÁGUA BOA PROGRAM



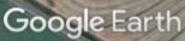
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800 m

AREAS TO BE RESTORED IN THE CORRIDORS DE ÁGUA BOA PROGRAM



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A N

1 km

CÓRREGO MUMBUCA 5.100 MTS

Tuneiras

Área a ser impactada 101 hectares Distância da Captação ao Rio 1.346 mts Distância da Capração a cx dágua 612 mts Legenda O SANEPAR

Tuneiras do Oeste

Google Earth

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Corrego Mumbuca o modelo do Projeto

Escreva uma descrição para seu mapa.

Legenda

Tuneiras do Oeste

PRESERVED FOREST

PRESERVED FOREST

ESERVED FOREST

DEGRADED PRESERVATION AREA

DEGRADED PRESERVATION AREA

boogle Eartha

ige © 2018 CNES / Airbus 2018 Google **RESERVED FOREST**

1 km

N

MICRO BOWLS OR TERRACE

ÁREA DA APA ASER CONTEMPLADA COM O CERCAMENTO

ÁREA TOTAL 101 HECTARES ÁREA TOTAL EM METROS QUADRADOS 1.010.000 ÁREA DE CERCAMENTO LINEAR 15.850 METROS Legenda

• Tuneiras do Oeste

Tuneiras do Oeste

Google Earth

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We identified Rivers and Streams, without the protection of Permanent Preservation Areas on the right and left banks. All soil types originate from the Caiuá Arenito Formation, which have low fertility and relatively high susceptibility to water erosion.

The association of these soil classes with the greater slope of the relief in the lower portions of the valleys creates conditions of greater risk of erosion and the consequent silting of watercourses observed around the Program.

Guidelines for Sustainable Rural Development

- 1 _ Promote the recovery and conservation of forest areas permanent preservation in springs and streams in spring basins
- 2 _ Identify potential, existing opportunities. To negotiate a "conservation pact" Ex.: Support for the creation of private Natural Reserves. compensatory; extensive livestock and pasture management

native species (fire), as well as support for Agroecology.

Mitigate environmental impacts of current production systems

1 _ Soil conservation and management program on rural properties in priority areas and landscapes, including road adaptation;

2 _ Encourage (Program) integrated management of pests, soil diseases and weeds (reduce the use of Pesticides) • Promote Environmental regularization, Create Permanent Preservation Areas and Legal Reserve

3 Limit the expansion of Reforestation in the Environmental

Protection Area and control spontaneous spread.

PROTEGER A A TERRESTRE

Proteger, recuperar e promover o uso sustentável dos ecossistemas terrestres, gerir de forma sustentável as florestas, combater a desertificação, deter e reverter a degradação da terra e deter a perda de biodiversidade.

Example of property without micro basins, Contours



Example of mechanized sugar cane harvesting, after harvesting, the straw was burned and not incorporated into the soil.

RESULT OF CONTROLLED BURNING

RESULT OF CONTROLLED BURNING



RESULT OF CONTROLLED BURNING

RESULT OF CONTROLLED BURNING

Example of property, without contour lines and without restoration and fencing of a Permanent Preservation Area.

DEGRADED PRESERVATION AREA

WITHOUT FORESTS ON THE BANKS OF RIVERS, THE CONSEQUENCES IS TRASH AND EROSION OF FERTILE SOIL

Assoreamento

THE FORESTS PROTECT THE RIVER



Lixo

Erosão

FORESTS ON THE BANKS OF RIVERS MUST BE AT LEAST 30 METERS ON EACH BANK

CONVENTIONAL PLANTING

CONVENTIONAL PLANTING

EXAMPLE OF DEGRADED PASTURE

100

RESULT OF LACK OF MICRO BASINS AND TERRACES

Final result of neglect or lack of knowledge Great loss of quality soil, and a lot of erosion...

DISREGARD FOR THE SOIL ALSO HAPPENS IN URBAN AREAS

THIS IS HOW EROSION BEGINS

THE RESULT IS THE SILTING OF RIVERS AND LAKES, COMPROMISING THE QUALITY OF WATER AND ITS VOLUME

THE LOSS OF FERTILE SOIL TAKEN BY THE RAINS IS GIANT

HOW WE SOLVE PROBLEMS THE GREAT LOSS OF FERTILE SOIL AND THE **DESILATION OF RIVERS, STREAMS AND** LAKES IN BRAZIL.

WE IMPLEMENT LEVEL CURVES AND TERRACES IN PROPERTIES

PREVENTS EROSION

RETAINS RAIN WATER

PRESERVES FERTILE SOIL ON PROPERTIES

MAKING TERRACE, STANDARDIZING LEVEL CURVES, CREATING MICRO BASINS



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MAKING TERRACE, STANDARDIZING LEVEL CURVES, CREATING MICRO BASINS

POSITIVE RESULT WITH EVERY RAIN, ALL THE WATER STAYS ON THE PROPERTIES, THUS CHARGING THE WATER TABLE AND PRESERVING THE FERTILE SOIL ON THE PROPERTIES

HOW IS THE PARTNERSHIP WITH MUNICIPAL GOVERNMENTS **EXECUTED?**

IN DIRECT PARTNERSHIP WITH CITY HALLS AND OWNERS





SURVEY AT THE LEVEL OF RURAL ROADS, STARTING THE CONFECTION OF CONVEYOR CURVES ON EACH SIDE







CURVES ON THE RIGHT AND LEFT SIDE OF THE ROAD, IN PARTNERSHIP WITH THE OWNERS.



THE IMPORTANCE OF PARTNERSHIPS BETWEEN RURAL OWNERS, PUBLIC PROSECUTION OFFICE, AUTHORITY AND CITY HALLS SO THAT PROGRAM ACTIONS TAKE PLACE WITH TRANSPARENCY AND RESPONSIBILITY



THE GOOD WATER CORRIDORS PROGRAM PROTECTS FOREST SOIL AND SPRINGS AND RIVERS

OUR COMMITMENT TO SHIELDING RIVERS HAS PROVIDED WATER CATCHING COMPANIES WITH MORE THAN 70% SAVINGS ON CHEMICAL INPUTS AND ELECTRIC POWER



DEPOIS DO SERVIÇO CONCLUIDO, O CASCALHAM<mark>ENTO NA ESTRADA, PARA FACILITAR A LOCOMOÇAO E</mark> GARANTIR O TRABALHO, SEGURANDO A ÁGUA DA<mark>S CHUVAS, NAS PROPRIEDADES</mark>.

ANTES





PARTNERSHIPS WITH SOCIAL AND ENVIRONMENTAL RESPONSIBILITY

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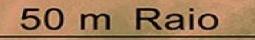


Combating Climate Change. Improve education, increase awareness and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

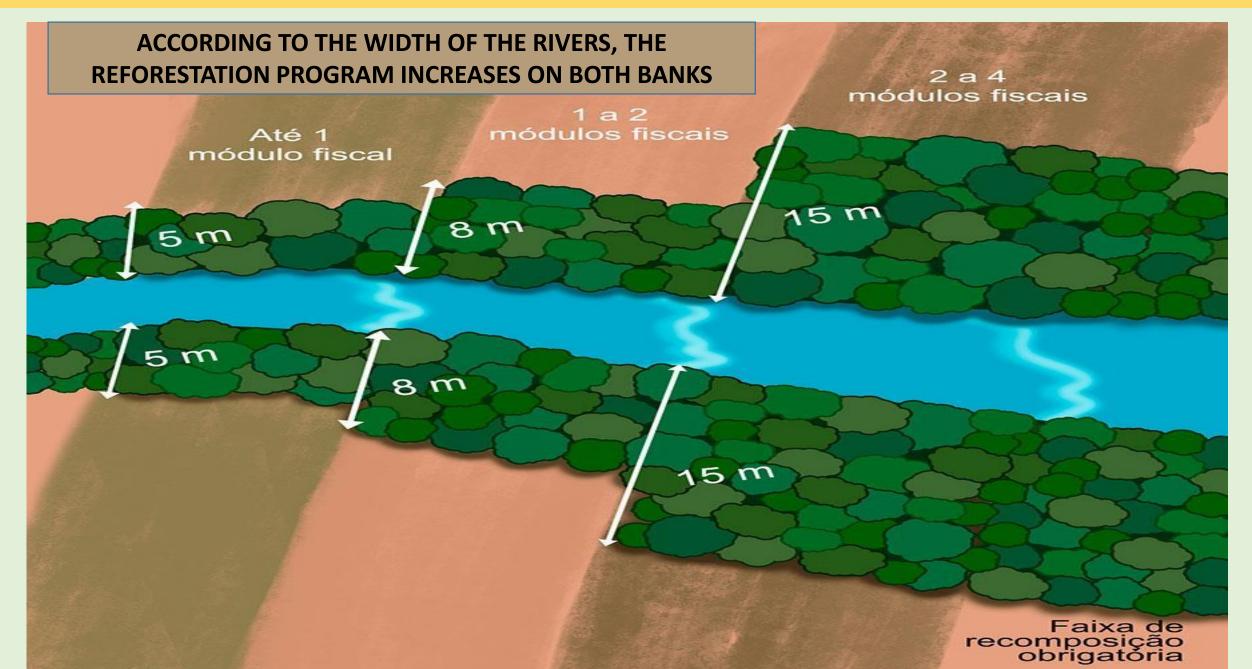
WE ENCOURAGE THE CONSERVATION AND CREATION OF PERMANENT PRESERVATION AREAS APP

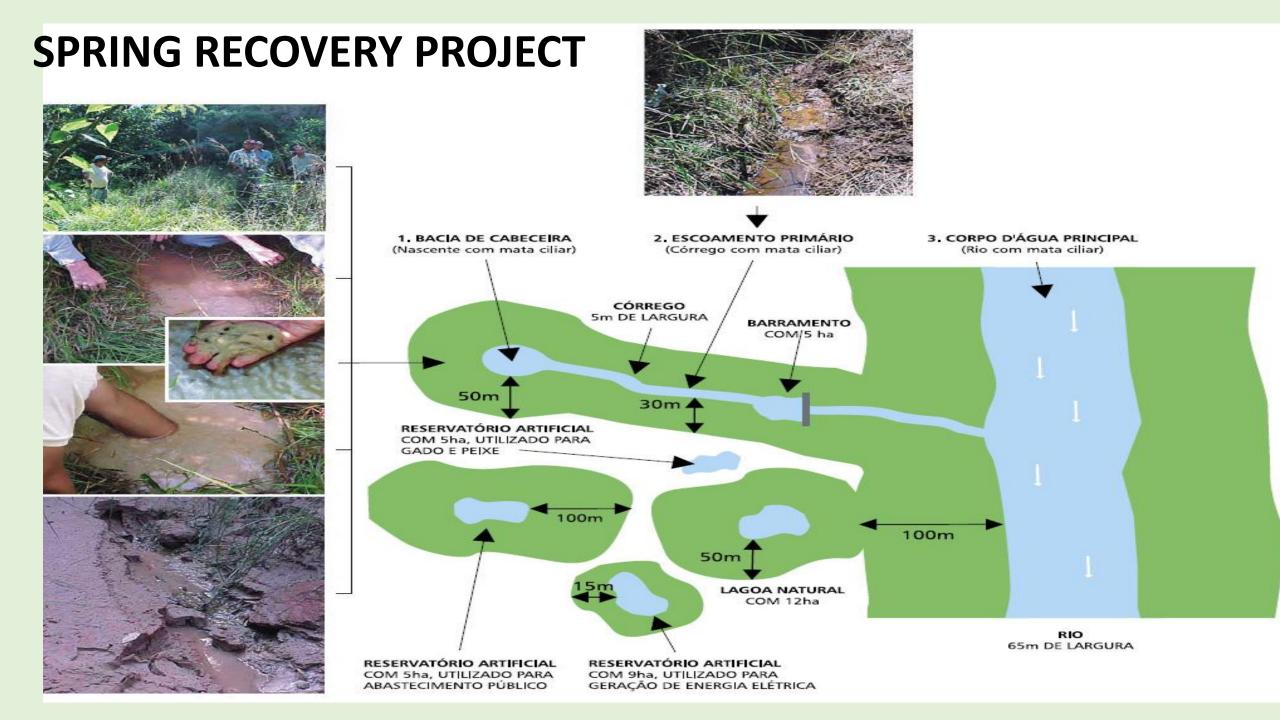
WE MADE A FENCE OF 50 METERS AROUND THE SPRINGS AND 30 METERS ON THE BANKS OF THE RIVERS

Entorno das nascentes e olhos d'água perenes



WE ENCOURAGE THE CONSERVATION AND CREATION OF PERMANENT PRESERVATION AREAS APP





WE IDENTIFY ALL SPRINGS IN RURAL PROPERTIES

WE REVITALIZE EACH SPRING, ONE BY ONE

THE RESULT IS WATER WITH ABUNDANCE AND QUALITY

WE HAVE ALREADY REVITALIZED MORE THAN 2,800 SPRINGS IN BRAZIL

PLACES WHERE THEY WERE DRY, THE WATER RETURNED WITH

LARGE VOLUME AND QUALITY

THEN WE MEASURE THE WATER FLOW PRODUCED WITHIN THE PROPERTY, TO REMUNERATE THE OWNER FOR PAYMENT FOR ENVIRONMENTAL SERVICES



OUR WATER FACTORY





We identify areas on the properties to restore riverbanks measuring 30 and 50 meters



IN 12 YEARS WE HAVE ALREADY PLANTED MORE THAN 2,300,000 MILLION TREE SEEDLINGS

We encourage partnerships to create nurseries for seedlings native to the local biome.

One of the objectives of the forest nursery, a project of biodiversity corridors in Brazilian biomes, guaranteeing quality genetic seed seedlings.











WITH BIODIVERSITY CORRIDORS, FAUNA RETURNS





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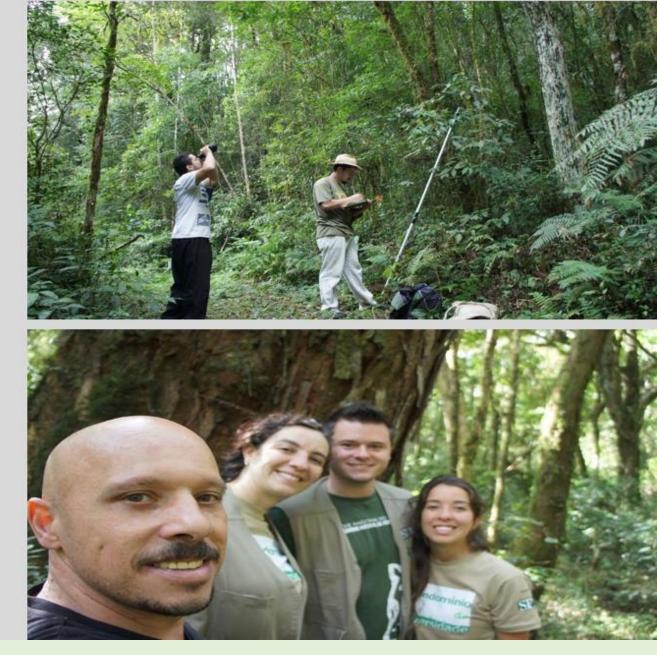
WITH BIODIVERSITY CORRIDORS, FAUNA RETURNS

WE HAVE CARRIED OUT MORE THAN 1400 FOREST PLANTATIONS AROUND SPRINGS

We help train professionals and citizens aware of conservation and preservation









We help train professionals and citizens aware of conservation and preservation

We promote environmental regularization Limit the expansion of reforestation of exotic trees, such as pine and Australian eucalyptus in the Environmental Protection Area and control spontaneous spread



Zero Hunger and Sustainable Agriculture

End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

ENCOURAGES RURAL PRODUCERS TO ADOPTE AGROECOLOGY PRACTICES.

FOSTER RURAL TOURISM

CREATION OF PRIVATE NATURAL RESERVES AND MANAGEMENT SUPPORT, TO ACCREDITATE WITH STATE AGENCIES TO RECEIVE PAYMENTS FOR ENVIRONMENTAL SERVICES.

WE CREATE AGROECOLOGY PROJECTS

WE CREATE AGROECOLOGY PROJECTS

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WE CREATE AGROECOLOGY PROJECTS

WE CREATED THE URBAN GARDEN PROJECT THAT ALREADY FEED MORE THAN 1,500,000 MILLION PEOPLE

PROVIDING INCOME TO OWNERS AND PRODUCT QUALITY TO CONSUMERS

feirinha orgânica

VACOEFGHI

PROVIDING INCOME TO OWNERS AND PRODUCT QUALITY TO CONSUMERS

WE ALSO CREATED THE RURAL TOURISM PROGRAM, TO IMPROVE THE QUALITY OF LIFE OF OWNERS AND VISITORS

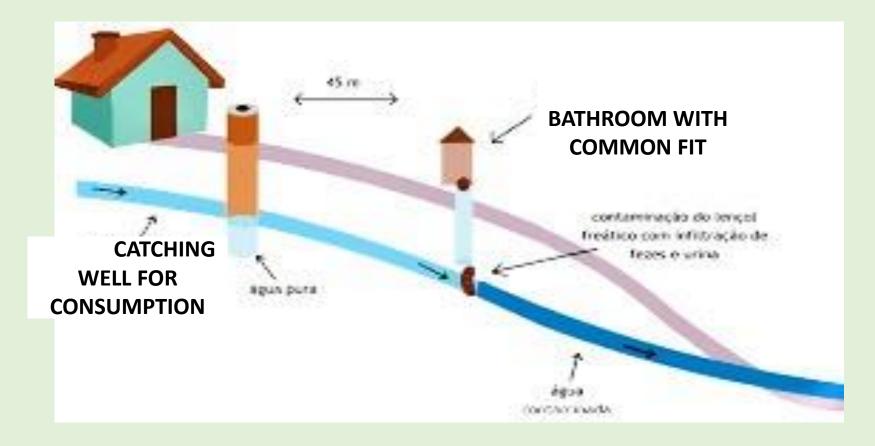


THESE ACTIONS GUARANTEE ENVIRONMENTAL AND SOCIO-ENVIRONMENTAL SUSTAINABILITY



Ensure the availability and sustainable management of water and sanitation for everyone.

TODAY IN RURAL AREAS, CONTAMINATION OF CONSUMPTION WATER IS VERY COMMON BECAUSE IT IS CLOSE TO ITS CATCH FROM THE SEWAGE DISCHARGE FIT





PROJECT TO NOT CONTAMINATE THE SOIL

EACH PROPERTY PROVIDED WILL RECEIVE A FREE ECOLOGICAL FOOT WITH TIRES



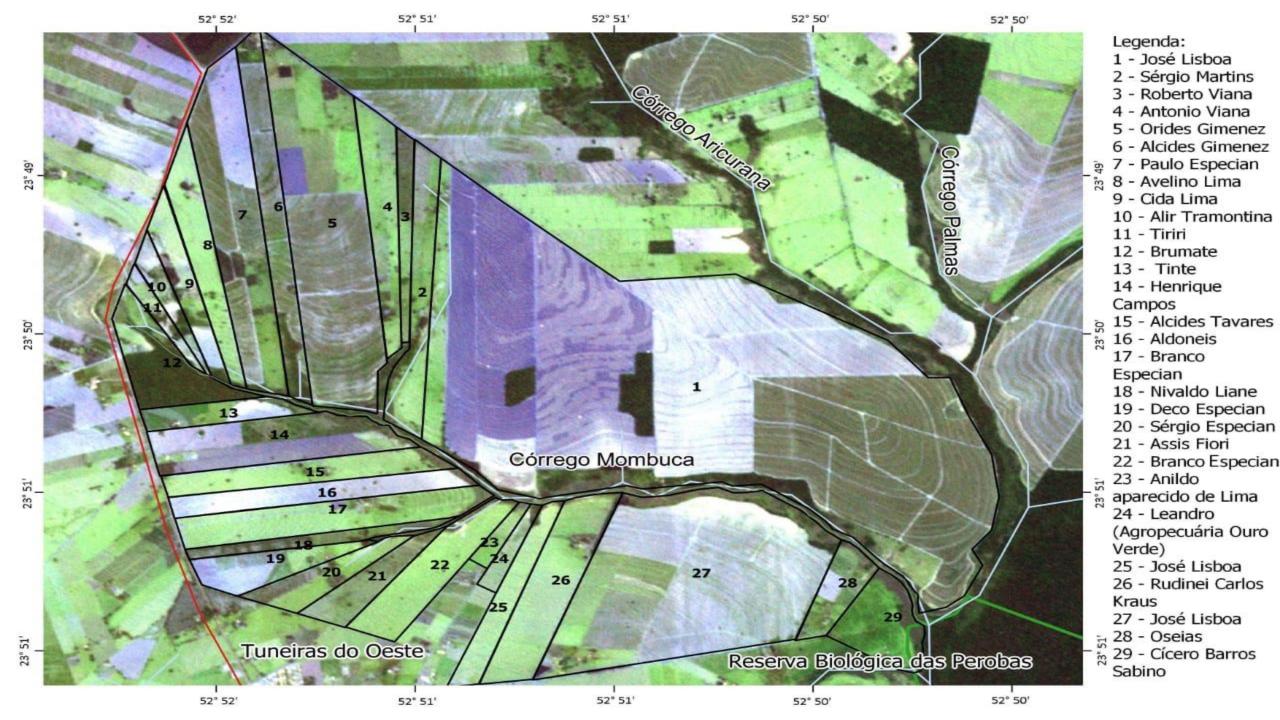
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ECOLOGICAL FOSS

ECOLOGICAL FOSS

EACH PROPERTY ON THE RIGHT AND LEFT BANK WILL RECEIVE AN ECOLOGICAL FIT





THIS IS HOW WE FOSTER CARE FOR THE PRESERVATION AND PROTECTION OF THE SOIL, SPRINGS, FORESTS, THE **BIODIVITY OF FAUNA AND FLORA AND MAINLY PEOPLE AND THE QUALITY OF LIFE AS A WHOLE.**

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