



MANUAL

INVESTIGATION ABOUT HOW THE
PRACTICE OF TRAIL, CROWING AND
CYCLING IN NATURE CAN STIMULATE
PEOPLE WITH PHYSICAL OR MENTAL
DISABILITIES



Co-funded by the
Erasmus+ Programme
of the European Union



INTRODUCTION

Trail, Rowing and Cycling are three sports that are very advantageous stimulation tools for people with disabilities, both motor and mental. This type of public is easily excluded from the practice of sports, due to the adversities that can arise with their limitations. In this sense, it seemed important and urgent to us to rethink and study how we can reverse this trend and make sports inclusive and, more than that, advantageous for the quality of life of these people.

That said, an investigation was carried out that began with the analysis of the three sports and, subsequently, how they can contribute to the inclusion of people with motor and mental disabilities. The research was divided into three topics: the type of environment required by each sport, their environmental impact and how they can stimulate people with motor and mental disabilities.



NEEDS OF THE ENVIRONMENT IN NATURE TO PRATICE THESE SPORTS

With regard to the environment, the three sports require a healthy and well-preserved environment. Absence of pollution, pure air, clean mountains, as well as healthy and clean waters. Ecosystems working. In addition, they require easy access to spaces, without traffic, and the marking of reference points in them, in order to maintain the safety of all participants.

The three sports need to respect the environment and its fauna, practicing only in environments where it is possible to do so, without degrading the space. It is essential to take care, when using materials that are placed in spaces by man, not belonging to the diversity of the environment, that they are ecological and do not damage the local flora.





ENVIRONMENTAL IMPACT OF THESE SPORTS

Considering that the three sports are practiced in nature, and that there is an interaction between man and space, it is important, on the other hand, to understand what environmental impacts this interaction can cause.

When it comes to the **trail**, the biggest environmental impact happens during the events. The fact that a large number of people move to a certain area of nature leads to a resource of cars and, consequently, a high consumption of fossil fuels. In addition, people staying in places for the duration of the event leads to the consumption of products that pollute the environment. In particular, the use of plastic. Another problem it is the abandonment of products in nature, what can affect the fauna, considering that many animals can ingest these products and, therefore, affect their health. For example, when runners are in the race and eat a bar or drink, their packaging is left behind in the environment, which contributes to high pollution. Often, signposting trails in nature spaces can also generate some pollution and harm the environment with path indicators, the final goal, among others.





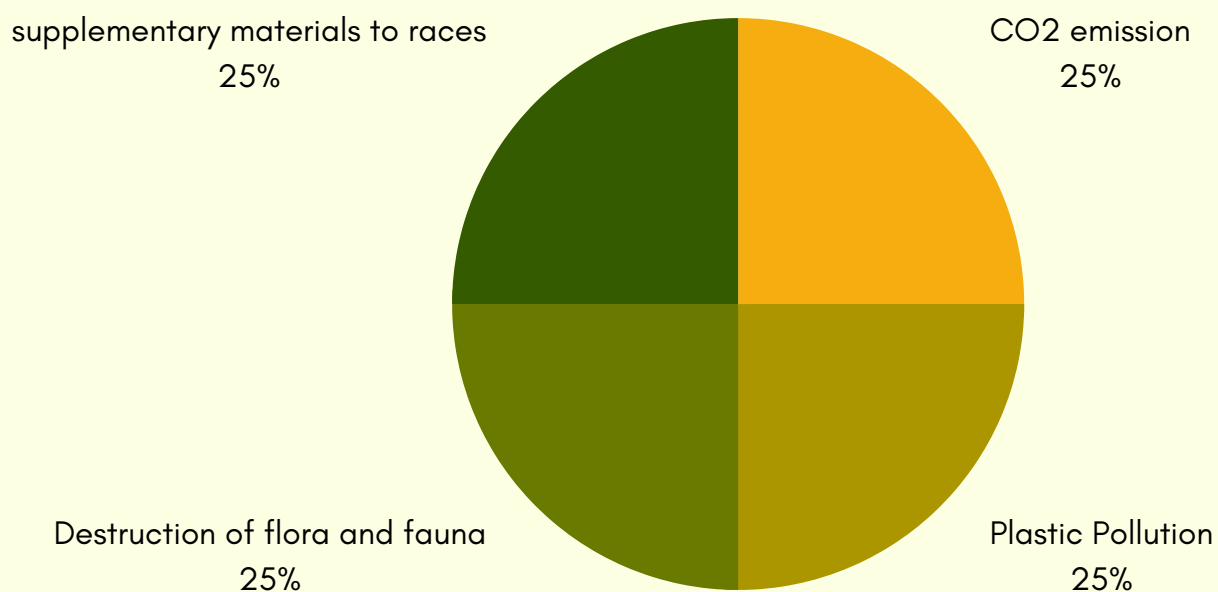
In **rowing**, the environmental impact is less significant. The first issue that arises is the maintenance of sports products: boats, equipment, oars, among others. This is because the boats are made of plastic, the oars and the carbon are made of wood or plastic. Another factor is CO₂ pollution. Transporting equipment, whether for competition or after production, in sales processes, requires excessive use of fuel. In addition, the practice of sport can destroy vegetation and deteriorate the aquatic ecosystem. The mooring of vessels and the dry dock management service are often located in unsuitable areas, which impacts on maritime care.



As for **cycling**, the sport itself does not show major signs of pollution. Even so, its industry is huge and has a strong environmental impact globally, especially in the production of rubber, tires and plastic. The holding of events related to this sport generates some changes in the environment, such as the continuous creation of new paths in the mountains, which corrodes the flora and harms the fauna. The use of necessary and complementary accessories and cycling materials also undermine the sustainability of the sport. The concentration of a considerable number of people in sensitive landscapes generates an increase in CO₂ emissions, polluting the environment. Although cycling can be used as an alternative to the car, it will not have a great environmental impact as it is only local and regional.



Through this scheme we gather the threats to the environment, which are common in the practice of sports. The use of supplementary material to races, the CO₂ emissions, the destruction of flora and fauna and the plastic pollution are the four main negative impacts of the three sports in the environment. With this we can understand what are the main problems in the practice of this sports in nature and we can think about what is important to change.





PREVENTIVE MEASURES TO REDUCE THE ENVIROMENTAL IMPACT OS THESE SPORTS

After an analysis of the environmental impact that the three sports have on the environment, and considering that this is an important factor in their practice, it is essential to prevent and take care of the environment. In this sense, some preventive ideas emerged in the practice of the three sports.

TRAIL

- Creation of a green protocol for event organizers and agents: a kind of model document with recommendations and process models to follow, with the aim of reducing the negative impact on the environment.
- Limitation of participants in the races;
- Advertising elements must be recycled;
- Having the necessary team of people so that, after a race, reverse routes can be made in which possible waste is collected and the places that were used for the race are restored;
- Change the environments and prepare them to receive the races in a sustainable way;
- Organization of trails with a garbage collection component, in order to clean up the forest;
- Marking of the route, so as not to disturb the animals and not to affect certain areas.



ROWING

- Water cleaning campaigns on rowers' social networks, in order to raise awareness of water protection;
- Promotion of beach cleaning, allowing safe use by swimmers, fishermen and athletes;
- Inform local authorities of imminent dangers;
- Use of electronic engines for coaches and juries' boats;
- Prevent the abandonment of hooks or other elements used in fishing in the waters, preventing their pollution and the destruction of their marine fauna. We must limit material use and recycle and remove all material that does not have a second life;
- Carry out revisions to boats, especially when moving from sea to river, in order to prevent the distribution of invasive species. Invasive species alter the marine ecosystem and can harm the ecosystem of animals and plants, causing their destruction;
- Recycle used single-use materials and limit the use of others that are necessary.

CYCLING

- Awareness campaigns for the use of bicycles in city centres;
- Use of bicycles, not only by people, but also as a means of transporting packages, in order to reduce CO2 emissions;
- Use of recyclable materials in everything related to our bike trips, as well as the accessory material that we need to ride a bicycle;
- Reduce the movement of support vehicles in cycling races and opt for group vehicles in which more material can be carried and more cyclists travel, to the detriment of utility cars.
- Prohibit overcrowding in protected and high mountain areas to reduce the impact that could be generated.
- Trace routes and trails so that bicycle tourism can be developed in a delimited area, which can be regenerated over time and alternate with other areas in which they are also regenerated.
- Create bike routes that avoid having to live with cars and their pollution, with the aim of being able to enjoy the bike ride in a natural and environmentally healthy way.



HOW COLD THIS SPORTS DISCIPLINES BE STIMULATED IN NATURE TO PEOPLE WITH SPECIAL EDUCATIONAL NEEDS

After this investigation into the three sports: trail, rowing and cycling, it is verifiable, on the other hand, that they contribute to stimulating this group of people, for several reasons, going on to quote.

Firstly, it is important to point out that these three sports are practiced in nature, in healthy environments, which in itself makes people connect with mother nature, circulate in paradisiacal landscapes, breathe the pure air and allow you to meet new people. spaces and get out of daily reality, contributing, from now on, to an improvement in people's mental state.

As far as the trail is concerned, hiking through nature's spaces is an important discipline to stay healthy. It is an easily adaptable sport. For example, the existence of guides on the tracks allows the participation of blind people. The inclusion of people with disabilities in trails, in addition to placing them in natural environments, allows them to live with other people and, in this way, contributes to their recovery and physical stimulation and to their socialization.

Rowing is a sport that presents itself as an important partner in the recovery of some post-operations. Namely, it helps in the post-operation recovery of women who have suffered from breast cancer. Stimulating muscle flexibility and toning. This is a type of sport that, in addition to its medicinal benefits, also contributes to combating the exclusion of people who feel left out due to their health condition.

Cycling, on the other hand, also presents itself as an advantageous support in the recovery of operative processes. Cycling is a very adaptable sport, allowing anyone to participate.



CONCLUSION

With this, it is concluded that these three sports are important foundations in the support and recovery of health issues, as well as contributing to the inclusion of people with mental and motor disabilities. Adaptable to all requirements, these three sports have proven to contribute in a very positive way to a better state of mental and physical health for people recovering from an illness and for people with physical and motor disabilities.