



IBSF Environmental Guidelines

Table of Contents

1.	Our Events	3
2.	Seven steps to greening your event.....	3
2.1	Adopt a green policy.....	3
2.2	Carry out an 'Environmental Scoping Review' of venues and operations.....	3
2.3	Establish environmental teams	4
2.4	Define programmes and set appropriate targets.....	4
2.5	Implement programmes	4
2.6	Monitor implementation and adjust programme accordingly.....	4
2.7	Evaluate and publicise results	4
3.	Action Plan	4
3.1	The impact of our sport	4
3.2	The Facility	5
4.	Areas of action	5
4.1	Location and landscaping.....	5
4.2	Environmental elements to consider when choosing a location for sports venues are:	5
4.3	Natural resources:	6
4.4	Natural elements:	6
4.5	Perceptual elements:.....	6
4.6	Detailed planning, once the site location has been selected:.....	6
5.	Sport facilities.....	6
5.1	Planning phase.....	6
5.2	Detailed planning.....	7
5.3	Construction phase	7
5.4	Operational phase	7
5.5	Sports equipment	8
5.6	Transportation	8
5.7	Energy	9
5.8	Accommodation and catering	9
5.9	Water management and sanitation	10
5.10	Waste management	10
6.	Large-scale Sports Events: Specific Recommendations.....	11
6.1	Sports facilities	11
6.2	Transportation and air quality.....	11
6.3	Energy	11
6.4	Waste management	11
6.5	Environmental message to the public	12
6.6	Finances.....	12

1. Our Events

In recent years, event organisers have become more aware of the potential impact of major sporting events on the environment – in terms of pollution, ecosystems, and waste. As a result, environmental protection has become an increasingly important issue. “IBSF and the Environment” has been prepared for track managers and event organisers to host environmentally responsible sports events.



Every sport and every occasion has its own characteristics and it would be impossible to cover all eventualities, but whether the event is large or small, one-off or recurrent, it will have many basic attributes in common with others.

The IBSF through its membership of the Olympic Movement is a supporter of the IOC's Agenda 21 programme that sets out the principles and guidelines for Sport for sustainable development. The facilities used in the exercise of our sporting disciplines can have a major impact on the environment, both the act of construction and subsequently in their operation over the lifetime of the facility. It is therefore important that all venue owners, managers and users accept that protection of the environment must remain an important element of our planning and event delivery.

2. Seven steps to greening your event

2.1 **Adopt a green policy**

The first step is to adopt an environmental policy, and determine what you want to achieve, set targets, and adopt measures to evaluate your success. Normally there will be at least two principal parties: the Race Organisers and the race venue. All main partners should approve the policy in order to establish a solid commitment to the programme.

2.2 **Carry out an 'Environmental Scoping Review' of venues and operations**

For each event, it is essential to establish base line information on current environmental performance, and to identify specific opportunities for 'greening' the event. Where venues are used repeatedly, the previous occasion will provide a benchmark for subsequent events.

2.3 Establish environmental teams

The role of the Event Director will be pivotal in implementing the environmental programme. He/she should assemble and coordinate a core team to carry this through – e.g. Site/Venue Manager, Head of Staff, Environmental Consultant and other technical specialists. Other experts or interest groups may be included if appropriate, e.g. a representative from the local authority, or from relevant statutory agencies.

2.4 Define programmes and set appropriate targets

Targets need to be bold enough to be credible, but must also be attainable. It will be important to communicate the environmental policy and details of the programme to staff, suppliers, contractors, sponsors and officials, so that everyone can play their part.

2.5 Implement programmes

Venue-related measures will normally be in operation for as long as possible preceding the event. The event-related measures are likely to be temporary, covering the immediate build-up to, and duration of, the event.

2.6 Monitor implementation and adjust programme accordingly

The ability to measure and record basic environmental parameters is the first real test of performance and the effectiveness of the programme.

2.7 Evaluate and publicise results

The major gain from this process is raising awareness, both among the sports community and the general public. The green message can be emphasised during the lead-up, at the event itself, and as part of the post-event legacy. As far as possible it should be integrated within the normal event communications.

3. Action Plan

3.1 The impact of our sport

Climate change causes warmer winters and makes ice-making harder and more energy-intensive

From the moment an athlete begins to use equipment, apparel or facilities, there is an "ecological footprint" - an impact on the natural environment. On an even greater scale bobsleigh tracks will contribute to global and local environmental concerns. Building and managing a bobsleigh track and running an event can contribute to energy consumption, air pollution, greenhouse gas emissions and waste creation, as well as to ozone layer depletion, habitat and biodiversity loss, soil erosion and water pollution.

Bobsleigh and Skeleton tracks can affect the environment in the following ways

- Development of fragile or scarce land types [most tracks are located in vulnerable mountain areas]
- Pollution from liquid spills [refrigerant, fuels, cleaners, solvents]
- Noise and light pollution
- Consumption of non-renewable resources (fuel, metals)
- Consumption of natural resources (water, wood, paper)
- Creation of greenhouse gases by consuming electricity and fuel
- Ozone layer depletion (from refrigerants)
- Soil and water pollution from refrigerant use
- Soil erosion and compaction during construction and from spectators

- Paper consumption by media and officials

3.2 The Facility

Bobsled, Skeleton and Luge tracks are costly, single-purpose facilities that require considerable terrain and construction materials and which can use potentially harmful refrigerants. There are, however, ways to minimize their environmental impact.

- Design

Tracks should follow the existing terrain and be partially underground wherever possible for reasons of energy efficiency, aesthetics and reducing demand for building materials. Where feasible, the use of all-natural ice tracks should be considered.

- Coolants

Cooling systems must be carefully designed to prevent any possible leak into the atmosphere of either ammonia or synthetic coolants. Ammonia poses a health risk and synthetic coolants harm the ozone layer when leaked.

- Energy efficiency

Tracks should be kept cooled only when demand is sufficient. Screens shading the track from the sun should be used wherever a demonstrable energy savings will result.

- Impacts on the Environment

Tracks can require bulldozing of slopes and cutting of trees

Impacts of facility maintenance activities [noise, pollution, disruption of the natural environment]

Waste generated from signs, food services, banners, temporary booths, etc

4. Areas of action

Managing a Bobsleigh and Skeleton event involves a wide range of actions related to the concentration of infrastructures and people. Environmental measures can be included in several areas of action.

4.1 Location and landscaping

Location is the critical point of a facility or event. It determines not only its environmental impact but also its accessibility, proximity to users and visual impact. The choice of location can either reduce or intensify the negative influence of the facility or event. An environmentally sound site is usually financially sound as well.

The site selection occurs during the planning of new facilities or of national/international championships. Selection criteria have to be applied during the decision process.

The objectives are to:

- Minimize environmental impacts by choosing the most convenient site
- Conserve and protect special landscapes

4.2 Environmental elements to consider when choosing a location for sports venues are:

- Legal and physical boundaries, private holdings and public easements
- Buildings, bridges and other structures, including those of historical and archaeological significance
- Roads, paths and sidewalks
- Availability of public transport
- Electric lines, water, sewer and gas mains
- Solid waste: disposal sites, treatment plants, management and transportation
- Wastewaters: sewers, treatment plants

- Land use: residential, commercial, industrial and other applicable ordinances

4.3 Natural resources:

- Protected sites
- Forests
- Water resources
- Air quality

4.4 Natural elements:

- Climate conditions
- Local morphology

4.5 Perceptual elements:

- Landscapes
- Special elements
- Aesthetic values
- Cultural values

4.6 Detailed planning, once the site location has been selected:

- Plan the integration of the event or facility into the landscape
- Foresee protection measures
- Foresee restoration measures
- Foresee compensation measures

5. Sport facilities

Our tracks and associated facilities constitute the most visible part of our sports events or organisation. Their location, construction, materials and operation processes are potentially sources of high nuisance and damage. This may include land waste, landscape harm, high-energy consumption, pollution and waste of financial resources when such sports events or organisations are not adequately planned or seriously managed.

Our objectives are to:

- Avoid venues and locations with little or no post event usage
- Reduce location-related impacts (landscape, land use)
- Minimise energy consumption
- Reduce pollution

5.1 Planning phase

First of all, the advisability of the project has to be justified in order to avoid unnecessary and over-sized facilities.

When carrying out detailed planning, environmental criteria should be part of the decision-making process. During this phase, the project management team is responsible for establishing a detailed project aiming at detecting and minimising all foreseeable impacts. Architectural studies are realised, building materials selected and maintenance processes determined. Thinking of the environment at this stage can help you as an Organiser and event planner avoid subsequent problems.

Advisability of the project

- Real need for a new facility
- Opportunity to use or restore existing facilities
- Sizing of the facility

- Future use and needs after the event
- Use of temporary installations for support facilities when there is no future need
- Financing plan including construction, maintenance and operation costs

5.2 Detailed planning

- Avoid illegal building
- Include energy concerns in architectural plans, and especially thermal considerations, in order to minimize the energy required to cool or/and heat the building
- Promote environmentally sound technologies like solar energy, heat pumps
- Plan an environmentally sound operation phase
- Plan compensation and restoration measures if necessary
- Select building material as follows:
 - Select materials for thermal performance
 - Seek maximum recycled content and recyclable materials
 - Choose durable, easily repairable or interchangeable items
 - Select materials free of hazardous or toxic products
 - Choose products which will not need to be disposed of as hazardous waste
 - Use materials that are available in the region
- Plan an architectural integration into the landscape

5.3 Construction phase

During this phase, accidents and disruption can occur [accidental release of toxic substances, increased traffic, soil packing or noise]. The sound and rigorous planning of construction can protect not only the environment, but also the workers and the people living nearby.

- Build at a time of the year when animal life and humans will be least disturbed
- Install acoustic isolation if necessary
- Plan soil management
- Use appropriate engines
- Avoid where possible the use of toxic substances
- Plan the management of all substances being used in the work place (storing, use, evacuation and treatment)
- Ensure that the project is in conformity with building plans
- Use environmentally sound construction techniques and materials

5.4 Operational phase

The operational phase is almost always the longest in a facility's life. The facility is supplied with water, energy and other goods, the equipment is maintained and the waste removed. The facility hosts training and competition activities. It is possible to adopt a "green step" approach for all these activities.

- Prevent erosion by avoiding fragile areas and reinforcing critical passages
- Avoid wildlife habitats
- Build roads without asphalt
- Promote ecological behaviour among athletes by informing them on issues such as waste collection and protection of fauna and flora
- Saving energy with:
 - Heating, refrigeration and ventilating systems
 - Lighting systems
 - Hot water systems
 - Equipment
- Reducing risks caused by chemicals:
 - Avoid or replace dangerous chemicals

- Store them carefully
 - Follow instructions for use and local health and safety regulations
 - Ensure that they are disposed of and treated in an environmentally sound manner
 - Ensure ecological planning and management of adjacent surfaces (avoid pesticides and chemical fertilisers, introduce several plant species, etc.)
- Reduce noise and disturbance

5.5 Sports equipment

The development of new technologies in sports equipment has led to the use of new substances in the manufacturing processes.

Some of those substances are potentially toxic and can be damaging during the manufacturing, use or disposal of the equipment. A point to keep in mind is the shorter life span of some equipment, which becomes obsolete before being out of order, and generates waste as a result.

The IBSF's objectives are to:

- Reduce pollution due to sports equipment
- Reuse and recycle articles where possible
- Promote environmentally sound equipment and local manufacturing knowledge

We will work closely with sponsors and suppliers to ensure that their products and services are environmentally friendly. We will achieve this by establishing a standard contracting process. Sponsors and suppliers will be encouraged to follow environmental requirements and comply with them. They have to assume their own role in the quest for environment-friendly sport. Requirements for the manufacturers of our sports equipment and our sponsors include the provision of information on their production processes, their waste management systems, the use of reduced packaging, the reusability and non-toxicity of their products, etc.

We will also encourage companies manufacturing our sports equipment to obtain ISO 9,000 and 14,000 certificates for Quality Assurance and Environmental Management.

With regard to the issue of sports equipment, our member federations and athletes have an opportunity to act at their own level and we will encourage these parties to:

- Choose environmentally sound articles (cotton, natural fibres, etc.)
- Promote the use of locally and ecologically made products instead of imported ones which saves energy, transportation, money and contributes to promoting local knowledge and employment
- Arrange a trading market/day for equipment which is no longer suitable/no longer in use

5.6 Transportation

Transportation is required to get to the sports facility and much of it usually takes place in private cars. Transportation contributes to many environmental hazards, particularly air pollution (greenhouse effect, ozone formation at ground level) and related health problems. A reduction in the distances travelled with private cars, incentives to promote public transportation and non-polluting transport together with sound transportation planning could greatly minimise air pollution, noise and disturbance, in sensitive mountain environments well as the extent of land use.

The IBSF's objectives are to

- Minimize transportation
- Promote collective and or public transportation
- Encourage environmentally friendly transportation

This can be achieved by:

- Selecting specific transportation systems which minimise energy use and reduce pollution
- Encourage public transportation systems over private transportation
- Issue tickets for the event that entitle their holders to free public transit rides
- Encourage access to the tracks on foot wherever possible
- Encourage the use of collective transportation for trips to meetings and events
- Organise collective transportation where motor transport is necessary

5.7 Energy

Most of the energy used around the world is currently unsustainable. It is largely produced by non-renewable sources such as fossil fuels, which cause a great deal of pollution and are the biggest contributor to global warming and localised air pollution. Many forms of energy production, like nuclear plants or fossil fuel burning, involve some degree of risk to human health or to the environment.

In sports events, energy is required to produce goods that are consumed, to run the event and related facilities, and to transport people and products to the event. As in other human activities, the energy used is mainly produced with non-renewable resources.

The IBSF's objectives are to:

- Reduce energy consumption
- Promote renewable energy and new technologies
- Promote equipment and facilities with smaller energy demand

This can be achieved by:

- Promoting awareness through education at all levels
- Being energy-wise; not only at the facility level but also by such action as switching off electrical appliances when they are not in use
- Checking the lights; and keeping facility lighting to a minimum
- Insulate tracks, buildings and support facilities in order to keep them cool or warm, as the case may be
- Explore alternative energy sources, try to use solar energy to heat water, provide electricity, or both; if available, use small hydraulic plants
- Promote energy conservation measures, select equipment and materials accordingly
- Hold meetings with local energy supply companies to get tips on further energy saving measures

5.8 Accommodation and catering

Our events, whether championships or local competitions, attract a large number of persons, i.e. athletes, coaches, organisers, journalists, staff members, sponsors, spectators, who require catering and accommodation for several days.

The IBSF's objectives are to:

- Minimise waste
- Avoid useless construction

This can be achieved by:

- Respecting sanitary conditions
- Reducing packaging
- Recycling goods used
- Using existing facilities (to cook and wash)
- Replacing disposable dishes with reusable ones where possible
- Building temporary facilities and hotels if there is no guaranteed need for them after the event

5.9 Water management and sanitation

Freshwater resources are finite and exist in a closed system. Water supply depends on full rivers, lakes, and accessible aquifers and the need for drinking water and irrigation and, increasingly, the need of power for our industries. In most parts of the world, freshwater resources are being subjected to intense pressure. Industrial wastes, sewage and agricultural runoff overload rivers and lakes with chemicals, wastes and nutrients, poisoning water supplies as a result. When practising our sports water is needed to satisfy track building, track maintenance, drinking, washing and maintenance needs. Water is part of our sports facilities.

The IBSF's objectives are to:

- Satisfy the needs generated by the sports event without endangering the water supply of the region
- Protect water resources
- Treat wastewater

This can be achieved by:

- Ensuring that the water provided to the track is of good quality; if not, take measures to purify it:
 - Filter your water
 - Boil the water for at least five minutes
 - Use iodine (two drops per litre) or tablets; only use chlorine if absolutely necessary
- Using water efficiently; turning off the tap when you are not using water is the simplest and most effective way to save water, whether washing your hands, brushing your teeth or shaving; turn on the water only when needed.
- Reducing the use of water required to maintain the track, e.g. the watering water
- Encouraging sound sustainable water resource management programmes including:
 - Water conservation and recycling practices
 - Recycling of treated storm water and sewage effluents
 - Landscape design that decreases water requirements
 - Building and infrastructure design to collect wastewater for recycling
- Waste water management:
 - Ensure the treatment of all wastewater
 - Verify the quality of treated wastewater
 - If no wastewater treatment plant is available in your region, build your own sanitary system (possible at limited costs)
 - Reuse treated water for field irrigation, bathrooms services, etc.
- Watch out for toxins that may remain in your facility

5.10 Waste management

Our facilities and events can generate considerable waste, some of which cause little more than dirt or minor disturbances, while others have a harmful and lasting effect on the environment and human health. Waste is unavoidable, but sound management ensures that waste quantities are kept to a strict minimum.

The IBSF's objectives are to:

- Minimise waste to be disposed of and treated
- Minimise pollution due to waste

This can be achieved by:

- Reducing the amount of materials handled
- Avoiding useless packaging through discussions with your suppliers
- Using as few disposable products as possible at your events
- Choosing carefully the goods and materials handled, in particular:

- Avoid goods containing toxic substances
- Choose reusable or recyclable goods
- Choose goods whose waste can be appropriately treated in the treatment plants located in your region
- Implementing sorting at source (sufficient and separate rubbish bins)
- Dispatching the materials to recycling markets
- Separating hazardous waste from domestic waste
- Treating all waste properly
- Implementing a waste management programme if necessary

6. Large-scale Sports Events: Specific Recommendations

Large-scale sports events attract high numbers of people and necessitate the handling of large quantities of goods. This concentration of people in time and place represents a potential danger for the environment. Some measures have to be taken in order to limit the impact.

6.1 Sports facilities

- Use provisional installations for the facilities not needed in the long term such as spectator stands and bleachers; encourage improvement of existing facilities
- Use provisional and module equipment which is easy to transform and reuse
- Guarantee to restore provisional facilities and encourage the restoration of damaged sites

6.2 Transportation and air quality

- Implement transport strategies to ensure the efficient movement of people (athletes, equipment, coaches, journalists, officials and spectators)
- Establish a transportation concept promoting transport on foot and public transportation
- Establish an air quality plan for the area
 - Monitor emissions
- Encourage major air polluters, including public utilities to take permanent steps to
 - Reduce their emissions prior to the event
 - Establish energy management strategies
 - Encourage transportation fleet operators to take steps to reduce emissions
 - Work with municipal officials to reduce traffic

6.3 Energy

Establish an energy management programme for the area taking into account the transportation system and track facilities

6.4 Waste management

- Host tracks have the capacity to adopt waste disposal procedures throughout the area in accordance with the event, using techniques that may in turn be applicable to future arrangements; it is advisable to:
 - Reduce the amount of materials handled
 - Establish environmental requirements for the event's suppliers and donors
 - Separate recyclable materials at the source by the waste generator,
- And separate collection
 - Separate household and manufacturing waste at the source
 - Dispatch materials to recycling markets
 - Deal with all waste in a safe and cost-effective manner

-
- Implement a comprehensive strategy for materials and waste management
 - Emphasize communication with education
 - Choose products according to cost/performance over their entire life-span

6.5 Environmental message to the public

- Internal environmental awareness: all the members of the organisation, senior managers and volunteers alike, should be informed of the broader rationale for their duties.
- External environmental awareness: people of the region must understand the environmental policies and objectives that are being established. Education and communication are essential to the success of sustainable development.

6.6 Finances

Include environmental costs in the budget from the outset.