EUROPEAN GREEN FESTIVAL ROADMAP 2030

1 INTRODUCTION

Festivals embody the human spirit of creativity, ingenuity and diversity, and have a positive impact on the cultural wealth of communities globally. Festival organisers are becoming increasingly aware of the need to become more sustainable and are taking great strides to find a harmonious balance between human expression and environ- mental and cultural protection.

Europe is experiencing several large crises including the climate crisis, the loss of biodiversity and steadily decreasing natural re- sources as well as continuous development in vulnerable areas. Several international and European tools, as well as national and local regulations and requirements have been developed to help push society in the direction needed to change, including the Paris Agreement, Agenda 2030, the UN Sustainability Goals and the European Green Deal. In the European Green Deal the EU is striving to become the first climate-neutral continent. The goal is to cut net European greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels.

The European Commission has adopted a set of proposals to make the EU's climate, energy, transport and taxation policies fit for reducing greenhouse gas emissions. However, the European Green Deal does not give direct regulations to the festival sector, and leaves it up to each country and member state to regulate or incentivise it. Although there are no direct regulations for festivals, YOUROPE believes that all sectors of society must contribute to reducing greenhouse gas emissions, including the festival sector.

To create a brighter future for generations that come after us, the consumption of fossil fuels must decrease, and we have to change how we consume and produce goods and food. We know this. The European Green Festivals Roadmap has been developed as a tool to help the festival sector to find appropriate measures to produce less emissions. To bring about this necessary change, it is important to set clear goals, think large and in a long perspective. Some call this cathedral thinking – a comprehensive vision, a well-thought-out plan and a shared commitment to long-term implementation. It is easy to feel overwhelmed, but with support functions, good tools, awareness of responsibility and clear, smart goals this will work out.

The festival's core business is based on communication in different forms and in different channels and platforms, and we reach the ears and hearts of millions of people across Europe. With our festivals, we create experiences for life. If our sector takes responsibility with efficient climate and environmental measures - it will benefit everyone in our society.

1.1 VISION

FESTIVALS WILL REACH 55% REDUCTION OF OVERALL CO EMISSIONS

BY 2030.

As part of its three-year project "Future-Fit Festivals" YOUROPE – The European Festival Association has developed and released the "European Green Festival Roadmap 2030" based on the requirements of the European Green Deal, as well as taking in account the UN Sustainable Development Goals (SDGs) and the needs of the industry.

Festivals have a wide impact and influence and pro- vide a temporary platform for experimentation and innovation. Many larger festivals now have robust environmental policies in place and are educating and inspiring their stakeholders and attendees in the process of becoming "green". More and more, talent, audiences and suppliers are wanting to be associated with an event that is environmentally friendly, and festivals are gaining support and admiration for fulfilling those ambitions.

The European Green Festival Roadmap 2030 aims to give European festivals a reliable guide to action and accompanying measures they need for the inevitable process of transformation up to the end of the decade. The Roadmap 2030 is the first pan-European publication of its kind to be jointly developed and published by and for the festival sector and is also relevant as an aid for organisers of festivals and other large and open-air events far beyond the borders of the EU. The Roadmap provides a comprehensive framework for the ambitious sustainable improvement of (big) cultural events, from management structures to concrete technical measures in the various action fields of the creation and production process.

1.2 PROBLEM STATEMENT

Along with emitting tonnes of CO_2 into the atmosphere from fossil fuel powered vehicles and generators, a gathering of thousands of people at a festival or other large event can negatively impact on the environment in other ways, from damage to ecosystems and wildlife, to pollution of rivers, over abstraction of water or excessive production of solid waste.

PROBLEM AREAS
- Absence of uniform sustainability strategies across all big festivals
- High CO2e emissions from fossil fuel power generation
- High CO2e emissions from travel & transport
- Excessive water use
- Water and soil pollution from chemicals and waste
- Damage to wildlife due to habitat fragmentation and human encroachment
- Excessive use of raw materials for production
- Single use plastics

1.3 HOW TO USE

Whether you are only beginning your sustainability journey, either as a new festival, or you have been successfully operating a sustainable festival for some time now, the European Festival Roadmap 2030 Action Plan contains options and actions for all levels, budgets, and team sizes.

If you are starting out as a new festival, start as you mean to go on and begin introducing sustainability actions immediately.

If you are already operating, but not currently taking action, start now. You may need to review your previous editions and evaluate your current climate footprint, and look into carbon offsetting or removals to balance prior emissions. Set a baseline and begin taking action to reduce your current impact.

If you are already operating and are taking sustainability actions - well done, keep going, and tell everyone! Review your strategies and identify areas that could benefit from more research and innovation. Teach what you know - speak at conferences, host workshops and training days, give interviews, share on social media. Spread your knowledge regarding the pros and cons of sustainability actions you have tried and tested.

The European Festival Roadmap 2030 Action Plan provides feasible sustainability actions for all levels under seven thematic areas:

- STRATEGY – managing sustainability actions at your festival,
- including finances and communications.
- ENERGY – measuring and minimising your energy usage, as well as shifting reliance to sustainable energy sources.
- MATERIALS & WASTE – reviewing purchasing decisions and waste management, and your efforts to introduce more circular approaches.
- WATER – measuring and minimising your water usage, wastewater treatment options and reducing the risk of negative impacts on water sources.
- FOOD & DRINK – reducing emissions associated with the food and drink served at your festival, including the supply chain and waste prevention.
- TRAVEL & TRANSPORT – promoting the use of more sustainable forms of travel to, from and around your festival, by all participants.
- COMMUNITY & BIODIVERSITY - enhancing your relationship with the people and wildlife around your site.

The actions in each area are colour coded according to the ease of implementation, which will vary depending on where you are in your sustainability journey and the resources available to you.

Scope	TRANSPORT	ENERGY	CONSUMPTION OF GOODS AND SERVICES	WASTE
SCOPE 1	Emissions from rented vehicles for the production; cars, minibuses, machinery etc.	Emissions from diesel generators. Gas for cooking		
SCOPE 2		Mains power		
SCOPE 3	Analysing audience transportation, artist air travel/transport, the transportation of goods and services of the suppliers, other relevant transport		Analysing purchased and hired materials, techno- logy, installations, food, accommodation etc.	Waste disposal; waste sorting fractions, quantities and transport. Also includes bottle deposits and sewage

1.4 BASIC FACTS ABOUT GREENHOUSE GAS (GHG) CALCULATIONS

GHG accounting is based on the GHG methodology for Scopes 1, 2 and 3 as shown in the image. Greenhouse gas emissions include CO2, as well as methane, nitrous oxide, fluorinated gases and water vapour. While the 'Climate Footprint' of an activity measures the scope of greenhouse gas emissions, 'Emissions Modelling' typically focuses on the CO2 element, not the other greenhouse gases. It will often also convert the output to CO2 equivalents (CO2eq), thus incorporating the other greenhouse gases.

To enable simple yet even more sophisticated carbon emissions calculations, the Greenhouse Gas (GHG) Protocol has become the most commonly used international accounting tool for

 When applying the GHG Protocol to calculate emissions from a festival, we first need to determine the activities within each of the three scopes, calculate the CO2 equivalents for each activity, then add up the three scopes separately and finally add those authorities and businesses when seeking to quantify, understand and deal with greenhouse gas emissions. The "Corporate Accounting and Reporting Standard" of the GHG Protocol serves as a climate accounting platform for practically all GHG reporting programmes in the world. The GHG Protocol system divides sources of greenhouse gases into three main categories with emissions levels or scope according to where the emissions occur, identified as Scope 1, Scope 2 and Scope 3.

In order to reach the goal of 55% reduction of climate emissions by 2030 and to limit global warming to 1.5 degrees, ambitious action to reduce our own emissions is crucial. European festivals must reduce as much of their emissions as possible, however, for many festivals, the full elimination of their own emissions is not a feasible option, and even if possible, it can take time. Carbon offsetting and removals are ways to achieve carbon neutrality quicker, however, festivals can also add to their own emission reduction efforts by buying carbon credits for mitigation outcomes that are verified and meet certain quality criteria. The voluntary purchase and use of carbon credits enables festivals to support more, faster and/or earlier mitigation programmes than what they could achieve on their own.

We recommend reducing your emissions as much as possible before resorting to offsetting or removing emissions. By prioritising the careful selection of the appropriate location, providing options for access via sustainable transport, using renewable energy to power the event and considering local, low carbon food and beverage suppliers, festivals can reduce their carbon footprint and have a positive impact on the environment and communities.

1.5 ROADMAP

Through using the Action Plan, by 2030 European Festivals:

- Will be sending zero waste to landfill and will be reducing waste and maximising resources through prevention and reuse.
- Will have eliminated single-use plastic where possible and appropriate, with any unavoidable plastic that reaches disposal stage being recycled to a high standard.
- Will have reduced food waste as much as possible, with unavoidable food waste being separately collected and returned to agriculture or made into biogas.
- Will have reduced the use of potable water to drinking and sanitation purposes only, and to be using only eco-friendly cleaning products.
- Will be using distributed renewable energy generation systems or green-energy grid tariffs, while also cutting energy consumption and maximising energy efficiency.
- Will be efficiently promoting, providing and encouraging low carbon travel and transport for production, suppliers, crew, talent and audiences.
- Will be sourcing as much food and beverage from the local areas as possible, opting for wholesome and organic produce. Will be separating all liquid waste from sewage, with wastewater being treated to the highest available standard and
- reused efficiently, nutrients extracted and returned to agriculture, and energy recovered from solid matter.
- Will be integrated into their surrounding community and will be enhancing local habitats and ecosystems.

2 ACTION PLAN

2.1 STRATEGY

For festivals and events to achieve sustainability goals over a long period of time, it is essential to develop a robust sustainability strategy. For the sustainability strategies to be as successful as possible, the management team must allocate appropriate resources, responsibility and training; and plans must be adequately communicated, monitored and reported on. Someone, such as an allocated Sustainability Manager, must be given responsibility to ensure that sustainability is put on the agenda, otherwise the work will not get done. Whoever is given the responsibility must be given enough time and resources to do the work. They must receive a clear mandate, as they may also have other areas of responsibility.

For real change to take place, the work must be guided by the organisers, and embedded into daily operations. The entire festival team should be involved, and everyone should get their own target areas where they themselves can influence relevant sustainability measures.

Working with the Roadmap Action Plan is very good preparation for Environmental Certification for your festival. If you want your sustainability actions to be assessed in a comparative and comprehensive manner, YOUROPE recommends AGF certification.

Actions

2.1.1 Create A Sustainability Strategy With an Action Plan

2.1.1.1   Define the scope of your festival or event's sustainability strategy, i.e. set the boundaries of the strategy - what is included and what is not.

2.1.1.2   A good sustainability strategy should include a scope description, an overall vision, a purpose and goal for the areas where you want to make a change, taking account of resource and time constraints.

2.1.1.3   Find a reasonable level of ambition, and prioritise specific areas to tackle and actions required.

2.1.1.4   Create your own personalised action plan using the European Green Festival Roadmap 2030 as a guide.

2.1.1.5   Measure the current environmental impact of the festival to set a baseline and to identify key performance indicators.

2.1.2 Legal Requirements

2.1.2.1   Be aware of all relevant, mandatory obligations that apply to your festival/event at local, national and European levels.

2.1.2.2   Specific permits and/or licences may also be required in order to operate.

2.1.2.3   Keep an active register of legislation and stay on top of current environmental and sustainability requirements

2.1.3 Evaluate Environmental Certification

2.1.3.1   A good way to keep your festival or event in order with environmental work, is to consider a type of independent environmental certification - AGF Certification; ISO 20121 and ISO14001; Eco Management and Audit Scheme (EMAS)

2.1.3.2   An independent, third-party assessment of the environmental measures proves that the festival is taking sustainability seriously.

2.1.3.3   All environmental certifications contain requirements to design a strategy or action plan.

2.1.3.4   The certifications are given for a limited period of time before re-certification is required.

2.1.4 Stakeholder Involvement

2.1.4.1   To bring about change, relevant stakeholders from top to bottom in the organisation should be involved in the strategy, including partners, suppliers, employees, performers and visitors.

2.1.4.2   Consider appropriate channels for information sharing and ways to involve each group based on the kind of role and relationship they have to the festival/event.

2.1.5 Finance

2.1.5.1   It is important that your sustainability strategy is adequately financed from the beginning of event planning.

2.1.5.2   Consider providing a separate budget for sustainability management.

2.1.5.3   Investigate if there are grants or other sources of funding available for promoting or operating eco-friendly festivals.

2.1.5.4   'Green Fees' can be introduced at various levels which can be reinvested into sustainability management, e.g. an additional fee can be incorporated into the entry price; charges can be set for car parking; extra charges on reusable cups etc.

2.1.5.5   Invest a portion of the festival's profits into external environmental and social projects, e.g., in the local community or through a charity partnership.

2.1.5.6   Investigate if you are banking with an ethical financial institution and consider changing if their policies are not ethical.

2.1.5.7   Consider investment in financial sectors such as ethical staff pensions.

2.1.6 Internal and External Communication

2.1.6.1   Consider ways to engage with crew, audience, talents, suppliers, contractors, local communities and authorities' pre-event, during and post-event about the sustainability policy and action plan and for them to provide opportunities for feedback.

2.1.6.2   Consider ways to communicate sustainable practices that does not force sustainability but encourages positive cooperation.

2.1.6.3   Network and share good ideas with others - share on your own website, in social media, attend and speak at industry conferences, and talk about your festivals sustainability actions in interviews.

2.1.6.4   Approach local governments/ministers to find solutions to infrastructure gaps that could make festivals and communities more sustainable, e.g. more sustainable public transport, provision of power grid network connections for festival sites, increased investment into distributed renewable energy generation systems, mains and sewage system connections, waste treatment facility provisions, etc.

2.2 FOOD & BEVERAGE

Current levels of food production and consumption are leading to deforestation, air and water pollution, soil degradation, and are threatening our biodiversity and our climate.

The type of food we buy (plant or animal origin), and the way that food is grown and processed, the location it comes from, and how much food ends up being wasted, are key factors that influence the overall sustainability of any festival or event. Food preparation also uses water, and produces waste, and can include the use of chemicals for cleaning down surfaces and washing utensils.

Aspects in relation to packaging, serve ware and transportation used for food and drinks should also be considered. For instance, an event can further reduce their environmental impact by prioritising compostable packaging and serve-ware, and by encouraging bulk deliveries using low-carbon modes of transport.

In order to reduce the impact of food and beverage choices, festivals and events can prioritise:

• products that have a smaller carbon footprint, i.e. plants and plant-source proteins

• products that are local, seasonal and organic

• products that are certified, i.e., fair trade, MSC for fisheries or grazing certifications

• achieving zero food waste; and

• protecting water from pollution due to food and beverage production

Actions

2.2.1 Create and implement a Food & Beverage Policy and associated documents

2.2.1.1 Write a Food & Beverage Policy for the festival, which focuses the festival's goals and its pledges in relation to Food & Beverage - for example, to source sustainable products, to reduce the carbon footprint of menus, to protect the health of crew, talent and visitors, to reduce food waste etc.

2.2.1.2 Prepare Food & Beverage Procedures/Manuals for in-house catering and bars and provide training to necessary staff members.

2.2.1.3 Ensure that all Food Safety and Health & Safety Regulations are covered in all documents and training.

2.2.1.4 Write a Food & Beverage Charter for agreement with all external/third party caterers, bars and traders, which aligns with the F&B Policy

2.2.1.5 Write and send out a trader/catering Handbook to provide guidelines to ensure proper implementation of the Food & Beverage Charter.

2.2.1.6 Hold meetings/workshops/webinars for traders/ caterers/bars to clearly discuss the Food & Beverage Policy, Charter and the Handbook; what is expected of them for your event, and to give opportunity for questions and feedback prior to the event.

2.2.2 Calculate the Carbon Footprint of the Food at your Event

2.2.2.1 Calculate the Carbon Footprint of any food and beverages produced/sold directly by the festival

2.2.2.2 Request that all external traders/caterers/bars conduct CO2 assessments of their ingredients/ dishes/menus/drinks

2.2.2.3 Gather the CO2 assessment data from all sources and evaluate the amount of CO2e that will be produced by the current menus.

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2.2.4 Reduce the Carbon Footprint of the Food

2.2.4.1 Review all in-house catering menus and move towards 100% vegetarian/vegan menus using local, seasonal, and organic ingredients.

2.2.4.2 Use 100% reusable/compostable and sustainably sourced serve ware.

2.2.4.3 Encourage, or require, visiting caterers/traders to do the same.

2.2.4.4 Provide proper waste management systems for food waste and compostable serve ware and ensure this is managed and treated correctly.

2.2.4.5 Support chefs and traders by creating an organic supply chain and connecting food traders with local, organic producers/wholesalers.

2.2.4.6 Create an onsite market for fresh fruit and veg, bakery and eco-friendly essentials such as toothpaste, toothbrushes and sanitary items.

2.2.4.7 Produce from countries in the Global South must be ethically sourced and Fair Trade-certified, if applicable.

2.2.4.8 Produce from forests must be FSC certified, and produce from the Oceans must be MSC certified.

2.2.5 Reduce water waste & hazards to water from food preparation

2.2.5.1 Request that caterers/traders use simple food preparation techniques that save water - steam food instead of boiling, use a lid, use water from washing vegetables to water plants, etc.

2.2.5.2 Only use eco-friendly chemicals for cleaning and sanitising, including the substances used to clean floors, surfaces, utensils, and hands.

2.2.5.3 Fats, oil and grease should never be poured down the drain, they should be collected separately and sent to an appropriate facility to be treated or converted to biofuels.

2.2.6 Prevent food waste

2.2.6.1 Ensure proper production, handling and storage techniques to prevent and reduce spoilage and waste.

2.2.6.2 Modify menus to increase customer satisfaction and prevent and reduce uneaten food.

2.2.6.3 Be creative with your kitchen excess. Surplus or excess food can be used in new dishes. For example, stale bread can become croutons; fruit can become a dessert topping; and vegetable trimmings can be used in soups, sauces, and stocks.

2.2.6.4 Reduce serving sizes as appropriate and avoid use of garnishes that don't get eaten.

2.2.6.5 For buffet-style service, encourage people to take only what they will actually eat.

2.2.6.6 Measure the amount, type and reason for the generation of wasted food and create effective food waste prevention strategies.

2.2.6.7 Compare purchasing inventory with customer ordering.

2.2.7 Distribute uneaten food

2.2.7.1 Many non-perishable and unspoiled perishable foods can be donated to local food banks, soup kitchens, and shelters.

2.2.7.2 Check with your local food bank or food rescue operation to find out what items they will accept, they may also collect they food donations free of charge.

2.2.7.3 Uneaten food can also potentially be donated to zoos or producers that make animal or pet food.

2.3 ENERGY

To generate energy, most traditional power plants and generators burn non-renewable, fossil fuels (e.g., coal, oil, natural gas, peat), which releases greenhouse gases (GHGs), such as carbon dioxide, sulphur dioxide and nitrogen oxides into the atmosphere. In addition to impacting on the atmosphere and climate patterns through air pollution, excessive energy use depletes stores of natural resources and can destroy ecosystems. Mining, logging and extraction to access fossil fuels destroys habitats on land and in the ocean. Oil spills, which often occur during the transport of fossil fuels, wreak havoc on underwater species and throw off the chemical balance of our oceans. Power plants also create toxic waste and are a source of soil and water pollution.

Energy generation from non-renewable, fossil fuel sources is not sustainable and must be phased out. Understanding and monitoring our usage and cutting down on energy consumption reduces the amount of energy that power plants and generators have to make, subsequently reducing the amount of fossil fuels that are burned each day. Using energy efficiently by matching capacity to actual power demand, also reduces the impact of overall power consumption. Sustainable energy is obtained from renewable sources including sunlight, wind, waves, geothermal heat and biomass. Renewable energy sources do not jeopardise the energy needs or climate of future generations, as they reduce dependence on finite fossil fuels and have few or no greenhouse gas emissions. Sustainable energy for festivals and events can be obtained by connecting to the national power grid and purchasing power via a green electricity tariff. Alternatively, off-grid sustainable energy systems can be used onsite at festivals, by installing independent systems such as solar panels or wind turbines; or by using biofuel in generators. Another option is to combine a green electricity grid tariff for centralised areas on site, such as production offices, with small, independent sustainable power sources in remote areas of the site. In combined, permanent systems, it may also be possible to sell surplus power generated from onsite renewable energy systems back into the national grid.

Actions

2.3.1 Energy Management Plan:
2.3.1.1 Create an energy management plan.
2.3.1.2 Calculate the energy demand for the coming years.

2.3.2 Energy Use Monitoring:
2.3.2.1 Know what needs to be powered in each area and what the usage is going to be.
2.3.2.2 Check energy consumption regularly.
2.3.2.3 Involve all suppliers/artists/contractors/staff in the festival in the collection of the usage data.
2.3.2.4 Have a regular review to find unnecessary use of energy.

2.3.3 Energy Efficiency
2.3.3.1 Turn off all lights when you leave a room.
2.3.3.2 Use night lowering or turn down the thermostat when the premises are not in use.
2.3.3.3 Emphasise energy efficiency when purchasing new technical equipment.
2.3.3.4 Check and install sealing strips for doors and windows, and in cold rooms, freezer rooms and warming cabinets.

2.3.3.5   Use energy saving bulbs and LEDs where appropriate, both on stage and otherwise and recycle all bulbs when they reach end-of-life.

2.3.3.6   Consider the possibility of automatic lighting, for example time management, dimmers, lighting or motion sensors. There are systems that can be used both indoors and outdoors.

2.3.4 Engage with Energy Users

2.3.4.1   Work with lighting companies to bring more low energy lighting to the festival.

2.3.4.2   Installed energy metering on all food stalls, so caterers pay for the exact number of kilowatt hours they consume, which should motivate them to use less energy.

2.3.5 Move towards Green Energy

2.3.5.1   Remove diesel-fuelled generators and replace them with sustainable fuels or renewable energy generators.

2.3.5.2   Look at how much energy can be generated on site using renewable energy generators, and deduce what kind of installation can be supported.

2.3.5.3   Connect to the national grid & use a green tariff.

2.3.5.4   For sites with permanent car parks consider investing in a solar carport(providing shading at the same time as generating green electricity)

2.3.6 Reduce E-Waste and Correct Disposal of Waste Electrical and Electronic Equipment (WEEE)

2.3.6.1   Purchase products labelled with the Energy Star or certified by the Electronic Product Environmental Assessment Tool (EPEAT)

2.3.6.2   Extend the life of electronics such as mobile phones and laptops by using a phone case/laptop bag, keeping your devices clean, shutting them down fully and avoiding overcharging the batteries.

2.3.6.3   Have faulty electronic items serviced before disposing of them to see if there is a possibility to fix them and extend their life.

2.3.6.4   Donate electrical equipment that is still in good working order but not being used to a reuse scheme.

2.3.6.5   Electrical and Electronic Equipment that has reached the end of its life, including batteries and light bulbs are all classified as hazardous waste, and they must not be disposed of in general waste.

2.3.6.6   The EU WEEE Directive designates safe and responsible collection, recycling, and recovery procedures for all types of electronic and electrical waste, including batteries and light bulbs

2.4 TRAVEL & TRANSPORT

Festivals and events nearly always involve a lot of travelling and transport, as people and goods must be moved to specific locations. Staff, crew, artists and the audience must travel to and from the festival, and external contractors and suppliers must deliver goods and services. By planning well, organisers can assess whether transport for meetings is necessary, and can provide options to facilitate zero-emission transport such as walking, bicycle delivery and electric transport.

Emissions to air from fossil fuel powered transport increases global Greenhouse Gas emissions and negatively affects local air quality. Reducing reliance on fossil fuel powered transport is essential to reduce associated emissions, and has the added benefit of protecting our health - through better air quality and getting exercise from cycling and walking.

Actions

2.4.1 Staff, crew, talent and suppliers

2.4.1.1 Create a sustainable transport policy which prioritises avoiding unnecessary journeys and low carbon travel.

2.4.1.2 Avoid travel wherever possible by using phone or videocalls for meetings, web conferencing, webinars etc.

2.4.1.3 If travel is necessary, encourage staff and crew to walk, cycle or use public transport.

2.4.1.4 If cars are unavoidable, encourage carpooling with 3+ people per car, and plan routes efficiently.

2.4.1.5 If providing vehicles for staff or crew, choose vehicles with electric or hybrid engines where possible.

2.4.1.6 Combine face-to-face meetings with each other and other business requirements, such as site walk overs to reduce overall travel.

2.4.1.7 Arrange face-to-face meetings, collections of orders, site walkovers etc. at appropriate times to avoid travelling during rush hour.

2.4.1.8 Choose meeting venues based on location to reduce travel distances for as many attendees as possible.

2.4.1.9 Ensure build materials and hired site vehicles are stored close to the site to reduce transport emissions.

2.4.1.10 Purchase and rent materials from local suppliers to reduce transport emissions.

2.4.1.11 Order in bulk and arrange for the collection or delivery of multiple items in the same journey to avoid unnecessary transportation.

2.4.1.12 Encourage suppliers to use sustainable, low carbon methods for deliveries - such as bicycle couriers, electric vans or combined deliveries.

2.4.1.13 Air travel by people and air freight for deliveries should be an absolute last resort, and should only be considered after all other options have been ruled out.

2.4.2 Visitors

2.4.2.1 Provide clear site location information by using map apps, to avoid unnecessary travel and/or people getting lost.

2.4.2.2 Use the festival website, public advertisements and social media to encourage visitors to choose eco-friendly transport options and to 'leave the car at home'.

2.4.2.3 Encourage travelling by foot or by bicycle by mapping out and manning a safe route in conjunction with local authorities and offering incentives such as reduced price tickets, refreshments on route, free shower on arrival, etc

2.4.2.4 Provide safe and secure bike parking facilities and have an onsite bicycle repair shop.

2.4.2.5 Include an option for a free or reduced price ticket for local public transport in the admission ticket price - communicate with public transport providers.

2.4.2.6 Arrange shuttle services from the nearest bus and train stations and major transport hubs, or establish park and ride facilities.

2.4.2.7 Add a car parking charge and invest the fee into sustainability initiatives.

2.4.2.8 Conduct visitor surveys to gather travel and transport data and use the data to inform future actions, e.g. by organising a cycling group from certain locations, adding extra shuttles to busy routes, setting up a car pooling initiative through social media etc.

2.5 MATERIALS & WASTE

Festivals and events generally require a lot of material input in order to create their image, and to reflect the theme of the festival. Stages, activation areas, bars, vendor outlets, production areas, backstage areas all must be built, decorated, maintained and then removed. Building and decorating a festival or event from raw materials can have multiple negative implications for the environment from the extraction of raw materials and energy used in the production and transportation. Through careful planning, hiring, sharing, reusing and recycling, direct and indirect impacts associated with the production of the festival can be dramatically reduced.

Festivals and events can be a significant source of waste materials, from campsite waste to packaging and consumables front and back of house. Waste management is a very visual part of any sustainability strategy, and a badly managed waste strategy can leave a festival site looking like a rubbish dump. Improperly managed solid waste can kill wildlife, over one million animals die each year after becoming entrapped in or ingesting litter. Solid waste can also cause contamination of land and water through the release of microplastics and toxic substances, such as heavy metals, into the ecosystem.

Solid waste management also indirectly impacts on the environment energy used in disposal methods, and emission from waste transport and from disposal methods including landfill, incineration, recycling procedures.

Actions

2.5.1 Good purchasing procedures
2.5.1.1 For all purchases, assess whether it is necessary to buy anything at all and do not buy more than is necessary.
2.5.1.2 Purchase the right products and ensure that they have a long service life.
2.5.1.3 Consider reuse where possible, for example by buying used or recycled props. Think circularly.
2.5.1.4 Choose products that carry an environmental label that is based on the product 's environmental impact throughout their life cycle.

2.5.2 Minimise the production of waste:
2.5.2.1 Use insights and data gathered from previous or other events to estimate specific needs and ensure little excess materials are purchased.
2.5.2.2 Have clear designs and accurate measurements for all stages and props before purchasing materials or constructing sets.
2.5.2.3 Prepare a Procurement Policy that bans single-use, and difficult to recycle plastic products across all departments (particularly for traders, e.g., serve ware, sachets, straws, coffee cups).
2.5.2.4 Minimise or ban the use of single-use decorative elements and choose sustainable and reusable décor.
2.5.2.5 Print only necessary material, and use both sides of the paper where possible, and avoid overproduction of wristbands, badges, lanyards, merchandise etc.
2.5.2.6 Communicate electronically with talent (registration, timetable, etc.) and audiences (tickets, event programme, etc.) and send all relevant documentation by email beforehand.
2.5.2.7 Accreditation, ticketing, accounting and invoicing should be done electronically.

2.5.2.8 Have a storage area for off-cuts and encourage the use of these for smaller items, such as signage.

2.5.2.9 Take care of paint brushes and tools, always wrap tools when taking a break, and clean your tools straight away when finished. Never let plaster/ paint/varnish etc. start to dry on the tools.

2.5.3 Extend the use of material and products

2.5.3.1 Reuse, share, rent or donate material to maximise its use (stage equipment, fencing, banners, signage, tents, electronic material, etc.)

2.5.3.2 Plan long term relationships with partners (sponsors, vendors, etc.) to develop banners for multiyear use.

2.5.3.3 Avoid date marking (banners, signage, etc.) to allow re-use.

2.5.3.4 Create a system for material management and storage of equipment between events.

2.5.3.5 Donate items (decorations, carpeting, signate, etc.) which cannot be reused to community projects

2.5.3.6 Ban disposable cups and invest in reusable beverage containers.

2.5.3.7 Consider introducing pre-pitched camping options to reduce tent waste.

2.5.4 Litter and pollution prevention

2.5.4.1 Ban the sale of disposable, non-recyclable plastics, and throw away items.

2.5.4.2 Supply campers with biodegradable tent pegs, which will biodegrade if left in the ground.

2.5.4.3 Ensure that the number of bins and sanitation facilities are adequate to the number of ticketholders.

2.5.4.4 Clean out toilets, sinks and unblock drains regularly during the festival.

2.5.4.5 Collect uncontaminated food waste and compost toilet waste and turn into compost – use for soil conditioning

2.5.4.6 Provide bins at the toilets for feminine hygiene product waste, toilet roll tubes, tissue packets, baby wipe packets

2.5.4.7 Put signs up to ask people not to spit toothpaste or mouthwash on the ground after brushing teeth.

2.5.4.8 Have volunteers and crew regularly check sensitive areas and to distribute rubbish collection bags and to encourage the audience to keep the site clean.

2.5.5 Encourage solid waste sorting and recycling:

2.5.5.1 Create a Resource and Waste Management Policy and communicate with all production teams in the planning stages to assess what waste streams are likely to arise on site during build, event and break.

2.5.5.2 Communicate with waste collectors and removal contractors and prepare a dedicated Resource and Waste Management Plan for the specific event/site.

2.5.5.3 Have dedicated areas for waste storage and segregation and ensure that they are easily accessed by the waste management teams.

2.5.5.4 Manage a wide range of bins (paper, glass, cardboard, wood, metal, food & organic, residuals) and deploy those across the site (offices, production compounds, arenas, camping, food courts, parking), ensuring that there are dedicated areas for the safe storage of hazardous wastes, e.g., WEEE, lightbulbs, batteries, and medical waste.

2.5.5.5   Have efficient signage for waste management systems that can easily be understood and followed.
2.5.5.6   Communicate recycling initiatives to audience, crew, contractors and talent (pre-event, during, electronically, via volunteers, have waste areas on maps, etc.)
2.5.5.7   Ensure that waste is collected during the event, and properly sorted for reuse, recycling, composting and recovery.
2.5.5.8   Have adequate cleaning teams and onsite waste sorting teams.
2.5.5.9   Have volunteers manning bin stations to instruct/ assist visitors with the waste separation system
2.5.5.10 Introduce a garbage deposit, a fee that visitors pay with their ticket and that they can reclaim after they have cleaned up their campsites and returned their filled trash bags once the festival has finished.

2.5.6 Monitoring, measurement and reduction

2.5.6.1   Monitor the types and amounts of different waste streams produced.
2.5.6.2   Identify locations that produce a lot of waste and the areas that are worst for contamination.
2.5.6.3   Ultimately get to a point where there is no waste going to landfill and only very small amounts going to thermal treatment and energy recovery (e.g. sanitary and medical waste for autoclaving and destruction)

2.6 Water

Events use water for many purposes, including drinking, sanitation, catering, ballasts, dust control and as a part of some event attractions, such as fountains.

The overuse or unnecessary wastage of water negatively impacts the surrounding environment and can have significant social repercussions if water provisions are impacted elsewhere. The source of water and water conservation is very important even in countries where freshwater is abundant, but is especially so in areas where supplies of clean, safe freshwater are scarce. However, it is very important that everyone – artists, staff/volunteers and the public – has access to drinking water. This is especially true if the event is in the summer and the weather is hot. Establish many water points outdoors so that everyone has good access.

Control of wastewater is crucially important in all locations. Unmanaged wastewater can cause flooding and health issues, and can also include pollutants such as oils, sewage and chemicals which can have a detrimental impact on the receiving environment. Polluted wastewater can create gaseous emissions, and treatment can be energy intensive, expensive and often requires the use of toxic chemicals. The choice of wastewater & sewage treatment method can also have an impact through transportation emissions.

Prevention is key - by prohibiting the use of toxic chemicals onsite and by using waterless or dry toilet systems, the production of harmful wastewater can be dramatically reduced. Additionally, wastewater that is created can often be reused before it is disposed. Best practice for wastewater and sewage management involves systems that use natural treatment methods (such as plants) to clean the wastewater and kill pathogens, alongside collecting and retaining important nutrients.

Actions

2.6.1 Save Water
2.6.1.1 Communicate to all people onsite the need to conserve water and turn off taps.
2.6.1.2 Design the water distribution system onsite strategically, to ensure that all areas that require water have good access, but also to limit the distance that water needs to be pumped.
2.6.1.3 Verify at regular intervals that there are no leaks in water distribution systems.
2.6.1.4 Use water saving devices such as tap and shower flow regulators, dual flush toilets, etc.
2.6.1.5 Use white appliances efficiently - if purchasing or hiring appliances that use water, such as washing machines look for product labels that indicate how much water a machine will use per cycle.
2.6.1.6 Only wash full loads and do not use extra rinses.
2.6.1.7 Choose waterless urinals, low flushing toilets or water free toilets if available.
2.6.1.8 If flushing toilets are necessary, water collected from handwashing sinks can be collected and used for flushing toilets.
2.6.1.9 Use marquees with sidewall rain gutters (or install sidewall rain gutters on existing marquees) and collect rainwater for reuse.
2.6.1.10 Soils in festival sites often suffer from compaction, which affects natural soakage and drainage of rainwater. On permanent sites, consider implementing Sustainable Drainage Systems to facilitate natural site drainage and soakage.

2.6.2 Protect water

2.6.2.1   Prohibit the use of toxic chemicals as much as practicable onsite.

2.6.2.2   Any chemical that may end up in water must be eco-friendly e.g. household cleaning products, personal hygiene products - shampoo, toothpaste etc.

2.6.2.3   Separately collect oils and greases, never pour them down the drain.

2.6.2.4   Never pour water used to wash paint brushes down the drain-water contaminated with paint residues should be evaporated and the paint dried out.

2.6.2.5   Cans with latex/water-based dried paints can be disposed of with residual waste, but oil-based paints, spray paints, and paint thinners all need to be disposed of as hazardous waste.

2.6.3 Prevent, manage and treat wastewater

2.6.3.1   Prepare a site drainage plan and identify all water sources and runoff areas.

2.6.3.2   Design areas where hazardous chemicals will be used, such as refuelling areas, to contain contaminated water in case of spillage.

2.6.3.3   Ensure that disposal of wastewater removed from site only takes place at appropriate facilities.

2.6.3.4   Investigate alternative temporary toilets that save water and reduce the need for chemicals, such as vacuum loos, compost toilets.

2.6.3.5   If event organisers own their venue, install eco-friendly permanent toilets.

2.6.3.6   Identify grey water streams that could be reused, e.g., water generated from hand wash basins & showers and methods of reusing grey water onsite (e.g. irrigation/flushing toilets).

2.6.3.7   Separate urine from sewage waste at source and harvest nutrients from the urine for reuse in agriculture.

2.6.3.8   Design an adequate, permanent (and legal) onsite system to treat wastewater naturally onsite by installing retention ponds and reed beds.

2.7 COMMUNITY & BIODIVERSITY

It is essential, and often legally required, to manage and mitigate any negative impacts that the festival or event may have on the local community and biodiversity around the site, especially concerning noise pollution, light pollution, litter or traffic congestion. Sensitive neighbours can become frustrated and ecologically sensitive areas in both greenfield and urban sites can be damaged by event operations. Noise, light, litter and traffic pollution can have serious impacts on the health and wellbeing of humans and wildlife, and management of these four aspects must be a serious consideration for build, break and during the event.

For a festival or event to be truly sustainable in the long term, it is essential to integrate into the community and the surrounding ecosystems, and to enhance them rather than detract from them. It is very valuable to include and work with the local community wherever possible to maximise positive impacts - reach out and look for feedback; offer free tickets to sensitive neighbours; hire temporary staff, rent equipment and purchase food and beverages locally to support the community. Protect sensitive areas, such as water courses and woodlands, and work together to clean up and restore degraded habitats.

Actions

2.7.1 Local Community Protection and Involvement

2.7.1.1   Advertise temporary jobs locally first, and recruit as many staff members from the neighbouring communities.

2.7.1.2   Use sustainable, locally produced products and local suppliers as much as possible for your products and services, e.g., machine and tent hire, food and drinks, merchandising, printing and signage etc.

2.7.1.3   Offer opportunities for local people to raise money for local charities/community groups at the festival or event.

2.7.1.4   Offer free tickets to the event for those living close by, or in built up areas, offer a number of tickets to a local resident's group for raffle.

2.7.1.5   Hold free events for the local community to enjoy the festival space.

2.7.1.6   Limit night-time noise and light pollution.

2.7.1.7   Ask local communities for feedback on how to improve their experience of the festival.

2.7.1.8   Ensure clear channels of communication for complaints from surrounding neighbours/local communities and ensure there is a responsible person assigned to respond quickly and effectively to complaints.

2.7.2 Safety and Security

2.7.2.1   Ensure that there are enough lights, signage and stewards on surrounding road networks to avoid road traffic incidents.

2.7.2.2   Manage the crowd safely and have adequate secrity and medical teams.

2.7.2.3   Have a robust Traffic Management Plan and an Emergency Preparedness Plan that accounts for all possible emergencies, including traffic incidents, high winds, flooding and fires.

2.7.2.4   Prepare Risk Assessments for potentially dangerous tasks or areas, and provide adequate training and proper Personal Protective Equipment

2.7.3 Find out what is there

2.7.3.1   Engage with local environmental action groups about conducting a prevent biodiversity survey of your site before the event takes place to identify the habitat types, animals and plants that live there.

2.7.3.2   Engage the services of a professional ecology consultancy to carry out a biodiversity assessment (Phase 1 Habitat Survey) of your site before the event takes place to identify the habitat types, animals and plants that live there and to assess the impact that the event is having/will have on them.

2.7.4 Get people involved to have a positive impact on local biodiversity

2.7.4.1   Host a local habitat clean up – e.g. adjacent woodland, hedgerows or beaches.

2.7.4.2   Organise tree and wildflower planting on the site or in a local community.

2.7.4.3   Engage a local ecologist and host a mini-biodiversity survey during the festival for audience participation.

2.7.4.4   Engage with local environmental action groups to give talks/workshops at your event about local wildlife and programmes that they are running.

2.7.4.5   Dedicate nature walk routes or quiet zones areas around the site for people who want to experience nature without disturbance to wildlife

2.7.5 Protect what you find

2.7.5.1   Review the site plan and note the locations of sensitive areas, and avoid these areas when placing or building infrastructure e.g. laying track way, building stages or production areas, allocating campsites, toilet blocks etc.

2.7.5.2   Restrict access to ecologically sensitive areas, e.g. areas with nesting birds, waterways, bat roosts etc.

2.7.5.3   Increase fencing, exclusion tape and signage along pathways and at festival boundaries to discourage people from entering sensitive areas, in particular to discourage people from going into unprotected areas to urinate/defecate, have clear directions to toilets.

2.7.5.4   Have dedicated areas for using and cleaning up hazardous substances such as paints and fuels. Spill kits should be located at these areas, and other sensitive areas which may be at risk from pollution by accidental spillages (e.g. food vendors stalls/ toilets).

2.7.5.5   For sensitive trees, demarcate tree root protection zones with appropriate fencing and signage to explain what they are and why they are necessary.

2.7.5.6   Increase supplies of ground coverage and cover more areas to protect the soil.

2.7.5.7   Create emergency planning procedures for unfavourable weather and accidents that help to protect the local environment as well as people

3 RESOURCES & REFERENCES: OTHER SOURCES AND REFERENCES:

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https://www.agreenerfestival.com/

- GREEN DEAL ON CIRCULAR FESTIVALS

https://www.greendeals.nl/sites/default/files/2022- 08/C-231%20Green%20Deal%20on%20Circular%20Festivals.pdf

- Green Roadmap Cultural Sector Norway

https://xn--grntveikart-hgb.no/

- Roadmap towards 2030 guiding plastic reduction in Malaysia

https://enviliance.com/regions/southeast-asia/my/re- port_2445

- Future festival tools:

https://www.futurefestivaltools.eu/self-assessment-en/

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- How to Set Biodiversity KPIs & Measure Targets - Nature-Based Strategies for Companies

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- https://www.unepfi.org/wordpress/wp-content/uploads/2021/06/PRB-Biodiversity-Guidance.pdf

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- https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

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- https://www.sustainalize.com/news/to-offset-or-not-to-offset-thats-the-question/

- https://pub.norden.org/temanord2022-563/#120584

- https://www.unep.org/explore-topics/climate-action/what-we-do/climate-action-note/state-of-climate.html