



COMUNE DI COGNE
COMMUNE DE COGNE

VALLE D'AOSTA
VALLÉE D'AOSTE



Environmental and Social Sustainability Plan

Cross Country Ski World Cup
Cogne - Italy 2019



Summary

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1.Introduction

This document is drafted to plan and control, from an environmental and social sustainability point of view, the forthcoming sporting event that will take place in Cogne, Aosta Valley – Italy, on the 16th and 17th of February. It will be an event of international level that will concern four Cross Country Ski World Cup competitions. The Municipality of Cogne pursues sustainability objectives, primarily in order to protect the environmental context in which it is located, and subsequently because it is a touristic resort located in the Gran Paradiso National Park. Moreover, Cogne is member of the Alpine Pearls, an association of European cooperation working on sustainable mobility. Since 2016 it is one of the 100 most sustainable destinations in the world and it is part of the top 100 Green Destinations. Consequently and connected to the above mentioned information, according to the objectives of sustainability and environmental protection posed by the aforementioned entities, this document aims to be a small road map for the event to be carried out in February: the main aim is to reduce environmental impacts as much as possible , creating at the same time an added value to the locality. This document will be gradually updated while coming close to the event dates and will be used as a monitoring tool.



2.Environmental and Social Context

Cogne is located in the southern part of Aosta Valley region, at 1.544 meters above sea level, and is one amongst the 20 highest municipalities in Italy. The village borders with Aymavilles, Valsavarenche, Gressan, Charvensod, Fénis and Saint-Marcel and with some small municipalities in Piedmont: Locana, Noasca, Ronco Canavase and Valprato Soana. With its 4.061 m.a.s.l., the summit of the Gran Paradiso represents the highest altitude within the municipality. Cogné stretches for 213 km² and is the largest municipality amongst the 74 municipalities of the Region. For example, its extension surpasses that of the , cities of Milan and Naples. At 31st December 2018 the resident population is equal to 1,364 inhabitants. From the previously expressed data, it is clear that this context is very particular as corresponds to a very large area with a high mountain range and a very low population density.

Settlement System

Cogne is located in the homonym upper valley and crossed by the Grand-Eyvia stream, a tributary of the river Dora Baltea. The first town, Aymavilles, is to be found about 20 km away, while the nearest major town is Aosta, which is 33 km away. The majority of the inhabitants live in the center of Cogné (called Veulla) while the other reside in the main hamlets of Epinel, Gimillan, Lillaz, Crétaz and Valnontey. Most of the commercial activities are located in the center of the village, while there is a craft area situated north of the main residential area. In the vicinity, linked to the old magnetite mines, which were active until 1979, a very extensive extraction area is to be found. Nowadays the idea of a large-scale museum area of industrial archeology is underway.

The new development points are connected to the construction of a tourist center in association with the city of Aosta and one of the most important alpine ski resort of the region, Pila. This new tourist area would ideally connect Cogné to the city by cable, consequently creating a 360 ° tourist offer that could allow the tourists to reach the valley without using the car.

Road infrastructure and transportation

Cogne is connected to the down valley through the Regional Road n.47, which starts in the municipality of Sarre close to the motorway A5 Truni-Mont Blanc exit, Aosta-Ovest. There is a railway line (only for mining exploitation), which is no longer operational, that used to connect Cogné to Acque Fredde (in the municipality of Gressan), but however represents a further access route, usable in case of emergency or non-viability of the road. A regular bus line connects Cogné with Aosta with different daily frequencies and timetables. Local public transportation within the municipality is completely free and allows to reach rapidly the center of Cogné from the main hamlets. The Central Station of Aosta is the nearest railway station. The nearest airports are the little tourist airport of Aosta and the international airports of Turin, Geneva (CH) and Milan Malpensa, located within 200 km.

Economy

The main economy of the locality is tourism, followed by agriculture and service industry. The resort is equipped with about 50 hotels for a total of 1,000 beds and there are in addition several holiday houses.

During high season periods, the presence in the area can reach 10,000 people, a number which exceeds 7 times the usual resident population.

Protected areas

95% of the municipal territory is officially located under protected areas including the Gran Paradiso National Park, the oldest park in Italy established in 1922. There are 4 other protected areas belonging to the Nature Network (a network of protected areas belonging to the European Union) between those Sites of Community Importance (SCI) and 1 Special Protection Area. The remaining 5% is represented by the urban part and includes the approximately the 50 hectares of the Sant'Orso field which, since 2012, is part of the places awarded as "Italian Wonder".

Power

On the municipal territory several renewable energy systems are used; each of them are diversified by technology: hydroelectric, solar and biomass. The hydroelectric system, both public and private, is the technology system covering about 3 MW of installed capacity. The production of all renewable energy systems is estimated at 15 GWh per year and is sufficient to cover the needs of about 11,000 inhabitants, that is to say a production that exceeds much more the number of residents. The locality is however served by the medium voltage grid (15 kV) with a double line coming from the central valley (Villeneuve). This overabundance allows continuity of service even in case of natural disasters.

Wastewater management

The entire sewer system is collected and treated. Where the network reaches the municipal sewage system, the waste water is treated and returned to the treated water course. In other cases, the waters are treated by septic tank, in any case the wastewater of the houses are all collected and treated.

Tourism

Tourism is the main source of economy in the village and without it Cogne would probably be a place destined to depopulation as well as many mountain resorts. The village's main attractions are the landscape of the Gran Paradiso National Park, the local gastronomy and the peculiar rural

traditions. Within the municipality of Cogne almost 500 km of trails are to be found, starting from the easiest walks in the down valley and going on with walks that can lead to the summit and the glaciers of the Gran Paradiso, at 4,061 m.a.s.l. Besides the many activities that can be practiced during the summer season, the wellness tourism is a part of the resort's offer, thanks to the high quality spas and restaurants that attract not only the purely alpinist clientele, but also many families who simply seek leisure and relaxation. Thanks to the numerous tracks winding throughout the municipal territory and within the National Park, during the winter season, cross country skiing is the king of the area. Snowshoeing trails are very popular, while the ice falls, in number of 100, make the town a world center of this particular specialty, attracting every year people from all over the world. There are, in addition, also some alpine ski slopes that with 4 lifts and a snow park give to the skiers the opportunity to ski without tails. The historical components of the locality are also of tourist interest; worthy of note are, in particular, the ancient traditions of the agricultural life and the history strongly tied to the exploitation of the magnetite mines, that are to be visited.

3. Event and Cross Country Ski

The event of 16th and 17th February 2019 is an event of great importance not only for Cogne, but also for the entire region. After 12 years of absence, the Cross Country Ski World Cup heads back in Cogne. The World Cup stopped in Cogne for the first time 1984 and then again 1987, 1992, 2001, 2002 and finally 2006. Cross country skiing can be considered the national sport in Scandinavian countries and is widely followed throughout northern Europe. Thanks to its national team and its champions even Italy has often achieved important results, including gold medals at the Olympics Winter Games and many World Cup victories. These results witness of the ancient tradition of this sport in the Alps. According to the legend, indeed, it was the Swedish director of magnetite mines, Ranjar Nordensten, who, at the beginning of the '900 brought his skis to the Prorra di Sant'Orso and gradually brought Cross Country ski fashion among the inhabitants of Cogne.

The 2019 event should be a great comeback for this discipline at the foot of the Gran Paradiso: 21 participating nations, several TV channels broadcasting the race and hopefully hundreds of spectators from all over the world. In Italy, the national television, RAI, will relay the event. The predictions talk about some millions of tv spectators in Northern Europe, including Norway, Sweden, Finland and Germany. The event will also be broadcasted in the USA and Canada, China and in all others European countries. The two-day race is scheduled for Saturday 16th with the sprint competitions, while on Sunday 17th the program proposes the average distance races.

The locality should reach the maximum presence of tourists, usually recorded in the resort on New Year's period and in August. All the hotel facilities are expected to be fully booked and a fluctuating presence of visitors is predictable during the two races, because of spectators who will come exclusively for the race and go back home on that same day.

The organization of this event, compared to the normal events usually managed by the locality, plans to let the TV and Medias occupy the parking called "Edelweiss". The parking area usually used for the market will instead be in use for waxing cabins containers, where the various national teams will have their technical rooms for the preparation of skis. Lastly, one of the car parks close to the cemetery will be used for the transport of materials in support of the various teams. All the structures mentioned need about 900 kW of power. The rest of the activities will be carried out within the existing premises and will be made available by the municipality as: the Town Hall, the Maison Grivola, the Perruchon Gym Centre.

For what concerns the tracks, in this occasion the organization committee will use removable structures such as tents in the Stadium area and all its outbuildings.



4. Impacts: sources and aims

In the following chapter we will analyze the impacts that this type of event can involve. In particular, every social and environmental component had to be analyzed in order to quantify its impact on the environment. Without doubt the major impacts can be related to the use of electricity and to the traffic amount that will be generated by visitors coming to watch the event.

For a correct analysis, as it is usually done for an environmental impact study of projects, the main targets and the associated impacts are to be considered.

Water Environment

From the point of view of this environmental component, we presume a certain use of water during the winter, in order to ensure the carrying out of the event, with the production of artificial snow. This action is usually done every year to guarantee a good quality of the ski tracks. The production of artificial snow uses the waters of the Valnontey stream, which are not added with chemicals. The water is returned in the spring when the snow melts. No particular production is expected more than the artificial snow normally produced in every winter seasons. Snow cannons are connected to the electricity grid without the use of generators and they therefore use the energy that comes from renewable sources without any more emissions. As for the use of domestic water, there will be an increase due to the large number of participants and public, but in any case we are talking about numbers that the location normally manages during high season

peaks. We can therefore consider that there will be no specific impacts higher than the normal situation.

Soil, Subsoil and Groundwater

These environmental components occur during the winter period in an icy state, affected by snow and ice, which are in fact impermeable. In any case, there are no particular criticalities concerning the normal use of ski tracks in winter. There is no use of permanent soil, but only a temporary settlement of structures linked to the event.

Flora-Vegetation, Fauna and Ecosystems

During the winter season the vegetation is in a state of "rest" and normally largely covered by snow. The competitions will take place outside the protected areas at the same place where the tracks are normally drawn during the winter seasons. Collateral events and presences will be concentrated in the "urban" area of the locality. The event therefore doesn't provide any additional impacts in respect to the normal activity of the locality, nor to the flora or the fauna.

Landscape

The event involves the increase of specific facilities especially within the main car parks of the resort and at the Cross Country Stadium. All the structures are short-term buildings and most of them will be dismantled at the very end of the event, while some others at the end of the winter season. Therefore, there is no permanent impact on the landscape.

Noise

The Municipality is equipped with acoustic zoning. For what concerns this component there are no particular impacts to underline if compared to the normal conduction of the daily activity of the locality. In particular, it is possible to point out generators that will support the organization and that can also be switched on during the two days of the event. The new generators are brand new and guarantee very low noise emissions. The event itself will produce an amount of noise related to the competition activity, which is comparable to the sporting events that the location already organizes and is, therefore, in any case not worthy of note.

Emissions in the atmosphere

This component is the factor that may have a greater impact on the environment, in particular for greenhouse gas emissions such as CO₂. Although the location has sufficient energy to ensure the carrying out of the event in its entirety, this energy doesn't guarantee its distribution network to

supply the necessary power peaks requested at the cabins for the waxing or at the area where the trucks will be positioned. To compensate this lack of distribution, combustion generators are needed to cover around 500 kW of the 900 kW required. All the generators will be placed in the "urban" area. It is estimated that the emission of the generators for the two days of competitions, in case of constant use for a total of 3 days (less cautionary scenario), will lead to an emission of about 9,000 kg of CO₂.

Another impact on the atmosphere component will be linked to vehicular traffic, which is expected to raise considerably, especially because of the spectators of the two-day event. Considering a density per hectare of about 300 plants (average value on municipal shares above 2,500 m) there are more than 6 million trees in the area. Moreover, considering that a tree can capture about 10 kg per year of CO₂, the absorption capacity on the annual budget of the emissions produced by the event is already guaranteed by just over a hundred plants. In any case, although the annual carbon capture capacity is still very high (lower during the winter) it is believed that it is right to take this impact into account by providing mitigating and compensatory actions.

Traffic

As already indicated in the previous paragraph, vehicular traffic will increase considerably during the two days of the races, especially along the S.R.47 that connects Cogne to the down valley and crosses the municipalities of Aymavilles and Cogne. Particular traffic will be expected in the urban center of Cogne. This impact is not negligible and will have to be taken into account towards mitigation and compensation actions.

Socio-Economic Aspects

As mentioned in the previous chapters, the locality lives mainly on tourism. A tourism for which the image and the environment are the main and fundamental component. In recent years, the locality has been trying to increase its market share, particularly with attention to the foreign tourism, and different actions are underway to achieve these objectives. The opportunity of a global showcase gives the chance to the locality to present itself to the whole world with its distinguishing peculiarities and to pursue this goal. The images of the race will be transmitted worldwide and the locality will benefit an advertisement that it normally doesn't have. In addition to the media broadcasting, even the tourists, spectators, athletes, technicians and others coming to Cogne for the races, will have the opportunity to live the resort for a few days and use the services of the resort, maybe returning back later on for a longer period of stay. The foregoing can be considered as a long-term objective, whereas the short-term economic benefits are those related to the event itself. First of all the commercial activities will take advantage of the massive presence of tourists in the locality, that, in that period of the year, even if of medium / high season, is not comparable. Obviously the activated economy system will also have effects in the

medium and long term and will spread over the whole place, influencing also the social components, that are not directly interested in the event.

From the point of view of young people, such an event can stimulate the practice of sport and be the starting point for cultivating an international culture that can bring the younger generation living in the locality to be open to the world and ready for new commercial challenges that the resorts may have in the future.

Finally, even the weakest categories will have long-term benefits. The increase in the local economy allows and will allow the maintenance of basic services that a mountain resort, in case of heavy depopulation and decrease of market shares, could not guarantee.

The event must therefore leave a "legacy", providing the citizens with small assets that will remain of use for everyone and strongly aiming to guarantee the economy of the locality for the future.

The impact in this case is to be considered positive.



5. Mitigation and compensation actions

In the previous chapter the analysis indicated the main impacts on the environment and on the social components related to the performance of the sporting event to be held. In order to work with mitigation and compensation actions, a monitoring on the construction of the event, on the performance and on the so-called "legacy of the race" is necessary.

This document, which will be updated and implemented at the same time as the conditions change, will be the event monitoring tool. Responsible managers will be identified in order to control the actions projected by the Organizing Committee and the municipal administration.

As seen above, the main impacts are related to CO₂ emissions due to generators and cars and to the traffic that they will generate.

Regarding emissions and the budget concerning the renewable electricity production, Cogne is still able to offset the impact of this event, but, in a locality that steadily is involved in organizations that promote environmental sustainability, some extra actions are mandatory.

The various mitigation actions will be indicated below

Emissions

- Looking for the latest generation generators able to limit emissions
- Evaluating the practicability of Biodiesel fuel use for generators
- Being responsive to the use of generators only in case of necessity
- Using, as much as possible by the members of the Organizing Committee, electric cars while moving into the locality
- Being sensitive to the use of public transport, starting from Aosta
- Encouraging the local population and the guests not to use the car during the event, but to use the free public transport shuttles

Traffic

- Being sensitive to the use of shuttles and public transport
- Increasing shuttle busses within the locality and from / to Aosta
- Creating lung parking areas at the entrance of the resort

General

- Raising awareness for guests and residents regarding the attention to the environment and to the mission of the locality
- Raising awareness to teams and technicians to the prudent use of resources, in compliance with environmental regulations in force together with safety at work
- Raising awareness and training the volunteers on environmental issues
- Promoting the use of recyclable and removable materials

As indicated above, even if not foreseen, compensation actions are necessary and important for a resort located in the Gran Paradiso National Park. The compensation actions are instead shown below.

- Implementing on the main square, major crossroad of the event, recycling bins which will remain at the locality,
- Improving recycling anywhere on the competition sites and on the technical areas
- Increasing ashtrays inside the locality with consequent sensitization to their use by smokers. Empowerment in the village and within the spectator areas.
- Raising awareness to the use of free water offered by the Maison de l'Eau and the consequent reduction of plastic bottles
- Integrating new electric recharging points for cars (already carried out) and promoting the use of electric cars during the event
- Promoting activities in favor of sustainable tourism (eg Ecolabel) together with the Gran Paradiso National Park and Alpine Pearls
- Acting to reduce the use of plastic in general

For what concerns the waste management plan in the details, see the document Environmental Waste Management Plan COWC02.

6. Conclusions

In this document we illustrated the main impacts that the forthcoming event may have on the locality at the level of environmental and social components. Obviously, no action on the territory has zero impact, but this fact is not necessarily negative as it was underlined talking about the social component. In any case, the main objective is the sustainability of the event for the locality in accordance with the mission of Cogne. If, as highlighted by the plan, no significant negative impacts are expected, or rather they are still sustainable for the locality, further mitigation and compensation actions are still required. The event can be an opportunity to raise awareness on environmental issues and have the right power to reaffirm the importance of sustainable development. The final aim is that of allowing this high mountain resort to be lived in appropriate way by local population as well as guests, with the hope that these last decide to come back to Cogne, boosting the economy and thus avoiding the depopulation and abandonment of the locality.

Eng. Giuseppe Cutano Sustainability Manager Municipality of Cogne



7.Partners

In order to support the application of this plan, different partners are helping us:

Institutional Partner



E-mobility



Renewable Energy Supplier



8. Integrations and updating

19/12/2018

Proposed actions in sharing with the National Park Gran Paradiso, after the meeting in Turin

Mobility

- Promotions and gifts for those who reach Cogne by electric / hybrid car or practice car pooling
- Raising awareness of how to reach the locality by public transport and free shuttles
- Use of electric cars by the members of the committee / municipality
- Avoid using helicopters

Waste, packaging, catering

- Sensitization towards the reduction of waste production
- Use of a celebratory glass to be delivered together with the entrance ticket to reduce waste production. To be reused in the cafes and bars
- Use of paper for Ecolabel or FSC brochures, indicating it in a visible way
- Use of MaterBi dishes and cutlery in the buvette areas
- Promote the use of farm-to-table products (VdA) or still better use of a quality mark linked to the National Park. Reduction of CO2 emissions and promotion of the territory

01/19/2019

Increase of Artificial Snow Production

Due to the low rainfall (no snow since mid-December) the entire race course of 5 km has been realized with artificial snow. This has caused an increase of almost the double compared to the usual production of artificial snow. The water used was around 15,000 m³; volume of water that the Valnontey Torrent in soft (at the rate of 5 m³ / s) carries in one minute. The necessary electricity has been produced using renewable sources. Snow transportation has been completed, as usual, with thermal traction, but the increase in snow production to spread has created more traffic along the track, creating traces of heavy vehicles on the lawn, which is however in a non-vegetative state. Volunteer actions and re-greening in spring with associations are planned.

Transportation Update

Further action concerning the limitation of car use. The public shuttle bus connection has been increased and the free disposal hybrid cars are no longer in program, also because those vehicles

still emit energy. Action to avoid the use of cars and suggestion to leave the car in Aymavilles / Aosta.

Plastic Reduction Update

The celebratory plastic glass will have to be bought in order to further discourage the use of plastic.

Green packages

Companies and individuals will be required to contribute to environmental compensation by buying a green package that, in exchange of the offered services, will contribute to mitigation actions.