

## **Second impact evaluation of the Green OAT Evaluation Council: subsidy to the French inland waterways office (VNF)**

*The Green OAT Evaluation Council is in charge of evaluating the environmental impact of the green eligible expenditure financed by the Green OAT, the first French sovereign green bond. This document sums up the opinion of the Green OAT Evaluation Council<sup>1</sup> on the environmental impact of the subsidy to the French inland waterways office, Voies Navigables de France (VNF). This opinion has been informed by an evaluation of the environmental impact of the waterway management, provided to the Council and published along with this opinion's publication.*

### Main observations:

→ *The Green OAT Evaluation Council welcomes the evaluation provided, notably the quantitative estimate of the contribution of waterways transport to climate change mitigation and the qualitative assessment conducted regarding climate change adaptation and biodiversity protection.*

→ *This evaluation provides a major contribution to the development of impact reporting in the green bond market, as it provides an evaluation methodology regarding climate change adaptation and biodiversity protection.*

→ *The quality of the evaluation meets high academic standards. Quantitative assessments are in line with recent literature and based on a state-of-the-art model, and qualitative elements are robust.*

→ *The evaluation process provided transparency and independence, as the evaluation was reviewed by independent experts.*

→ *The Green OAT Evaluation Council endorses the main results of the evaluation of the subsidy to Voies Navigables de France, in particular that the expenditures associated with this agency contributes significantly to meet France's objectives in terms of climate change mitigation, climate change adaptation and biodiversity protection.*

### 1. Introductory remarks

**The Council notes that France aims at reaching carbon neutrality by 2050, in order to contribute to the objectives of the Paris Agreement.** This demanding target requires ambitious policies to reduce greenhouse gas emissions. As the transport sector accounts for about one third of national emissions, achieving greater efficiency in this area is a key pillar of this strategy. In order to reach this objective, the National Low-carbon Strategy aims at decreasing transport sector's emissions by around 30% in 2030 compared to 2015.

The maintenance and development of inland waterways is one way of decarbonizing the transport sector as it helps individuals and companies to switch to this transport mode from more carbon-intensive modes. The French inland waterways agency, *Voies Navigables de France* is the **public institution in charge of most of French waterways network**. With €470 million spent over 2016-2017, VNF represents the fifth largest eligible expenditure in terms of budgetary cost, within the

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<sup>1</sup> Members of the Green OAT Evaluation Council: Manuel Pulgar-Vidal, WWF (chair); Mats Andersson, Global Challenges Foundation, PDC; Nathalie Girouard, OECD; Ma Jun, People's Bank of China; Karin Kemper, World Bank; Thomas Sterner, University of Gothenburg; Eric Usher, UNEP-FI; Sean Kidney, Climate Bond Initiative (observer); Nicolas Pfaff, International Capital Market Association (observer).

perimeter of green eligible expenditure defined for the Green OAT and the largest of those that pertain to the transport sector.

## 2. Main results of the evaluation provided to the Council

The study confirms the impact of VNF on climate mitigation. More specifically, the study estimates that avoided CO<sub>2</sub> emissions due to inland waterways transport represent about **290 ktCO<sub>2</sub> in 2017**. This represents a reduction of about 1% of total French freight emissions per year.

To assess the modal shift allowed by the subsidy, an extreme case scenario where inland waterway activity were to disappear is considered. In this case, around 70% of traffic would shift to road mode, while about 30% would shift to rail mode. These results underline that VNF **contributes to meet Frances' objectives in terms of climate change mitigation**.

The study also assesses the impact of VNF on biodiversity protection and climate change adaptation. A qualitative analysis has been conducted, by reviewing VNF actions and identifying those which are additional to existing regulations and are benefiting the environment. Waterways belong to frontier zones between wet and dry biodiversity, and as such are part of remarkable biodiversity ecosystems. Thus, VNF holds a key position for biodiversity action. This makes its programmes all the more important in the upkeep of water ecosystems. This review, mainly based on qualitative assessments, allows to reasonably advocating for a **positive impact of subsidies granted to VNF as regards biodiversity protection and climate change adaptation**.

## 3. Quality of the evaluation

**Real independence** of evaluations are the keystone of their credibility and the presence of referees is considered by the Council as very important. In order to be aligned with best practices regarding that issue, the assessment was framed by Terms of Reference, defined by the Council with the support of the Secretariat. Two referees, François Combes<sup>2</sup> and André Evette<sup>3</sup>, were appointed in order to monitor closely the evaluation process. An intermediary report has been presented to the Council and submitted to its review and comments. The Council then endorsed the final version of the report. The impact assessment study has been conducted by the Commissariat General for Sustainable Development.

The Council underlines that **the study meets its objectives** as defined by the Terms of Reference, as it delivers quantitative and qualitative elements on the following topics: relevance and effectiveness; modal shift; CO<sub>2</sub> impact; sensitivity analysis; pollution and air quality. The Council states that the study meets academic standards as the model on which it is based is state of the art. In particular, the Council welcomes the fact that a sensitivity analysis was conducted to assess the robustness of the results on climate mitigation.

The Council stresses the **innovative aspect of the study, as it contributes to the development of impact reporting methodologies**, in particular regarding climate change adaptation and biodiversity protection. This study is indeed among the first impact evaluations that have been conducted on a green bond in relation to these objectives.

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<sup>2</sup> François Combes is a researcher at the French Institute of Science and Technology for transport, development and networks (IFSTTAR) specialized on public transport economics and more specifically, freight transport and logistics.

<sup>3</sup> André Evette is a researcher and engineer on restoration ecology of riverbank and alluvial floodplain, soil bioengineering, and management and control of invasive species at the National Research Institute of Science and Technology for environment and agriculture (IRSTEA).

The Council also notices some areas of potential improvements for future studies, whenever possible and appropriate: developing quantitative estimates on biodiversity protection and climate change adaptation; introducing several possible alternative reference scenarios to assess the robustness of modal shift estimates.

#### 4. Conclusion and way forward

**The Evaluation Council welcomes the results of the study on the French inland waterways agency,** as this innovative study lays ground for impact reporting on biodiversity and climate change adaptation.

**The Evaluation Council underlines the high quality of the evaluation process.** The study meets high academic standards. The supervision of referees guarantees its independence and quality.

**The Council is confident that this second impact evaluation will be useful to other green bond issuers** and offer a contribution to the development of best practices for evaluation on the market. This study could in particular be of use for sovereign issuers focusing on climate change adaptation, as it develops a methodology of impact reporting on this issue. Impact evaluation and transparency are indeed key factors to support the scaling up of green finance.

**The publication of this study is a major step for the Green OAT as it confirms the important role of the Evaluation Council.** This impact reporting ensures the credibility and the transparency of the Green OAT.