

What is a sustainable road ?

How to apply the concepts of sustainable development to transport ?



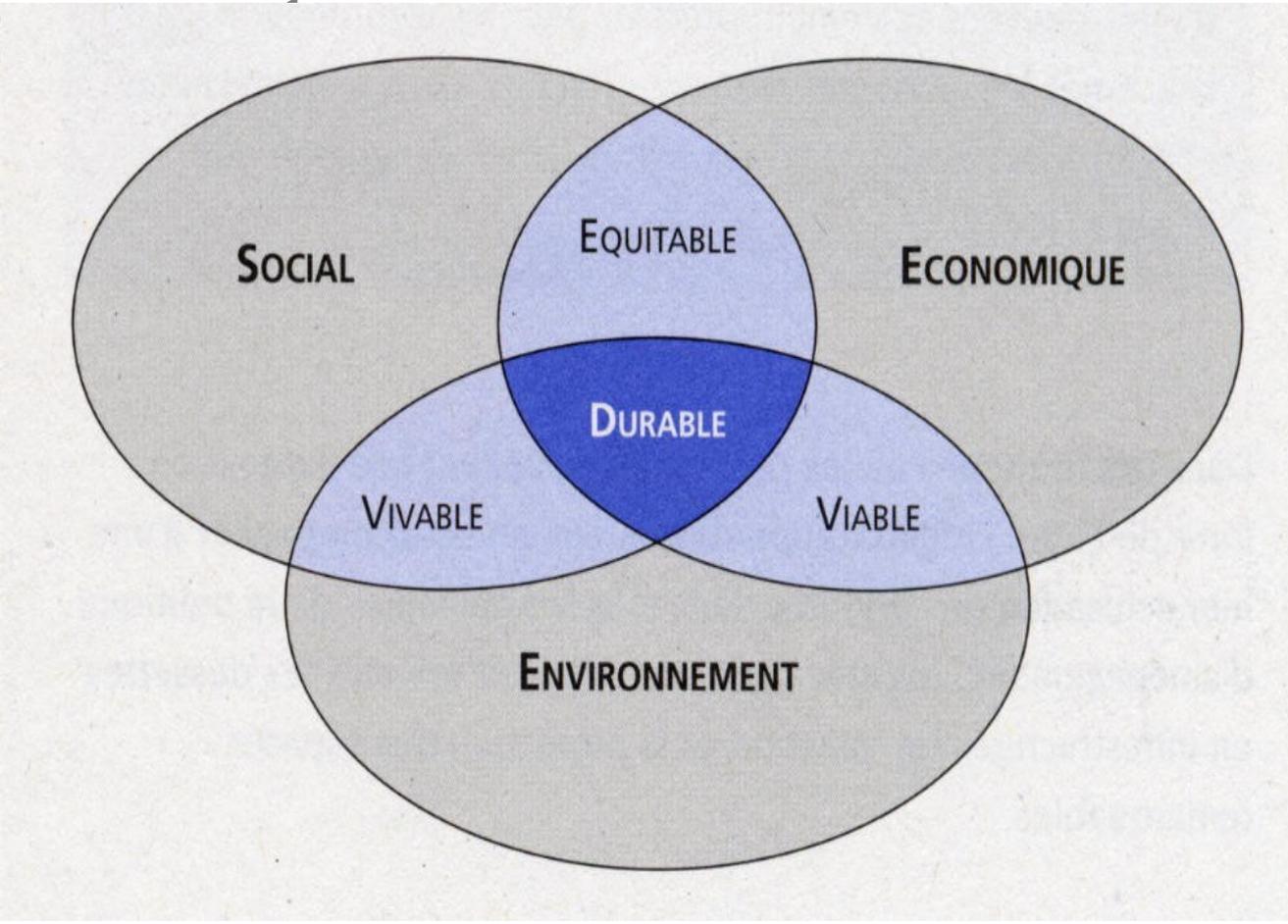
**Carreteras Sustentables
Sustainable Roads
Monterrey, Mexico**

Pierre Sكريابينة, Sétra, France

**8 y 9 de Mayo
de 2006**



The basic concepts of sustainable development



How to apply the concepts of sustainable development to transport ?

Taking account of the principles of sustainable development therefore involves the early stages of project and a broad approach in which transport is neither dissociated from the regions it passes through, serves and structures, nor the population it affects whether users or residents, nor the public bodies which finance it.

The PIARC TC 2.1 has thus undertaken an analysis of the approaches implemented in a few cases – either policies, programmes or projects – which it considered to be illustrative, relevant or even exemplary in this regard and which could show both what can be achieved and also what can lead to situations of deadlock.

We will present here some of these relevant cases in the field of road infrastructures

**THREE CASES WHICH
ILLUSTRATE APPROACHES
THAT RESULT IN A CONSENSUS
THAT TAKES ACCOUNT OF THE
OBJECTIVES OF SUSTAINABLE
DEVELOPMENT IN THE CONTEXT
OF ROAD DESIGN**

The case of the Rhône motorway (A9) in Fingés, in the Valais (Switzerland): 40 years to achieve a consensus – sustainable development as a common language.



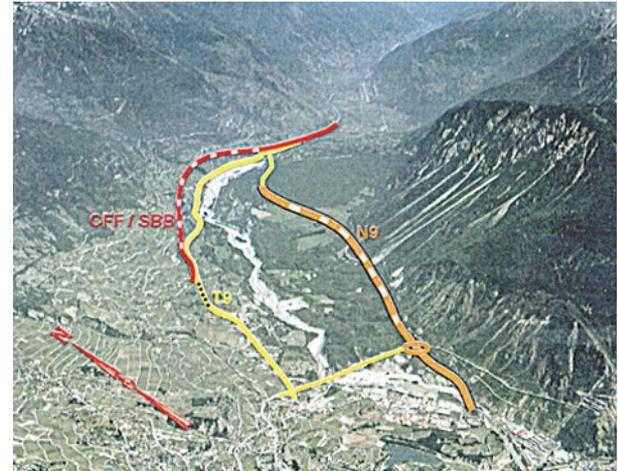
The Finges site :

- A mosaic of landscapes
- Unique habitats
- A Noah's ark
- But also a communications corridor and an active area



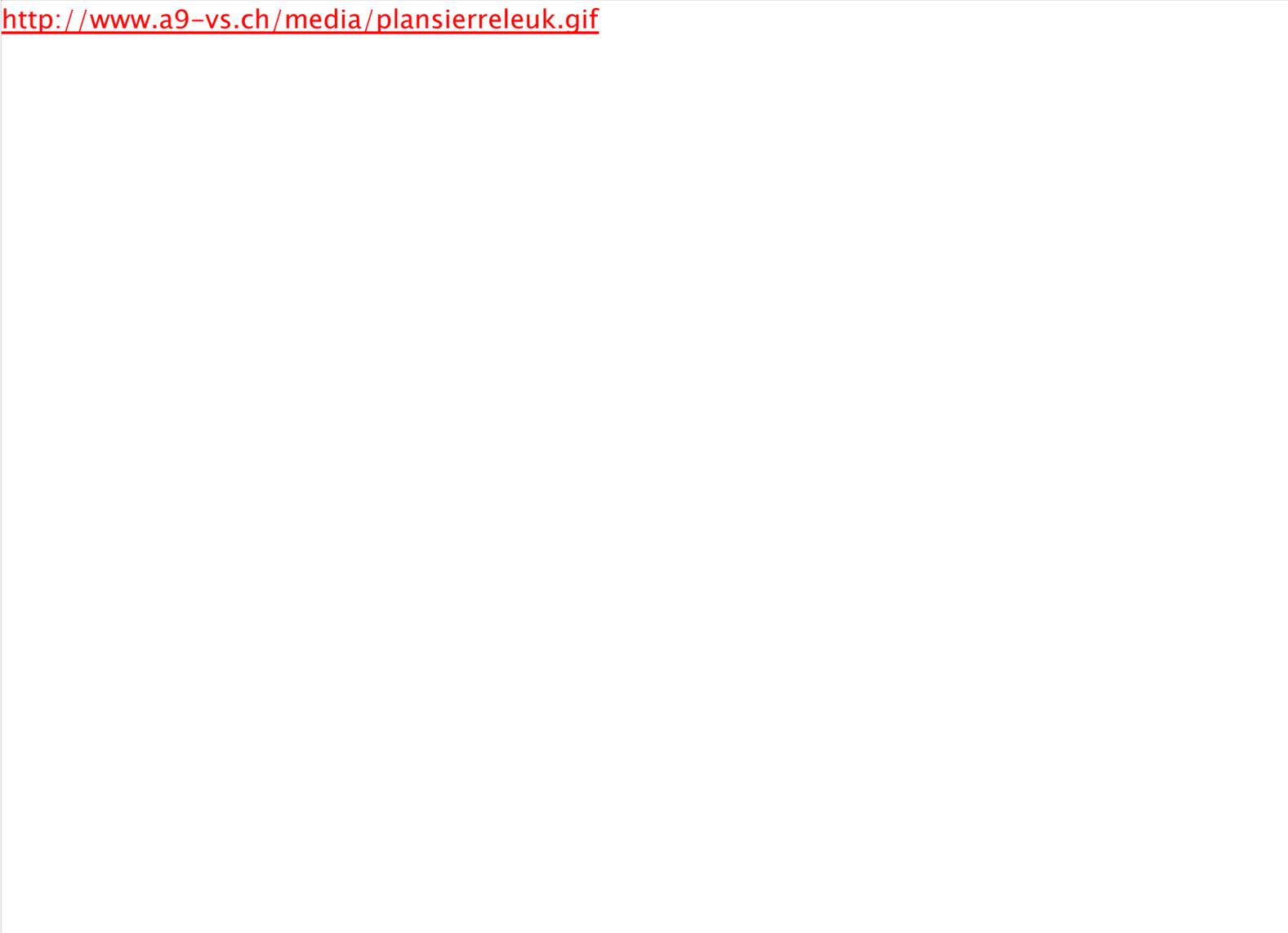
L'historique du projet routier:

- 1960 : a first project in the bed of the « wild » Rhône. It is rejected.
- 1980 : join the motorway project and the existing road in the same strip, in tunnel underneath the major part of the Finges wood. Project refused by the population and its elected representatives
- end of the eighties : a new project integrates the doubling of the Simplon railway, the transferring of the existing road, covered tunnel for the new motorway. This very expensive project is approved by federal authorities.
- nineties : local opposition leads to reduce the length of the tunnel and to use these funds for large scale compensatory measures aimed at restoring the whole Finges. The resulting 4th project is consensually approved at the end of 1999.



The final project

<http://www.a9-vs.ch/media/plansierreleuk.gif>

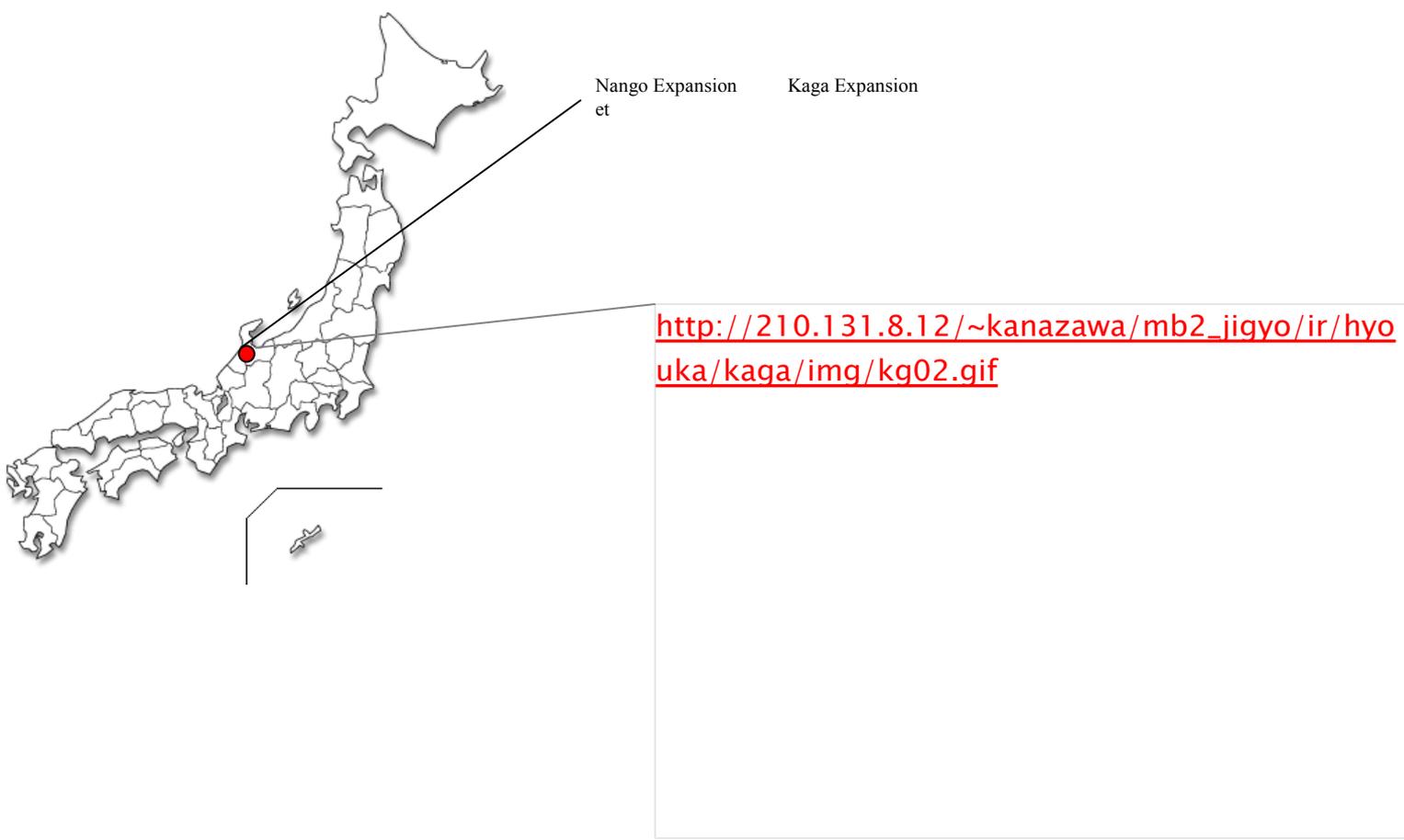


Finges : the motorway as origin for a sustainable development project of the whole area.

- The communes on the site became involved, creating an interregional association for promoting a sustainable development of Finges area and protecting its unique natural qualities.
- A Nature Park covering more than 100km² and extending beyond the limits of the protected site is going to be created.
- The building of the infrastructures is in progress, the railway is going to be achieved, the motorway should be in operation in 2010.

TO CONCLUDE: Nor the engineer neither the ecologist could bring the solution. It only showed with the public debate, when all stakeholders and partners succeeded to speak all together.

Public involvement based road planning process in Japan. The Kaga Route (Road n° 8) example



Background of Route n°8 widening project in Kaga

- The project consists in the widening to 2x2 lanes on 6,4 km of an existing road close to Kaga city exit; it was first launched in 1987. After a conflict with the roadside retailers who opposed to install median strip, the project had to be suspended for more than 10 years.
- In 1999 was growing an urgent need to improve road network and urban development of Kaga City, with the growth of the town and increase of traffic and local activities. The project is thus launched again, but with the awareness of the necessity of a strong involvement of the citizens.

The Public Involvement Process

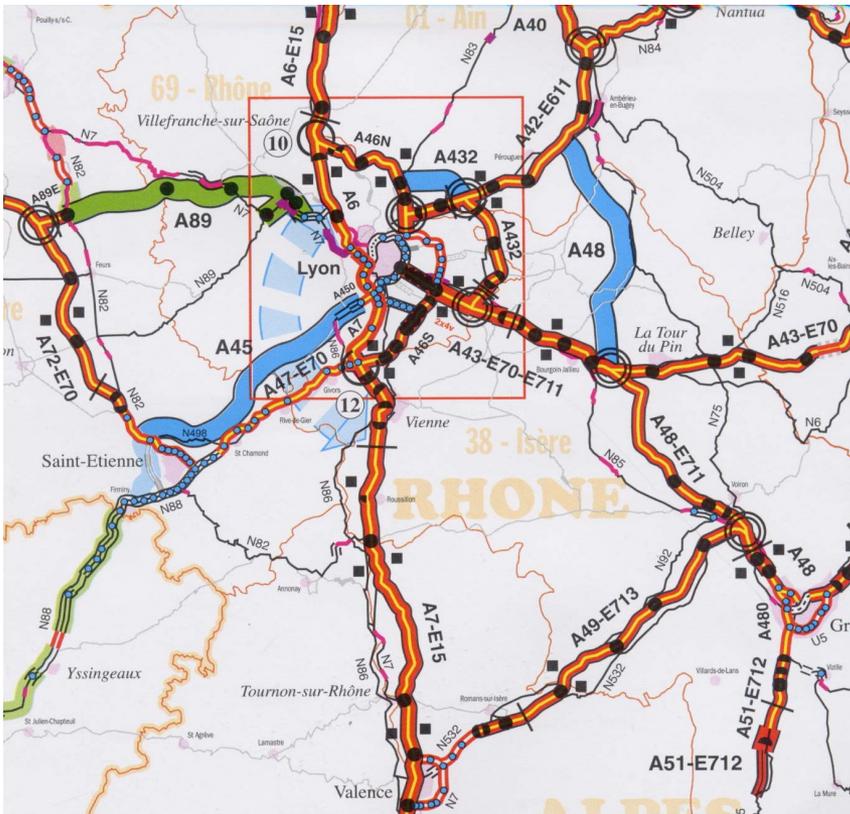
- On the national level, a Public Involvement Process Guideline has been meanwhile développé and published
- It is focused on environmental, traffic, urban development, social concerns, and economics.
- It is aimed to involve very clearly roadside residents and roadside retailers through four organizations (Study Group, Exploratory Committee, who set up, discuss and assess various options and alternative routes with the help of academic experts then propose some of them to the District Meeting and General Meeting for a final choice.)
- The General Meeting has the power to take the final decision.

The Public Involvement Process

- **Three steps :**
 - **forming common perception**
 - **examining preliminary rough plans**
 - **consensus-building**

- **In the case of the Road n°8 (Kaga route), the entire process took 2 years and 8 months. 5 alternative routes were finally examined, and 2 of them proposed for a final choice; a consensus has been found and the chosen alternative has been inscribed in the city plan.**
- **A confidential relationship has been built between residents and administration.**

Jointly conducted and shared diagnosis of the region as a basis for the design of a motorway project in France: the case of the A45 motorway (Lyon – Saint-Etienne)



An aim : a shared diagnosis

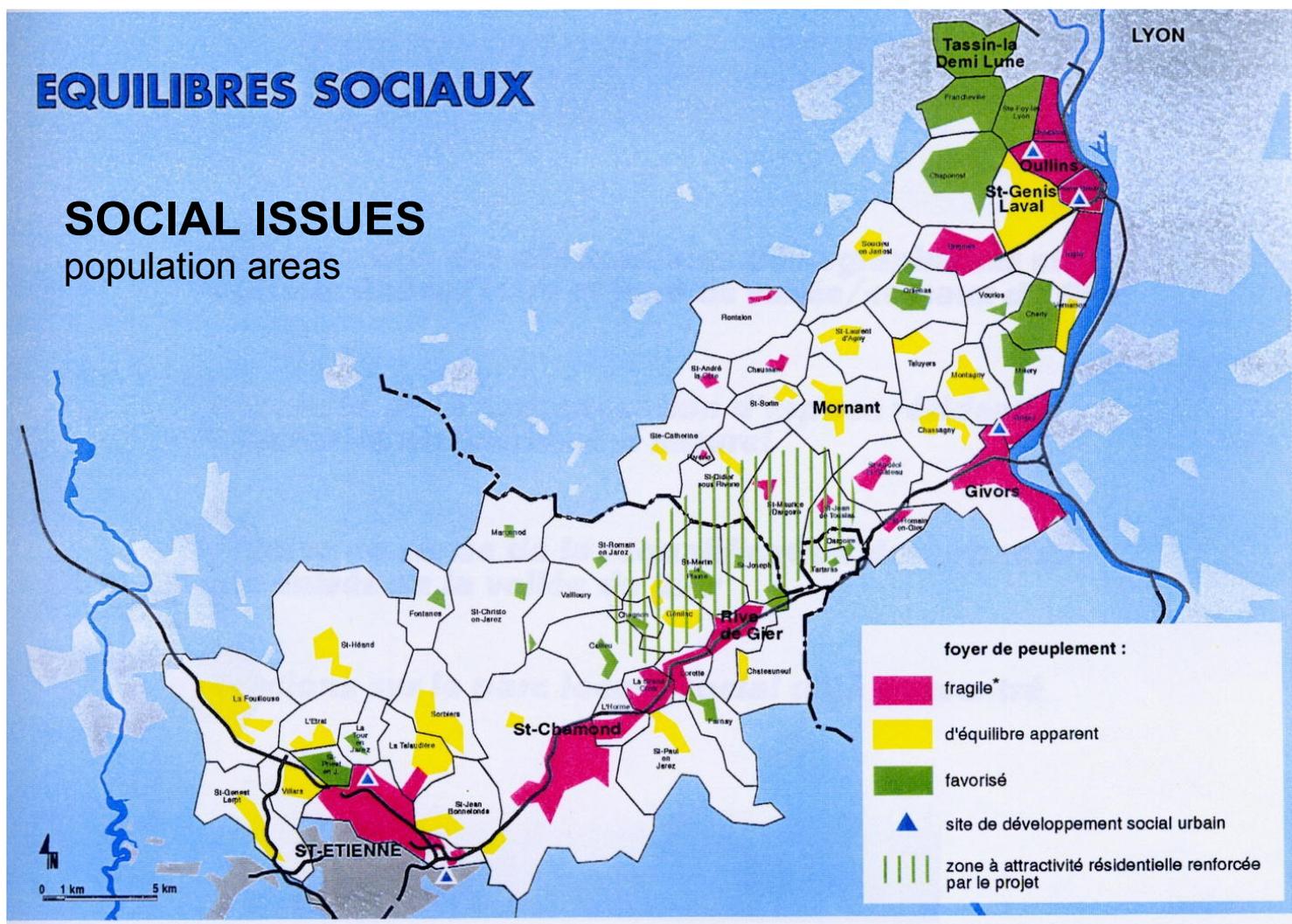
- Its aim, before considering the selection of a route corridor, was to conduct a joint diagnosis of the areas concerned
 - Which identified and anticipated the economic, social, urban and spatial transformations the region would undergo as a result of the future motorway
 - while identifying the development possibilities for this region which are supported by the various political and economic players.

A process involving all partners

- **Une méthode**
 - **An analysis concerning regional issues**
 - **A summary and recommendations concerning regional issues and possible planning measures**
 - **Interviews with numerous actors in the region to discover the expectations and projects of local actors**

EQUILIBRES SOCIAUX

SOCIAL ISSUES population areas



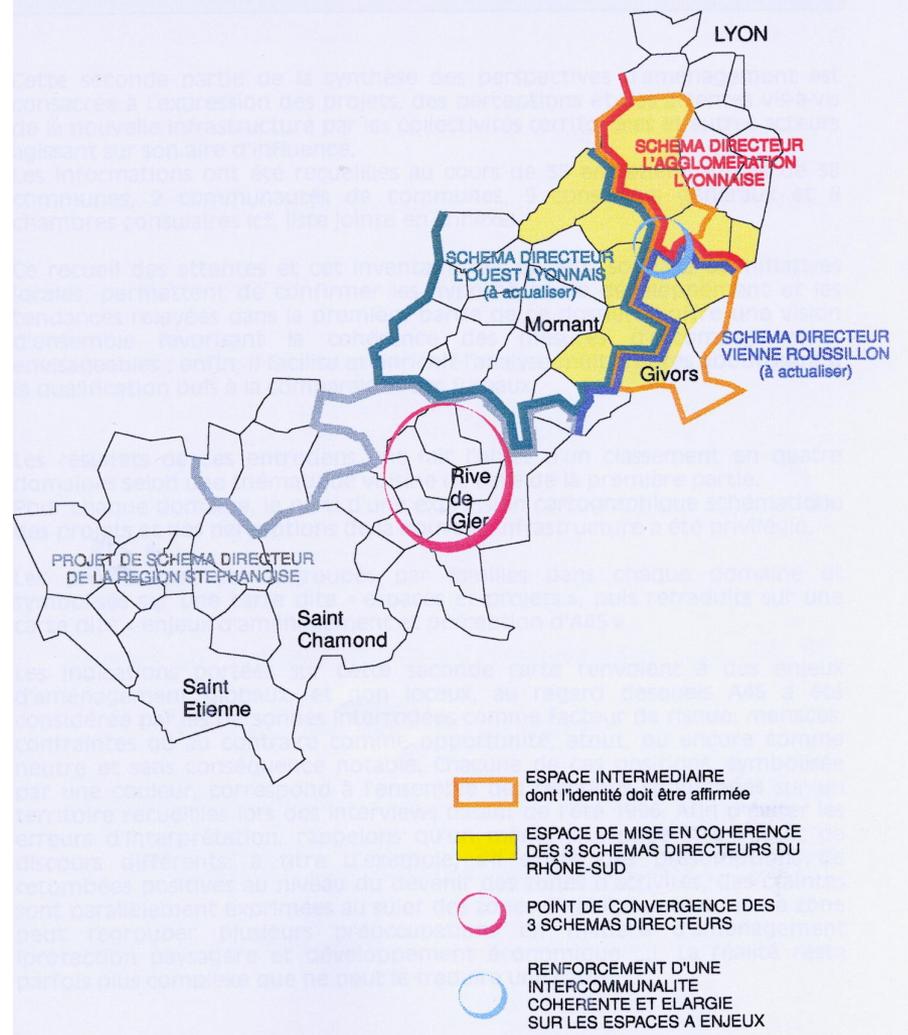
*Indicateur de fragilité socio-démographique obtenu par croisement :
 - des évolutions de la population et de la construction
 - de la proportion de logements sociaux
 - du taux de chômage
 - du taux d'étrangers
 (données 1990)

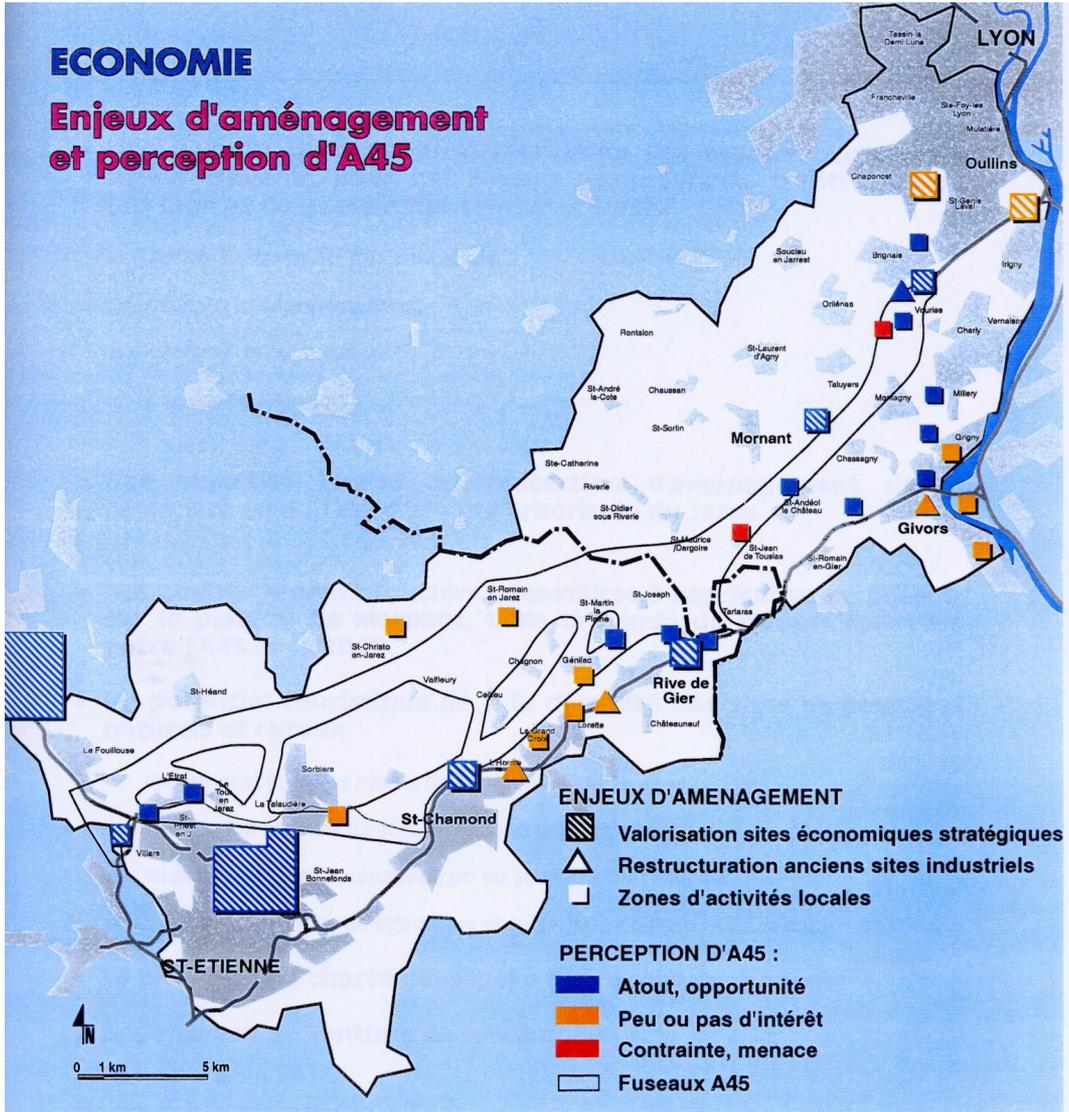
Summary of regional issues



ENJEUX TERRITORIAUX LIES AU PROJET A45

Gestion institutionnelle Institutional management





A successful process for regional issues

This joint diagnosis and the shared summary view of the region and its dynamics which it provided served as the basis for the major preliminary decisions taken in the context of a consensus approach, in particular the choice of route corridors, (>1 km) (decided in early 1999) within which the alternative routes developed during basic design were examined (approval given in 2006).

Beyond this, this diagnosis is intended to remain a reference document for any planning projects, whether proposed by central government or local authorities, with a view to specifying the accompanying measures for the future motorway. This ensures coherence, based on the combination of the work of the various partners involved, which could ensure the harmonious development of the region

Some conclusions

This was only a small extract of our collection of interesting examples, Yet, some insistent issues appear through those cases

- 1. the aims of sustainability can only be achieved through a set of compromises allowing the three fields, environment, economics and social, to find a way for integration.**
- 2. this integration becomes thus possible by the means of a debate, which brings to a synthesis, emphasizing the essential function of the governance and of local democracy.**
- 3. this proves indeed that public involvement guarantees that all stakes have been expressed, that it has been taken account of them and, would it or not be achieved with a consensus, public involvement is thus the key of social acceptance.**
- 4. such a debate is all the more efficient as it occurs at the earliest stages and pursues at the main steps of the design and implementation of the project (infrastructure or transportation system).**

Some conclusions

- 5. a process based on the priority given to one main objective (usually economics or environment) makes inevitable conflicts to arise, usually leading to stop or to suspend the project, and going against collective needs and interests, and basically against sustainability.**
- 6. the existence of an explicit legislation about sustainable development, inscribing its principles in the law, always shows to be very helpful to implement sustainability in transports.**
- 7. developing countries, occasionally with modest scale projects, often succeed to achieve an exemplary integration of the objectives of sustainability and to be very efficient in taking into account social stakes, thus performing an impressive step towards sustainable transport.**

We would like to present these 7 statements as a project for the conclusions of our TC 2.1.1. working group.