

# Towards a Strategy for Sustainable Regional Development

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## **Abstract**

*In France, sustainable development policy is a public policy falling under the authority of the State which has made commitments to French citizens and international organizations. It is also often he who sets the strategic objectives and the way of planning them. These policies are implemented at the territorial level and in particular the region and the intermunicipalities. Sustainable development policies are more effective when they are territorialized. To properly carry out the process, the territories will first carry out a diagnosis of their vulnerability in the three pillars. They can then take the necessary measures.*

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## **1. Introduction**

There are different classifications for defining a territory. The physical-cultural classification defines the territory as an entity combining characteristics of climate and relief, but also characteristics referring to an identity that has been formed historically. This can give rise to very precise classifications in which populations recognize themselves, such as the territories of the Illes, where geophysical and cultural influences are strongly intertwined. It can also give rise to a broader opposition between urban and rural areas, which needs to be clarified to avoid diluting the analysis. Within urban areas, we can distinguish between medium-sized cities and metropolises. Within rural areas, we can distinguish between areas under urban influence or urban countryside, desertified areas and intermediate rural areas (DATAR 2003). We'll be starting from an administrative definition of the concept of territory, based on French regulations, because this is the framework within which strategic decisions relating to sustainable development (SD in the rest of the text) must be made.

To speak of a strategy for a territory is not self-evident. We may think that territories don't have the capacity to develop on their own or endogenously, simply because economic, social or ecological mechanisms don't depend on them. This is particularly true when it comes to the environment. It may also be that they lack the managerial culture that would enable them to do so. Territories are run by elected

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representatives whose political objectives are sometimes incompatible with a rational, objective approach to managing a territory's development. As for local civil servants, they are trained to follow procedures, but not to carry out strategic analysis, especially as they have no decision-making power. The importance of SD in public opinion and the commitments made by the state will certainly force them to move from a total absence of strategy to an increasingly proactive attitude to SD (Godet 2001). The aim of this article is to set out a framework for an SD strategy at regional level, focusing on the performance elements of such a strategy.

The classic approach to strategic analysis applied to companies begins with a diagnosis, which leads to a SWOT analysis. The diagnosis we're interested in here is a little different. As we shall see in the first part of this section, this diagnosis must enable us to assess the territory's vulnerability to the various risks associated with SD (Louisot 2005). In France, this type of strategy is more likely to be envisaged at regional and inter-municipal level, although this does not rule out the possibility of a commune having this type of strategy. We shall see what the legal framework is for carrying out, at territorial level, what are normally the commitments of the State, notably in the various international treaties it has signed. It is often the State that sets the strategic objectives and the way in which they are to be planned. This is what we'll be looking at in a second section devoted to the strategic planning of a territory's SD. We will summarize as exhaustively as possible what falls under each of the pillars. In the third part, we'll present the elements of territorial SD planning performance that must be respected.

## **2. Analyzing a region's vulnerability**

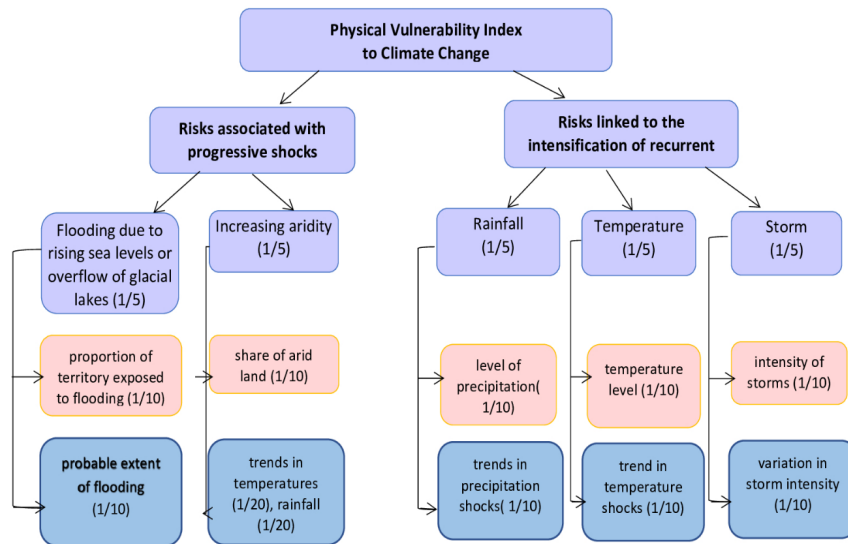
The vulnerability of a territory, like that of a company, can be analyzed *ex post* or *ex ante* (Louisot 2005). *Ex ante* vulnerability exposes an area to the hazard factors that give rise to risk. A territory located in a flood zone is naturally more exposed than another to this type of risk and to the consequences it represents for the population living there. An area located in such a zone that has no evacuation plan is less exposed than one that does. In this case, we're talking about *ex-post* vulnerability, which puts the population at greater or lesser risk. We are mainly interested in *ex ante* vulnerability for two reasons. In a risk management strategy, a territory might be tempted to adopt a strategy of risk retention. This means that it might be content to provide strong *ex-post* protection without tackling the hazard factors that make it vulnerable. In fact, the vulnerability of a territory may become so great that it will no longer be possible at some point to make adequate provisions to deal with it.

A strategy of exporting certain risks can be implemented (De Muynck and Kampelmann 2018). This is the case for the ecological pillar when countries export their waste or fail to take into account the diffusion of metabolisms acting on natural resource flows between territories. It's also the case for the equitable pillar, when we defend the idea of the existence of a sort of champagne pyramid, which implies for the world bank (2009): "trying to diffuse economic activity means discouraging it.

But the fruits of development can nonetheless be widely shared in the sense that those who enter life far from economic opportunity can benefit from the growing concentration of wealth in a small number of locations". Doubling the size of cities has boosted factor productivity by between 3% and 8% a year in the United States, and by 0.42% a year in Europe at the NUTS1 level (the level of administrative regions in France). Exports can also take place within a given territory, between different sectors. For example, we can have a very modern, low-pollution steel industry, and a tourism industry that doesn't respect the region's vulnerability because it brings in a lot of foreign currency. This means that, while we can reduce the vulnerability of certain industries that are more present in the region, we need to adopt the most comprehensive strategy possible if we are to remain true to the SD approach. In particular, this helps to avoid rebound effects (Bourdin and Maillefert 2020). However, when the relationship between hazard factors and risks is difficult to grasp, we take ex-post vulnerability into account. This may be the case when there is methodological doubt about the origin of the risk (November 2002). The experience of COVID 19 has shown the role played by health systems in reducing the vulnerability of vulnerable populations.

There can be no good public policy without good indicators, which will serve as diagnostic and monitoring tools (De Boissieu 1980). They must also be tools for empowering the population and all local organizations, which will then be able to draw the consequences of their own actions on their vulnerability. Indicators must therefore be sufficiently intelligible to be able to relate the hazard factors of each risk to the area's vulnerability. They must be sufficiently aggregated, while covering all risks, to take account of their systemic nature. Reducing one risk may result in increasing another. This is why we have methodologically chosen to use two categories of indicators: synthetic indicators will be produced whenever possible. In other cases, dashboards will be used.

Recent episodes of rising temperatures in France, as well as the accompanying risks of fire and exceptional climatic events, have led us to focus on an indicator of the physical vulnerability of territories to climate change. The hazard factors for this type of risk are now well known. Environmental problems are essentially linked to the geophysical characteristics of the land and to the linear relationship established between natural resources and the economic system and land use that result from them. In this respect, we speak of entering an Anthropocene age, i.e. an age in which man's impact on nature is such that it is likely to modify the ecosystem balance. There are several indicators for measuring this impact. The first is the PVCCI (physical vulnerability to climate change index), which has been calculated over the past 10 years by FERDI and applied to various territories (Goujon and al 2023). Figure 1 shows its composition.



**Figure 1. Physical vulnerability to climate change index**

Source: <https://ferdi.fr/donnees/indicateur-de-vulnerabilite-physical-vulnerability-to-climate-change>

The indicator employs geographic and climatic variables that leave out ex-post vulnerability. The PCVI is therefore particularly relevant for identifying vulnerable territories that require special attention from the state, but also from the international community and, of course, from local authorities, which can act at their own level by developing their capacity to react to this type of problem and take protective measures. It captures risks corresponding to permanent and irreversible shocks (risks of flooding and aridity), and recurrent risks (temperature shocks, rainfall and cyclones). For these different risks, the components assess the probable amplitude of shocks and the degree of exposure to these shocks. The various components are standardized and aggregated, so that the CCSVI can be read on a scale of 0 to 100, enabling a comparison of the levels of physical vulnerability of territories to the main consequences of climate change. Hazard factors are now well known. There are, of course, elements linked to the physical geography of the territory - a desert will always be more arid than a plain located in the sedimentation basin of a major river. However, the impact of mankind must also be taken into account. For its part, ADEME (Agence de l'Environnement et de la Maîtrise de l'Énergie - French Environment and Energy Management Agency), which supports local authorities in implementing their strategies, has been developing a "Climate Impact" diagnostic approach since 2012 (now called "TACCT Diagnosing impacts" in the "Trajectoires d'Adaptation au Changement Climatique des Territoires" approach). Based on the same type of approach, it provides around a hundred indicators of exposure, sensitivity and adaptive capacity to risks (ADEME 2013).

Other indicators of physical or biological vulnerability can also be taken into account. To these physical risks we can also add purely technological risks, which involve negative action by man on man, even if there are consequences for nature in the process. The best-known example is the explosion at the AZF factory in Toulouse. We could also mention the problems of exposure to nuclear radiation, as was the case with the Chernobyl power plant. Measuring a region's vulnerability to this type of risk is straightforward. It involves taking into account the number of sites at risk. Some of these sites are classified as hazardous.

We can try to measure the impact of local public policies on the region's biodiversity. There is a systemic link between the vulnerability of territories to these risks and the impact of man on natural resources, which are also used by man. This is particularly true of the "health effect", which implies that by taking care of animals, we take care of man (Boidin 2023). Recognized risk factors include the artificialization of land, the exploitation of natural resources by man and their level of pollution, and internal ecosystem effects that result in an overabundance of certain species in relation to others. The French Committee for Biodiversity has produced an analysis of indicators that can be used at a territorial level (French Committee 2014). Here are the main elements, mixing ex-post and ex-ante vulnerability indicators:

- For the preservation of biodiversity and the protection of environments and resources, the following indicators can be used: areas identified as being at stake and covered by sustainable management measures, contribution to the national and regional ecological network, share and distribution of agricultural, wooded and natural areas consumed by the artificialization of land, average monthly consumption of drinking water per inhabitant, share of unpolluted water bodies, phytosanitary pressure, share of foodstuffs from organic farming or with high environmental value in public procurement;

- For the conservation and sustainable management of biodiversity and natural resources, we can consider: Natura 2000 sites, fragmentation of natural environments, common bird populations, state of fish stocks, artificial spaces, nitrates and pesticides in fresh waters, proportion of dwellings not connected to a wastewater treatment system ; To analyze territorial vulnerability at the level of the second pillar, we can start from the need for a certain degree of spatial justice to exist within a territory. Being sensitive to the need for spatial justice means wanting each region, each area, to have, if not equal, at least comparable opportunities in terms of training, income, range of jobs and quality of life" (Reynaud 1978, p. 35). The Territorial Equity Indicator (TEI) can therefore be analyzed as the need for economic development to offer diversified employment and public services across all areas of a territory, providing access to a range of sports, cultural and educational facilities, and so on. In fact, INSEE uses the term "bassin de vie" (catchment area) to designate the smallest possible territory in which inhabitants have access to the same range of facilities and services.

The statistic that best reflects this fairness in terms of jobs is the Gini coefficient. If jobs are evenly distributed across the territory, this coefficient

approaches 0. If the unit of surface area chosen is not m<sup>2</sup> or km<sup>2</sup> but a surface area corresponding to distance bands, Brown's formula must be applied to calculate it. The formula is as follows:

$$G = 1 - \frac{\sum_{K=0}^{n-1} (X_{k+1} - X_k) (Y_{k+1} + Y_k)}{n}$$

n is the number of slices, X is the share

n represents the number of slices, X is the cumulative share of surface area and Y the cumulative share of jobs. This index should be supplemented by the share of the population working outside the area, since it's conceivable that not all the working population can be employed by jobs located in the area, which is very often the case, if only by choice of the people themselves, who are simply seeking to benefit from the quality of life in the area where they live, and from less land pressure.

For facilities, we'll use an accessibility indicator. This can be based on average travel time to see if accessibility is improving (Bouba-Olga 2021). In our case, what is important is to analyze the reduction of a gap in relation to a category of the population which, being close to all the facilities, would take only a few minutes to reach them on foot. We make the quite plausible assumption that proximity to amenities depends essentially on the income level of the population, since proximity to amenities has an important role to play in land pressure. We will therefore calculate access times for different population categories in the area. The least affluent households will therefore have to spend a longer journey to get there. To avoid a cultural bias that leads certain categories of the population not to use certain facilities (the theater, for example), it is possible to limit the calculation to certain levels of equipment useful to all categories of the population.

The region can work with other local authorities and the state to reduce this gap for four levels of equipment corresponding to what the NATC National Agency for Territorial Cohesion (in French ANCT: Agence Nationale pour la Cohésion des Territoires) has defined on the basis of Christaller's theory of central places (classification available on its website). The first level concerns the simultaneous presence of a dozen everyday services and facilities, mainly personal services (hairdressing salon, restaurant, building tradesmen) complemented by an elementary school, a bakery and a nurse. The second level comprises around 20 additional shops and services, including a general practitioner, pharmacy, dental surgeon, post office, bank, gas station, supermarket, nursery school, secondary school, etc. The third level is made up of more structuring facilities: shops not found on the other levels, and facilities such as high schools, health services and a few sports, leisure and cultural facilities such as a cinema, swimming pool or fitness center. The fourth level includes almost all health services, supermarkets and specialized food stores, and public services such as the judiciary, the tax authorities, schools and universities, as well as sports, leisure and cultural facilities such as a theater, a conservatory, a museum, and a roller skating or bicross area.

Will the Human Footprint Indicator (HFI) be as we proposed in our book (Duez 2022).

The third pillar effectively involves analyzing what pushes man towards the post-human, the obsolescence of man, or the anthropological disqualification resulting from our way of life (Choay, 2011; Anders, 2011; Arnsperger and Bourg 2019). Two elements are at the root of this process. The first is the deinstitutionalization associated with the use of new technologies that dispense with co-presence, and the contestation and instrumentalization of democracy. It is no longer possible to live together. Violence thrives. Commitment to politics and associations becomes increasingly difficult. The second concerns a temporality that gives the impression of running out of time without ever being satisfied, and human activities that no longer have any meaning (Arendt, 1961; Rosa, 2010; Choay, 2011). It's the temporal equation that needs to be called into question, because its impoverishment "delivers beings to indeterminacy and almost to psychic and motor paralysis, to the total absence of any investment whatsoever of their experienced selves in anything. The result is malaise, life's misery and a guilty conscience". (Grossin 1996, p. 143).

Time to come, which is the time devoted to reflecting on the meaning of our lives, diminishes in relation to spatialized time, which is essentially that of work and related activities, including the time devoted to trying to save time or give meaning back to time (Zarifran 2003). Addiction and depression develop, as does a certain form of compulsive consumption. Measuring this type of effect at a territorial level is the most difficult to do, because it depends on human elements that are difficult to define, and corresponds to a profound change in our lifestyle (P. Duez 2022).

The indicator we have chosen is as follows:

$$IEH = \sqrt[n]{(X1 \times X2 \times X3 \times \dots \times Xn)}$$

*Source:* P. Duez (2022), "Habiter un monde plus humain", L'Harmattan, p 201.

This is already a synthetic indicator, taking into account markers of psychic vulnerability such as suicide rates, depression rates and psychotropic drug consumption. The resulting health risks are often at the intersection of the second and third pillars, if we think that the economic and cultural condition of certain populations exposes them more than others to this type of risk. It can also take into account markers for living together, such as violence against property and people per 1,000 inhabitants, or the voting rate among young people, for example.

### 3. Territorial SD strategic planning

The strategic planning of territories must pursue a triple objective: to embrace all the dimensions of a territory, to set it in motion through concerted action, and to coordinate and progressively implement actions according to an agenda (De Courson 1997). Adding SD objectives can only enrich the approach, especially if this planning is organized by the state to optimize its effectiveness. A number of studies emphasize the particular role of the state, which will find in this a means of

legitimizing its intervention in a context of disengagement from the welfare state. Indeed, it can be said that the state must focus on its role as risk manager (Gérard Varet and Mougeot in J.L Guigou and al 2001, p 74). It must be the guarantor of the long term and "ensure the management of economic, social and environmental risks, potentially creating situations that cannot be controlled locally, or resulting from unacceptable inequalities, sources of unsustainable development" (Guigou and Partenay in Guigou and al 2001 p 30). However, the modern risk-managing state must remain aware that its rationality in this area is limited, and decentralize its action by entrusting it to local authorities (Laffont 2000). The pursuit of SD thus becomes a powerful lever for action if it is integrated into management and planning practices at different scales (Pivot and Rychen, 2002 p 11). The French government is endeavouring to set a sufficiently coercive framework to encourage local authorities to plan their actions and work together. Most of these policies are part of a State-Region plan, based on calls for projects.

Let's start by saying that public policy on risk is very much focused on environmental planning.

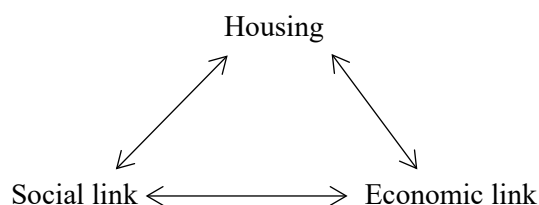
In France, environmental planning is part of the public action to adapt to climate change launched in 2011 following the Grenelle Environment Forum. It is also part of the climate negotiations organized by the UN, where states have signed up to a number of commitments, notably to reduce greenhouse gas emissions. At regional level, this plan is reflected in the development of action plans grouped under the Schémas Régionaux Climat Air Énergie. The 2015 Law on Energy Transition for Green Growth (LTECV) entrusts the preparation and implementation of territorial climate-air-energy plans (PCAET) to public establishments for intercommunal cooperation (EPCI), on a mandatory basis for those with their own tax system and more than 20,000 inhabitants. The 2021 climate resilience law will provide for a series of measures affecting transport, housing, renewable energies and food. In this context, a national food, nutrition and climate strategy will be put in place. This strategy will be implemented at local authority level through the creation of territorial food projects. There are many issues at stake. They include a public health dimension that also touches on the fairness pillar, given that the most disadvantaged populations have a diet that is not always healthy. Of course, there are also environmental issues, given that agriculture is a major consumer of natural resources. These plans are built on the basis of calls for projects, enabling a collective commitment to be made within a given territory.

The French government is not content to simply involve territories in the ecological transition. The 2017 law provides for companies to introduce an obligation of vigilance and a plan to pursue CSR objectives. It "requires large companies to establish a vigilance plan to prevent and mitigate the risks of infringement of fundamental human rights throughout the global chain" (Hatchuel and al, 2021, p 188-189). The 2019 Pact Law goes further, asking companies that so wish to enter into mission in other words, to include CSR objectives in their strategy, to have the support of shareholders, and to provide for appropriate monitoring of the achievement of objectives.



There are fewer territorial public policies that fall under the fair trade pillar. However, they have been around longer. Under the impetus of the ERDF and the DATAR, local authorities are implementing plans for the conversion and development of areas facing major economic difficulties. This type of policy involves the financing of facilities that are likely to restructure these areas. For example, the former Nord-Pas-de-Calais region, which had lost 250,000 jobs between 1972 and 1993, benefited from joint funding from Europe and the French government to bring the Louvre to Lens. The aim was both social and economic, since it was to initiate a reconversion to the cultural economy in this very old industrial region and put an end to the "black ideas" (Duez 2019).

The most important of these policies concerns urban policy. The events in the Minguettes suburb of Lyon in the early 1980s were a trigger for this type of policy. Recent events show that the suburbs are still "on fire" and that this type of territory remains vulnerable despite the billions invested. These policies are based on the joint activation, or lack of it, of three pillars that constitute the risk factors for the disqualification of certain neighborhoods. These can be summarized as the triangle of exclusion (Chaline 2006).



**Figure 2. The triangle of exclusion**

*Source:* based on P. Chaline, "Les politiques de la ville".

Urban policy has been the subject of numerous reports, sometimes focusing on the economic pillar, sometimes on the housing or social pillar in the fight against exclusion. Yet the logic of the triangle implies simultaneous action on all three pillars. This has given rise to major urban renewal projects aimed at changing people's living environment and removing the bars considered to be responsible for exclusion. In the economic sphere, we have created urban tax-free zones to attract investors to the neighborhoods. A policy of supporting entrepreneurship can also be implemented via support structures. For example, the BGE has developed a "creation bus" operation that travels around the disadvantaged neighborhoods of the Arras urban community to encourage people to develop their entrepreneurial spirit. The idea is, of course, that unemployment is a factor of exclusion. A policy of developing associations to defend the identity and culture of the local population has been implemented to rebuild social ties in these neighborhoods.

In addition to the difficult neighborhoods identified by the government, the latter is targeting social housing in general at regional level. The Besson Act of 1990 established a genuine right to housing for disadvantaged groups. It also introduced

the obligation to draw up a departmental action plan for housing disadvantaged people. The 2000 law on solidarity and urban renewal took up the baton and gave concrete form to this right, setting an obligation for communes of over 3,500 h (1,500 h in Paris) belonging to inter-municipal bodies of over 50,000 h to build 25% social housing, failing which they would be penalized. Outside these neighborhoods, the State is also targeting the economic link through the territorialization of employment policies. The aim is to facilitate the activation of innovative approaches to employability (Berthet 2010). These are active employment policies, not RSA-type policies aimed at the social treatment of unemployment. These policies can be at the heart of territorial projects, particularly when it comes to adapting the training system to the needs of the territory, to facilitate matching as part of a territorialized management of jobs and skills (Tabet 2022). There is also an obligation to draw up a multi-year local plan for integration and employment. These were born out of the 1998 *Loi d'Orientation pour la Lutte contre l'Exclusion*. The aim is to develop the employability of people excluded from the job market by offering them a pathway to employment. They are built in partnership with a number of institutional players involved in training or employment support. Players in the social economy are particularly mobilized in this area, in response to calls for projects from the European Social Fund, the department responsible for the social aspect in France, and the region, which coordinates the whole.

Public policies relating directly to the third pillar are virtually non-existent. This is of course due to the difficulty of defining what is human and what is not, and to the fact that this type of policy is based on individual and collective choices that must lead to a transformation in our lifestyles. This means that they can be derived from policies under the other two pillars. Some human problems do indeed relate to the vulnerability of certain populations, which health policy helps to resolve. As for regional planning policy, which aims to rebalance economic development, it enables us to pursue the objective of spatial justice and, at the same time, improve people's time equation by providing them with jobs close to home. This reduces pollution and stress, and increases family time (Duez 2022). The only policy that can be directly linked to this, even if it is not the stated objective, is temporal policy. The *Turco* law of March 2000 provides for the creation of time offices in major cities, to help rebalance time between work, leisure, family time and so on. In our opinion, this underdeveloped policy remains far too focused on gender issues and not enough on the temporal equation (Vassalo 2005). It remains focused on the problem of saving time and not on the destination of time (Mallet 2013).

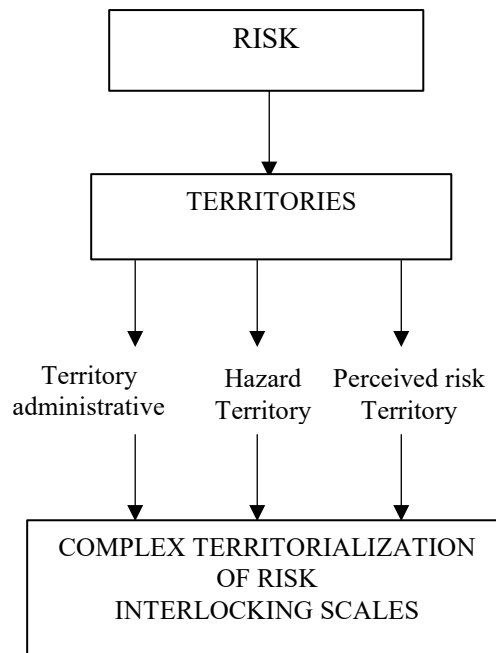
#### **4. Elements of SD territorial planning performance**

The literature on vulnerability stresses three aspects, which we will take up in turn: the importance of decompartmentalizing the three pillars in the perspective of an integral ecology; the importance of territorial governance; the importance of economic decoupling in the perspective.

We must at all costs avoid compartmentalization between the various SD pillars (Duez, 2022; Boidin, 2023). This is, of course, because risks are systemic in nature, which means that it is difficult to reduce one risk without increasing another. The reasons are sometimes ecosystemic. There is, for example, the "one health" argument, which implies that defending animal health while maintaining biodiversity has positive effects on human health and, consequently, health risks (Boidin 2023). The links are above all ethical and political. The environmental policy of improving the French car fleet and promoting soft mobility is incompatible with the financial situation of certain categories of the population who cannot do otherwise. The Yellow Vests movement is undoubtedly rooted in this demand, which is undoubtedly driven by urbanites who can be described as "bobos" and who have had access to this type of mobility. The fact that they are located in the traffic circles that provide access to certain places is symbolic of their condition in terms of mobility. In this respect, we can speak of a political risk (Sébastien 2017). The failure encountered by the ecotax policy falls under the same type of risk that led to the "bonnets rouge" movement and the mess of ecotax points implemented by the state to control its payment.

Public policy failures linked to ethical issues are just as resounding. Urban policies, for example, have accounted for between 0.5 and 1.5 points of GDP on average over the past 40 years, and have failed to stem the rise in violence, gang wars and radicalization of certain population groups. The resources spent on improving people's living conditions (second pillar) run counter to the ethical requirements of the third pillar, and even the second pillar, through the positive discrimination they imply. Taking into account the principle of hominization and anthropization reveals ethical problems that can be associated with environmental policy (Berque 2009). It has to be said that the analysis of the ecumene makes it possible to pose ethical problems (Tissier 2014). The principle of anthropization evokes the way in which man uses nature to satisfy his needs. In the name of developing "smart grids" to regulate energy, smart cities can produce cyborg cities where aging is forbidden (Picon 2018). It is indeed the third pillar that is being ignored in the name of the first. As for the principle of hominization, it will situate man in nature. In the same way, environmental policy can lead to "transhumanist" theses if we believe that man is above nature and will always find technological solutions to the ecological problems posed by his existence (Borstrom 2005). In fact, we argue that the third pillar is the most important in the perspective of integral ecology, since it must be associated with a change in lifestyle that will reduce flows and replenish natural resources (Arnsperger and Bourg, 2016; Bourg, 2019).

Spatial planning policy will act as a risk duplication mechanism, reducing the hazard for each territory. The first problem to solve is to find the right spatial scale. This is important, as choosing the right scale means duplicating the risk, in other words, dividing it up to reduce it more easily (Louisot 2005). Figure 3 shows the different scales according to risk theory.



**Figure 3. The different spatial scales**

*Source:* The author based on Y. Veyret et al "théorie des risques", 2004

The administrative territory retained by public policy is not necessarily the hazard territory, which may be broader. The literature shows, however, that it is the most effective in functional terms for mobilizing populations and increasing the effectiveness of public action. In fact, it is possible to align the administrative territory with the perceived territory through the implementation of a shared diagnosis. When it comes to technological risk, we all know that when an atomic power plant explodes, the cloud will not stop at the French border. The effectiveness of local public policies depends on the rationality of the administration and citizens. The territory of perceived risk refers more to the behavior of populations, who may overestimate the risk (the distortion is positive) or underestimate it (the distortion is negative).

In the case of undervaluation, environmental policies have little chance of success. They are conditioned by a very long external delay. This delay corresponds to the period between planning and the reduction of the territory's vulnerability (De Boissieu 1980). To this must be added the well-known phenomena of irreversibility in terms of metabolism, which implies a reaction from public authorities and citizens before it's too late. Decisions cannot be totally rational in the economic sense. Some studies have attempted to carry out cost-benefit analyses, requiring the use of highly sophisticated methodologies, in order to compare, for a company, the benefits of taking ecological or social action, or of not taking action (Chiroleu-Assouline 2006). Economists have even invented weak and strong sustainability to make room for

rational calculation on resources that remain scarce but whose management can be rationalized without running risks (Boisvert and al 2019). As far as the market is concerned, the idea of creating a market in pollution rights has gained ground. Legislators have abandoned this idea of trusting in the rationality of the market to select the best practices, and are now proposing that companies enter into the mission (Hatchuel and al 2021). The fact remains that average citizens are often victims of the amortization fallacy (Dupuy 1994). In the absence of total certainty about the effects of public policies and their decisions, instead of applying the precautionary principle, which means taking into account the risk of irreversibility, they will prefer to cushion the multitude of decisions that have led them to the situation they find themselves in. In other words, they will prefer the status quo.

By decentralizing risk management, we can then duplicate it, in other words, reduce it by acting at different spatial scales (Louisot 2005). The effectiveness of decentralization in the area of risk management stems from the fact that risks are collective in nature, because they are managed by a dynamic group of actors operating at local level (Brugnot, 2001; Pivot and Rychen, 2002). Even if there is no well-defined reference territory, spatial planning policy must lay down the rules for sharing responsibilities and conducting public policy in this area (Gérard Varet and Mougeot in Guigou and al, 2001). In particular, this is absolutely essential to reduce information asymmetries, which can be at the root of a refusal to face up to risks or to pool means of action (Pivot and Rychen, 2002, p. 37). We know, for example, that the performance of the circular economy increases sharply when a strategy of symbiosis is put in place at territorial level (Bourdin, and Maillefert, 2020; Dermine-Brullot and Torre, 2020). In particular, this helps to avoid the rebound effects mentioned above. It also avoids situations corresponding to "green washing", because the ethical requirements are higher. There are several schools of thought on the effectiveness of territorial SD policies (Michaud 2011). These are not contradictory. There is the school of transaction costs. There's talk of reducing the costs of information and control between players who might not fully play the game. In the proximity school, we talk about increasing trust thanks to the proximity of values. The territorial identity that can be built up plays the role of cement in relations between the various players. In addition to these two trends, there is the important current of the collaborative economy in the management of the commons. It emphasizes the superiority of self-governance over public and market regulation when it comes to the collective management of goods such as water and natural resources in general (Ostrom 2010). The role of the SSE in the implementation of this type of strategy is particularly important, given its propensity to create solidarity mechanisms between local players on a variety of issues. It has to be said that social responsibility is part of their DNA as militant organizations (Huybrechts and al, 2006 ; Persais, 2006). The superiority of SSE organizations can be explained first and foremost by their governance, but also by their ability to have a less utilitarian ethical attitude, which protects them from the risk of "green or social washing" (Maisonasse and al 2019).

The introduction of economic decoupling seems a necessity if we are to reduce the increase in the flow of natural resources used by man to a growth rate of 0.5% -1% per year (Bourg 2019). Georgescu Rogen even predicted a decline in order to achieve this. It is also feasible from the perspective of improving spatial equity and reducing anthropological disqualification. This presupposes an ambitious spatial planning policy (Duez 2022). The aim is to give priority to medium-sized cities, as this will increase spatial equity - populations will have easier access to a certain number of facilities and jobs - while reducing the quantity of resources used and improving people's well-being. Violence and stress, for example, are reduced. The aim is also to encourage increasingly local development. This avoids the skimming of local resources by companies acting as "space takers" (Duez 2008). It creates jobs close to local populations, with all that this implies in terms of quality of life. The creation of an economic fabric made up of small businesses, in particular by supporting entrepreneurship rather than welcoming foreign direct investment, seems a better solution.

## 5. Conclusions

We are convinced that all the transitions planned within the framework of public policies cannot be resilient without a change in private and public lifestyles. Even if democracy is not just that, it is also a framework guaranteeing a certain form of consumption that is responsible for a number of problems encountered by citizens (Fontaigne and Vigna, 2019). The advent of an economy of frugality and conviviality is undoubtedly easier to implement at the level of territories where citizens are also people capable of living differently than by destroying nature, running out of time, seeking to consume more. This brings us back to the crescentic hypothesis that has been strongly criticized in the literature on the circular economy. Democracy also guarantees equality under the law, via the Declaration of Human Rights. But this cannot be a policy (Gauchet 1980). We can therefore say that resilience to certain risks will require a revision of the democratic pact, and not just the recognition of a state that needs to decentralize.

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