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valuation & characterization of environmental damage to wáter in France

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This synthesis «**Valuation & characterisation of environmental damage to water in France**» was performed by **Charles Desmottes**, student in the AgroParisTech-ENGREF specialized master "Water Management" (post-master degree) in Montpellier.

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TECHNICAL SYNTHESIS

Valuation & characterization of environmental damage to water in France

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ABSTRACT

Valuation & characterization of environmental damage to water in France

The current French legal framework towards environment protection doesn't acknowledge the existence of environmental damage and cannot ensure its repairs. This fact is illustrated by several recent official reports: 2010 Conseil d'Etat report, 2013 Lepage report and 2013 Jegouzo report. This situation is unacceptable considering the EU WFD objectives.
The water police, which has been reformed since 2010 as well as other environment police structures, performs many controls every year to protect the environment from human activities. Nevertheless, administrative and/or judicial proceedings are most of the time not dissuasive and repairs aren't followed-up correctly.
Some new reforms which have been proposed by experts are studied to be implemented and should help to better protect the environment using more dissuasive sanctions and a better follow-up of repairs.

Keywords
Environmental damage, water, law, legal framework, environmental law, environmental policy, repair, environmental protection associations, penal justice, civil justice.

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ABBREVATIONS

ARS : Regional Health Agency
Env.C : Environmental Code
CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act (USA)
DCE : Directive Cadre sur l'Eau = WFD
DDT(M) : Direction Départementale des Territoires (et de la Mer)
DREAL : Direction Régionale de l'Environnement, de l'Aménagement et du Logement
EPA : Environmental Protection Agency (USA)
ICPE : Installation Classée Pour l'Environnement = Classified installations for the protection of the environment
IRSTEA : Institut national de Recherche en Sciences et Technologies pour l'Environnement et l'Agriculture
LEMA : Loi sur l'Eau et les Milieux Aquatiques
LRE : Loi sur la Responsabilité Environnementale = Environmental Responsability Law
NEPA : National Environmental Policy Act (USA)
ONEMA : Office National de l'Eau et des Milieux Aquatiques : National Agency for Water
ONU : Organisation des Nations Unies = UN : United Nations
WFD : Water Framework Directive (= DCE)
WHO : World Health Organization

INTRODUCTION

The development of human societies is intimately connected to their relationship with nature and natural resources. Among all elements, water has been a determinant vehicle for progress: water as a base for life, as a base for well-being, and then as a source of energy for economic development. Water from rivers has been used as irrigation for agriculture, also to produce energy by rotating water-mills. Water as a solvent enabled industrial development and was used as a cooler in plants, like nuclear plants for example. Technical development brought new risks, from chemical components used and created and sometimes from lack of process control. Humankind was itself a victim but also its environment, fauna, flora, water, air & soils. In order to make our society enter into the sustainable development era, it is now essential to reduce our impact on nature. This will be possible through controls on environmental damages: prevention, sanctions, repairs.

This synthesis focuses on the way human impacts on environment are dealt with by administrative and judicial authorities. The first part explains the construction of the environmental damage concept in France and compares its current use in France with its use in the USA. The second section shows the use it is made of by French jurisdictions, from controls to judicial pursuits. The final part concludes on the efficiency of current systems and discusses the foreseen reforms with their expected effects.
This work is based on literature and several interviews with selected actors.

"It's only in the way that environmental damages are repaired that it is possible to consider that a respective policy to environmental law is engaged" (Jegouzo et al., 2013).

1) ORIGIN OF THE ENVIRONMENTAL DAMAGE CONCEPT

A. ORIGIN OF THE CONCEPT IN FRANCE AND EUROPE

Throughout the 19th century in France, and from the beginning of the industrial era brought the creation of a "Classified installation for the protection of the environment" decree. At this time, punished spills were the ones that affected piscicultural life. It was mainly based on a control by administrative authorities or submission to civil court by local residents asking for financial repairs in the name of "felt nuisance".
The Fishery Law in 1859, spread to industrial activities by the Court of Appeal in 1859, toughened legislation against polluters by making penal proceeding possible. Nevertheless only few cases of legal proceedings took place until the end of the 19th century. Inflicted sanctions were anyway not dissuasive in most of cases for polluters because of low fines (Drobenko, 2014).
Penal lawsuits were often replaced by administrative settlements after 1897. It consists in an agreement between public jurisdiction and the polluter, in which the polluter pays a fine and damages[1] to victims. Settlements have been formalized by a law in 1949, inscribed in the "Code rural" in 1959 and even encouraged by a circular in 1970. This agreement avoids penal suits for polluters and enables the Administration to deal with affairs 'in a rapid and constructive way." It isn't however a dissuasive sanction (Cuif et al., 2010).

French water law is based on property rights with a constant evolution driven by the development of control of uses. This is illustrated by the April 8th 1898 law. The way environmental damages are treated until now is influenced by this founding principle (Drobenko, 2014).
Industrial development and the higher frequency and greater gravity of environmental damages made the political class to **draw up the first Water Law**, passed on December 16th 1964. In addition to the creation of six watersheds and their associated water Agencies, this law promulgates for the first time the **"polluter pays" principle**. It is interesting to notice that the European Charter on Environment and Health from 1989 (WHO) makes reference to this principle as well (Jegouzo et al., 2013).

During the 70's, the European Community worked on the protection of the environment and natural heritage. Thus, in 1973, during a meeting in Paris aiming at establishing the first European program for environment, States representatives declared that specific attention will be given to non-material items and to environmental protection in order that progress serves human interest." (Drobenko, 2014).
Then, in 1975, the Parliamentary Assembly of the Council of Europe made recommendations concerning "responsibility for environmental damages" that seem visionary today taking into account current foreseen reforms in France. It emphasises "the necessity to consider in civil-law the introduction of objective responsibility for environmental damages or a responsibility based on risk, creation of a damages fund and the acceptance of collective actions." (Jegouzo et al., 2013).

From the '90s, it is interesting to observe the international and especially the European influence on French legislation concerning **environmental responsibility**, demanding to prevent and repair environmental damages.

On an international scale, this principle was mentioned in 1992 during the Rio conference (13th principle), in 1998 during the Aarhus convention and in 2002 during the Earth Summit 2002 in Johannesburg where Kofi Annan, Secretary-General of the United Nations, declared "if we are to achieve sustainable development, we will need to display greater responsibility for the

[1] Dommages et intérêts

ecosystems on which all life depends […]". It was also mentioned in 2003 during the Kiev protocol on Pollutant Release and Transfer Registers. More recently, conclusion of national reports for Rio+20 pointed out the necessity of "robust responsibility mechanisms" (Jegouzo et al., 2013).

On a European scale, the Parliamentary Assembly of the Council of Europe (PACE) submitted several recommendations between 1999 and 2003. They led to the creation of **2004/35/CE Directive** of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage.
The **EU Water Framework Directive (WFD)** passed in 2000 is also determining as a frame for sanctions. Indeed its 23rd article says that penalties for breaches of the national provisions adopted pursuant to this Directive shall be "**effective, proportionate and dissuasive**." This qualification has since been used as a standard to discuss the efficiency of newly-passed laws concerning environmental protection.

The French Framework for the environment and more specifically for water derivates in its major part from the transposition of European Framework (Thénault et al, 2013).
When we focus on France after 90's, two founding events in the advent of environmental damage can be extracted. The first one is the **Barnier law**, given from Michel Barnier, French Minister of Environment at this time. It modifies article L110.1 of Environmental Code by claiming that "natural areas and their resources, sites and landscapes, air quality, animal and vegetal species, diversity and biological equilibrium to whom they contribute, are **part of the national heritage**". Environmental Code also says at article L210-1, more specifically, that "**water is part of our national heritage**" (this derives from the first Water Law, 1992). Article L142-2 of the Barnier law also enables registered associations for environmental protection to ask for repairs of environmental damage (Gatet A., 2014).
The second one is the inscription of **Environmental Charter** in the preamble of **French Constitution** on March 1st 2005. By its fourth article, this charter gives foundations to the environmental damage principle. This article claims for the first time in an explicit way that "anyone who has been responsible for a negative impact on environment must contribute to repairing it, following a legislative framework" (Jegouzo et al., 2013).

Nevertheless the most progressive French law from the last decade, as far as environmental protection is concerned, is undeniably the **transposition of the 2004/35/CE Directive** into the French Framework in 2008. It became the **LRE** (Loi sur la Responsabilité Environnementale = Environmental Responsibility Law). This law, by modifying article L162-2 of Environmental Code, defines « pure environmental damage » as « a direct or indirect deterioration measurable in environment which […] impacts severely the ecological and chemical condition or the ecological potential of water […] impacts severely some species or their environment in their conditions of maintain or reestablishment, […]" (Ministère, 2014).
This law also enables the creation of an environmental responsibility regime, in parallel of penal, civil and administrative regimes.

The French version of 2004/35/CE Directive reveals however many shortcomings, which can be explained by the urgent situation in which it has been transposed (Ribot C., 2014). The EU did indeed fix a deadline for member states to include this law in their framework before April 2007. After being put on notice by the EU, France delivered its transposition in August 2008. No cases of application of LRE have yet been observed since 2008, which well illustrates its deficiency(Jegouzo et al., 2013).

Main drawbacks mentioned are: (Jegouzo et al., 2013)

- Application of this law is mainly based on complicated decisional techniques putting at stake special administrative polices and Prefects. It doesn't imply any civil responsibility.
- Many temporal and material exclusive conditions interfere with repairs of damages.

- Connection between the power of newly established polices and existing environmental polices (25 already exist) seems too complex."

The current position is that **French law doesn't specify the existence of environmental damage**, even if impacts on the environment are recognized (Ribot C., 2014) (Cf. infra for detailed explanation).
On top of that, repair of environmental damage is today not possible in French civil law. Only a damage caused to a subject of law is repairable.

Taking into account these legislative limitations, case law is today a powerful tool, using the Erika case in 2012. Indeed, by this judgment, the criminal chamber of the Court of Cassation recognized in civil responsibility, the existence of an environmental damage and its possibility to be repaired, which justified a severe punishment of TOTAL SA." (Jegouzo et al., 2013).
Legally speaking case law is less powerful than law statutes, but can still be used by judges to build their judgments.

B. IMPACT AND DAMAGE – ENVIRONMENT AND ECOLOGY

In English, the word "damage" represents "impact" and "damages" whereas in French two different terms are used: "dommage" and "prejudice".
To clearly understand the issues set out in this report, it is important to understand the difference between what an impact and a damage means as far as the law is concerned. Also "environmental" and "ecological" adjectives need to be differentiated (Ribot C., 2014) (Gatet, 2014).

An impact, "un dommage", is an incontestable fact, like dead fish in a river for example.
A damage is a detriment to somebody that is based on an impact. It can be material, economic or moral. It is the duty of a judge to determinate the existence and the field of damage, as well as the way it can be repaired. Hence an impact doesn't cause a damage in all cases.

The key issue of this report concerns **« pure » ecological damage,** « eco-centered », dealing with eco-systems. This must be differentiated from environmental damage which, on top of the ecological damage, contains "anthropocentric" damage, dealing with humans and their estate.

To clarify this, the expert group directed by Pr. Jegouzo proposes a definition of an **environmental damage** as the one that "results from a damage to the elements and the functions of ecosystems as well as to collective benefits drawn by humans from environment and excluding explicitly individual damages and some collective damages (listed in article L142-1 C.Env) which are repaired according to common law." (Jegouzo et al., 2013).

C. THE ENVIRONMENTAL DAMAGE IN THE USA – COMPARISON WITH FRANCE

The environmental damage principle doesn't have the same meaning in France and in the USA. Comparing judgments of monetary punishments in the case of oil spills in both countries is sufficient to illustrate this (Fourcade, 2011) :

Year	Incident	Oil spilled	Judgments
1989	Exxon Valdes Alaska (USA)	30 000 t	> 3 billions USD
1979	Amoco Cadiz Bretagne (France)	227 000 t	200 millions USD

1999	Erika Vendée and Bretagne (France)	18 000 t	370 millions USD

Damages to nature are thus treated in a very different way by those two nations. First of all, monetary punishments, as set out above, are clearly more **dissuasive** in the USA than in France.
This can be partly explained by the place of Nature in respective societies, illustrated by who speaks in the name of nature during trials. In the USA, natural resources, national parks, are owned by the government. This is an heritage of American history, when settlers took the land from Natives "with very few conflicting personal claims on land" (Fourcade, 2011). Damaging nature is hence equivalent to damaging the entire society, to the "Public Trust". In the case of the Exxon Valdes oil spill, the monetary award was calculated as the sum of awards for the whole American population (Fourcade, 2011). In France, the seas and water in general are "res communis", which means they belong to the community, whereas fauna (except protected species) is "res nullius", which means it doesn't belong to anybody. This principle was inherited from the Romans (Drobenko, 2014). Therefore, plaintiffs who ask for repair are associations which only represent local users of the shoreline. Monetary awards are thus much lower.

The American framework for environmental protection was strongly reinforced since the 70's. Three major milestones are to be cited. In 1969, the National Environmental Policy Act (NEPA) claims the need of monetizing environmental damage, or, when it is not possible, to neutralize or compensate them (Bouleau G., 2014). Then, in 1970, **the Environmental Protection Agency (EPA)** was created, which is an independent agency from the US government. It was followed, in 1970, by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) also known as « **Superfund** »[2].This fund is financed by taxes and is used to repair damaged natural spaces when polluters have not been found or cannot pay.
American judicial dissuasion is also shown by the way EPA tracks "environmental fugitives". Those outlaws are listed on the EPA webpage with a "WANTED" sign that refers to the Far-West stories (Thénault et al, 2013).

[2] http://www.epa.gov/superfund/policy/cercla.htm

2) USE OF THE ENVIRONMENTAL DAMAGE PRINCIPLE

A. REPORTING OF ENVIRONMENTAL DAMAGES

a) Which impacts on the environment?

Environmental damages to water resources can be classified in different types. Each requires a different approach for its treatment:

- **Past pollutions** are a tough topic, since most of the time there is no polluter known or nobody to pay for it in case of orphan sites.
- **On-going pollutions**:
    - **Temporary pollutions**:
        - **Authorized**, such as emissions from classified installations (ICPE, *fr*) which are permitted with a prefectural authorization.
        - **Accidental**, following road accidents, cleaning, malevolence, etc…
    - **Diffuse pollutions**, generally originating from agricultural activities (pesticides, etc…), but also from inefficient private sewage, etc…

b) Who can report an environmental accident?

The initial responsibility for reporting an accident affecting the environment is the person responsible for the accident itself. This rule is written in the Environmental Code at Art. L162-3: "In case of imminent threat of environmental accident, manager of operations takes immediately and at his own expense preventive actions in order to prevent its appearance or to limit its effects. If the threat persists, he informs without any delay competent authorities (stated in art L.165-2) of the threat nature, preventive actions undertaken and their results." (Ministère, 2014).

The person responsible for the pollution might make the decision not to declare the accident, either because he is not aware of it or because he prefers intentionally not to declare in order to avoid punishment. In this second case, it might be the result of a probability to be caught calculation vs. estimated profits coming from polluting activities (detection rate * average fine) (Thénault et al, 2013).

In this case, reporting of an impact on environment can be made:

- By **any citizen**, in the name of the second article of Environmental Chart which states that "everybody has the right to take part into preservation and improvement of environment." Environmental Code also stipulates in L211-5-1 article that "the local prefect and mayor have to be informed, in a short delay, **by any person who knows** about any incident or accident representing a threat for civil safety, quality, circulation, of conservation of water." (Drobenko, 2014). Citizens can report their observations either to local authorities or inform an association for the protection of environment.
- By any State representative with the authority of water police, which means:
    - A mayor or a prefect
    - An environmental inspector (grade created in 2012[3]), public agents from national agencies (DDT(M), ONEMA, ONCFS, DREAL), national parks, (…). They have to be mandated by the administrative authority and have also to take an oath. Former inspectors of classified installations (ICPE) have been attached to the environmental inspector corps.
    - Gendarmerie officers in their judicial police role.

[3] Ordonnance n° 2012-34 du 11 janvier 2012 portant simplification, réforme et harmonisation des dispositions de police administrative et de police judiciaire du code de l'environnement

In the past, before fishery officers were in their majority integrated to ONEMA, their presence on the field and their keen knowledge of rivers was an important asset for the effective reporting of pollutions.

c) The organisation of controls

The organization of environmental polices is complex because they are many (25), decentralized (regions and departments) or attached to public institutions (ONEMA for example).
Bad results were reported until 2010 for environmental controls, hence the Ministry of Ecology claims in its November 12th 2010 circular the necessity to "strengthen controls and to better coordinate the intervention of different services and institutions responsible for missions of water and nature police" (Ministère, 2010).
To ensure this, "regional prefects will set a regional monitoring of controls policy and will entrust to DREAL the organization of a network with all services responsible for environmental police."
The rganization of police controls is the responsibility of services at departmental scale. The intervention of decentralized services and public institutions in charge of those polices will take part in the framework of **an inter-services program.** The creation of this program and its follow-up will be held by DDT(M) (under authority of the prefect) as part of an inter-service mission for water and nature (MISEN, *fr)* or inter-service mission for environmental polices (MIPE, *fr*). This control program will have to be **validated by local prosecutor(s) and the local prefect**" (Ministère, 2010).
The goal of this control program is to set "the objectives as well as ways and means of controlling actions (office and field) from environment polices." Each service then determines its own "controls program" in conformity with the departmental program. (Ministère, 2010).

d) How to show evidence of an offence to the environment

Once an impact on the environment has been reported, there is a necessity to look for polluters and to show the evidence of their **responsibility in the offence**, which means showing **fault, causality and damages.** This in turn enables the writing of a non-compliance report or a report of evidence.
There are two solutions to show the evidence:

- by **catching in the act**: it enables to show the evidence without possible dispute
- by **investigation** : in this case, it is often very complicated for environmental inspectors to show the causality.

(Monnier D., 2014)

B. HOW ARE OFFENCES TO THE ENVIRONMENT TREATED?

In its November 12th 2010 circular, the Ministry of Ecology demands that "as much as possible, all controls should be followed by pursuits […] in order to get out of the non-compliance situation" (Ministère, 2010).
Sanctions have several roles (financial, repairs, dissuasion) (Thénault et al, 2013) and must be in line with the criteria mentioned in art. 23 of the EU WFD: "effective, proportionate and dissuasive." Without any dissuasive sanction, "states are destined to treat an increasing number of offences, which is very costly and time-consuming." (Thénault et al, 2013).

There are different ways for administration and justice to proceed with offences to the nature:

- **Administrative proceedings** from the water police under the authority of the prefect. It starts with a formal notice to comply with the rules. This notice happens before any administrative sanction is decided.
- **Judicial proceedings** from water police under the authority of the public Prosecutor:

- In the case of a minor offence (cat. 1 to 4), only a **fine** is affected by the environment inspector to the polluter. Its amount is fixed between 38€ (cat.1) and 750€ (cat.4) by the French penal code (Art. L131-13).
- Proposition for a **penal** settlement
- **Penal and/or civil proceedings**

French Ministry of Ecology proposes a diagram showing those different ways. (cf. ANNEXE I)
The decision to choose one way or another is oriented by a **quadripartite agreement**, signed between public institutions of water police (ONEMA, ONCFS), the court and the prefect. The functional organization for administrative proceedings is driven by a tripartite agreement between ONEMA, ONCFS and the prefect (Monnier D., 2014). Those agreements fit the requirement of not overburdening courts with minor cases to the detriment of more important ones.
For some reasons, often political, prosecutors can ask the water police to lighten or avoid their controls regarding some topics for a certain time. This is the case for controls in the agriculture sector, namely for nitrate controls, because of possible virulent reactions like manure spreading in front of official buildings (Monnier D., 2014).

France reformed its environmental police and conditions of administrative and penal proceedings in 2012 by the 2012-34 order, dealing with simplification, reform and harmonization of administrative and judicial police dispositions towards the Environment Code.

a) Administrative proceedings

i. Administrative proceedings under the authority of prefects

When administrative proceedings are decided by a prefect, an administrative negligence report is sent to the polluter, who can add his comments. Afterwards a **formal notice** to comply with rules comes if the first report was not sufficient.
"If, at the end of the **formal notice** delay, its recipient has not complied with rules, the prefect can apply measures in order to stop and repair the environmental damages." (Drobenko, 2014) :

- Demand a money deposit, equivalent to an estimation of the required work to be realized,
- Compulsory actions, driven by the prefects,
- Suspension of business activities,
- To order a fine with a high limit at 15 000 € and a daily penalty payment with a high limit of 1 500€. "Fines and penalty payments are proportionated to the gravity of offences and take into account the importance of the damages to the environment." (Environment Code, L 171-8.)

All those measures and sanctions are governed by Environment Code, Art. L171-6 to L171-12.
This procedure can take place on its own, before or in parallel of judicial proceedings.

As stated by prefect Mr Thénault during a symposium at the Conseil d'Etat, "measures from administrative police are part of companies' life", especially classified installations, which are regularly in contact with DREAL inspectors. Judicial proceedings happen much more exceptionally (Thénault et al, 2013).

It is possible to consider the reconditioning of damaged lands as a part of the sanction since the January 10th 2012 order, which modifies Art. L171-7 of Environmental Code. It is nevertheless a difficult measure to implement (Thénault et al, 2013).

How efficient are administrative sanctions?

They can reach high amounts of money, particularly in case of money deposit, up to several hundreds of thousands of euros (Thénault et al, 2013).
Apart from this special case, dissuasion seems to be **rather low** for several reasons. First, the **judgment isn't published** in local or specialized newspapers (unless specified, rare) unlike judicial judgments, which limits the moral punishment. Secondly, proceedings cannot affect a **physical person** if a possible screen from a moral person exists. Thirdly the **socio-economic context** of the area is a limitation factor for sanctions. Prefects are indeed the local representatives of the French State, therefore they face all local issues, like economical attractiveness, employment, well-being, etc… Local authorities often "selfcensor" their decisions towards companies which present weak economic health. By inflicting them a severe monetary sanction, authorities risk to push the company in a situation where the only solution is a definitive suspension of activity, and therefore the risk to create an orphan site, in many cases polluted. In this case, depollution is to be supported by society (Thénault et al, 2013).
Administrative authorities are sometimes torn between socio-economic constraints and their responsibility to protect the environment. French State has already been attacked and sent to administrative court by associations for failing in their obligations. This was the case recently for "green tides" (green algae tides), when users of the shoreline associations sent local prefects to the court. More recently, France was condemned by EU for failure to applythe Nitrate directive (Thénault et al, 2013).

ii. The administrative litigation

The "**administrative litigation"** is used in the process of judicial actions from associations, registered as defenders of the environment to defend any offence against it, against any administrative decision which could affect environment." (Drobenko, 2014).
This specific litigation is not treated in detail in this report.
Two points nevertheless need to be mentioned.
The first point reveals the will of French State to consider **repairs of environmental damages**. In the case a public decision (decided by a public institution) results in a damage to the environment, it is not possible for the court to condemn State to repair it. (Gatet A., 2014).
The second point is the **access to settlement** through administrative court, for registered associations. This possibility was cited during the Vidourle judgment in the Hérault (France). During the penal trial in 2014, the town and its mayor were both judged guilty of pollution of the river leading to fish death (events happened in April 2011). "The Criminal Court judge sent associations to bring an administrative action as a civil party to ask for compensation." The attorney of defendants considered "This is a good point, because we will be able to consider a settlement with plaintiffs." [4]

b) Penal proceedings

The « **penal litigation** » takes place in a precise procedural framework, but its end can be a **settlement**. It is determined by a **formal notice** before any proceedings. » (Drobenko, 2014)

Article 40-1 of Penal Procedure Code lists the different ways for penal treatment after an offence. When the Public Prosecutor is informed about a non-compliance case, he decides "which way fits the best to the situation:

- Either to start a proceeding,
- Either to start an alternative procedure to a proceeding,
- Or to decide not to prosecute."

In the environmental area, offences treated by the penal court follow procedures which are detailed in the Environment Code (Art L173-1 to L173-12 and Art. L216-6 to L216-13). Major offences requiring penal proceedings are:

[4] Midi-Libre, 12/11/2014, Pollution du Vidourle, « le risque zéro n'existe pas ».

- Running an installation impacting environment without registration or permission from local authorities. (Art. L173-1 Env C)
- Not respecting a formal notice of non-compliance (Art. L173-2 Env C)
- Polluting water resources (Art. L216-6 Env C)
- Not respecting the minimum flow allowed in a river(Art. L216-7 Env C)

i. Penal settlement

As shown in the first part of this report, the possibility to consider a settlement between a polluter and authorities has existed since the end of the 19th Century and was even encouraged by a circular in 1970. This procedure enables a defendant to avoid a penal proceeding by paying a fine." (Drobenko, 2014)
This encouragement is still valid today, as stated in the November 12th 2010 circular : "when an offence is observed, and apart from repeated offences, **penal settlements are encouraged** in the way that is enables, in the initiative of administrative authority, to stop the offence, avoid its repetition and repair the damage. Terms and conditions of its application are precised locally by respective courts." (Ministère, 2010).
Those incitements are applied through quadripartite agreements between ONEMA-ONCFS-Préfet-Parquet.
Penal settlement procedure is detailed in the Penal Procedure Code (Art. 41-1-1) and in Environment Code (Art. L173-12) :"The administrative authority can propose a settlement **before any public action has started**."

The procedure is illustrated by a flowchart in ANNEXE II. It starts with a settlement proposition "made by administration and accepted (or not) by the person responsible for the offence." It has to be "approved by the public Prosecutor." (L173-12 du Env. C.)
This proposition is designed depending on the circumstances and gravity of the offence, the personal nature of its author as well as his income and expense." The fine amount is indicated, knowing that **it cannot be above a third of the equivalent fine**, and also the **counterpart actions** imposed." "Public action is stopped once the author of the offence has executed all the counterpart actions within the given delay." (Ministère, 2014). If all those conditions are not fulfilled, the penal litigation procedure starts.

In practice, most formal notices (~75-80%) end up by a penal settlement (Monnier D., 2014). Its main advantage is to enable the reconditioning of impacted lands, which is the major objective of ONEMA (Monnier D., 2014). It also enables to prevent saturation of courts (Loupsans D., 2014).

However several major drawbacks are to be taken into account :
- Penal settlements are not dissuasive because of the low amounts of fines and its normalization by the economical society (Loupsans D., 2014). In this way, it removes the awareness of responsibilities for socio-economic actors" and "reveals a permissive justice" (Drobenko, 2014). "It sometimes comes to recognize the right to pollute for the ones who can pay" and "legitimate the worse behaviors towards environment." (Prieur, 2011).
- During the "Environment and polices" symposium, Dominique Guihal describes settlements as "opaque" and adds that it is not the result of a contradictory examination by the jurisdictional authorities" (Thénault et al, 2013).
- The procedure imposes many moves of files between all the different services (DDT(M), ONEMA, Parquet) which can results in lost files (Monnier D., 2014).
- Reconditioning of damaged spaces is hardly followed because of lack of human resources. Therefore, sometimes proceedings are stopped without any repairs having been carried out (Monnier D., 2014).

ii. Penal litigation

Penal litigation happens when the Public Prosecutor judges that the offence should not be treated by a settlement (because of its gravity or its repeated character) or when the author of offence refuses the settlement proposition. The 2008/99/CE European Directive encourages member States to inflict penal sanctions in case of major offences to environment: "This directive defines a minimal list of major offences towards environment and imposes to member states to inflict more dissuasive penal sanctions when those offences are intentional or result of serious negligence." [5]

There are two possible judgments coming at the end of a penal litigation: a sentence or a decision of no prosecution.
The Prosecutor can decide not to prosecute without any explanation and without any way to appeal" (Drobenko, 2014). In 2003, 53% of treatable cases were classified without prosecution in the environmental area, versus 32% for all penal litigation cases (Thénault et al, 2013).
The Prosecutor can also inflict different sentences, like prison with or without suspension and/or a fine, depending on the incrimination proposed by law (Drobenko, 2014). Complementary sentences can be inflicted: publication of the decision, confiscation or detention of equipment, interdiction to practice any professional activity. Even if fines are the core of the sanction, inflicted amounts are on average very low (~2 000-5 000€) (Thénault et al, 2013).

At the occasion of the Conseil d'Etat symposium, Dominique Guihal criticizes strongly penal litigation results, denouncing a "**weak efficiency** with low-dissuasion sentences, **rare and disappointing proceedings**, and obligations of repairs only rarely applied because they are not followed." The total proceeding timeframe is also very long, it can go up to 10 years, because the procedure is closed only once all appeals are treated (Thénault et al, 2013).
This can be explained by the fact that " prosecutors sometimes don't evaluate the gravity of pollution offences at their right value because they don't have enough affairs to build a homogeneous way to deal with them at the penal litigation" (Conseil d'Etat, 2010).

Penal proceedings have nevertheless a dissuasive role to play using their main assets: applicable sentences, publication of sentences (Drobenko, 2014). In this way, the French Conseil d'Etat considers that it is deficient but complementary to administrative proceedings.
Dominique Guihal nevertheless noted during her intervention at the symposium that one exception exists in the environmental arena: penal proceedings for intentional oil spills by ships. Fines are of a high amount (between 300 and 800 k€), without any affairs reported as classified without any prosecution, and without any successful reversal of decision. This is possible thanks to a good cooperation between the public institutions and the court and also thanks to the existence of specialized jurisdictions in maritime affairs (Thénault et al, 2013).

One interesting affair is the Protex/Synthron trial in 2008, following chemicals spill in a river by this company and leading to a many fish deaths. The Regional Court inflicted a 75 000 € fine (maximal fine) as well as four times 7 500€. This has to be compared with the international company results declared in 2014: 155 M€. The court also published this decision in several newspapers as a complementary sentence to those "painless" fines.[6]

c) Civil proceedings : civil litigation

The opening of a civil litigation generally happens after a trial in front of a penal court in order to repair the damages to victims (individual or legal persons) like civil parties. The general role

[5] http://europa.eu/legislation_summaries/justice_freedom_security/fight_against_organised_crime/ev0012_fr.htm

[6] Jugement correctionnel du 24 juillet 2008, Tribunal de Grande Instance de Tours, jugement 1747D

of civil actions is “to repair suffered damages” (Drobenko, 2014). Only “major” offences to the environment are treated by penal trials, it is hence the same for civil proceedings.
On a practical point of view, civil and penal jurisdictions stand in the same location: Regional Courts (Tribunaux de Grande Instance, *fr*). A penal judge can therefore take the civil judge role and make the civil damages repaired. It is also possible for a civil party to ask for civil proceedings without any penal trial beforehand. (Gatet A., 2014)
Civil parties are mainly represented by registered associations for the protection of the environment or fishing Federations (Art L142-2 Env C.), and more rarely by some public institutions, like ONEMA for example, Regional Water Agencies (Agences de l’eau, *fr),* ADEME *(fr)*,… (Art L132-1 Env C.).

Because of « shortcomings of the environmental special law », particularly difficulties to apply LRE law, “judicial basement of any proceedings is taken from traditional responsibility systems listed in Civil Code art. 1382 and following, or sometimes in jurisprudential theory for abnormal neighborhood disturbances” (Aguila, 2012) (Jegouzo et al., 2013).

The main difficulty for civil courts is the recognition of the ecological damage and its repair. “Theory of civil responsibility says that, **in order for a damage to be repaired, has to be personal**.” An environmental damage can result in a direct and personal damage for individual or legal persons, but in some cases it can **exclusively** attain nature itself, without any individual victim, at least in a direct and immediate way (Aguila, 2012).
Because of this deficient framework, judges can use some adapted jurisprudence make environmental damages repaired. The most important one is the **Erika jurisprudence** for which environmental damages and the possibility to have it repaired was recognized in civil responsibility (Jegouzo et al., 2013). But those jurisprudences are not used in an even manner in all Courts (Loupsans D., 2014), are a source of judicial insecurity and sometimes end up in questionable decisions. Those attempts in fact repair the moral damage but not the environmental one. Under the cover of “environmental damage”, judges aim for the damage to local communities’ image or the moral damage to associations. There is also a risk of compensation accumulation, and therefore the risk of paying twice for the same damage (Aguila, 2012).

Repairs can either be carried out by paying compensatory damages or either by a natural compensation (Drobenko, 2014).
Compensatory damages indemnify a damage. Moral, material (etc..) and ecological damages have therefore to be differentiated. Calculating the amount of a monetary compensation for an environmental damage is always difficult for a judge. “In case of water pollutions, jurisprudence uses as a calculation method a flat rate for each damaged square meters with a reference given at 0.15€/m². This estimation is therefore disconnected from the nature of the damage” (Prieur, 2011).

In the case of the Erika trial, compensatory damages to civil parties were given in the name of material damage (= loss of income), image damage, moral damage, and for the first time in the name of ecological damage.

One of the main issues with repairs by compensatory damages is the fact that recipients are free to use it in any way and don’t have to justify how money is affected (Drobenko, 2014). This is one of the major differences with compensatory damages paid in the USA, where they are to be used to repair damages or to finance research programs. In France, after the Amoco-Cadiz oil spill, money given to communities was partly used to build new infrastructures and only a small part for environmental protection (Fourcade, 2011).

3) HOW EFFICIENT IS JUSTICE FOR ENVIRONEMENTAL DAMAGES?

A. CURRENT EFFICIENCY OF JUSTICE FOR ENVIRONMENTAL DAMAGES

The first point to deal with is the efficiency of the police on the ground. Despite a lack of human resources as well as a lack of support from socio-economic actors, institutions responsible for water and environmental police ensure territory supervision as effectively as possible. 23 000 non-compliances are reported each year (Monnier D., 2014). However, since a major part of those reports end up without prosecution from the Court, environment inspectors' legitimacy on the ground is affected. They are victims of pressure from polluters and even sometimes attacked. Their working conditions therefore depend on judicial efficiency and the ability of the law to inflict dissuasive sentences.

As far as administrative sanctions are concerned, especially classified installations (ICPE, *fr*), undertaken actions to protect environment are well handled by prefects. The spreading of those procedures outside of classified installations cases decided in 2012[7] is in that manner a good thing and a vector of simplification for administrative authorities (Thénault et al, 2013). The main weakness of this system is its low dissuasion, partly explained by the consideration of local issues (employment, economy, disused sites, etc…)

Concerning penal proceedings, settlements are used very often but are not dissuasive at all. The amounts of fines are on average low and repairs not followed up by authorities. They concern offences of "medium gravity", major ones are treated by litigation at Regional Courts. Sentences resulting from penal litigation can be dissuasive by the judgment publication but the amount of fines is "very low". Nevertheless, as stated by Prefect Thénault during the Conseil d'Etat symposium, those penal sanctions are "essentials" and "beneficial for administrative repression b their dissuasion" (Thénault et al, 2013). This affirmation has to be balanced with the Conseil d'Etat report in 2010 which says that "the weakness of administrative police concerning water is not compensated by the strength of penal repression. Indulgence of penal proceedings adds up to administrative one's, because of today's state of the art in terms of laws and jurisprudence" (Conseil d'Etat, 2010).

After analysing this context, it seems that the efficiency of French legal system to deal with environmental damages and repairs lies in civil litigation. It is originally designed to repair damages to persons and their heritage and not to environment. This has to be qualified because of the possibility for registered associations since 1995 to demand repairs for environmental damages (Art L142.2 Env. C) and because of the existence of the Erika jurisprudence which explicitly recognizes the existence of ecological damage and the possibility to repair it. This toolbox is used without any national coherence, which creates judicial disparity, depending on how sensitive judges are to use it or not (Loupsans D., 2014).

The role of LRE, integrated into the Environment Code in 2008, was still to repair ecological damages. But as environmental legal expert Laurent Neyret comments, , "the experience in the field shows that this law was never applied in France, despite the high amount of environmental damages affairs : breaking of an oil pipeline in the plains of Crau, oil leakages in the Donge affair and also chemicals leakages in a paper mill close to Bordeaux. There are several reasons: requested conditions are very narrow, and the resulting law is very complex. One other reason is that in France, the power to sue a polluter is concentrated in the hands of prefects" (Neyret, 2013).
Repairs of ecological damages are as well a sensitive point. By its definition, an ecological damage is often irreversible. On top of that, the value of nature is immeasurable. This being said, "nowadays, justice often imposes a repair by **compensatory damages**. But how to give a monetary value to such damages? Also, recipients of those compensatory damages are not obliged to use this money to repair damaged areas" (Aguila, 2012). When repairs in kind are

[7] Ordonnance n° 2012-34 du 11 janvier 2012 portant simplification, réforme et harmonisation des dispositions de police administrative et de police judiciaire du code de l'environnement

imposed by the judge, controls of these repairs are rarely carried out. No authority is designed to follow those controls, and the ones present on the ground don't have enough human resources in order to do it in good conditions. Associations sometimes take this controls in charge (Loupsans D., 2014).

B. WHAT EFFICIENCY TOMORROW ?

Yann Aguila, lawyer, observed that "there are nowadays offences to the environment that everyone can see, and yet some of them are not repaired" and that "this absence of repairs is in large part due to the shortcomings of law" (Aguila, 2012). Several reports agree on this observation, 2010 Conseil d'Etat report, 2013 Lepage report, and pushed Christiane Taubira, Minister of Justice, to react. She decided in 2013 on the creation of an expert team directed by Pr. Jegouzo in order to "introduce in French law a general principle of responsibility for ecological damage. This group of experts in part based their work from the report of another group composed of law experts "Better repair the environmental damages" ("Mieux réparer le dommage environnemental") published In 2012.
Those reports propose reforms to "clarify the law" (Aguila, 2012) and hence give additional tools to judges for them to apply the polluter pays principle the repair environmental damages. Below are presented some of the main propositions from the Jegouzo report.

- **Inscription of ecological damage in the French Civil Code**. This would clarify civil law and make this principle more accessible. A broader panel of persons could ask for the repair of environmental damages, including public prosecutors.

This proposition is already on the Senators desk since May 2012, proposition was made by Senator Bruno Retailleu. It was transferred to National Assembly in May 2013.
Antoine Gatet, environmental law expert, considers that it would be more efficient to insert the ecological damage principle in the Environment Code instead of civil code (Gatet A., 2014). Laurent Neyret, another environmental law expert, justified that "the civil code is easily accessible for judges, for lawyers, and this enables a strong accessibility to this principle. This is the reason why it was chosen to inscribe it in the civil code" (Neyret, 2013).

- **Creation of an Environmental Authority**, which would be "an independent administrative authority responsible for the protection of environment" (Jegouzo et al., 2013), in a way the French version of the American EPA (Neyret, 2013). It would have a general valuation, regulation and vigilance mission towards prevention and repairs of environmental damages" (Jegouzo et al., 2013). It would be "in charge of following how are compensatory damages used" (Neyret, 2013).

- **Specialist jurisdictions**, which would consist in designating one or several magistrates of the Court […] to practice competence in order to repair environmental damages" (Jegouzo et al., 2013). This would enable avoiding "dispersion of judges" criticized by Pr. Trébulle at the occasion of the "Environment and polices" symposium (Thénault et al, 2013). This specialization already exists for maritime shores protection and is especially used in the case of oil pollutions. This can partly explain the efficiency of those proceedings. It would also include the creation of dedicated audiences to environmental offences, in order to differentiate those atypical affairs (Gatet A., 2014).

- **Generalization of the repairs in kind** for those damages, as far as it is possible. It would hence enable to limit compensatory damages for which no control neither no obligation of use exist.

- Creation of an **Environmental Repair Funds**, a "dedicated structure" that would enable the application of the "principle saying that compensatory damages should be used for

environmental reconditioning." It would be funded by "civil fines and other sentences" (Jegouzo et al., 2013).

- **Generalization of a civil fine**, in order "to obtain an effective effect", and hence "to dissuade potential polluters from damaging the environment […] and to pay for repairs costs" (Jegouzo et al., 2013). This fine would be "proportional with the gravity of the fault, of the author's capacity to pay or to benefits he would have had taken from." Its amount couldn't exceed 2 million euros, but it could attain "ten times the amount of benefits taken from the damage or of the realized economy". This fine would add up to "the ecological damage repairs imposed". Today a judge cannot impose a civil fine unless a text mentions it" (Neyret, 2013). Another great interest would be the possibility to punish a multinational company, as a "legal person" whose subsidiary would be prosecuted for intentional damage to the environment. In this case, the fine could attain until "10% of the worldwide financial results" (Jegouzo et al., 2013).

CONCLUSION

The difficulties encountered in giving a precise and robust definition to ecological damage in terms of law shows significantly the current condition of recognition of environmental damage in France. There are reasons for this, starting with France's old legal foundations and going until the late and limited political awareness of environmental issues. Hence France is today equipped with a not-well defined and not-well-structured law in order to recognize and repair environmental damages.
And yet environmental polices, each of them specialized in its field of competence, such as water for instance, have been reformed in last years. They nevertheless still lack legitimacy and support on the ground. This will only be possible once cases will be better prosecuted and applied sanctions are "effective, proportionate and dissuasive."
Regarding judicial proceedings, judges have to deal with non-specific law and use traditional responsibility in civil law. Yet there is case law such as the Erika case, helping to partially make up for shortcomings, but they can't assure an even treatment on our territory. The situation is indeed complex, in particular due to the diversity of contexts, diversity of actors, diversity of authorities, etc…

France's political class is aware of this situation and started reforms at the beginning of the 2000's and more intensively since the 2010's. Propositions made by the groups of experts should enable us to better recognize and repair environmental damages. Other reforms shouldn't be neglected, concerning the remodeling of local and regional authorities and also the creation of a National Agency for Biodiversity. What will be the impact on police efficiency and the treatment and follow-up of affairs?
Nor should France's population wait too long for these foreseen reforms. They should continue to get involved as encouraged by the participation principle of the Environmental Charter. B. Drobenko notes that "in the current context of the reduction of means for public institutions and shortcomings of judicial proceedings, registered associations for the protection of environment seem to be more and more fundamental actors for the protection of the common interest regarding water polices and their respect" (Drobenko, 2014).

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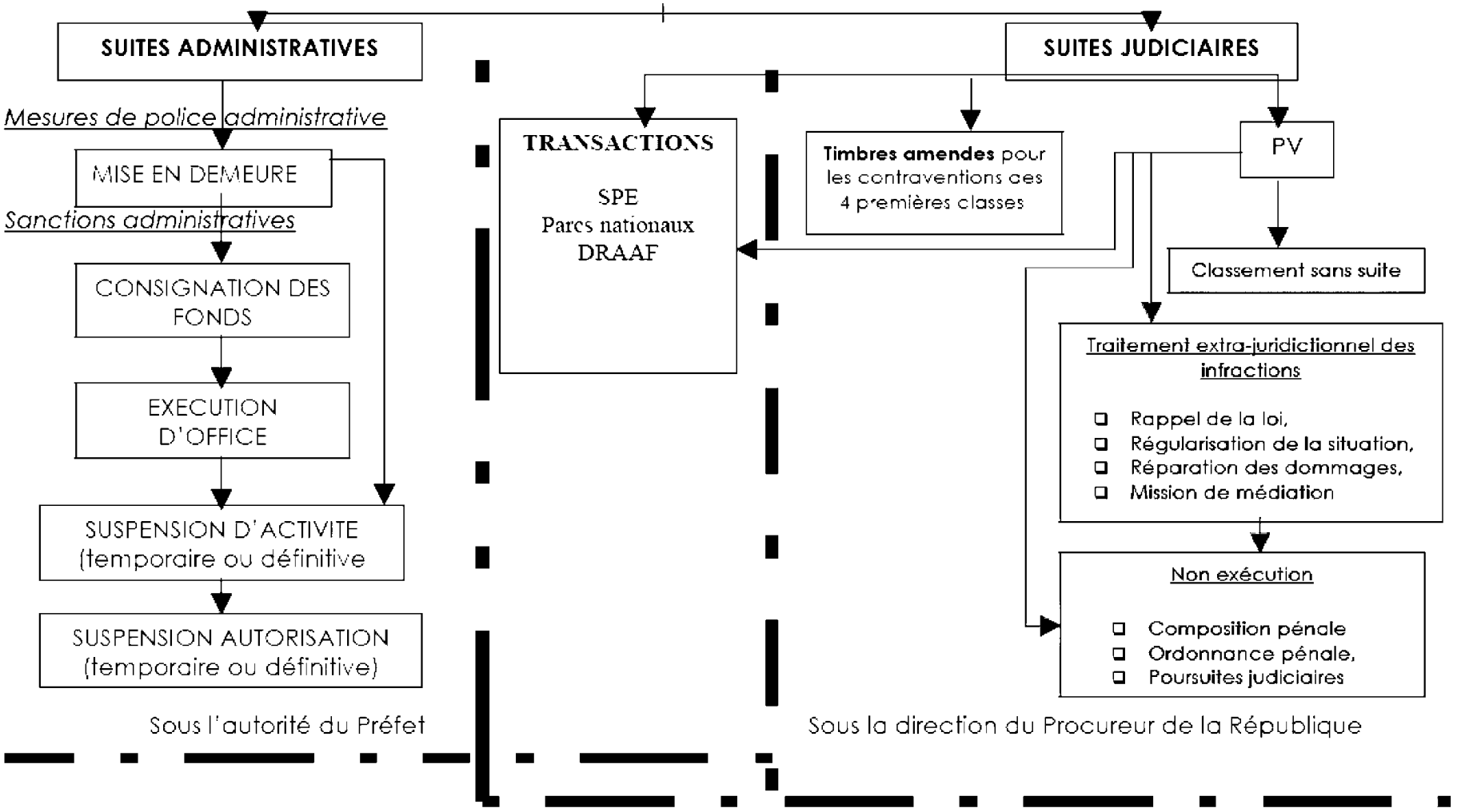
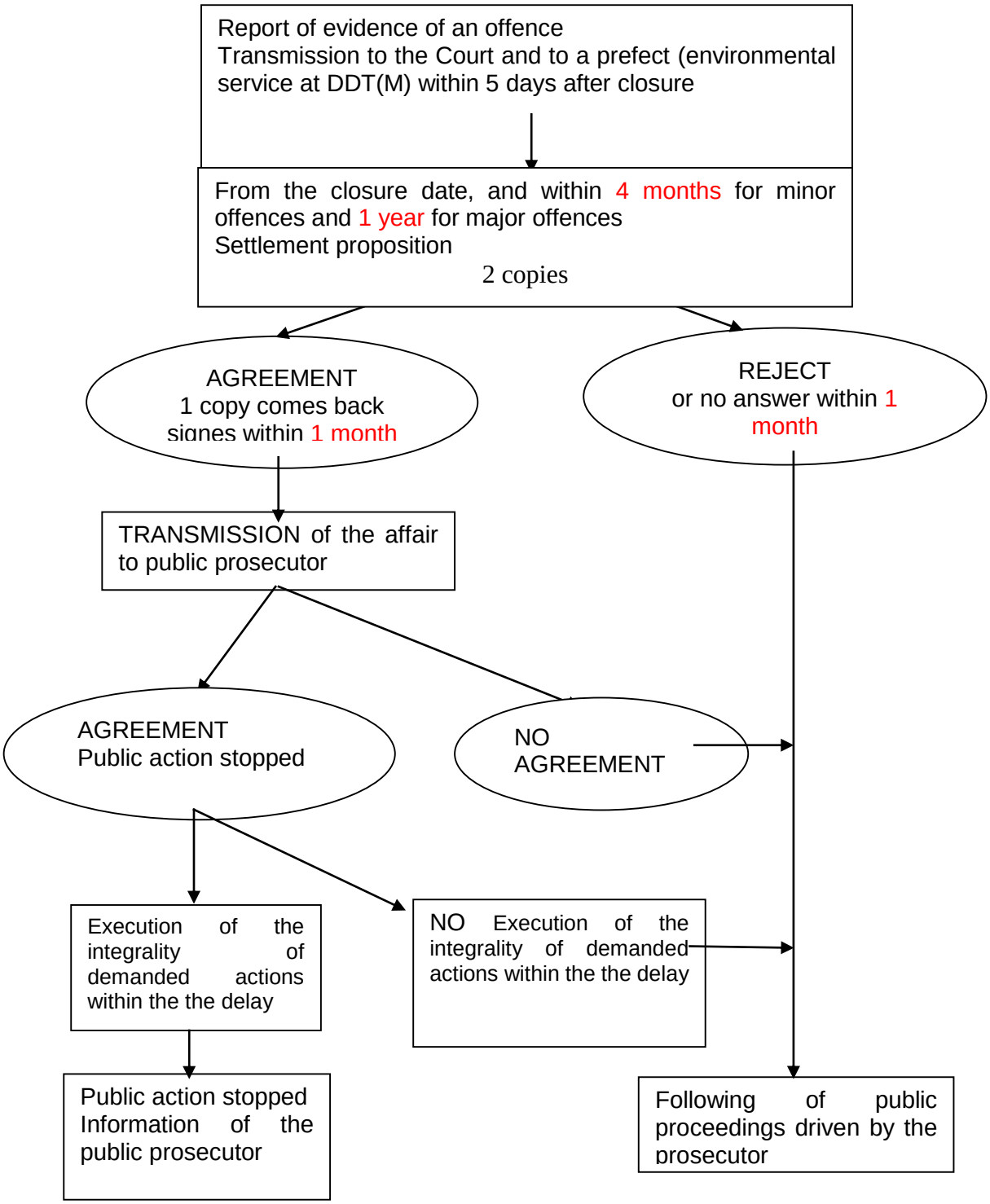
ANNEXE I PROCEEDINGS AFTER A CONTROL : DETAILS OF ADMINISTRATIVE AND JUDICIAL PROCEEDINGS



Source : (Ministère, 2010)

ANNEXE II PENAL SETTLEMENT PENALE : FLOWCHART



Source : *Guide méthodologique de mise en œuvre de l'ordonnance 2012-34 dans les domaines de l'eau, de la nature et des sites* - ONEMA, version du 18 août 2014

ANNEXE III GLOSSARY OF JUDICIAL PRINCIPLES

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Civil parties
When a person is victim of an offence and that he is affected by damage, he can ask for his damage to be repaired by its author. This word also designates a procedure (a complaint with constitution of a civil party) enabling a plaintiff to launch legal proceedings in order to ask for repairs.

Damages
A damage to a person and his belongings, his body, his feelings or his honor. It can be :

- Of wellbeing : A damage generally resulting from a physical accident or privation of certain daily life actions. Example : practice of an artistic or leisure activities, sport, etc…
- Physical : an offence to persons' health or physical or mental integrity. Example : wound, handicap,etc…
- Material : A damage to a person's belongings. Example : damage, material degradation, loss of incomes or of a material heritage, etc…
- Moral : Psychological damage. Example : Pain from a the loss of a close relative.

Civil/Penal Responsibility
(Wikipedia)

Civil responsibility is a domain of law, taken from the romano-germanic heritage, aiming at repairing an obligation or a duty towards somebody. It aims at compensating damage to its victim.

Penal responsibility consists in being accountable in front of justice for damages caused that could affect public order by breaking a legal law. Application of this responsibility is specific is the way that it can lead to a prison sentence or a fine.

Civil responsibility is usually opposed to penal responsibility. In the first case, objective is to compensate damages to individual persons, whereas in the second case it consists in being accountable for the breaking of a law in front of the State.

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