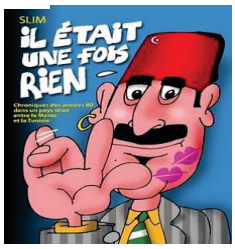
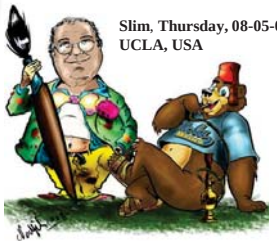
Democratic and popular Algerian republic
Ministry Scientific Higher education and scientific research
Head Office of the Scientific Research and the Technological Development





Slim, Thursday, 08-05-08
UCLA, USA

FROM ELECTRICAL RISKS TO GLOBAL ENVIRONMENTAL ANALYSIS *

Vulnerabilty of electricity networks to natural hazards workshop

2 july, Austria Vienna 2014

Pr K.Guenachi *, Manager of the RITE, University of Oran
guenachi.khadidja@sfr.fr
Pr A. Belkhatir, President of Council Scientifique
Pr (HDR).HTsaki, Team leader
Pr M.Belhadji, Team leader
Dr A.Adda Boudjelel, Team leader
LABORATORY TECHNOLOGICAL INDUSTRIAL SCIENCE OF THE RISKS AND THE ENVIRONMENT

Images - Photos Sécurité et Accidents: Source Google

VISIBILITY TERRITORY
INTELLIGENCE OF THE TERRITORY

Diary 21

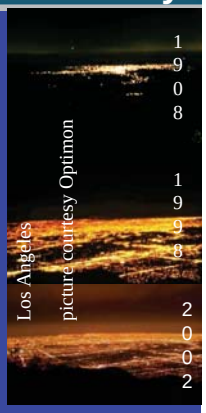
Program Actions — **21e Century**

We need electricity grids

We need sophiscated equipment

We need a well training

We need ovoiding the electrical blackout



1-Spatializing of the Municipality(Commune): territorial Visibility and specificity (Urban, agricultural, industrial Area, etc.)
2- Statistics population: kind(genre) M F and Level of Elimination of illiteracy by Age bracket and by Kind(Genre)
3- Current situations (Inventories of fixtures): buildings(ships) (Houses / administrations), socioeconomic Activities
4-Young statistics: in Kind (Genre) and Level of Schooling by Age bracket
5-Identifications of the Present Activities in the Municipality (Commune)
6-Translate needs into Profiles Jobs (Businesses) and in Present and future Jobs
7-Identification of the vulnerable populations: source of creation of Employment
8-Projection of Daïra on 10 in coming 15 years at least
9Fall by generation and according to the specificity of moment
Integrate(Join) the NTI - the Information

WE MUST KNOW WHAT IS THE CATEGORY OF ELECTRICAL EQUIPEMNET USED IN THIS TERRYTORY
ARE WE PREPARED TO ANY ACCIDENT IN THIS AREA?








PLAN


Perspectives

Legal, Technical and Human Barriers

Industrial Activities and the Natural Vulnerabilities

Territories and Infrastructures, Risk and Risk Assessment

Workshop
Vulnerability of electricity networks to natural hazards, Vienna 1 July 2014


Le Territoire et ses Composantes H-M-E
We Utilités Energétiques Omniprésentes
Electricity is a very useful utility

Pouvoirs Publics- Opérateurs Socioéconomiques- Consommateurs et/ou Population
Infrastructures de Service Publique
Secteur Economique : Primaire –Secondaire- Tertiaire et Quaternaire

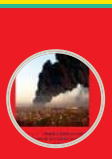
Services

- •C'est un espace géographique, géologique, géopolitique
- • Caratérisé par l'implantation d'activités socioéconomique (economie, Social et Environne ment)
- •Régi par une législation, des règles et des procédures

Services Variés Organisation

Système Vivant

- Transfert d'informations, d'énergies et de matières.
- Hyperespace de danger
- Flux de danger

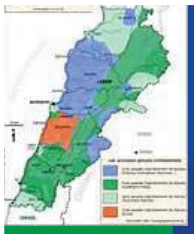


- Une dynamique sociale
- Sources de dangers de nature différentes et diversifiées
- Un espace qui n'est pas à l'abri des aléas naturels, technologiques ou crises sociales.
- Son niveau de sécurisation dépendra de son niveau de resilience humaine et technique
- …...

Impact sur l'Environnement

Sous l'Influence de crises socioéconomiques
Emeutes sociales et crises aux frontières

Acteurs directs et indirects



Territory and its complex components (HME)
Find Electricity in many situation, many equipment
Electricity is a very useful utility

Local authorities state Socioeconomic Operators
Infrastructures Persons receiving benefits and Consumers
Branches of industry : quaternary Tertiary Secondary Primary Sector

Services

•Geographical space confines (Ground Basement Sea Sky) Virtual Physical borders Socioeconomic activities Development and 03 pillars: economy, Social and Environment
Frame of Local, regional, national, international exchange Statutory device
Rules and Procedures

Much Services Organization

Vivant system

- Transfer of information, energies and materials in hyper one space evolving in the time and in the space.

- It is a social dynamics
- It is Springs of hazard bound to its components
  It is not shielded from the risks of natural, technological even human origin
- Its reassurance is going to depend on the vulnerability and on the level of human and technical impact strength of the alive and technical systems the constituent(component)
- …...

Environemental Impact

Economic crises Hazards: natural-technological and human
Anthropotechnical activities and his its environmental impacts

Direct and Indirect Actors

Algeria is concerned with
Earthquake
Flood
Lightning
Violent winds
Snowstorm

So in the First :

what are the known threats?
What are all vulnerabilities?

Electrical hazards exist in almost every workplace.

Common causes of electrocution are:

Making contact with overhead wires

Undertaking maintenance on live equipment

Working with damaged electrical equipment, such as extension leads, plugs and sockets

Using equipment affected by rain or water ingress

We have to combine them with Electrical Risk

Source: Ministry of the Town and Country Planning and the Environment

03 chaps of risks

Visible

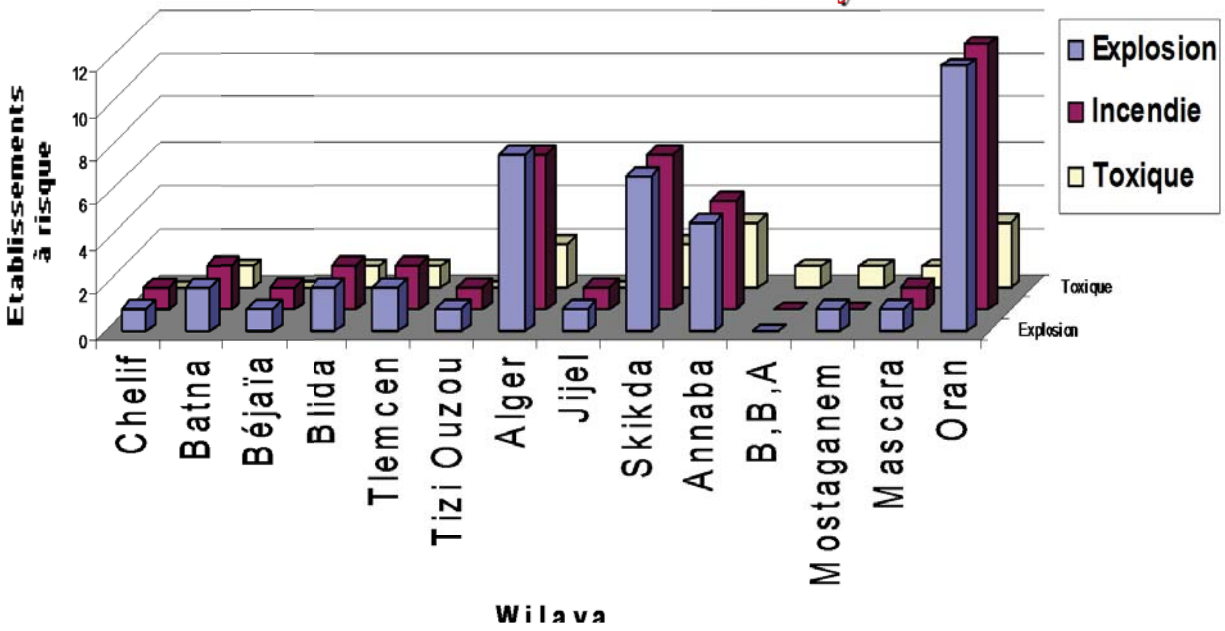
The Risks by Wilaya

Region "North"

Explosion

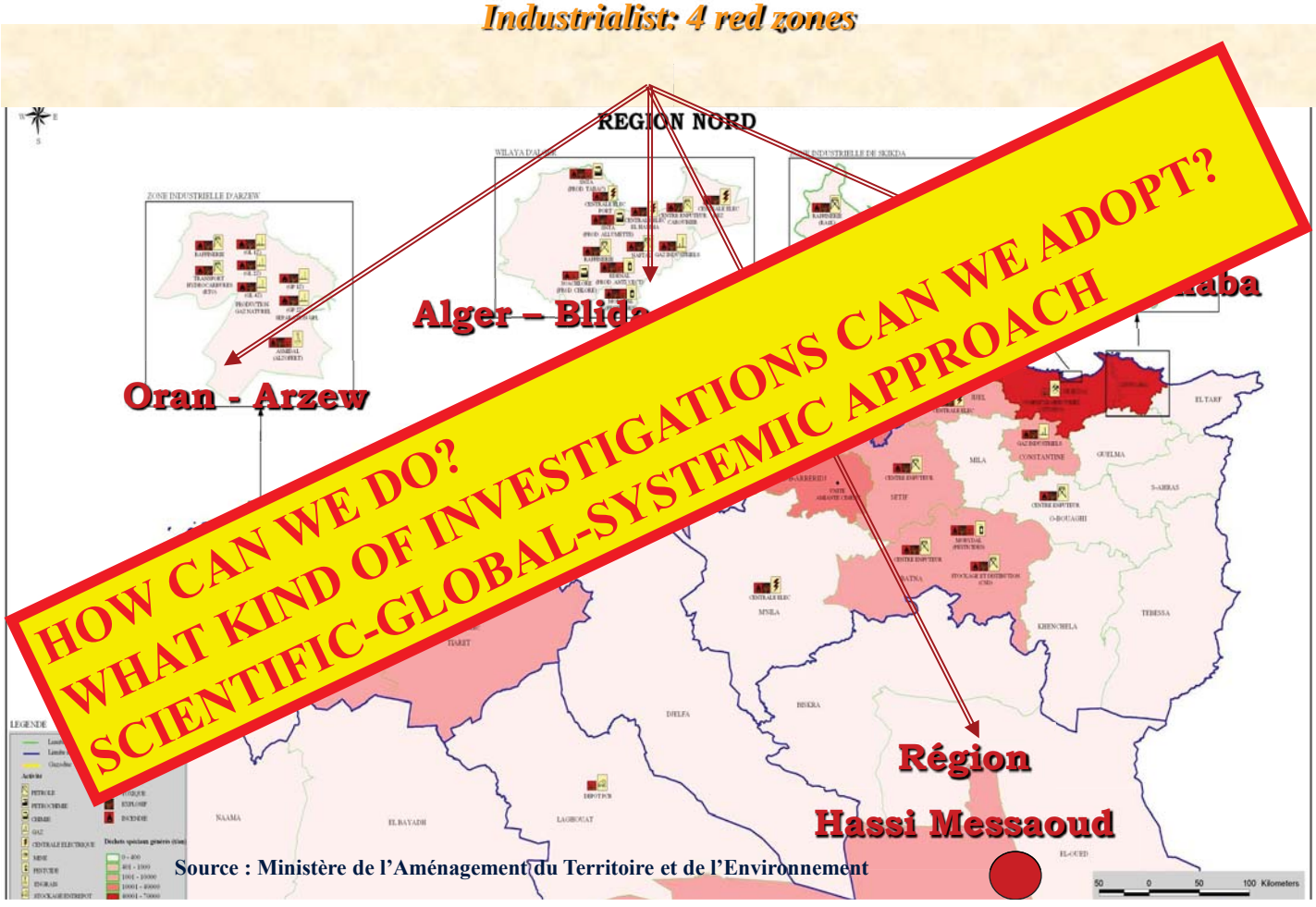
Fire

Toxicity



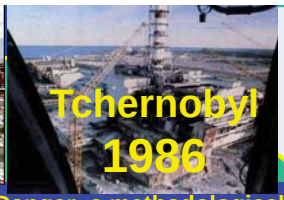
Technological risks

Industrialist: 4 red zones



Source : Ministère de l'Aménagement du Territoire et de l'Environnement

- Accident de Bhopal
  - Industrial Activity?



- Accident Tchernobyl Commun Environment?

Emergence of the Sciences of the Danger: a methodological Tool (1990)
The accidents Bhopal, Tchernobyl and Challenger (Colloquium Paris, on 1987)

Hardening of the law

Normative frame

Secure procedures

Mercury, Avril1956

Minamata, Japon
Health Public

Vision Global

Health

Safety Quality Environment

- **And In Algeria?**

Accident Challenger
- Technical Label?

What to do?
Why to do?
How to do?

By the Knowledge and Academic Knowledge,
The generalization of the Maids
Professional practices
Integrate the social knowledge

Step1

- Management of the Knowledge: academic Knowledge, Know how to it make Practice and the Social Knowledge: an inseparable set

Step 2

- Strategy of the Security Investigation Department of Functioning: repair, Maintain and Maintain safely for the survival

Step 3

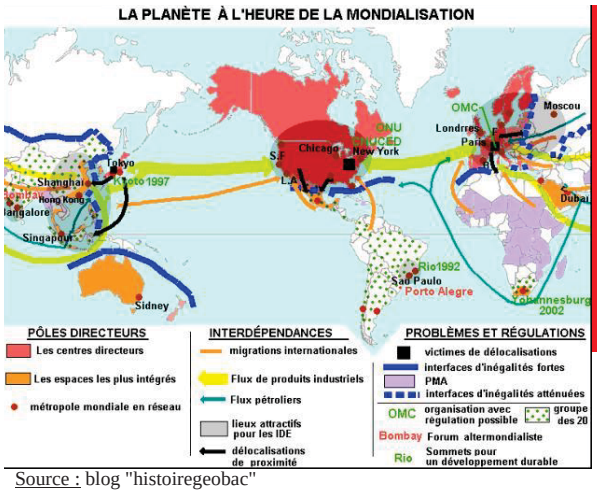
- Plan of Continuance of the Activities: insure and maintain the vital functions including in situation of disaster and crisis. anticipate to reconstruct

Reliability Availability Maintenabilité safety and in any circumstances
Impact strength of Territories to counter at the Risks and at the Crises
Frame of actions of HYGO reduction of the Risks of Disasters

Management of the Risks?
Scientific Approach

1. Stakes: human, economic and environmental
2. Confine the Field of hazard (complex): systemic Vision
3. Organize human, logistic resources of all kinds (7M
   Master the various stages of a process
4. Master the methodological tools
5. Assure the Traceability, the Formalization of the Procedures and Anticipate
6. Join the continuous and permanent evaluation
   Contribution of correctives, adjustment, restructuring, rehabilitation, etc.
   The Technical, societal and environmental day before

The Sustainable development :
A state of mind and a behavior
An approach Collaborative and Participative



Source : blog "histoiregeobac"

The Globalization: membership to the WTO
(WORLD TRADE ORGANIZATION)
(in the course of realization for Algeria)
Sustainable development
A WORLD CONCERN
A commitment on the scale of States
Algeria and the International Agreements

Algeria?
Where is it?
In the World Context

Quality
Health
safety

Systemic Vision

Development
03 Components
Economy
Social
Environment

To Be

How to Be

Humain Development

Productivity and Growth
Sustainable Development
Economic Regulation by the Standard
Health Safety (Security) Quality of life
References *Good Practices *Governance
HUMAN BEING HUMAN FACTOR ACTOR and MOST IMPORTANT ONE

SUSTENAIBLE DEVELOPMENT AND NATIONAL STRATEGY OF DEVELOPMENT

Projects of Harmonization of the Standards in 2012: complementarity

Since 1947 and on December 31st, 2012, ISO published 19 573 standards, among which on 1280 in 2012

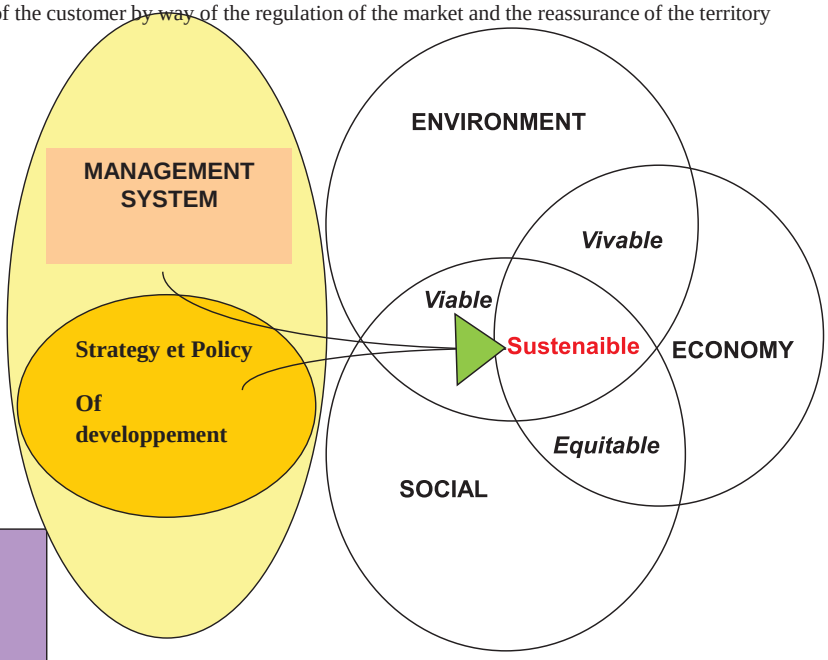
Document N20 AFNOR : cartography of the repository of Management

The normalization and the stake in correspondence it is an Inseparable Set

From 1993 till 2014: from the Satisfaction to the Requirements of the customer by way of the regulation of the market and the reassurance of the territory

Customers	*ISO 9001*	*Suivantes*
Environment	ISO 14001	Suivantes
Health Safety	OHSAS 18001 BS 8800	ISO 18000
Social/ Societal	SA 8000	AA 1000

ISO 22 000 et HACCP Approach



ISO 26000 - ISO 22301
From Sociatal responsability to Safety One
ISO 31000
From Risk Management to Natural Hazard

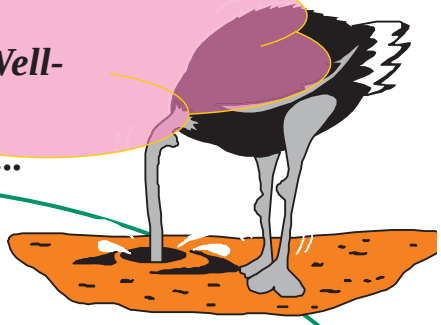
SD 21000 Guide For A Natinal Strategy of Development

World Conditions

GLOBAL AND SYSTEMIC VISION ISO International Standard Organization

Informed well, the people are citizens; badly informed them become subjects
(Alfred Sauvy, economist and French sociologist)

Direct or indirect actors
Every Persons in charge of the Well-being of the Citizen
Many jobs to be created.....



Technology watch
Economic watch
Territorial watch
The Societal watch)
Health monitoring
Business intelligence
Marketing watch
Juridico-Institutionnal watch

Strategy

Vigilance

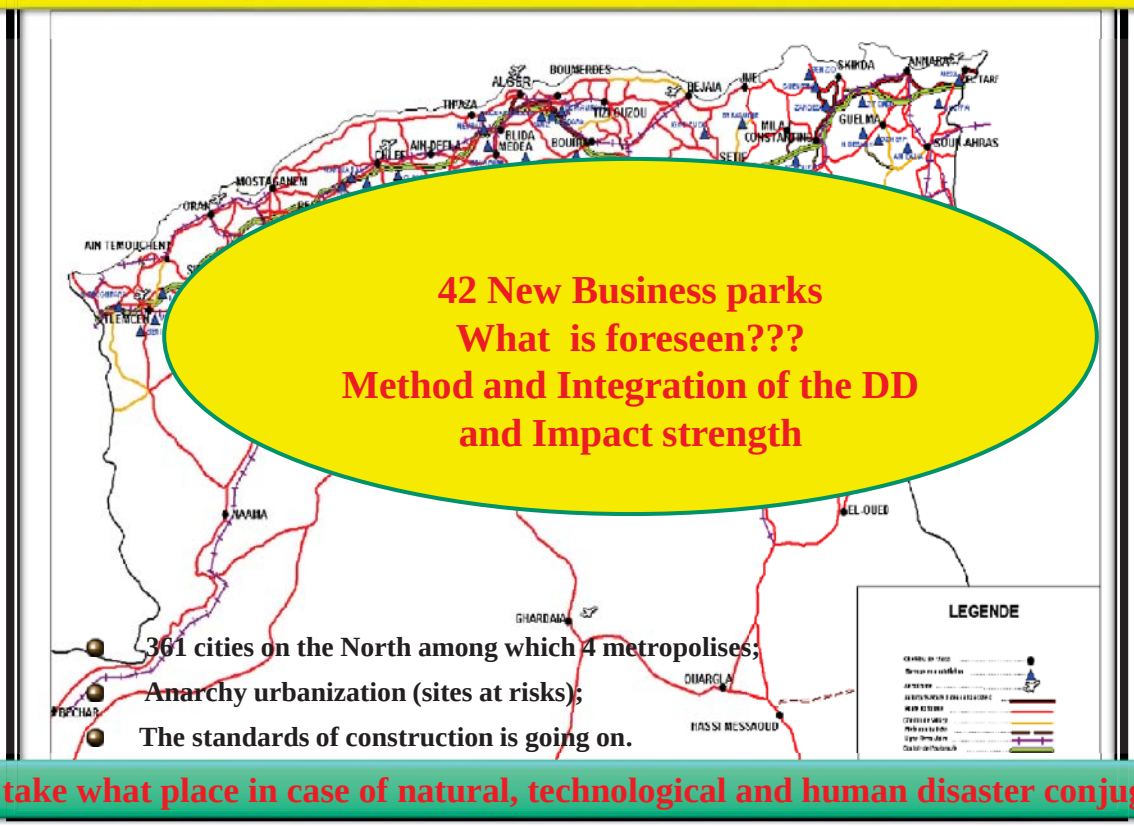
Challenges:
Economic
Social even societal
Environmental

" The man and his security have to constitutethe first concern of any technological adventure.

Urgency of an awareness of the vulnerabilities in Algeria

Human and economic stakes: strong Concentration in the North The Population, Economic activities, the Road and other Infrastructures

Source : Ministère de l'Aménagement du Territoire et de l'Environnement



42 New Business parks
What is foreseen???
Method and Integration of the DD and Impact strength

- 361 cities on the North among which 4 metropolises;
- Anarchy urbanization (sites at risks);
- The standards of construction is going on.

That will take what place in case of natural, technological and human disaster conjugated?

Strengthening of the Legislative Device

La loi n° 08-05 du 23 février 2008
Recherche Scientifique et Développement Technologique

Décret exécutif n° 09-335 du 20 octobre 2009
Plan d'intervention interne

Catastrophes Naturelles
Ghardaïa 2008
Bechar 2008 2009
El Bayadh 2011
Bejaia, Sétif, Tizi Ouzou et d'autres villes hiver et été 2012

Arrêté interministériel du 25 octobre 2010
Canevas relatif à l'élaboration du plan interne

Décret exécutif N° 11-194 du 22 mai 2011
La Délégation Nationale aux Risques Majeurs.

Center of Research Major Risks and
National Center of Research Green Chemistry Previous on 2016

Some Questions
To bult the futur

Actors' network
Duty of Dialogue and Coordinated Communication
Frame of World HYOGO plateform RRC

- How can it be done a connection between the various actors of the management of the risk State, Industry, Population?
  What is the method to implant a culture of risk where every actor will assume his responsibility?
  Can we reduce the risk with this policy to let - make? At what prize? For what deadlines? And with what consequences?
  What accidents is it again necessary to consider? And how manage the consequences?
  How to adapt the regulations which manages the installations classified with the current situation?
  How can we integrate security perimeters into the development plans of the territory? What is the level of influence of the institutions of the environment on the petrochemical projects of the State?

" Regrettably! Nothing is the worse than the ignorance when it makes up of science and speaks. The ignorance as such, the ignorance of the people is clear(net): as a frank wound, we can cure it ". Malek BENNABI

" We do not inherit from the Earth of our ancestors, we borrow him(it) to our children " Antoine Saint-Exupéry

MACHIAVEL

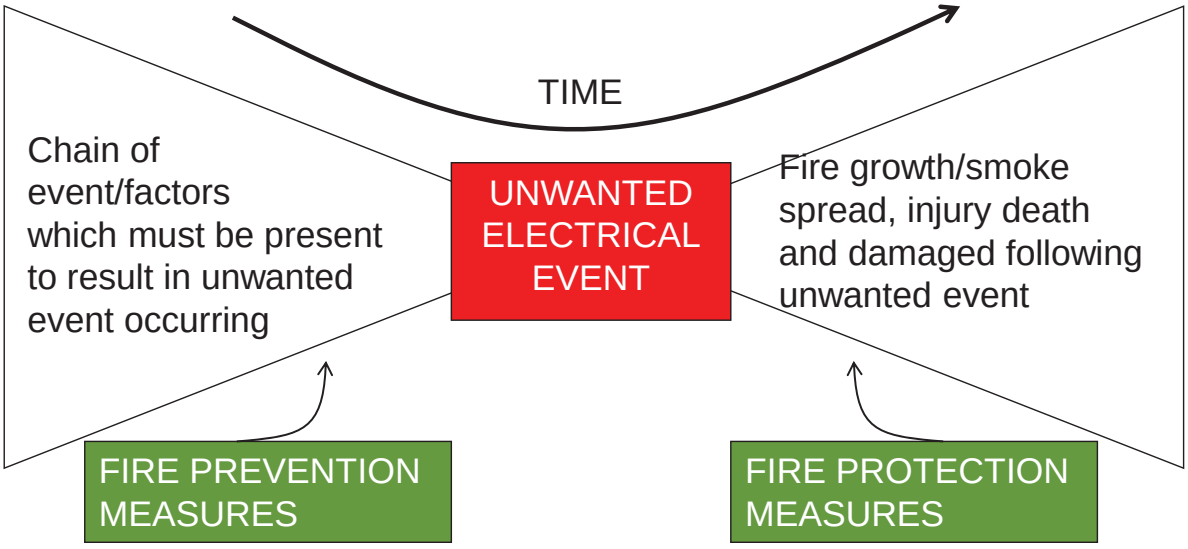
"Nothing is more difficult and dangerous, and of doubtful outcome, than to try to introduce a new order of things into a State, The pioneer has for enemies all those who took advantages of the old order, whereas those who wait for profits of new institutions will be made of warm defenders".

WHAT TO DO TO MAKE AND TO FEEL ALL PERSON IN CHARGE?

All activities are concerned by combined risks
From the first person in charge to the simple average citizen?
The real question is that:
The common space is the property of each Which would borrow it to his children (St Exupéry)

Thank You
For Attention

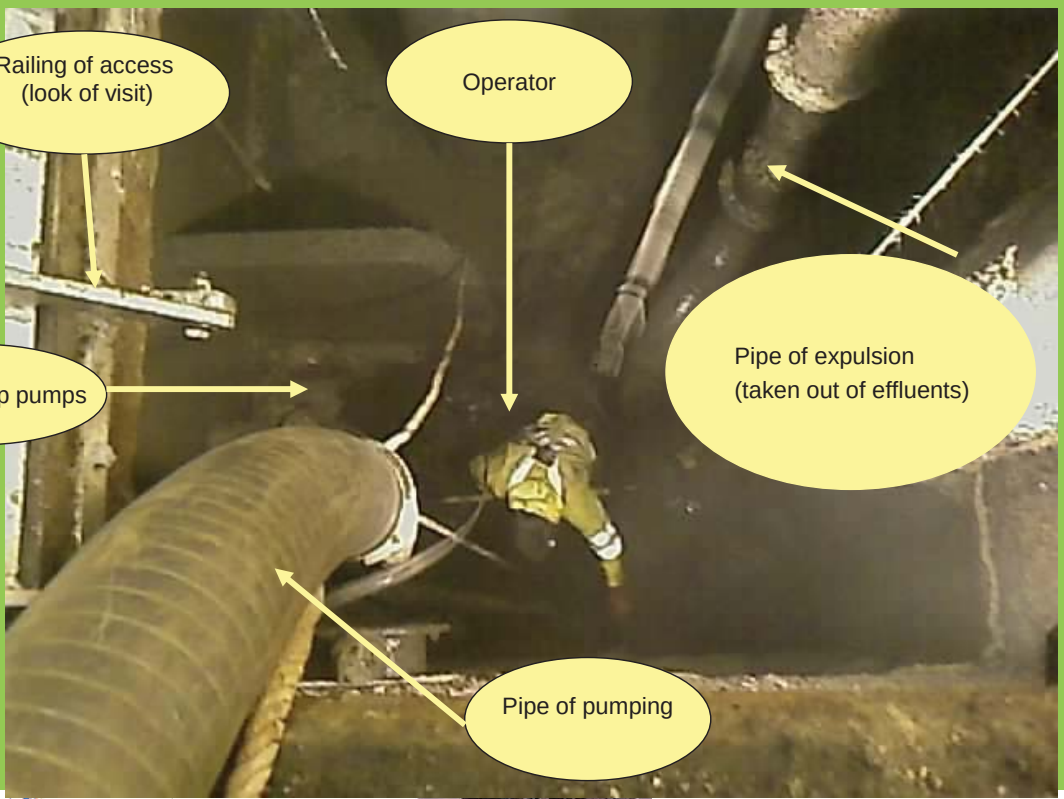
Simulation Accident VIDEO



A situation work?

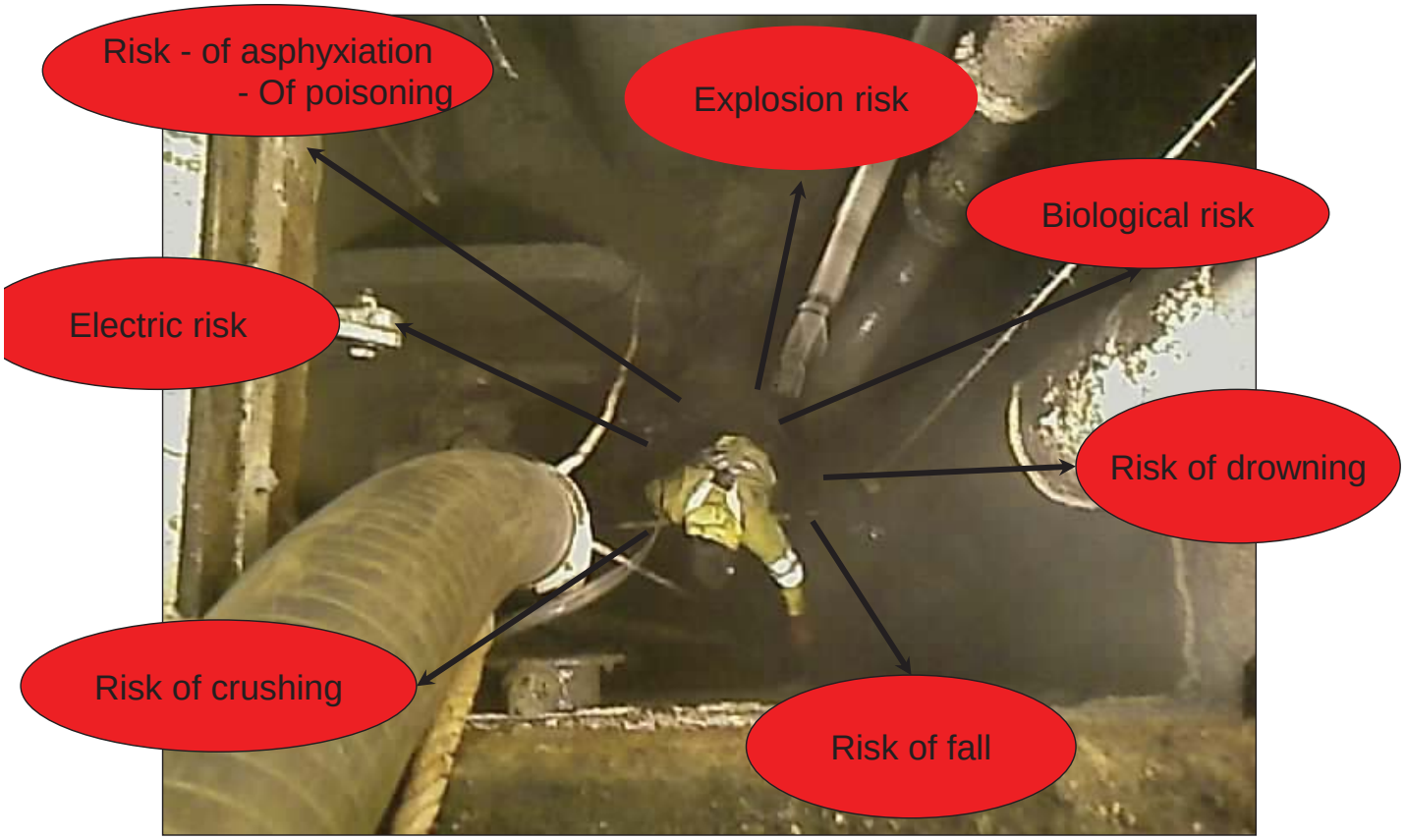
Periodic interview of the station of lifting

A Working situation



Google Document

How many risks are present?
What can happened if we combined with natural hazard?



Bibliographies :

•Dossier " Pour la science " L'atmosphère , Juin 1996
•Document de référence ozone (expédition EREBUS ANTARTICA), septembre1993
•" Ozone et propriétés oxydantes de la troposphère " rapport N° 30 de l'Académie des Sciences ,1993
•" Stratosphère et couche d'ozone " G. Mégie , MASSON,1992
•" Ozone, l'équilibre rompu " G. Mégie, CNRS ,1989
• Documents Pédagogiques laboratoire RITE, Université d'Oran
• G.Y.Kervern 2007
• Perhillon, 2009

SITES INTERNET :

•http:// onu.org/Sante et développement
•http ://bisance.citi2.fr/AIRSANTE/
•http://www.airparif.asso.fr/
•http://www.educnet.education.fr/meteo/atmosph/ozone/html
•http://www.cti.ecp.fr