

Symposium

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Benchmark independent scientific analysis in major environmental and health crisis –
Issues, challenges and responses

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Introduction

The globalisation of trade has been accompanied by the globalisation of information and communication. The wide dissemination and use of scientific analysis records is dependent on media and social networks which influence on public opinion is either measured by their popularity or in promoting particular or vested interests. As globalisation has created an exponentially expanding space for opinions of all kinds, the quality and accuracy of information may suffer as a result. In the age of Internet and new media's use of the findings of scientific assessments or analysis, thought needs to be given to the way in which these findings are communicated and used, and to how to reinforce their legitimacy. The issue has a bearing on justice.

The International Criminal Court has decided to widen the remit of its jurisdiction to crimes resulting in the destruction of the environment, illegal exploitation of natural resources and illegal dispossession of land. As part of its new focus, the International Criminal Court will need to base its decisions on scientific analysis. Benchmark independent scientific analysis remains essential in determining responsibilities and in establishing facts. It is a vital tool for the resolution of major environmental and human health crisis.

ISSUES

With the globalised access to information, individuals might digest scientific knowledge to form their own opinion without necessarily considering scientific evidence. Such relativism might instil doubt as to the veracity or reliability of the facts. Interpretations of scientific analysis are promoted by many different actors such as politicians, NGOs, social networks or businesses via a multitude of vectors on the Internet. Some of these vectors may shift the subject of discussion according to particular interests, needs or a specific agenda. Subjective interpretation might override scientific facts.

Ultimately, public opinion might be shaped by the volume, but above all the recurrence, of search engine references, and no longer by recognition of cross-referenced and reputable sources. We have come to the point where we must ask ourselves if independent scientific analysis is even possible in today's world. The globalisation of information relegates scientific methodology to the background and puts communication to the forefront to the detriment of information. And, often, this communication displays a posture for compassion working on people's feelings in order to have an influence on public opinion, civil organisations and even governments. It is like pre-judging a situation on the basis of the popularity of certain actors whose opinions might diverge from those of less well-known stakeholders.

Those who call for an independent scientific analysis to be carried out need to carefully examine in which way such analysis could usefully represent a guarantee for the various stakeholders. The concepts of scientific veracity and of proof must guide action and should remain at the core of the debate, putting into their proper perspective any twisted exploitation or interpretation of results or facts.

AN EXEMPLARY CASE: THE PROBO KOALA DISASTER

In August 2006, waste produced by the tanker Probo Koala, mixed with residues from chemical operations performed on board, were dumped in the Abidjan urban area, causing a health and environmental crisis. In the wake of this incident, a number of institutions and organisations both public and private, including UN agencies, conducted scientific analysis of the polluted sites. Ten years later, the Probo Koala case has still not been closed.

This story reveals many divergences. Why? Because the actors involved failed to employ a benchmark scientific analysis method acceptable to all in forming their own opinions or judgements. Each stakeholder selected the scientific analysis that best suited its interests. Ten years later, it is not possible to identify the benchmark independent scientific analysis that could have been used by all concerned. Nor is it possible to assess the real impact of this incident on the local population.

FEEDBACK OF EXPERIENCE

The case of the Probo Koala incident raises a fundamental question. Is it possible to initiate and produce a benchmark independent scientific analysis when a major environmental crisis and human health occur? In the age of Internet, can such an analysis be carried out in the presence of a wide variety of actors whose global reach exposes them to media coverage that could well interfere with the making of the scientific analysis and distort their conclusions? As we found in the case of the Probo Koala disaster, such analysis may be ignored, used for particular purposes or manipulated, resulting in delays in resolving the crisis and preventing rapid and effective action on the ground. The obstacles encountered in Côte d'Ivoire by the United Nations institutions and by other stakeholders highlight the difficulty of operating within a political, environmental and health complex situation. It would seem essential, therefore, to identify the problems encountered by those called upon to intervene in Abidjan and in defining a benchmark independent scientific analysis. This would enable those involved to respond effectively and promptly, and more precisely, to major and complex environmental and health crisis.

RESPONSES TO BE EXPLORED

The influence of media globalisation must be matched by strategies designed to convey and underpin the accuracy and veracity of the facts. It becomes difficult to trust information conveyed by public or private vectors whose motivation or business model may distort, transform or ignore information because of vested interests. The common good requires the introduction of strategies to challenge communication dominant feature and to promote the accuracy or reality of information. The involvement of academics here is critical. Through their expertise and knowledge, scientists, lawyers, philosophers and others are well placed to formulate proposals on how to consider making a scientific independent analysis, to ensure its credibility and use.

They could define methodological tools, beyond the influence of politicians, media and social networks, and ensure recognition of these tools at the global level. This would require the involvement of several universities, with their representatives working together.

PARAMETERS FOR THE INTRODUCTION, CONDUCT AND USE OF INDEPENDENT SCIENTIFIC ANALYSIS

It is important to clarify the scope of an independent scientific analysis. The way the scientific analysis is being established will determine the entire process of gathering and checking information and reporting results. Often those commissioning a scientific analysis operate in an emergency response mode lacking the distance necessary to assess the extent or gravity of the situation, or the scale on which to operate. This may have influence on the parameters used when sampling for instance. If there are a number of stakeholders, or a lack of cooperation between them, samples may be taken according to different or even contradictory parameters. Those enforcing the Law would then have the greatest difficulty in selecting which scientific analysis would be appropriate to base their judgement. Furthermore, taking into account the emotional and political dimension of dealing with a major and complex environmental and human health crisis, lack of coherence, consistency or common foundation might favour one opinion over another and give rise to injustice. It is therefore essential to compare different scientific analyses made on a specific case in such a way as to clarify the characteristics of each analysis and measure its validity against the reality on the ground. The initial conditions of the analysis are therefore primordial. From these initial conditions emerges the process of realisation of the analysis, its use and reporting of results. From the outset, any possible distortion of the purpose of the analysis for the benefit of particular interests must be avoided. In a major environmental and human health crisis, it is the speed and effectiveness of intervention that are critical. Yet, there is often evidence of haste, inconsistency and ineffectiveness that prevent a rapid resolution of the situation. Years after the incident took place, stakeholders might still be discussing and even casting doubt on the results of scientific analysis that contradict one another, remain silent on certain aspects of the case or offer a divergent assessment of the unfolding of events. Setting up independent multidisciplinary teams covering a broad scope of action (chemistry, medicine, ecology, etc.) is one possible solution. This implies access to pertinent information and data. If this were not the case, the multi- or cross-disciplinary team would then need to generate for itself the information necessary for it to act.

CONCLUSIONS

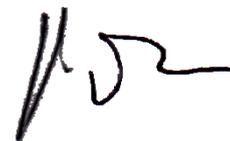
The importance of conducting independent scientific analysis is evident. It is an essential step towards the sound resolution of major environmental and health crisis. As was shown in the case of the Probo Koala, it proved impossible to constitute a body of data accessible to all stakeholders. Even now, no one can evaluate with any certainty the impact on the environment and on the population of the dumping of chemical waste. Which is to say that this way of responding to a major and complex environmental and health crisis may produce adverse effects by preventing effective action or by delaying the implementation of appropriate and effective responses. This, in turn, may have disastrous consequences for the populations affected by such incidents. It is now critically important to address the basic conditions for conducting universally accepted benchmark independent scientific analysis to ensure that such analysis cannot be discredited, ignored or even manipulated, but instead used for the common good. If pertinent solutions are not found, exposure to relativism and arbitrariness might predominate. This would be like abandoning the manifestation of a scientific truth and running the risk of injustice.



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