

## **INSURANCE SOLUTIONS TO ENVIRONMENTAL RISKS**

The Working Committee II of the Intergovernmental Panel on Climate Change (IPCC) predicts that by the end of the 21<sup>st</sup> century, more than 1.8bn Africans will suffer from water shortage. Other more alarming predictions include mainly, the drying up of rivers and streams due to temperature rise, equivalent to a large dam per year, reduced income from tourism due to the loss of 25 to 40% of some animal species, desertification of arable land in arid and semi-arid areas, rise in sea level in West and East Africa resulting in shore protection expenses corresponding to 10% of the GDP of these countries, disappearance of wheat by 2080, reduction of some other crops by close to 30% in Egypt and in Southern Africa etc.

Although the continent would have contributed the least to climatic warming, Africa shall be worst affected by this phenomenon, if the effects are not seriously checked.

The list of the consequences of climate change, which though an aspect constituting the most important of the environmental risks to which our continent and planet is exposed, is long and worrisome. Our future and that of the whole earth depends on our ability to initiate sustainable development strategies that will deeply influence our lifestyles and the dynamism of human societies.

The insurance-related professions, whose well-known ability to anticipate, forecast and plan risks is no longer in doubt, seem the most appropriate partner to sustainable development, and will in turn induce a transformation of our way of life.

In that perspective, insurers bring solutions to environmental challenges as experts, risk preventers and behaviour influencers. In other words, they are involved mainly as providers of various covers, and concomitantly as advisers on risk prevention or reduction and as corporate citizens who promote behaviours that they endeavour to practise. Thus, they adopt the "Triple Bottom" approach, which is that of pursuing harmonious social, environmental and economic development (People, Planet, Profit)

Insurance, a key economic sector for sustainable development generated in 2006 US\$ 3,723 billion (60% Life and 40% Non-Life), US\$ 16,626 billion of managed assets, US\$ 20,553 billion for Pension Funds and US\$ 17,771 billion mutual investment funds.

### **1. Insurance services (covers)**

Insurance is essential to economic activity, as without it, companies and individuals cannot take risks while at the same time protecting their assets. Although this seems a tautology, it is important to recall that the main role of insurance is to support innovation and by that it assesses the risk and tries to forewarn the society. In that perspective, several insurers and reinsurers have established research centres which assist in more detailed investigation of climate change, identification of emerging and/or natural risks, designing of modern forecasting

tools for hurricanes, storms, typhoons, cyclones, adoption of environmental and meteorological modelling systems.

### **1.1. Climate Change**

This is the most serious environmental risk currently confronting humanity. Economic losses related to extreme meteorological events have increased in the last 50 years from US\$ 10billion in the early 50s to US\$ 20billion in 1974, close to US\$ 40billion in 1988, US\$ 80billion in 1993 to more than US\$180billion in 2005, although insured losses only increased to US\$ 2billion 1988, close to US\$ 5billion in 1993 and almost US\$ 90 billion in 2005. There are reasons to believe that these economic losses could well attain US\$ 1000 billion in 2040.

An essential aspect of climate change is that most of the economic losses related to natural disasters are not insured, thus compelling victims themselves to finance repairs and reconstructions induced by these disasters. This phenomenon assumes a peculiar dimension in developing countries due to low household income. Therefore, insurers are obliged to propose insurance solutions that may take the form of micro-finance, pools or mutual funds for natural catastrophes and ART (Alternative Risk Transfer) covers such as meteorological instruments and catastrophe securities; the disadvantage here is that these refer more to bank products than insurance covers.

- Some insurers are already proposing a combined cover for the supply of carbon credits, so as to raise the confidence of financiers by responding to concerns relating to technological innovation (will it work?), standard risks such as fire and floods, seizure of production materials by the government of the host country etc;
- The role of micro insurance, which is reserved for the most vulnerable, is not to respond to environmental risks, but rather the economic and social exposure of this section of the clientele. The product is often simple and affordable, and is still linked to micro credit. Thus, in Uganda, an insurer provides a cover in the case of death which allows for settlement of the outstanding loan balance; this will reduce the financial constraint on the family of the deceased and also protect the lending institution from payment default. This cover can even extend to basic personal goods; known as "Disaster Cash", it provides for the payment of a lump sum to the insured in the event of a natural catastrophe (storm, flood, earthquake). A policy initiated in Latin America in 2007 also provides cover for industrial accident, workers' compensation and health risks. However, the difficulty could come from premium collection and claims payment in event of losses, which should be resolved through financial education and training in risk management techniques for participants in the micro-insurance scheme.

**1.2. Emerging risks due to human activity:** Modern technology-related risks are numerous and difficult to quantify: nanotechnologies, Genetically Modified Organisms (GMO), robots, nuclear materials, organic contaminants,

electromagnetic fields (mobile communication, cellular transmissions, electric lines). Although insurers cannot be fully involved due to lack of verified statistical data, they can participate in preventive monitoring, research and in sharing of experience and information. It is still possible to innovate in this area by basing risk quantification on a theoretical analysis of risk exposure and on probabilities. It goes without saying that in this case major radiation risks would need to be excluded.

**1.3. Environmental Liability:** The principle of “polluter-payer”, which is a major clause in Western legislations (“Super Fund” in the United States and Environmental Liability Guidelines in the European Union) is also reflected in the legal arsenal of several African countries, namely Algeria (Article 3 of Decree 03.10 of 19 July 2003 on environmental protection as part of sustainable development). This Article in effect provides that “any person whose activities cause or are likely to cause harm to the environment assumes the cost of all measures taken to prevent pollution, reduce pollution or restore the environment”. Thus, insurers have responded to this mental and legislative evolution by developing new products such as Environmental Impairment Liability (EIL), and subsequently excluding pollution covers from General Liability policies. Since they are specialised products, EIL policies are presently designed to include damages to natural resources and biodiversity. American and European insurers are currently exploring several possibilities of improving or extending the covers. There are several policies covering contractors’ liability (Contractors’ EIL Policy), company agents (EIL Professional Liability), effects of asbestos, rehabilitation of polluted sites, underground storage tanks, etc. Despite the complexity of these risks and the weak controls operators have over its effects, the loss experience is still acceptable, which confirms the need to develop this niche.

## **2. Asset Management (responsible investment) in a responsive insurance company**

Due to the size of assets that insurers manage, they are able to significantly influence sustainable development, whether in relation to personal insurance, in classes for which policyholder expect good returns or in the Non-Life business. Following the adoption of the principles of responsible investments by the United Nations, all investors henceforth appear to take into consideration the three dimensional key issues – Environment, Social, Governance. Thus, insurers, just like other investors should be bound by the principles of Socially Responsible Investing (SRI).

Institutions, including insurance companies, seem to prefer the engagement approach, i.e. constructive dialogues between the investor and the investee company in such a way that ESG factors are adopted as part of its decision-making processes. It is established that integrating ESG factors into decision-making processes not only increases the financial performance of the target company, but also reduces certain types of risks for the portfolios of the member companies. Thus, for several years, a leading insurer vowed not to invest in companies that

initiate or support serious environmental degradation, such as those involved in nuclear arms production or those “that post negative performances in Contractors’ Liability in high risk sectors such as oil and gas, pharmaceutical products, chemicals, mines, paper and forestry products, textile and electricity sources”. Thus, on the other hand, without jeopardising the interest of the client, such a measure limits the volatility of the portfolio. Another company established a loan facility for environment-friendly refineries, petrochemical factories, and thermal stations. If African insurers cannot make such stringent commitments due to their small financial markets, it should however be possible for them to assist in making client companies especially SMIs aware of their responsibility, by insisting on compliance with basic principles of environmental preservation.

### **Conclusion:**

Indeed, the African industry has to overcome several obstacles before acquiring recognition in “sustainable insurance”, mainly due to its economic weakness and the insurability nature of certain risks.

However, it appears that public-private partnerships are the royal route to implementation of adequate solutions for natural or catastrophe risks. Thus, although insurers can evaluate, reduce and finance the risk, and also design adequate products, the public sector can gather data and regulate the profession, while the private sector (especially experts) handle the modelling aspect and ensure a multi-channel distribution of covers.

This separation of roles can be fine-tuned by involving companies specialised in claims management or risk modelling even though they do not bear the risk themselves, while reinsurers continue with their global coverage thereby minimising financial consequences for local businesses.