

Insuring Disaster Risks in Tanzania: Challenges and Opportunities

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Abstract

The study aimed at characterizing the background and status of the insurance industry in relation to disaster risk management and analyzes the challenges and opportunities associated with insuring Disaster related risks in Tanzania. Ten insurance companies both local and foreign in Dar es Salaam region were involved in the study. The study used case study approach and employed both qualitative and quantitative methods of data analysis. The study covered the 2004 to 2012 period. The study found that despite the fact that from the historical development of the insurance industry globally and in the country disasters were not insured as they were and are still considered as uninsurable because of the catastrophic nature and the significant cost they impose to a particular company when they are realized. It was also found that several challenges exist for the industry in covering disaster risks such as the reluctance of large reinsurance market players to invest in the development of small risk market. Also lack of regulatory frameworks, lacking data on disaster risk, a lack of a culture of risk financing, and Lack of insurance culture, Urbanization and unplanned settlements were identified as challenges. However the following some of the identified opportunities available in insuring disaster risks in Tanzania include the creation of a pool of large customer base for insurers providing disaster covers to bring business in the companies to increase income. This study concludes that, if people are taking or purchasing other forms of insurance policies, they can also purchase disaster related policies too.

Key words: Insurance Business, Insurer, Insured, catastrophe and disaster

1. Introduction Background information

One way to reduce the impacts of disasters on the nation and its communities is to invest in enhancing resilience, which is the ability to prepare and plan for, absorb, recover from and more successfully adapt to adverse events (Blaikie et al 1994). Countries worldwide are looking for ways to manage risks, especially those related to or made worse by disaster. The insurance industry plays a critical role in providing financial protection and security to at-risk communities to support, and preserve the gains of, social and economic development. For many years, insurance has been used to offer protection against life, health risks, property risks and liability risks by individuals and firms in the world (PSI, 2014).

Insurers also allow communities to recover from the disastrous financial consequences of natural catastrophes (Earthquakes, Tsunamis, and Tropical Storms) or human related events (such as September 11th 2001 being the most-recent memorable event), whereas Disaster Risk Reduction reduces the expected disaster losses, disaster risk financing and insurance reduces the opportunity cost of disasters [(cost of securing funds to sustain a natural disaster), Mahul, 2011].

For this reason, the insurance industry should actively be involved in managing disaster risk, whether it stems from natural hazards (e.g. cyclones, earthquakes, floods, droughts), biological hazards (e.g. epidemics, animal and insect infestation) or technological hazards (e.g. industrial pollution, factory explosions, transport accidents). This includes disaster risk from a combination of hazards (e.g. natural and technological hazards).

Despite the fact that Tanzania is repeatedly affected by numerous disasters and has robust insurance industry, the practice of insurance against disasters is practically still in its infancy.

Furthermore, although many separate studies have been carried out on both insurance issues and disaster issues in Tanzania, no studies linking disaster issues and insurance issues in Tanzania have been reported. As a result, it is not clear why despite its growth and international scope; the insurance industry in Tanzania has not made much progress towards covering disaster risks.

Undoubtedly, the knowledge gap resulting from this deficiency is detrimental to both disaster risk management and insurance industry.

This study intended to characterize the background and status of the insurance industry in relation to disaster risk management and analyze the challenges and opportunities associated with insuring disaster related risks in Tanzania.

2. LITERATURE REVIEW

2.1 Experience from insurance industries in other developed/developing countries

India and Philippines are among countries that have utilized insurance to improve lives of their people. The use of insurance to protect against climate related risks on livestock and agricultural products has a great impact on people's lives as they no longer worry about fall of agricultural output. This is also practiced in Malawi, Honduras, Jamaica, Peru, South Africa, Thailand, Ukraine and Vietnam.

Ethiopia also provides an example of how insurance has been used to revolutionize the disaster risk management of portfolios for governments and relief agencies. The practice of index insurance has proved that the integration of index insurance into disaster management strategies can help poor people whose livelihoods are closely linked to weather and who are at risk of falling into poverty traps if weather shocks occur (Hess, 2012). Rainfall is used as a proxy for economic loss resulting from drought and serves as a simple basis for the contract, payouts are not dependent on time-consuming and often subjective needs assessment (WFP, 2006). Although there are still some queries on the use of index insurance as to whether if it can play a role in managing uncertainty associated with climate change and if does climate change challenge the viability of index insurance products, yet the fact is clear that it helps in managing and mitigating climate risks.

USA also serves as an example of disaster insurance where a homeowner multi peril policy provides coverage against damage to ones property from fire, windstorm and hail as well as other perils except for earth quake, which can be attached as a special rider to the homeowners' policy for an additional premium and flood insurance which can be purchased from the federal government national flood insurance program by homeowners facing this risk (FEMA 2002; Kunreuther 2003).The The federal government also provides insurance for other risks such as hailstorm, volcanic eruption, hurricane, landslide, tornadoes, Tsunami and Wild fires.

2.2 Developing countries and insurance

Today insurance covers only around 3 percent of disaster losses in developing countries, compared to 40 percent in the industrialized countries. In developing countries, insurance is most common in the commercial and industrial sectors and higher income groups. In the non-life industry, the bulk of premium volumes came from the motor sector, with property insurance a relatively low proportion (e.g., 20 percent in India), (Warner, 2007). The penetration of agricultural insurance in developing countries is also low despite the sector's economic importance, with premiums accounting for only 0.01 percent of GDP. Catastrophe insurance has particularly limited availability. In addition, insurance has low penetration among lower-income groups, due to its general lack of affordability. Insurance sector information does indicate, however, that there is potential for growth, and many new markets are emerging. Premium volumes are now growing rapidly in the emerging market economies: 7.5 percent per annum for life insurance and 6 percent per annum for non-life. In 2005, annual premiums per capita in emerging markets were approximately \$46 and \$30 USD per capita for life and non-life insurance, respectively (compared to \$1900 and \$1400 USD per capita in developed countries), (Warner, 2007).

3.0 RESEARCH METHODOLOGY

The study used case study research where by Dar es Salaam region was selected as the case study area. This is because in the recent years, the region has been experiencing a series of disaster events than other regions in the country. The background information for this study came from primary and secondary sources. The primary data were collected through personal communication (consultation, interviews) and questionnaires. Secondary data which included data on premium, type of covers, number of affected population, disaster aid in terms of finance and materials were obtained by reviewing the documentary evidence such as government policies, insurance covers, annual reports of disaster's and related materials relevant to the study.

4.0 RESULTS AND DISCUSSION

4.1 Tanzania insurance industry

The Tanzanian insurance industry can be characterized by the way stakeholders interact and act in accomplishing the insurance business as depicted in figure 4.1.

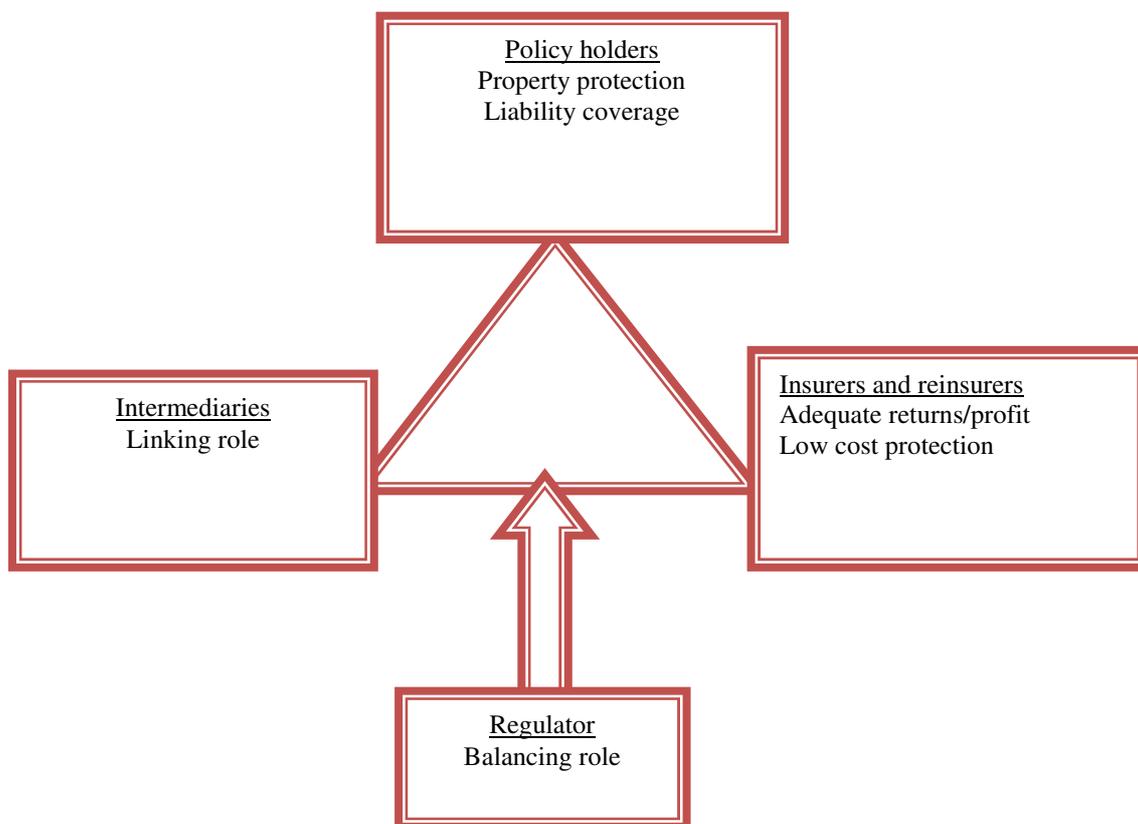


Figure 4.1. The Tanzanian insurance industry

4.1.1 Policy holders or the insureds

Policy holders or insureds require adequate protection from the insurance companies' in terms of Property protection and Liability coverage. During the course of this study, the respondents were asked to identify the reasons behind purchasing or not purchasing insurance services and several reasons prevailed against their decision to purchase insurance services as follows, 85% of respondents mentioned lack of general understanding of insurance business as the prohibiting factor, 100% of respondents purchase insurance because they are forced to by regulations, only 5% of respondents purchase insurance because they need for protection, high premiums and lack of insurance culture. Also, the study discovered that respondents did not have the willingness to insure against various risks, Willingness to insure determines the demand for a particular insurance cover, when asked out, and 100% of respondents explained their willingness to insure against different risks in daily life. Figure 4.2 shows the respondents reasons for and against purchasing insurance policies.

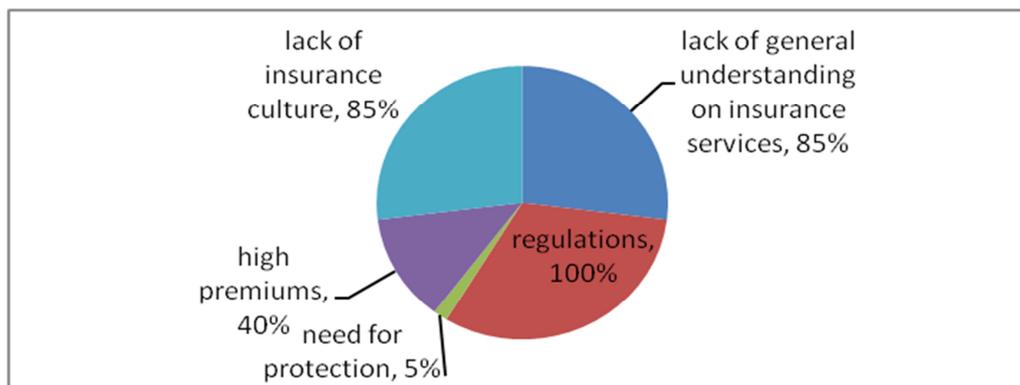


Figure 4.2. Reasons for or against purchasing insurance

4.1.2 The Government and regulators

The government of Tanzania does not have a policy of risk transfer, rather government assets are, for the most part uninsured, the government physical assets such as buildings, schools, roads, libraries; hospitals are uninsured or underinsured. Exceptions include properties owned by statutory corporations such as port and airport authorities as well as utility companies that can independently access the insurance market.

In the year 2012, the government of Tanzania initiated the creation of a national insurance policy in which the Government assets as well as disasters would be insured; this policy is not yet operational to date hindering inclusion of disaster risks in the insurance industry. As it is the fact that the country has no adequate risk management fund, resources for the disaster response are provided from funding diverted from ongoing programs and international aid, this perpetuates the vulnerability of national assets to natural hazards.

4.1.3 Insurance companies

The number of general/property and life insurance companies in Tanzania is not large but adequate; the ratio of premium earned in 2011 was TZS 344.7 billion to a number of companies writing property and life business (numbering 27) is TZS 127.7 million per company. In contrast, the average premium written per company in United States (2500 companies in total) is \$ 112 million equivalent to TZS 179.2 billions. This is due to different levels of development and insurance markets and economies of scale.

The proportion of residential and commercial properties in Tanzania covered by insurance is significantly low as compared to other countries.

4.1.4 Reinsurers

In Tanzania, the traditional insurance structure involves the proportional treaty contracted with reinsurer; almost 68% of written risks are ceded to reinsurers who take on that proportion of risks as well as the corresponding premium income.

For local insurers, the transfer of premium income collected is rewarded with commissions paid back by the reinsurers for bringing in and administering the client business. Every insurer is required to place with African Reinsurance Corporation (Africa Re) a minimum of 5% of its reinsurance cessions and with Preferential Trade Area Reinsurance Company (ZEP-RE) a minimum of 10% of its reinsurance cessions.

Examining the above reinsurance arrangements, the analysis shows that increased welfare in terms of reducing the country risk can be obtained by through pooling such financial risks across different risk zones in the country. As with portfolio diversification, a larger risk pool not only lowers the minimum net risk capital requirement, but also allows for more reinsurance arrangements, which can be contracted on a larger value base.

4.1.5 Claims experience

Global catastrophes such as past hurricanes or earthquake around the world generated significant insurance and reinsurance shortages causing insurance rates increase on account of shortages of insurance covers, due to indemnity payments made for hurricanes and earthquakes.

For Tanzania insurance industry, disasters are not insured and therefore the companies have never experienced and paid for disaster losses and therefore, data on disaster claims are not available due to the fact that disaster risks are not insured in the country, the industry only pays indemnity payments on property and life insurance not resulting from disaster.

4.2. Challenges and opportunities for the insurance industry in insuring disaster risks in Tanzania

4.2.1. The challenges

In Tanzania just like other developing countries, the insurance market is undeveloped, and coverage for natural disasters is extremely limited. Where hazard coverage exists, it is usually limited to major industrial and commercial properties, and some better-off households. Some challenges that prevail in developed countries also prevail in developing countries and Tanzania as one suffers from the following challenges:

- ii) **Minimum solvency margin:** One of the biggest challenges facing the Tanzania insurance business is the failure of some firms to uphold a minimum solvency margin, thus preventing them from being able to fully meet their financial responsibilities. This hinders the inclusion of disaster risks in the industry as firms cannot pay for the losses when disasters happen.
- iii) **Lack of training** facilities in the country to train experts both in the field of disaster management and insurance.
- iv) **Catastrophe nature of the risks:** This is because the large number of exposure units will suffer loss at the same time making it difficult to pay the claims. In some countries, especially USA disaster risks are insured with collaborative efforts of the federal government and insurance service providers, when disasters like floods, earthquake, and tsunamis happen, a large number of people are affected overwhelming the capacity of the insurance industry to compensate for the losses. The government support companies by sharing the payment of claims to victims as long as the particular event has been declared to be a national disaster.
- v) **Dependence on the international insurance industry:** due to overly high dependency on international insurance industry the local industry has not accumulated capital of its own to better safeguard against international rates movements and achieve a more optimal mix of risk bearing capital, leveraging both domestic and international funds. The domestic insurance industry is highly fragmented, which accentuates the relatively low levels of available risk capital in a significant portion of the industry.
- vi) **Policy coverage restrictions are generally designed and imposed by foreign insurers** and their effect falls on the policy holders rather than the insurance companies. There have been mixed feelings as to the industry's role for proactive involvement in promoting hazard and vulnerability mitigation measures, while not denying the inherent benefits of such measures, the insurance companies' concerns centre on the implementation complexities and costs, particularly as the reinsurers are seen unlikely to share in these costs. Most insurance companies view the leadership role for mitigation measures as residing with the Government. The reluctance of large reinsurance market players to invest in the development of small risk market. Is another challenge that affects the operation of our industry, example in Tanzania, there is only one reinsurance company (Tan Re) but it does not support the transfer of natural disasters rather they offer protection for common insured perils.
- vii) **Lack of regulatory frameworks and guiding policy:** where as regulations and legislations do not provide for regulations of catastrophe insurance, which creates a lax in provision of adequate coverage, because if an insurer decides to insure these risks, he is taking the risks without backing regulatory frameworks on how to charge the premium. In Tanzania, there is a regulatory authority (TIRA) which controls the insurance industry, but the country is lacking the National insurance policy which could guide the nation on insurance issues in conjunction with disaster risks and governmental delays in adopting a policy on insurance for its vehicles.
- viii) **Lacking data on disaster risk:** the data on disaster risks are missing and there is no a country database where insurers could access the information to facilitate estimation of the probability of events happening and the impact it may cause. Disasters happening in the country are not recorded and ranked on the amount of economic loss they have caused, their frequency and probability of happening, and the impacts on people and their lives. It should be the role of the disaster management department (DMD) of the country to keep track of all the disasters and establish a national wide disaster database where individuals and companies could access disaster data.

- ix) **A lack of insurance culture** by many Tanzanians whereby insurance is considered as the product for rich people who fear their lives. This can be seen from the evidence on the types of products that are commonly purchased by ordinary citizens, the products mostly purchased are those which are mandatory and required by law such as motor insurance and health insurance; other policies are purchased by few.
- x) **Urbanization and unplanned settlements** which increase the vulnerability and alter the nature of natural hazards interns of frequency and severity. In past years, disasters were not common in a country, but recently they have been occurring frequently impacting mostly the people living in unplanned settlements; insurers cannot provide coverage for these people as they are living in informal settlements, which are unauthorized by the Government and so providing covers will be taking high risks for insurers.
- xi) **Lack of government commitment** in working with private insurers to provide coverage as the lender of last resort and protector of people's lives and properties. When disasters happen, almost all units in the underwriting class experience loss, these losses overwhelm the capacity of the insurance companies to pay the claims, the Government could work with these insurers in ensuring that people are restored to their normal life as long as the event is classified as a national disaster by sharing the cost of claims. Although the role of the Government is to authorize and regulate the operation of the insurance companies in the country, the Government could also work with the companies in providing coverage for disasters.

Respondents were asked to identify the challenges faced by the industry in providing coverage for disaster risks and the following prevailed, 100% of respondents mentioned lack of regulatory frameworks and policies, failure to hold a minimum solvency margin, lack of commitment from the Government to work with private insurers and catastrophe nature of disasters as key challenges,

95% identified policy coverage restrictions being decided by foreigners and dependency on international markets as challenges where as 65 percent of respondents mentioned lacking data on disaster risks.

4.2.2 Opportunities in insuring disaster risks

Insurance mechanisms sharing risk across space and time could be designed in ways that provide incentives to lower the magnitude of future losses associated with extreme events as explained hereunder:

- a) **Risk reduction as a prerequisite for insurance contracts:** In order to strengthen resilience to future disasters, it is possible to require as a precondition to qualify for the insurance policy the implementation of measures that minimize the susceptibility of clients to the direct impacts of natural hazards.
- b) **Risk reduction as a lever to lower insurance premiums:** Properly designed insurance instruments actually "price" risk based on probability of loss, and can thus create incentives for vulnerability reduction.
- c) Disaster risks create a pool of large customer base for insurers providing disaster covers to bring business in the companies to increase income.
- d) If people are taking or purchasing other forms of insurance policies, they can also purchase disaster related policies too.
- e) There is a room to force people to purchase disaster insurance in risk areas by the government; this can be possible in risk land areas, which are sold by the government and government agencies.

5.0 CONCLUSION AND RECOMMENDATIONS

The study has characterized the current insurance industry regime in Tanzania in the context of disaster risk management in relation to stakeholders, coverage, claims settlement and coverage for disasters. It is concluded that disaster risks in Tanzania are not insured, neither the government does not insure its properties.

Furthermore, the study has carried out a critical analysis of the insurance industry to establish the challenges and opportunities available in insuring disaster risks. Some of the challenges include dependency on foreign industries, catastrophic nature of disasters; lack of risk disaster risks data, and lack of government commitment to work with insurers. Some of the identified opportunities include: Disaster risks create a pool of large customer base for insurers providing disaster covers to bring business in the companies to increase income, If people are

taking or purchasing other forms of insurance policies, they can also purchase disaster related policies too and also there is a room to force people to purchase disaster insurance in risk areas by the government; this can be possible in risk areas, which are sold by the government.

5.2. RECOMMENDATIONS

For proper inclusion and management of disaster risks, this study recommends the following:

- i. The government should set a national insurance policy which will include coverage for disaster risks and also adopt a policy for insuring its assets.
- ii. The real estate developers (both private and public) should acquire the disaster-prone areas, modify, develop and sell them to people with an addition of insurance cost.
- iii. The public private partnership strategy should also include insurance providers where the insurance companies can share information on risks with the government and policy makers.
- iv. Insurance companies should design insurance products at an affordable price to both groups of individuals. Insurance products are not designed with the poor people in mind.
- v. Provision of insurance education and awareness campaigns to the public should be a shared responsibility between the Government and insurance companies. Risk awareness raising and provision of information (including information on the benefits of risk reducing measures).
- vi. Risk pricing should be keenly and set premiums that reflect the level of risk (i.e. price differentiation)
- vii. Establishing enabling conditions and appropriate regulations that will consider disaster risks.

REFERENCES

- Blaikie, P. T. Cannon, I. Davis and B. Wisner (1994). *At Risk: Natural hazards, People's vulnerability, and disasters*. London, Routledge.
- Blaikie, P.T. Cannon, I. Davis and B. Wisner (2004), *At Risk: Natural Hazards, Peoples Vulnerability and Disaster*, London, 471P
- Hess U and Verlangier L (2009), *Disaster insurance in Ethiopia Index insurance and climate risk: Prospects for development and disaster management*. Climate and Society No. 2. International Research Institute for Climate and Society (IRI), Columbia University, New York, USA.
- Hess U. and Syroka J. (2005) *Weather-based Insurance in Southern Africa: The Case of Malawi*. Agriculture and Rural Development Discussion Paper 13. World Bank, Washington, DC.
- King R. O. (2013) *Financing Natural Catastrophe Exposure: Issues and Options for Improving Risk Transfer Markets* Congressional Research Service.
- Kunreuther.H. (2003), *Insurability conditions and Supply of Coverage*, National Academies Sciences.
- PSI (2004), *Harnessing the full potential of insurance industry in Disaster risk management: An insurance industry commitment in support of the process to develop the post 2015 framework for Disaster risk reduction*. A global sustainability framework and initiative of the UNEP.
- Putnam, R. D. 2000. *Bowling Alone: Collapse and Revival of the American Community*. New York: Simon & Schuster.
- Smith.D.A.Y., (2007), *Information on disaster risk management, Case study of five countries*, United Nations.
- URT (2009), *National Insurance Act*, United republic of Tanzania, Government printers, Dar Es Salaam, Tanzania.
- World Bank (2008) *The Caribbean Catastrophe Risk Insurance Facility: Providing Immediate Funding After Natural Disasters*. Operational Innovations in Latin America and the Caribbean, Vol. 2, No. 1. World Bank, Washington, DC.
- Wamsler Christine (2004), *Managing Urban Risk: Perceptions of Housing and Planning as a Tool for Reducing Disaster Risk*, Global built environment review, Lund University, Sweden.
- World Food Programme (2007) *Final report on the Ethiopia drought insurance pilot project*. Operational Reports, Agenda item 10. WFP/EB. 1/2007/10.
- koko Warner.K.,Nicola Ranger, Swenja Surminski, Margaret Arnold, Joanne Linnnerooth-Bayer, Erwann Michel-Kerjan, Paul Kovacs, Celine Herweijer,(2007) *Adaptation to Climate Change: Linking Disaster Risk Reduction and Insurance*, United Nations International Strategy for Disaster Reduction Secretariat (UNISDR), Geneva.

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