



# University of HUDDERSFIELD

## University of Huddersfield Repository

Haigh, Richard, Amaratunga, Dilanthi and Hettige, Siri

Ensuring Accountability in Disaster Risk Management and Reconstruction

### Original Citation

Haigh, Richard, Amaratunga, Dilanthi and Hettige, Siri (2016) Ensuring Accountability in Disaster Risk Management and Reconstruction. In: International Workshop on Disasters and Accountability, 8th December 2015, Colombo, Sri Lanka.

This version is available at <http://eprints.hud.ac.uk/id/eprint/28485/>

The University Repository is a digital collection of the research output of the University, available on Open Access. Copyright and Moral Rights for the items on this site are retained by the individual author and/or other copyright owners. Users may access full items free of charge; copies of full text items generally can be reproduced, displayed or performed and given to third parties in any format or medium for personal research or study, educational or not-for-profit purposes without prior permission or charge, provided:

- The authors, title and full bibliographic details is credited in any copy;
- A hyperlink and/or URL is included for the original metadata page; and
- The content is not changed in any way.

For more information, including our policy and submission procedure, please contact the Repository Team at: [E.mailbox@hud.ac.uk](mailto:E.mailbox@hud.ac.uk).

<http://eprints.hud.ac.uk/>

## Ensuring Accountability in Disaster Risk Management and Reconstruction

During the decade that followed the adoption of the Hyogo Framework for Action in 2005, calls for greater public, private and civic accountability to reduce risk and vulnerability became increasingly vocal. Among them was a declaration issued by European ministers in 2014, the year before the finalization of the Sendai Framework for Disaster Risk Reduction, in which they urge improved accountability, transparency and governance for disaster risk management. This also provides guidance to the focal point on Disaster Risk Reduction at the Central government level on how to improve leadership in risk governance, transparency, sharing of risk information, stakeholder participation and public awareness and encouraging and action on stakeholder feedback.

Accountability in disaster risk reduction is intended to enable scrutiny and understanding of actions taken at different levels, and of those responsible for such actions. Article 19(e) of the Sendai Framework articulates the principle that disaster risk reduction depends on coordination mechanisms within and across sectors, full engagement and clear responsibilities of all State institutions and stakeholders, to ensure mutual accountability.

During the consultations and negotiations that led to its finalisation, strong calls were also made to develop practical guidance to support implementation, ensure engagement and ownership of action by all stakeholders, and strengthen accountability in disaster risk reduction - 'Words into Action'.

In contributing to this agenda, a workshop on "Ensuring Accountability in Disaster Risk Management and Reconstruction" was organised as a part of a global, regional and national partnership by Social Policy Analysis and Research Centre (SPARC), University of Colombo-Sri Lanka and Global Disaster Resilience Centre (GDRC), University of Huddersfield-UK, and Essex Accounting Centre, University of Essex-UK in association with University of Moratuwa and University of Peradeniya Sri Lanka, the International Journal of Disaster Resilience in the Built Environment, Collaborative Action towards Disaster Resilience Education (CADRE), and the Federation of Sri Lankan Local Government Authorities. This was also in support of the UNISDR Making Cities Resilient campaign and Sendai Framework for Disaster Risk Reduction 2015-2030.

The workshop had the participation of disaster risk management experts and state and non-state stakeholders to deliberate on and develop a possible framework for social accountability to be considered for inclusion in a national disaster management plan.

### For further information, please contact:

Professor Siri Hettige  
Social Policy Analysis and Research Centre, University of Colombo, Sri Lanka  
e: hettigesiri@gmail.com w: www.sparc.cmb.ac.lk

Professor Dilanthi Amaratunga  
Global Disaster Resilience Centre, University of Huddersfield, UK  
e: d.amaratunga@hud.ac.uk w: www.hud.ac.uk/gdrc

Professor Richard Haigh  
Global Disaster Resilience Centre, University of Huddersfield, UK  
e: r.haigh@hud.ac.uk w: www.hud.ac.uk/gdrc



University of  
**HUDDERSFIELD**  
Inspiring tomorrow's professionals



 University of Essex

## Workshop themes

The main question that the workshop addressed was how to ensure accountability in Disaster Risk Management and Reconstruction? This question was addressed by examining the following five themes:

### **1. Accountability of government and other institutions for their conduct and performances in preventing and managing disasters**

The government is responsible for establishing the combination of the set of laws, rules, practices and cultural mores to prevent and management disasters in any given political and economic situation. Therefore any assessment on what agencies do to reduce disaster risks becomes important to highlight explicit accountability. An assessment of institutional performance in DRR is crucial for measuring of institutional response, and mapping and assessing institutions' accountability against each disaster type.

The government officials are presumed to be accountable for their conduct and performance in terms of delivering better services, improving vulnerable (disaster prone) people's welfare, and protecting disaster victims. For example, the role of implementing agencies is to complement the government effort in reaching out to the communities to be better prepared for responding to disasters in the interest of vulnerable communities.

### **2. Tools of accountability and access to information**

For an efficient social accountability mechanism in disaster management, the availability, reliability and accessibility of relevant data/information is an essential issue. The tools, such as participatory budgeting, social audit, citizen record card and surveys can be used to measure the level of constructive engagement between the disaster management institutions, citizens and victims of natural disasters. Accountability tools can be used to measure how the disaster management institutions identify priorities, implement policies and programmes and also programme outcomes.

### **3. Role of organized and capable citizen groups in establishing social accountability**

The capacity of civil society actors and grass-root level NGOs is a key factor for the successful implementation of social accountability mechanisms in disaster management. The civil society capacity can be shaped by various individual and contextual factors, such as organisation of civil society groups, their technical and advocacy skills, their awareness and capacity to mobilise resources, their ability to use media and to strengthen their legitimacy. These are all central to the success of social accountability action. In many contexts, efforts to promote an enabling environment for civil society and to build the capacity (both organisational and technical) of grass-root level groups are required. For example, addressing constraints and opportunities become important for enhancing the transparency and accountability of post disaster reconstruction activities with vertical and horizontal accountability mechanisms. Thereby, citizen involvement in monitoring DRR progress (based on locally conceived priorities) at every scale, including policy formulation and implementation, become equally important.

### **4. Contextual and cultural appropriateness of the accountability tools**

Effectiveness of the tools for social accountability in disaster management is largely determined by existing contextual and cultural conditions. The social accountability action must respond to and operate within the larger context and under a framework covering the sectors, gender, local governments, etc. A due consideration should be given to the specific political, gender based, sociocultural, legal and institutional factors and differences in accountability capacity. For example, in the context of Early Warning (EW), appropriateness of EW systems for facilitating proactive responding of diverse individuals (for example based on gender and ethnicity) in the communities at immediate risk.

### **5. Accountability in the built environment**

The protective characteristics of the built environment offer an important means by which humanity can reduce the risk posed by hazards, thereby preventing a disaster. Conversely, post-disaster, the loss of critical buildings and infrastructure can greatly increase a community's vulnerability to hazards in the future. Finally, the individual and local nature of the built environment, shaped by context, restricts our ability to apply generic solutions.

There is a need to develop a more resilient built environment. This will only occur when we design, develop and manage context sensitive buildings, spaces and places that have the capacity to resist or change in order to reduce hazard vulnerability, and enable society to continue functioning, economically and socially, when subjected to a hazard event.

Achieving such goals is not easy. Citizens' needs and demands are high and urgent. Supporting multiple approaches to ensure the efficient and transparent use of funds and that hold a government accountable to end results will not only enhance that government's legitimacy in the eyes of its citizens and the international community, but will also guarantee a better targeted, higher quality, and more sustainable development.

The responsibility of a transparent construction process does not fall on governments alone. Civil society plays a fundamental role in raising awareness, establishing and contributing to priorities, and monitoring progress. Individuals need to take on their responsibility as active citizens, building a better tomorrow rather than seeing themselves as disaster victims and recipients of aid. There needs to be support towards a variety of institutional strengthening initiatives, non-governmental activities, and external control mechanisms to oversee the use of funds. Inefficiencies often arise due to mismanagement or inexperience rather than ill intentions. Accordingly, implementation counterparts should be selected for their experience and management capacity.

## Key outcomes and findings

The workshop was timed to almost coincide with the 11th anniversary of the Indian Ocean Tsunami (IOT) that devastated much of Sri Lanka's coastline resulting in thousands of deaths, injuries, mass displacement of people and property loss. Global and local response to the unprecedented disaster was overwhelming. After ten years, almost of all of the displaced are resettled, mostly at a distance from the coast to reduce their vulnerability to another coastal disaster. Given the scale of the displacement, resettlement and rehabilitation that have taken place over the last ten years are remarkable. On the other hand, the aftermath of the disaster has also provided policy makers, researchers, practitioners and others many opportunities to learn from varied experiences with regard to disaster risk reduction, reconstruction, resettlement and rehabilitation. One of the most important lessons has been the lack of accountability on the part of many state and non-state institutions and agencies involved in the above processes.

The papers presented and the panel discussion conducted as part of the workshop were not confined to the IOT but covered many other natural hazards and vulnerabilities disasters in Sri Lanka such as landslides, water pollution and floods.

The following is a summary of the major findings to emerge from the workshop.

1. What is accountability? Obviously, it is **an integral aspect of good governance**. But what is important to emphasise here is that accountability has **several important dimensions, namely, financial, legal and social**. Conventionally, state institutions and officials have been held accountable for financial management. But, what is equally or even more important are legal and social accountability. Given the increasing significance of DRR today, **accountability needs to be defined in broader rather than narrower terms** in order to ensure that state and non-state actors live up to public expectations with regard to vulnerability reduction and preparedness improvement at **all stages of disaster management**.
2. Disaster risk reduction is a **long term process covering pre-, during and post disaster situations**. So, accountability issues are also related to all three periods. In other words, accountability in DRR begins before a disaster occurs. The same applies equally to the other two stages.
3. The lived experience of disaster victims and the findings of researchers who conduct assessments of recovery processes point to the fact that **better governance of mitigatory processes** including pre-disaster risk assessments and risk reduction measures can not only save many lives but also reduce or minimise losses in economic, social and psychological terms. On the other hand, diverse institutions and individuals charged with the responsibility of DRR are likely to act more responsibly if they are going to be held accountable for preventable adverse impacts of disasters.
4. How to identify and define preventable adverse impacts? This naturally is a vast and complex area for study, as the likely impacts can vary widely depending on a whole range of factors such as the nature and scale of disasters and social, political, economic and spatial context. What is equally important is to **identify the institutions**

### Workshop organisation

*This workshop was organized by Professor Siri Hettige, University of Colombo, Sri Lanka, Professor Dilanthi Amaratunga, Professor Richard Haigh and Ms Kushani De Silva, University of Huddersfield, United Kingdom and Dr Kelum Jayasinghe, University of Essex, United Kingdom.*

### Welcome address and keynotes

*Professor P.S.M. Gunaratne, Vice Chairman, University Grant Commission, Sri Lanka was the chief guest and Dr Jerry Velasquez, Chief of Section, Advocacy and Outreach, UN Office for Disaster Risk Reduction (UNISDR), Geneva, Switzerland delivered the key note address. Special remarks were made by Professor Lakshman Dissanayake, Vice Chancellor, University of Colombo, Sri Lanka, Professor Dilanthi Amaratunga, Head, Global Disaster Resilience Centre, University of Huddersfield, United Kingdom and Professor Siri Hettige, Senior Professor of Sociology, University of Colombo, Sri Lanka.*

### Technical sessions

*The workshop included two technical sessions: 1) Accountability of government and other institutions for their conduct and performances in preventing and managing disasters and accountability in the built environment; 2) Tools of accountability and access to information, role of the organised and capable citizen groups in establishing social accountability and contextual and cultural appropriateness of the accountability tools. A summary of these papers is provided overleaf.*

*Paper presentations were made by Prof. Samantha Hettiarachchi, Vice Chairman, UNESCO-IOC-IOTWS/ University of Moratuwa, Prof. Siri Hettige, University of Colombo, Ms. Kushani De Silva, PhD Researcher in Disaster Management, University of Huddersfield, Prof. Sujeeva Setunge, RMIT University, Australia, Prof. S.W.S.B Dasanayaka, Dr. Nishara Fernando, University of Colombo, Sri Lanka, Eng. Nuwan Kumara, Dept. of Meteorology, Sri Lanka, Mr. R.M.S Bandara, National Building Research Organization, Sri Lanka Mr. Ananda Gallapathi, The Good Practice Group, Sri Lanka and Mr. L.P.R. Wijesinghe, National Water Supply and Drainage Board, Sri Lanka under the above mentioned themes.*

### Panel discussion

*The policy discussion was held with the participation of Prof. Siri Hettige, University of Colombo, Mr.R. P.Samarakkodi, ADG, DMC, Dr. A. Mallawatantri, Country Representative, IUCN, Ms. Wasantha Samaraweera, Add. Secretary, Min. of Disaster Management, Dr Kelum Jayasinghe, University, Col. S. Madugalle, DDG, SLRCS, Dr. Jerry Valasquez, UNISDR, Mr. R.Jayasekara, Director Forecasting, Dept. Meteorology as the panelists.*

- and authorities that can be held accountable.** This also needs to be carefully examined in order to **apportion responsibility, both legally and morally, for various aspects of DRR.** This includes establishing a clear understanding of the state's legal and moral obligations and capacity to deliver all components of Sendai Framework.
5. However, accountability for risk reduction is an **obligation on the part of many stakeholders** from central government downwards and include state institutions, business organisations, various professional groups, local government, media institutions and civil society organizations. **Availability and accessibility of data and timely information** can create an enabling environment to promote accountability on the part of many actors.
  6. Given the diversity of potential actors and institutions involved in DRR, accountability is **often a joint responsibility.** In the case of slow onset disasters like sea level rise and pollution, **scientific data can be critical for planning** but sharing of such information is not common. **Collaboration between actors,** including effective communication mechanisms, is vital.
  7. The **lack of accountability on the part of governments, state institutions and public officials, as well as diverse private sector stakeholders,** tends to magnify material and human costs of disasters. While it is necessary to find effective ways to ensure accountability, these may **include both penalties as well as incentives.** Accountability is **not about pinning responsibility on one centralised body** like a national disaster management agency but **enlisting multiple actors to take responsibility,** both individually and collectively. It is important to ensure that their failure to do so is not inconsequential, in terms of both penalties and rewards.
  8. The **role of regulatory bodies,** in particular those relating to coastal resources, human settlement, construction and social and physical infrastructure, is critically important to ensure accountability on the part of many stakeholders such as land developers, industrialists, construction firms and state institutions.
  9. While large-scale disasters such as tsunami and earthquakes usually draw responses from institutions across a wider field, most of them **naturally withdraw from the disaster zone over time, leaving behind newly built settlements, vital infrastructure and other arrangements, but also their responsibilities.** The **upkeep and maintenance** of these often become the responsibility of central and local government institutions.
  10. An **accountability systems approach,** emphasises the need to move beyond a narrow focus on supply-side versus demand-side accountability support, or a focus only on formal institutions, and instead to **look more closely at the linkages among actors and how these can be strengthened** over time.
  11. It is important identify the **characteristics of the community and characteristics of the enabling environment,** including how to encourage broad-based participation, strengthening the political involvement of citizens in decision-making processes, and in mechanisms for legitimacy and control. There is also a need to **strengthen downward accountability** by supporting feedback channels from the community and civil society to subnational and even national government to articulate local needs and preferences.
  12. There is a need to **support citizens,** particularly those most vulnerable to disasters, to **understand relevant rights, policies and possible accountability pathways.** This includes citizen involvement in monitoring DRR progress based on locally conceived priorities at every scale, including policy formulation and implementation.
  13. Availability of **carefully designed emergency plans at national, regional and local levels** can be critically important for DRR. This can therefore be an important obligation on the part of relevant authorities at all levels.
  14. While early warning is considered as an important part of disaster preparedness, relaying emergency messages to vulnerable communities is not always effective. Use of **multiple means of communication channels including social media and mobile phones can enhance the effectiveness of early warning systems.**
  15. **Monitoring processes** are needed. This includes the need to provide a **basket of indicators,** providing clarity on the 'nuts and bolts' of monitoring, focusing on data management, improving systems to track and gauge disaster risk, and ensuring an **alignment with the monitoring systems of the Sendai Framework.**

## Summary of papers

### **Keynote: Promoting accountability in reducing the impacts of disasters to the poor and vulnerable**

The Sendai Framework for Disaster Risk Reduction: 2015-2030 is the global blueprint in the next 15 years for reducing disaster risks and preventing the creation of future risk and building resilience. The Framework notes the need for improved accountability for disaster risk reduction at all levels, through improved disaster risk governance. Article 19(e) of the Sendai Framework articulates the principle that disaster risk reduction depends on coordination mechanisms within and across sectors, full engagement and clear responsibilities of all State institutions and stakeholders, to ensure mutual accountability.

#### *Challenges to promoting accountability in DRR*

Under normal conditions, making local development planning equitable has proven difficult, resulting in steady increase in community risks to disasters. This is due to capacity gaps, multiple and at times what appears to be, conflicting – not least economic – interest. The poor have borne the brunt of this unequal growth and distribution of disaster risks, as they often are the most exposed to hazards and are also the most vulnerable to them.

#### *Social demand for accountability in DRR*

There are a number of examples of people and communities voicing their expectations to government officials to provide timely warning and to enable evacuation, when hazard impacts are imminent. In one example in the Philippines, members of the Save CDO Now Movement filed an administrative complaint against the Cagayan de Oro city mayor. The complaint alleged that the mayor was negligent in protecting the population of the city from Tropical Storm Washi in December 2011 when more than a thousand people were killed. A similar case was filed in August 2012 against the mayor of Minami-sanriku, Miyagi prefecture in Japan claiming that professional negligence caused the deaths of town officials during the March 2011 tsunami because he failed to direct them to safety. Such explicit public concern has not yet been demonstrated to reduce the exposure or vulnerability of entire segments of population to hazards that could potentially lead to disasters in the future.

#### *DRR accountability as a moral responsibility*

Despite policy-driven expectations of monitoring and accountability, establishing a direct attribution of effective disaster risk reduction to good governance is difficult. The consequences of decisions or actions taken or avoided may not become visible until much time has passed. In this regard, promoting accountability as a moral imperative and institutionalizing effective accountability mechanisms appears to be ways forward.

### **Paper 01: Coastal Risk Assessments and Disaster Resilient Cities; A Critical Consideration in Accountability Frameworks**

An accountability framework is a comprehensive communication tool that captures the essential information for the communities at risk including stakeholder agencies. As Coastal communities all over the world are under severe pressure resulting from planned and unplanned development, population growth and human induced vulnerability, coastal hazards accompany high waves and heavy inundation, increasing frequency and magnitude and impacts of global climate change, disaster risk of such communities become high. Among the tools available for identifying deficiencies in preparedness analyzing Disaster Risk Reduction (DRR) processes, policies and programmes become important. Land use, key infrastructure and demographic information for identifying dynamics among, human, built and natural environments can support analyzing deficiencies in preparedness. However unless, preparedness and response capacities are improved with strengthening Early Warning Systems, targeted community education, awareness and training and risk transfer mechanisms (insurance, catastrophe bonds or funds) accountability frameworks will not be disaster risk sensitive for effectively saving of lives and properties during a disaster.

### **Paper 02: No one is accountable for Natural hazards induced displacement and relocation failures: Case of Galle and Rattota**

Authorities mere act of giving a plot of land or a house to the vulnerable people fail to see this as a process. As a result they do not get people actively involved, which in turn makes relocates lose trust and sense of belonging to the settlement. Combination of these factors couple with other factors forced relocates to move out of new settlements and settle down again in hazards prone areas by vacating, selling or renting their houses reflects lack of accountability in the relocation process.

### **Paper 03: Tsunami Disaster Recovery Experience in Governance Perspective, A Case Study on the Recovery of Micro, Small and Medium Enterprises (MSMEs) in Matara District in Sri Lanka**

Many Tsunami affected MSMEs were ignored and carried wrong priorities. Besides the support provided was insufficient for an effective recovery. However, overall recovery was at low rate. Though, Sri Lanka received second highest local and foreign donation among the Tsunami affected nations, affected MSMEs got a little support and assistance to recover and no records can be found where these numerous amount of donations received have gone. Expenditure should have been in the direction of procurement of tools, equipment and for the affected units. Unfortunately the support could not be organized to reach the right industry, in right quantity, and right way. The recovery was short and it was not because of the shortage of funds.

Due to the large scale of the disaster, its wider geographical spreads and a large number of agents, institutions and parties involvements in benefits distribution and recovery process, it is hard to finger point to any single entity about accountability of government or other institutions for their conduct and performances in recovery process.

**Paper 04: Evaluating damages due to lightning in neighborhood of communication towers in Sri Lanka**

Tower owners and operators are accountable for constructing their towers to minimize the impact of lightning strikes for safer environment in accordance with Telecommunication Regulatory Commission (TRC) guidelines. Most lightning threats to electrical or electronic equipment in questioned areas can be mitigated by appropriate surge protection and grounding practices. There are noticeable misconceptions on lightning and communication towers among the public and private disputes which can be avoid only by organized awareness programmes with regulatory authorities, tower operators and neighborhood community.

**Paper 05: Accountability, risk management and responsible reconstruction to enhance resilience of critical road structures exposed to extreme events**

Failure of structures under extreme flood events in one case study area has been examined and failure modes and the authorities accountable for the resilience of structures have been established. In supporting authorities accountable for managing the structures in decision making, an integrated research scope has been established and a broad framework has been developed for decision making on hardening of road structures, which can be easily expanded to other infrastructure systems as well. As a result, the methodology adopted was introduced in predicting vulnerability of road infrastructure, assessment of community impact and the proposed framework for disaster risk reduction, which can be used by authorities managing road structures to ensure risk management of existing structures and reconstruction of resilient structures.

**Paper 06: Accountability in Disaster Mitigation-case of post-Tsunami reconstruction and resettlement in Sri Lanka**

Moreover, the process of resettlement and rehabilitation involved a sustained and long term effort involving numerous institutions and stakeholders, both local and foreign. This naturally makes issues of accountability of people and institutions involved in the effort highly complex. However, unless, effective accountability mechanisms are in place, the lapses are bound to occur. Therefore there is a need to develop and institutionalize a social accountability mechanism that can persuade external and local agencies to be accountable to communities they serve during the course of the resettlement and rehabilitation process.

**Paper 07: Contextual and Cultural Appropriateness of the Social Accountability Tools within Natural Disaster Management**

In practice, these accountability tools are varied from the participatory policy making and planning tools (e.g. local issue forums, study circles, consensus conferences and public hearings), budget-related social accountability tools (e.g. participatory budget formulation, independent budget analysis, public expenditure tracking surveys social audits), work social accountability tools in the monitoring and evaluation of public services and goods (e.g. public hearings, public opinion polls, citizen's charters), and to social accountability and public oversight tools (e.g. oversight committees, local oversight committees). However, social accountability tools only works best when contextual and cultural factors in supportive

to its functioning. Thus, it works best when both the vulnerable communities and the disaster management institutions find mutual benefits and values in their use. In many countries, however, the commitment of disaster management institutions to transparency, inclusive decision-making, and citizen engagement is very much uneven.

**Paper 08: Wellbeing as the Human Outcome of Disaster Risk Reduction: What the field of Mental Health and Psychosocial Support can contribute to the problem of accountability**

While the field of Mental Health and Psychosocial Support (MHPSS) has made significant progress in defining its role within the international humanitarian system since the publication of the landmark IASC Guidelines on MHPSS in 2007, there has been very poor engagement to date with the important field of Disaster Risk Reduction (DRR). This is evident in the minimal engagement of the MHPSS field with the formulation of the Sendai Framework. The ability to measure the impact of Disaster Risk Management and Reconstruction activities is a crucial component of ensuring accountability. The conceptual and practical tools from the field of MHPSS may contribute to this.

**Paper 09: Use of Landslide Hazard Zonation Maps in Landslide Disaster Risk Reduction**

The hazard zonation maps already prepared are in 1: 50,000 and 1: 10,000 scales and are intended to be used as a planning tool which identifies the degree of hazard associated with a specific area. Thus the maps are utilized in planning of any development project within the hilly areas of the country. The maps can also be utilized for policy making, evacuation and resettling highly vulnerable communities and infrastructures, economical distribution of relief aids, identifying economical mitigation measures and issuing landslide early warnings. NBRO is accountable to prepare those maps for the use of other organizations as much as in to correct format but in Sri Lanka no body is accountable to use these maps.

**Paper 10: Assessment of microbial pollution levels in Kelani river water at Ambatale intake**

The effect of pollution on river water quality depends on the amount and concentration of the pollutants, river discharge, tidal condition, water flow in the river, dilution of the effluents from industries and other factors. It has been observed that during the drought seasons, the water flow in the river is low, the required dilution of the effluents from industries, which are acceptable during normal flow, does not occur. This situation is worsened by salinity intrusion up to about the intake at Ambatale. The protection of water quality in Kelani river has thus become a major issue. Although many parameters can be used to describe the water quality, the most significant for the Kelani river is bacteriological contamination (Coliform) resulting from large volume of domestic as well as industrial sewerage. High microbial contamination requires high chlorine demand to disinfect the water to maintain Water Safety. On the other hand, it produces Disinfection By Products (DBP). Therefore urgent attention to control fecal contamination of the drinking water source is a priority issue.