African Journal of
Education and Practice
(AJEP)

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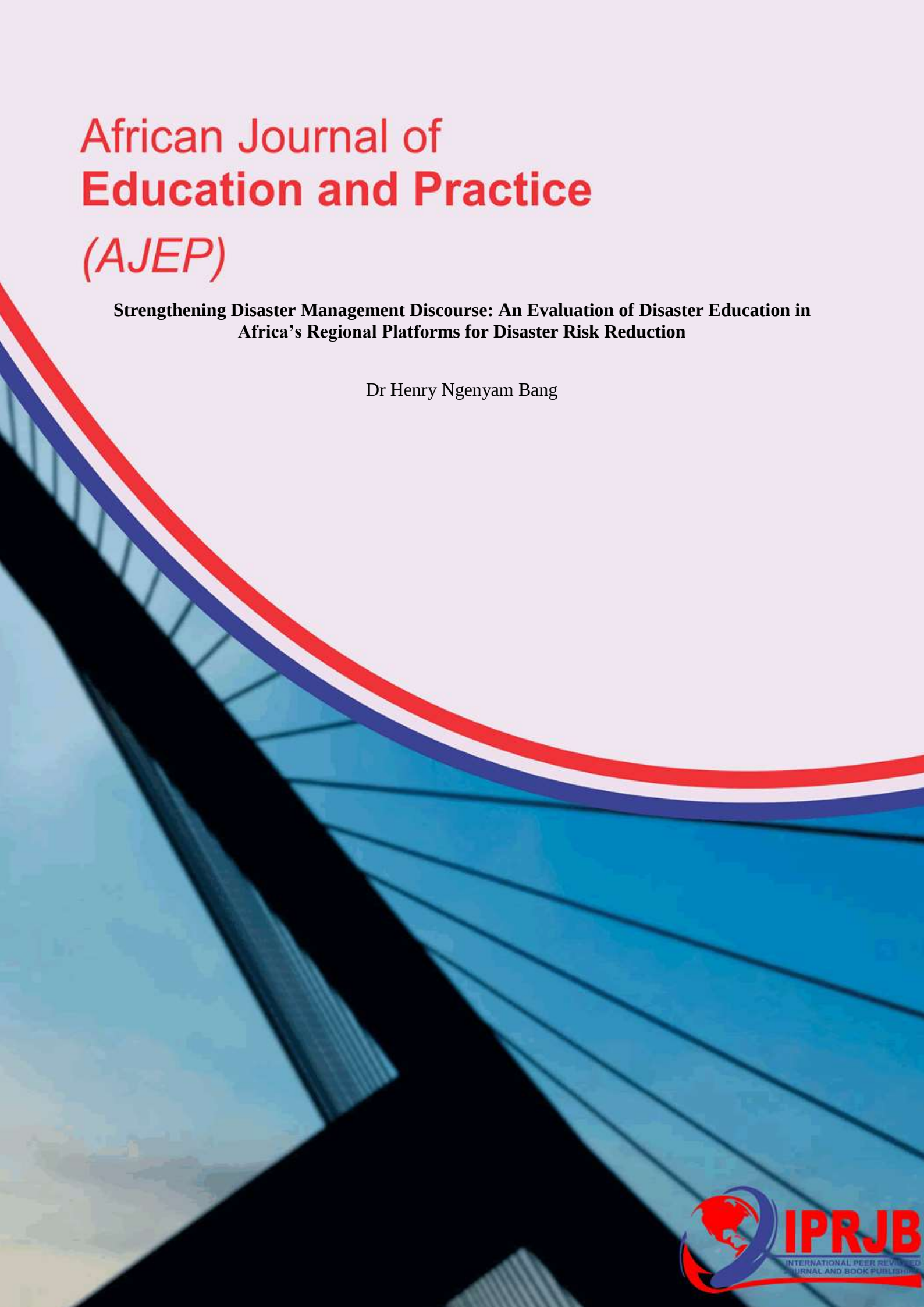

IPRJB
INTERNATIONAL PEER REVIEWED
JOURNAL AND BOOK PUBLISHING

African Journal of Education and Practice
ISSN 2519-0296 (Online)
Vol.9, Issue 3, No.1, pp 1 - 29, 2023

www.iprjb.org

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Article History

Received 20th June 2023

Received in Revised Form 1st July 2023

Accepted 12th July 2023

How to cite in APA format:
Bang, H. (2023). Strengthening Disaster Management Discourse: An Evaluation of Disaster Education in Africa's Regional Platforms for Disaster Risk Reduction. *African Journal of Education and Practice*, *9*(3), 1–29. https://doi.org/10.47604/ajep.2030

Abstract

Purpose: Considering that the pedagogic space for disaster risk reduction (DRR) education is critical for enhanced resilience to disaster risks, this paper interrogates regional DRR education discourse in Africa. The focus is on the scope and depth to which DRR education has been mainstreamed into high-level regional meetings/platforms in the African continent. For this to be realised, first, the paper assesses whether the Africa Regional Platforms (ARPs) and high-level Ministerial Meetings for DRR perceive DRR education as a critical tool for mitigating disaster risks. Secondly, the paper gauges the depth to which identified determinants of DRR education have been integrated into the ARPs and High-Level Ministerial Meetings for DRR.

Methodology: By utilising a post-positivist qualitative research approach, the paper has scrutinised primary data from all the ARPs and High-Level Ministerial Meetings for DRR spanning close to twenty-five years. All sourced documents were sorted, coded and thematically analysed. The coded categories captured the extent of DRR education discussed in the regional platforms/meetings, the number of determinants of DRR education discussed in the various platforms and the depth with which the determinants of DRR education were discussed. A Likert scale grading ranging from "Poor" as the lowest and "Excellent" as the highest was used to assess the enquiries and inform the findings.

Findings: Through critical analysis and assessment, the findings have revealed the limited integration of DRR education during high-level DRR meetings in Africa. The analysis reveals an inconsistent and unsystematic DRR discourse during the Platforms/Meetings. Based on the Likert Scale grading, the two main enquiries of this research (scope of DRR education and the integration of DRR education determinants during the various Platforms) were both deemed to be "*mediocre to fair"*. Although this assessment is subjective, it paints a good picture of the integration of DRR education into risk aversion discourses at the highest level in the African continent.

Unique Contribution to Theory, Practice and Policy: This paper pioneers the first in-depth assessment of DRR education discourse at the highest regional level in Africa. It contributes by augmenting the literature on DRR education discourse and determinants of DRR education; provides DRR insights to educators, students and practitioners and has policy implications for the governance of disaster risks at the highest African regional level. Considering the pivotal role of education in strengthening resilience to disaster risks, the findings provide a compelling argument for mainstreaming DRR education into the ARPs and high-level Ministerial Meetings for DRR. Arguably, this would expedite DRR education uptake by African countries.

Keywords: *Disaster Risk Reduction Education, Determinants of Disaster Risk Reduction Education, African Regional Platforms for Disaster Risk Reduction, Africa.*

INTRODUCTION

Disaster risks are increasing in many countries with more devastating consequences, exacerbated by climate change (CC). Scientific evidence intimate that the ferocity, frequency, and duration of climate risks will continue to increase if the current trend of insufficient action is not reversed (IPCC, 2020). That is why during the most recent United Nations Climate Change Conference (UNCCC) in Sharm el-Sheikh, Egypt (COP 27), governments were criticized for lack of action on the climate crisis (UNCCC, 2022). This requires scaling up the global response to CC. Before COP 27, participating nations agreed at the UNCCC in Paris (COP 21) that more ambitious climate action was needed urgently (UN, 2022). Yet there has been limited progress albeit CC action can be expedited through disaster risk reduction (DRR) education as emphasised by international disaster management frameworks.

Priority three action of the 2005-2015 Hyogo Framework for Action (HFA) requires that countries should apply education and knowledge, including innovative approaches to foster resilience and safety at the national, state, or local levels (UNISDR, 2005). Acquiring knowledge in risk reduction through education is vital to understand disaster causation and potential disaster risk mitigation measures (Torani et al., 2019). That is why education is viewed as a critical instrument for disaster risk management (UNICEF/UNESCO, 2012).

DRR education is novel in the field of education (UNESCO, 2011) and is regarded as an operational, functional, and cost-effective tool for managing disaster risks (Asian Disaster Preparedness Centre, 2008). The pedagogical space for DRR education is potentially vast and extends beyond curriculum/school-based studies of hazards/disasters (Patel, 2008; UNICEF/UNESCO, 2012). When people/communities are educated on how to prepare for disasters, they respond better than when they have received no education (Asian Disaster Preparedness Centre, 2008). Likewise, an inadequate understanding of risk and low-risk consciousness can negatively affect a community's preparedness, response, and recovery from hazards/disasters (UNESCO, 2011). This is concerning, especially in Africa where resilience to disasters/CC-induced risks is low (UN, 2022). Hence the need to foster DRR education at the highest level in Africa.

That is the motivation of this research, which aims to better comprehend the scope/depth to which disaster education has been mainstreamed into the regional discourse for DRR in Africa. The objectives are to assess the scope of DRR or whether the Africa Regional Platforms (ARPs) and high-level Ministerial Meetings for DRR (*hereafter simply referred to as Platforms*) perceive DRR education as a critical tool for mitigating disaster risks and secondly, to gauge the depth with which the Platforms have integrated the determinants of DRR education. This is a novel endeavour and the first work to analyse and assess how the Platforms have embedded DRR education into measures to strengthen resilience to disaster risks in the African continent.

This paper fills a research gap in the investigation of DRR education discourse during high-level Governmental Platforms/Meetings in Africa for DRR. It contributes to enriching DRR education discourse at the African regional level, with implications for natural implementation by member states. The paper fosters knowledge and the relevance of integrating DRR education into discourses for disaster risk management strategies at all levels. Subsequent Platforms would benefit from the explicit analysis of the need to integrate DRR education in their discussions. Furthermore, the paper has policy implications for the governance of disaster risks in Africa. Fundamentally, it underscores DRR education as an invaluable risk aversion

tool and argues for its full integration into the Platforms. Disaster management institutions, stakeholders, scholars, teachers, and students shall also benefit from this paper.

SUCCINCT APPRAISAL OF UNDERLYING CONCEPTS

To illuminate and provide clarity to this paper, two concepts, notably DRR and DRR education are discussed in this section.

Disaster Risk Reduction (DRR)

The conceptualisation of disaster risk in this paper aligns with that of the United Nations as "*the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability, and capacity*" (UNISDR, 2017, p.14). CC is one of the worst disaster risks with potentially dire consequences for the world's populace and economy (IPCC, 2020). With predictions that CC-induced risks are increasing in frequency and severity and lasting longer (Wing et al., 2018), there are heightened discussions on potential mitigation measures, including DRR education, which is the focus of this paper. DRR is commonly viewed as the practice of systematically mitigating disaster risks. Its focus is increasing resilience by reducing current disaster risks, preventing new/emerging disaster risks, and containing residual risks (UNISDR, 2017). According to UNESCO (2011), dealing with these challenges and preventing climate hazards from becoming disasters, is best fulfilled via DRR education.

Disaster Risk Reduction (DRR) Education

The analogy that "*What people know is more important than what they have*" signifies the relevance of education in DRR. UNESCO (2011) analyses DRR education in the context of promoting teaching and learning in disaster risk management to save lives and strengthen people/community resilience to hazards/disasters. Similarly, it has been conceived as an educational activity between learners, students, instructors, or teachers where knowledge and skills are transferred from teachers/instructors to students to enable learners to proactively engage in risk mitigation, preparedness and response measures (Nakano and Yamory, 2021). Furthermore, there are thoughts that DRR education is concerned with physical protection, response, assessment, and planning while overlapping the micro, meso, and macro levels (Petal, 2008). Other than formal teaching, DRR education is also viewed in the context of raising awareness, disseminating information, or communicating disaster risks to shape proactive behaviour to hazards/disasters (Delicado et al., 2017; Shaw and Krishnamurthy, 2010). These concepts have informed operational and practical DRR activities, including contemporary discourse as argued in this paper.

DRR EDUCATION AS A CRITICAL TOOL FOR RISK REDUCTION: A CONCISE APPRAISAL

This section provides insights into the application of DRR education at international disaster management Platforms and its other benefits in enhancing resilience to disaster risks.

Embedding DRR Education into International/Regional Disaster Management Platforms

The HFA and the Sendai Framework for Disaster Risk Reduction (SFDRR) advocated for incorporating education in disaster risk awareness and reduction at all levels (local, state, national and regional) including for strengthening risk consciousness and maintaining a safety and resilience culture (UNISDR, 2005, 2015). This has been echoed by regional DRR

platforms in Asia and Africa, who have also urged countries within their regions to gather and disseminate DRR knowledge including through DRR education (Torani et al., 2019).

In the African region, the Platforms converge member states and senior DRR stakeholders (government ministers, directors, regional economic bodies/communities, and development partners) to share DRR knowledge, lessons learned and experiences in the African continent. From 2005 to 2021, eight regional platforms have held in the African continent. The Platforms aim to foster Member States' delivery of the HFA and SFDRR promises to the African Union's (AU) Programme of Action (PoA) (UNDRR, 2021). Nevertheless, as analysed later in the paper, and as the findings reveal, the extent to which the ARPs have embedded DRR education leaves much to be desired.

The Viability of DRR Education

There are numerous benefits of formal and informal DRR education. It enhances society's knowledge and skills in DRR and enables people to minimize the socio-economic and cultural impact of disasters; provides invaluable insights on potent adaptation measures to CC; enables people to be aware of disaster risks and to acquire the right skill, knowledge, and behaviours/attitudes to cope with, resist, prepare for or recover from disaster impacts; and motivates communities to take action in reducing vulnerabilities to disaster risks (Rohrmann, 2008; UNISDR, 2015; Patel, 2008; UNESCO, 2011). Furthermore, identifying target groups and individuals is vital for effective DRR education (O'Brien et al., 2006; Cherniack, 2008). For instance, teachers, university professors, policymakers, Governors; rescuers, and first responders (volunteers, rescue/relief teams, firefighters, and the emergency services etc.); and the most vulnerable people should be targeted (Dolatabadi et al., 2016; Torani et al., 2019). Empirical evidence suggests that for enhanced impact, the educational approach, and teaching/training methods used for the various target groups should vary depending on their qualifications and education level, level of authority, and experience with disaster risks (Cherniack, 2008; Muttarak and Lutz, 2014: Torani et al., 2019). Therefore, it is imperative to identify and separate the various groups to provide a more effective disaster education.

Nevertheless, Codreanu et al. (2014) found that although DRR education may increase knowledge and risk consciousness, the objective to foster proactive risk aversion behaviours may not be accomplished. Conversely, ignorance, low consciousness/awareness, and insufficient knowledge and comprehension of disaster risks negatively impact preparedness for impending hazards/disasters (Wisner, 2006). Hence, this paper argues for education as a central tool for the governance of disaster risks with the determinants of DRR education at the core.

DETERMINANTS OF DISASTER RISK REDUCTION (DRR) EDUCATION

A critical assessment of the literature has identified eight determinants of DRR education. These are succinctly discussed in the following sub-sections.

Educational Needs Assessment

The following attributes of needs assessment have been recognised as essential for DRR education: vulnerability, resilience and exposure appraisal (Siripong, 2010; Apronti et al., 2015); ascertaining the groups requiring DRR education, the appropriate educational tools, and the abilities, lapses, and strengths of the various educational groups (Prashar et al., 2013: Perry and Lindell, 2003); different ages and their appropriate educational needs (Meesters et al., 2009); risk, hazard or vulnerability mapping (Perry and Lindell, 2003; Apronti et al., 2015;

Chen and Lee, 2012). Other needs are assessment of contemporary plans, ongoing programs, and research activities in DRR (UNISDR, 2005; Aghaei et al., 2018).

Strategies for Raising Knowledge

Several DRR knowledge-raising measures have been identified including that knowledge is within people, and organisations and can be shaped by experience, culture, and perception (UNISDR, 2015). Efthymis et al. (2014) felt the involvement of community groups or teams working on DRR issues is a knowledge-raising measure. Nonaka and Takewuchi (1995) identified tacit knowledge as intangible and most relevant to DRR with the manifestation of values, ideals, perceptions, mental models, emotions, personal insights, individual perspectives, and beliefs. Information transfer is also a viable DRR knowledge-raising measure (Lee et al., 2007). Innovative DRR education approaches like problem-based learning require self-directed studying/learning where learners are occupied in a process of problem-solving, the sharing of ideas/experiences within groups and collaboration amongst stakeholders is encouraged (Hmelo-Silver 2004; Walsh 2004; Schmidt et al. 2011). Nevertheless, Gall et al., (2015) identified implementation gaps between DRR research and practice and asserted that the coproduction of DRR knowledge is limited with most DRR research still multidiscipline-centric, dominated by Western scholars, with limited successful evidence-based policy applications.

Educational Approaches

A novel and popular educational approach is assimilating disaster education into the curriculum of educational institutions. This is recognised as one of the finest strategies for DRR education (Efthymis et al., 2014; Apronti et al., 2015). A study in 30 countries identified a broad range of DRR educational approaches including a centralized competency-based approach (DRR competencies are used to develop the curriculum); a symbiosis approach (addresses themes like sustainable development and environmental education); a textbook-driven approach; a pilot project approach; and experiential, action learning, inquiry, and interactive approaches (UNESCO/UNICEF, 2012). Arguably the dominant approach to DRR education is the traditional teaching style where teachers (instructors) transmit knowledge to students, including through drills (Arvai, 2014). Nevertheless, this approach has been criticized for causing a wide knowledge gap between instructors and learners (Nakano and Yamori, 2021).

Educational Planning

Identified key attributes of educational planning are people and community experiences, and their perceptions, including socioeconomic, religious, and political factors. Gender, age, and job requirements are equally important (Aghaei et al., 2018; Perry and Lindell, 2003; Apronti et al., 2015). Initial sorting of the potential individuals, groups, and communities that need education and their educational needs is relevant (Lopez et al., 2016;). Due to the limitations, and challenges faced by vulnerable people, they require special assistance, attention, education, or training, which would normally be delivered by specialists and professionals in the field (Asian Development Centre, 2008; Muttarak and Pothisiri, 2013). Women, the disabled, the elderly, and children are considered the most vulnerable (UNESCO/UNICEF, 2012, Dolatabadi et al., 2016; Torani et al., 2019). The planning process should also recognize that success in DRR education will depend on the interaction between local, technical, scientific, and indigenous knowledge (Patel, 2008).

Educational Tools

Educative tools like DRR programs/advertisements on the media (TV/radio) increases public awareness/knowledge on risk reduction (Fisch, 2000). For educating students and children, manuals, textbooks, multimedia (audio, video, graphics, animations, etc), e-learning tools, posters, painting, 3D simulations, animations, and exhibitions are suitable (Apronti et al., 2015; Efthymis et al., 2014). Aghaei et al. (2018) specifically identified that interactive and fun-based tools activities are suitable for children of different age groups to learn individually and in groups. Fletcher's (1990) research showed that educating children via various tools is relevant since they can retain 40% of what they learn visually, and 20% of what they hear but around 75% of a combination of auditory, visual, and interactive learning. The most appropriate DRR education tools for local women were found to be regular community meetings, public campaigns including via social media, and participatory rural appraisals (Meesters et al., 2009; Redmond and Radiak, 2014: Apronti et al., 2015). For teachers, textbooks and manuals can guide their teaching and learning respectively (UNESCO/UNICEF, 2012).

Educational Content

DRR educational content articulates disaster risks to different societal groups (individuals, families, communities, agencies, policymakers etc.) and enables societal action to mitigate vulnerabilities to disaster risks (UNISDR, 2005, 2015; Patel, 2008). Integrating disaster-related topics/themes into specific school subjects (social, natural or physical sciences) is popular in many countries (UNESCO/UNICEF, 2012). The DRR educational content can be based on the demographic structure of the population, socioeconomic and cultural status, risk perception, gender, or employment status (Apronti et al., 2015; Efthymis et al.,2012). This is vital to ensure that the education meets the requirements of the appropriate groups since the needs might evolve. For instance, the educational content for disabled people and the elderly should primarily focus on their cognitive impairment and physical condition given the need to prepare for the impact of hazards, cope with its effects and/or respond to the consequences (Thomas et al., 2015). This would strengthen their survival strategies and enable them to have a greater potential to save themselves without external assistance (Morrow, 1999; Torani et al., 2019). The appropriate educational needs of the various groups can be known from educational advisors, DRR education-related textbooks, catalogues, online resources, and community leaders conversant with the profile and interests of target communities (Hogan, 1997).

Educational Organisations

Government Ministries of Education are popular in many countries as potential hosts for DRR education activities (Chen and Lee, 2012; Apronti et al., 2015). In some countries, education responsibilities are divided into different sectors like secondary, technical, or higher education. DRR education can also be under the auspices of specific ministries like Health with a focus on health research/education (FitzGerald et al., 2010; Lee and Chen, 2012). Other stakeholders which should be involved in DRR education are emergency services (police, firefighters, military), NGOs, health care providers, religious and community organisations, various media, and citizen groups (Perry and Lindell, 2003; Aghaei et al., 2018; FitzGerald et al., 2010). Legal and financial structures to facilitate DRR education have also been mentioned (Aitsi-Selmi et al., 2015).

Educational Challenges

Amidst the catalogue of DRR educational challenges, a major issue is limited professional training for teachers (Chan and Lee, 2012) despite teacher training being pivotal to disaster

education (Bonifacio et al., 2010). Others are the scarcity of dedicated resources for DRR education; the inability of stakeholders to have a unified position on the appropriate DRR education method; limited education in disaster mitigation and response in the formal educational curricula; non-alignment between planned education programs and their applications; and vulnerabilities of the populace that limits their abilities to undertake DRR education (Porter and Graham, 2016; Chen and Lee, 2012; Aghaie et al., 2018). Of grave concern, is the authorities' limited knowledge or lack of awareness and skills in disaster knowledge, including in many instances, educators (teachers/lecturers), students, and the populace (ibid). Some disaster researchers have also identified non-flexible university regulatory and legislative frameworks, socioeconomic factors, and language barriers as challenges that need addressing (Gilbert, 2005). In addition, poor disaster education stakeholder collaboration, and coordination, have also been cited (Apronti et al., 2015).

METHODOLOGY

This is a post-positivist research that draws on both the explanatory and interpretive power of qualitative research (Lamont, 2015) to interrogate the application of DRR education in the ARPs for DRR. The qualitative method is conducive to research on international institutions and high-level meetings involving structures, stakeholders from different countries, as well as norms, ideas, and laws with the production of documentation containing deliberations (Mende, 2022). The aim is to reveal, interpret, capture, and understand social phenomena and causalities within a specific context (Wagner, 1993) in this case DRR education's assimilation into African high-level discourse for DRR.

The data sources in this study consist of primary documents from all the eight ARPs and high-level Ministerial Meetings for DRR that have been held in Africa over the past quarter century to date. Documents from both the Platforms and their Consultative Meetings were sourced from various databases and the websites of stakeholder agencies. Key sources for data are Bulletins of the ARPs, the African Union; African Regional Coverage including Briefing Notes and published reports from the Platform's high-level Ministerial Conferences/Meetings especially the publications in the International Institute of Sustainable Development (IISD).

The documents were derived inductively and identified based on the information/discussions on DRR during the Platforms (Schreier, 2012). The data collection process was guided by insights gained through perusing the documents. This choice of document sampling was preferable as it helped to capture the perspectives of relevant stakeholders that may have missed the platforms (Mende, 2022). All the sourced documents were collected, sorted, and thematically analysed.

The data analyses inculcated attributes of the *Extended Qualitative Content Analysis* (EQCA) which links structures, and agency and incorporate norms and ideas (Mende, 2022). This allows in-depth analyses that enhance theory building and can be applied to documents or written data with a focus on international institutions (ibid). A deductive coding was employed to sieve all segments of the documents that addressed DRR during the Platforms. The coded categories captured DRR education, the various platforms where DDR education was discussed with further subcategories focussing on the determinants of DRR and further tiers targeting the depth/number of determinants of DRR education discussed in the various platforms. This helped to contextualise the research within the areas of enquiry (Strauss and Corbin, 1998). Through this process, common points of reference were identified within the sourced primary documents with different extents of the DRR discourse. The information was systematically

presented in the result and summarised in Table 1. A Likert scale ranging from "Poor" to "excellent" was applied to the analysis in Table 1 to have an overall assessment of the findings.

Potential limitations of this research include that although attempts were made to access and analyse all the primary/secondary data from all the Platforms, it is possible that some might have been missed. Ideally, semi-structured interviews with delegates could have complemented the primary/secondary data. Nevertheless, limited public access to such high-level meetings and having access to senior officials during a busy conference makes interviews challenging. Even if interviews were feasible, it would not be possible to interview delegates at all the Platforms. In addition, the missing voices of stakeholders that do not attend would not be captured. In such circumstances, documentary evidence is the best approach to capture discussions during the various Platforms (Mende, 2022). Furthermore, the identified determinants of DRR education are not mutually exclusive. Some determinants of DRR education have complementary attributes. Hence, the analysis and Likert scale assessment in Table 1 are subjective. Nevertheless, the findings paint an overall good picture of the scope, extent, and/or depth of incorporation of DRR education in the Platforms and serves as the basis for further research.

FINDINGS

This section is divided into two parts; the first is findings on the scope or elaboration of DRR education during the Platforms. The second is an analysis of the depth of integration of DRR determinants during the various Platforms.

Recognition of Disaster Risk Reduction (DRR) Education in the Various Platforms

The first African Ministerial Conference on DRR took place on 7 December 2005 in Addis Ababa (Ethiopia). DRR education discourse was sparse during this event and limited mainly to a theme on information and knowledge priorities, with minimal reported details. Two years later in 2007, the maiden Platform was formed as a consultative meeting in Nairobi (Kenya) from 26-27 April to review the progress in implementing the HFA and the PoA for implementing Africa's DRR measures. The PoA included themes on knowledge management and capacity building but is devoid of details on DRR education (ARC, 2009).

The second Platform consultation meeting was held in Nairobi (Kenya) from 5-7 May 2009. The Meeting dedicated one session to "*Knowledge, Innovation and Education for DRR*" to build a culture of safety and resilience. University partnership to reduce disaster risks was highlighted, including integrating DRR into the school curriculum. The delegates stressed the need for DRR training programmes and educational research into DRR (ARC, 2009). From 14-16 April 2010, the second Ministerial Conference on DRR was held in Nairobi. Again, African governments were urged to use knowledge, innovation, and education to build a culture of resilience and safety. Priority was placed on formal and informal education systems for DRR; the need to create an African coalition for knowledge management and capacity development; that DRR should be integrated into the curricula of educational institutions; and need for strengthening knowledge (including traditional knowledge) sharing, public awareness, and knowledge management on DRR. There was a recommendation for countries to assess existing capacities in the education sector and make DRR a national education priority. Participants also identified the need to develop DRR curricula and train teachers, and the need for DRR research to be broadened to incorporate multidisciplinary aspects (AU, 2010).

During the third Platform (9-13 May 2011 in Addis Ababa Ethiopia) countries were encouraged to merge DRR education into their educational systems and make it a national priority. The

training of teachers and curriculum development in DRR education were emphasised. A focus was on utilising knowledge and education to develop a DRR safety/resilience culture at various levels/sectors. Additionally, education and public awareness campaigns for DRR were endorsed for vulnerable communities. Mainstreaming DRR education in tertiary education and postgraduate degree courses was emphasised. Furthermore, access to traditional knowledge and knowledge development for DRR assessment was discussed. There were statements urging nations to facilitate youth involvement in DRR capacity development; to create a network of capacity development institutions for research information management/training, including resource mobilisation for DRR capacity building to reduce and manage disaster risks. The delegates demanded more research on DRR citing limited research on risk, vulnerability, and cost-benefit analysis in Africa. African academic institutions and their networks were urged to train resource persons and build their capacities to implement plans and programmes in DRR. The Meeting identified challenges such as inadequate resources for DRR investment, insufficient understanding of the importance of investing in DRR and weak institutional capacities for DRR education (AU and UNISDR, 2011).

The fourth Platform was held between 13 and 15 February 2013 in Arusha (Tanzania). The Meeting highlighted the following aspects of DRR education: the requirement to integrate DRR into the education system of countries; for DRR education to be accessed by children and women; that community DRR education/awareness should be merged and coordinated across various sectors like the public, civil society, and the central government; for the education sector to be incentivized via the provision of funding and technical support to integrate DRR into school programs. It was suggested that the region should create a network of educational institutions and intensify collaboration with higher education institutions in various countries to build knowledge/skills in urban risk management. Decision-making for risk reduction should be informed by education and enhanced knowledge in DRR while the delegates also addressed the need to strengthen knowledge on DRR education including the emphasis that DRR education is key to resilience and skill development. Furthermore, messages stressed community DRR education and need awareness. Reports also mention building risk knowledge in partnership with local higher education institutions, calls for community education and awareness and highlighted information sharing and education for informed decision-making as central to boosting resilience. In addition, there was a request for increased funding and incentives to strengthen and foster DRR education (UNISDR and AUC, 2013).

From 13-16 May 2014, the combined fifth ARP and the third Ministerial Meeting for DRR were held in Abuja (Nigeria). The delegates stressed the use of knowledge, innovation and DRR education as a tool to enhance resilience and safety. Education was highlighted as a veritable tool of the private sector for training and that DRR education should be inculcated into the curriculum of schools. A request was made for nations to enhance their human resources for DRR education via more engagement with higher education institutions. Delegates argued that education should be used to link DRR and conflict and to educate the populace about nonviolence, especially in the Democratic Republic of Congo. Other educational issues mentioned were requirements to establish educational training tools, strengthen existing academic networks for DRR education, engage the private sector to facilitate knowledge transfer, for actors to internalise knowledge about the appropriate response when disaster strikes, the need for knowledge development on how to catalyse DRR approaches, merging local knowledge with solutions and enhancing capacity for gathering and analysing meteorological data. Knowledge sharing and best practices between countries,

facilitating learning and knowledge transfer from the community to the national level also featured in the discourse. A notable challenge captured was limited resources, public awareness, and education on DRR (AFRP Bulletin, 2014).

Mauritius hosted the sixth ARP together with the fifth high-level Meeting on DRR from November 22-25, 2016. A perusal of DRR education issues identified the need to assess and increase the number of education institutions in Africa delivering knowledge on DRR; for countries to undertake an aggressive approach to DRR education and awareness campaigns as a strategic element of fostering disaster resilience, especially in women's association and community centres. The Platform called for increased integration of DRR education in the education systems and curricula of African countries, including education for disaster prevention and resilience. Additionally, the conference highlighted the roles of inter-religious committees and education in overcoming barriers and the need for shared integration of knowledge systems between countries and increasing the regional networks for knowledge management. Specifically, knowledge exchange, best practices and innovation between African cities were encouraged and the meeting discussed plans to substantially increase the number of partnership and regional networks for knowledge exchange. Furthermore, the conference amplified the requirements to build institutional capacity for education, increase investments and skills for DRM at all levels and strengthen capacity for anticipating and managing disaster risks (AFRP Bulletin, 2016).

The capital of Tunisia (Tunis) hosted the joined Seventh Session of the ARP, the fourth Arab Conference on DRR, and the sixth high-level Meeting on DRR from October 9-13, 2018. DRR education was discussed notably in building youth capacity and awareness by developing curricular courses in institutions of higher education in Africa; fostering gender inclusiveness and expediting DRR plans via education; establishing DRR education programs in member states; developing multi-hazard education programs; and strengthening country capacities for developing DRR education and professional practice. The conference also pledged for African nations to address quality education and educational institutions in Africa were urged to develop curricular courses to build the capacity and develop an awareness of vulnerable people like those with disabilities, children, and youth. Emphasis was also made on the following: increased information/data analysis; education and funding to speed up strategies for DRR and increase awareness in civil society; enabling media communication of disaster risks; examine national capacity strategies for DRR through multi-disciplinary training, professional development via DRR education; establish community programmes on disaster risks; conduct an in-depth review of quality education; respect for indigenous knowledge and knowledge management for DRR; blending traditional and local knowledge for enhanced DRR; advancing DRR via the sharing of experience, knowledge and best practice in DRR; apply knowledge, education and innovation to build a safety and resilience culture; and for science and technology to capture local knowledge (UNISDR Bulletin, 2018).

The 8th and most recent Platform was held in Nairobi (Kenya) from 16-19 November 2021. There was a focus on blending DRR education into the syllabus of primary schools; creation of a Resilience Hub in the continent for countries to share their knowledge and expertise; enhancing risk knowledge in countries; emphasis on sectorial knowledge like climate observations and the coproduction of knowledge to make data more understandable; development of an accessible knowledge database to all stakeholders; greater application of risk knowledge for decision making; ensuring lessons learned are available to the relevant stakeholders; fostering interactive knowledge, research and innovation in DRR and

information sharing; promote scientific research on DRR as a priority for universities and encouragement to generate, access and use risk information to support disaster preparedness, and response plans. Furthermore, education was mentioned to promote disability inclusiveness in the continent. This conference dedicated a session on the DRR practices and activities linked to indigenous and local knowledge (ILK) in Africa. In this light, decolonizing global hostility toward ILK systems was stressed; the necessity of conserving ancestral knowledge systems; using ILK to enhance community participation in policy decisions; for countries to validate practical ILK systems and practices on DRR; incorporating women's ILK on weather forecasting; and the relevance of combining science and ILK to enhance DRR decision making. Due to an identified challenge of lack of technical assistance and capacity in DRR education, a recommendation for strengthening the capacity of academic institutions was made (DRR Bulletin, 2021).

Findings on Determinants of Disaster Risk Reduction (DRR) Education

This section systematically examines findings on the extent to which the DRR educational determinants (see Section 4.0) are ingrained in the Platforms as tools for risk aversion/mitigation.

Educational Needs Assessment

All the platforms addressed educational needs assessment albeit with varying degrees of detail and the number of attributes. The notable educational needs mentioned in most of the platforms are targeting vulnerable groups for DRR education (75%, N=6); the use of DRR knowledge to build a culture of resilience and safety in society (50%, N=4); and 37.5% (N=3) each for the need to make education a national priority; mainstreaming DRR into the educational sector; and to develop DRR knowledge in the educational sector (Figure 1). The seventh and eighth Platforms tended to focus more on people with disabilities, local and indigenous people and women as target vulnerable groups that need DRR education (see Table 1). All the other mentioned attributes of educational needs assessment are highlighted in Table 1 and have been assessed across various Platforms as "*satisfactory*".

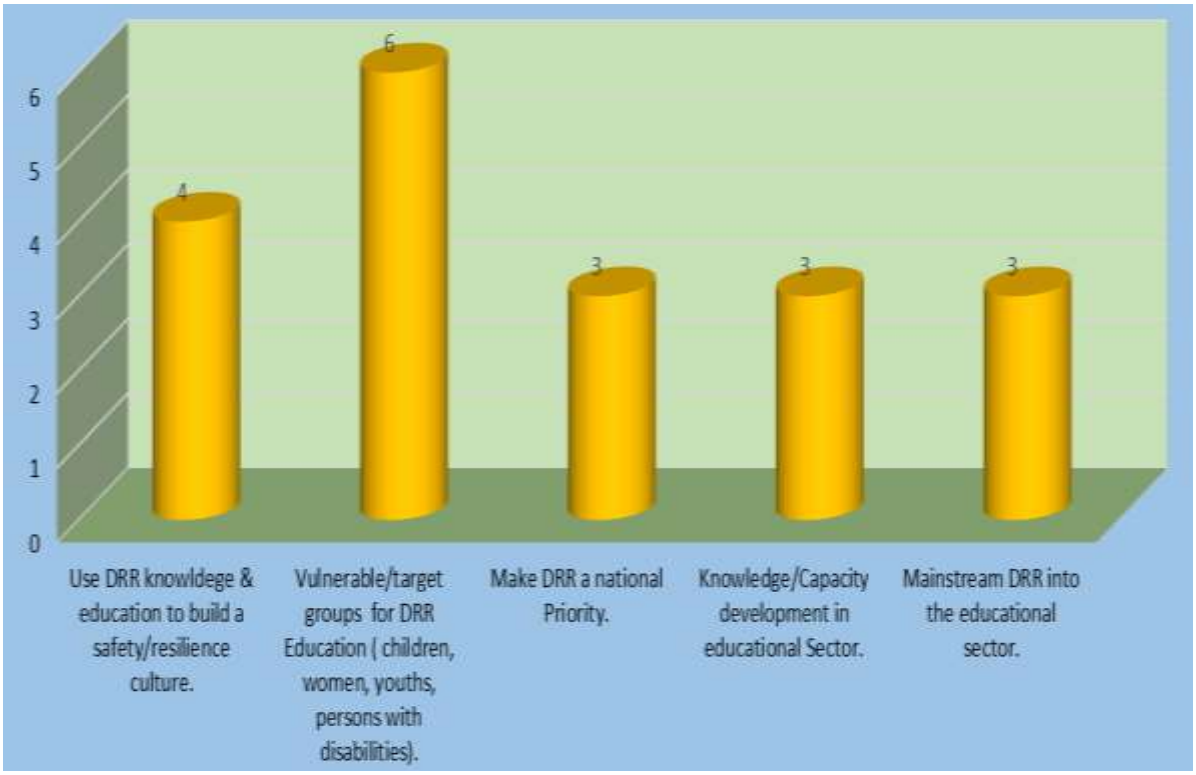

Figure 1: The Most Prominent Educational Needs Assessment

Strategies for Raising Knowledge

The second column of Table 1 has a summary of the Strategies for Raising Knowledge sieved across all the platforms. The three most prominent ones are community involvement in DRR education; knowledge sharing within and between countries and access to LIK to foster DRR with each constituting 37.5% (N=3) across the Platforms. The next two most popular are the need to mainstream DRR into the educational system and partner with institutions to enhance DRR (Figure 2). Other than the last platform, there is a sketchy discussion on measures to raise knowledge albeit the evidence suggests minimal integration of knowledge systems at different spatial scales in the African continent (Weichselgartner and Pigeon, 2015). The implication is that risk knowledge may not be applied effectively if not properly understood.

African Journal of Education and Practice
ISSN 2519-0296 (Online)
Vol.9, Issue 3, No.1, pp 1 - 29, 2023

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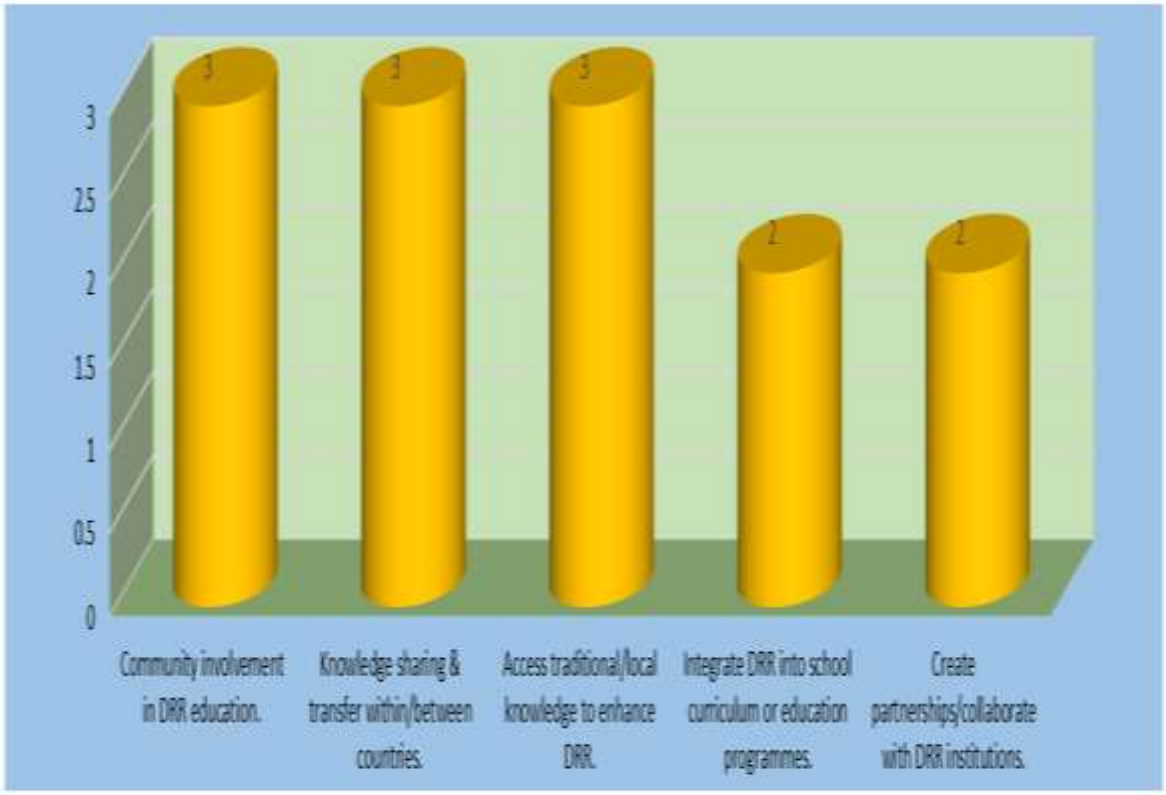

Figure 2: The Most Prominent Strategies for Raising Knowledge

Educational Approaches

An analysis of educational approaches reveals that apart from the first Platform, an average of 3 attributes were discussed in the other Platforms. The most popular one is mainstreaming DRR education into the curriculum of primary, secondary, and tertiary education (87.5%, N=7). The other three are practising formal and informal DRR education, strengthening existing networks for DRR knowledge transfer and the requirement to train teachers and resource persons in DRR education (each with 37.5%, N=3) as shown in Figure 3. The last two most recent Platforms addressed salient points like fostering professional development through DRR education and advancing DRR knowledge via the sharing of experiences and research-informed DRR education (see Table 1). While it may be implied in informal approaches, the Platforms could focus more on approaches targeting local groups/communities. Indeed, studies have demonstrated that integrated community-based disaster risk management programs are very educative and have informed DRR knowledge in many parts of the world (Perry and Lindell, 2003).

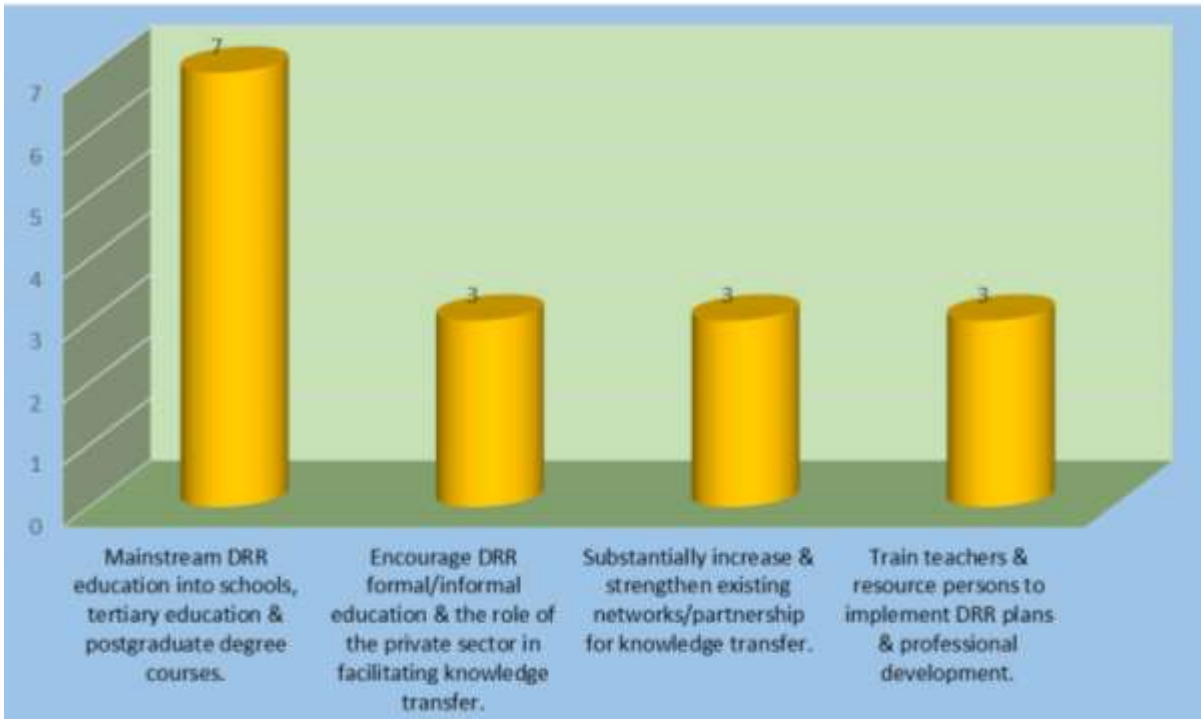

Figure 3: The Most Prominent Educational Approaches

Educational Planning

Educational planning has the largest number of points discussed across the platforms and seems to manifest more than any other DRR determinant. The three most prominent DRR educational determinants are the request to build institutional capacity for DRR education inclusive of increasing DRR education institutions (62.5%, N=5), creating a DRR resilience, research, and capacity building hub (50%, N=4) and generating resources for DRR education (50%, N=4, Figure 4). Other ideas like developing DRR educational tools and means to catalyse DRR approaches in addition to strengthening the capacity for anticipating and managing risks were also captured (see Table 1).

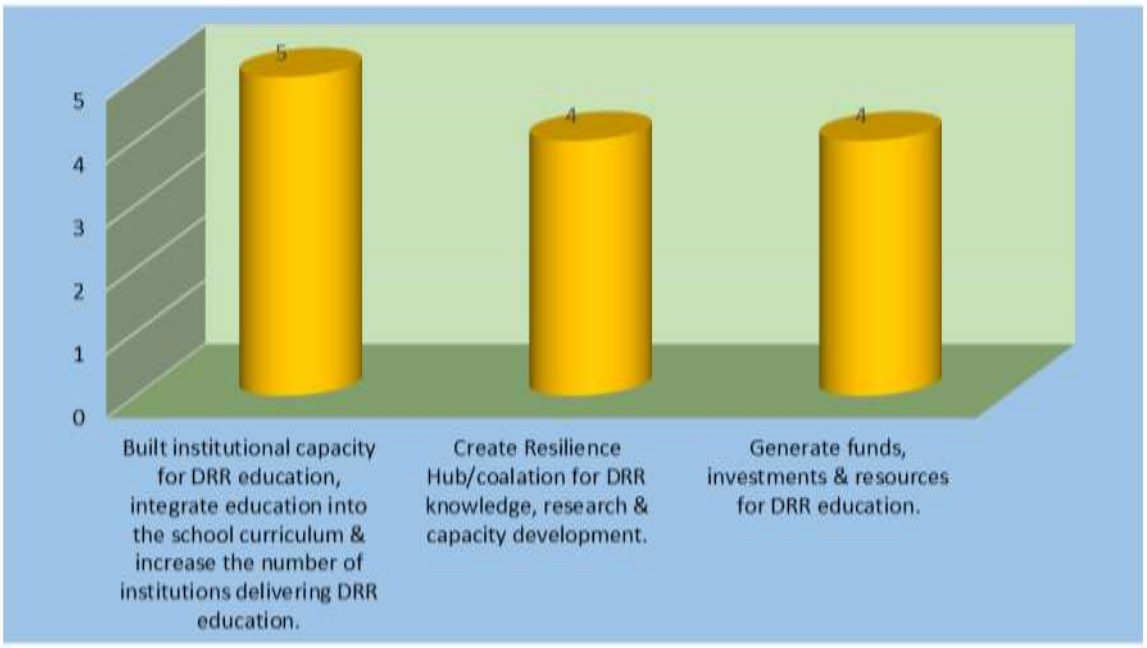

Figure 4: The Most Prominent Educational Planning

Educational Tools

The analysis shows sparse ideas on Educational Tools with few points discussed in each Platform. Nevertheless, similar themes relating to community DRR education were captured in five (62.5%) of the Platforms while issues linked to DRR public awareness campaigns and the use of LIK to foster DRR featured in four (50%) and two (25%) of the platforms respectively (see Figure 5 and Table 1). The limited discussions are an oversight since considerable effort is being made to enable DRR to reach the populace. For instance, Prevention Web, in liaison with the UNISDR has recently developed a global online library to support DRR education. The library dispenses evidence-based scientific, technical, and indigenous knowledge relevant to galvanize effective DRR action at all levels (UNDRR, 2019). The platforms can acknowledge this resource and encourage its use for stakeholders and African countries to access DRR knowledge, training, and capacity building.

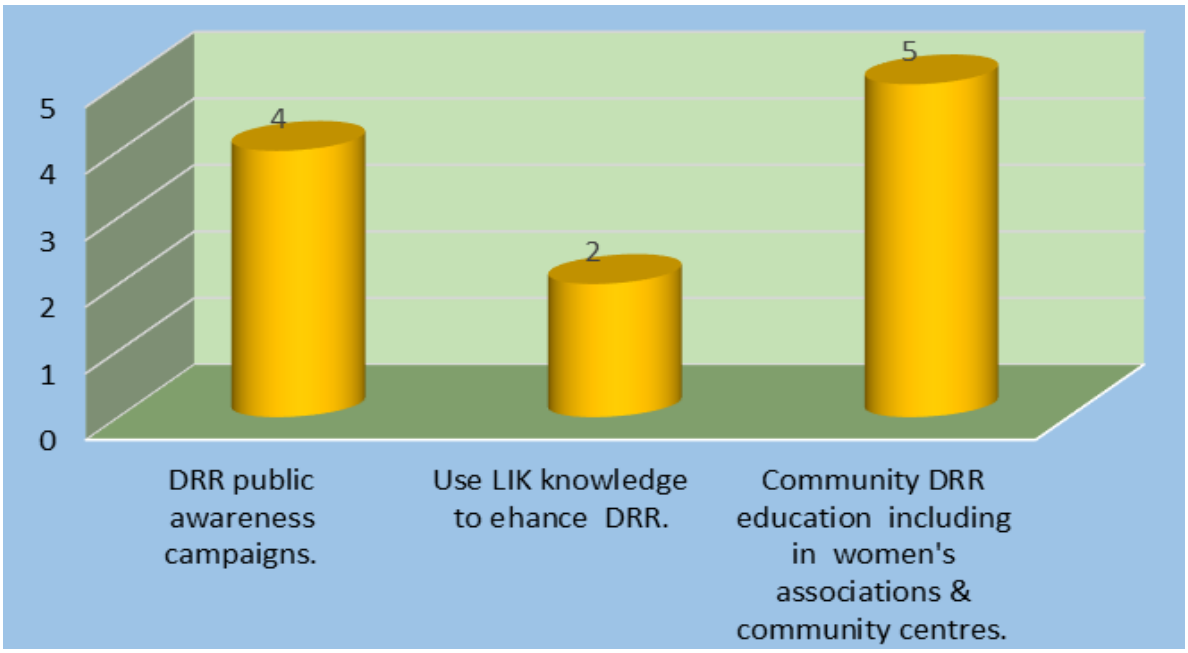

Figure 5: The Most Prominent Educational Tools

Educational Content

Of all the determinants of DRR education, the least articulated is DRR educational content. None of the platforms has more than two identified attributes on this subject. The most points are in building risk knowledge (37.5%, N=3), DRR capacity building and teacher training (25%, N=2), capacity building for vulnerable communities and education against nonviolence (25%, N=2; Figure 6). Some platforms specifically mentioned ILK, climate risks and public DRR awareness as could be seen in Table 1. The sparse discussion of DRR education is a missed opportunity for the Platforms to guide on key DRR themes like risk assessment (hazard, vulnerability) and capacity identification which according to Patel (2008) should go hand in hand with DRR planning.

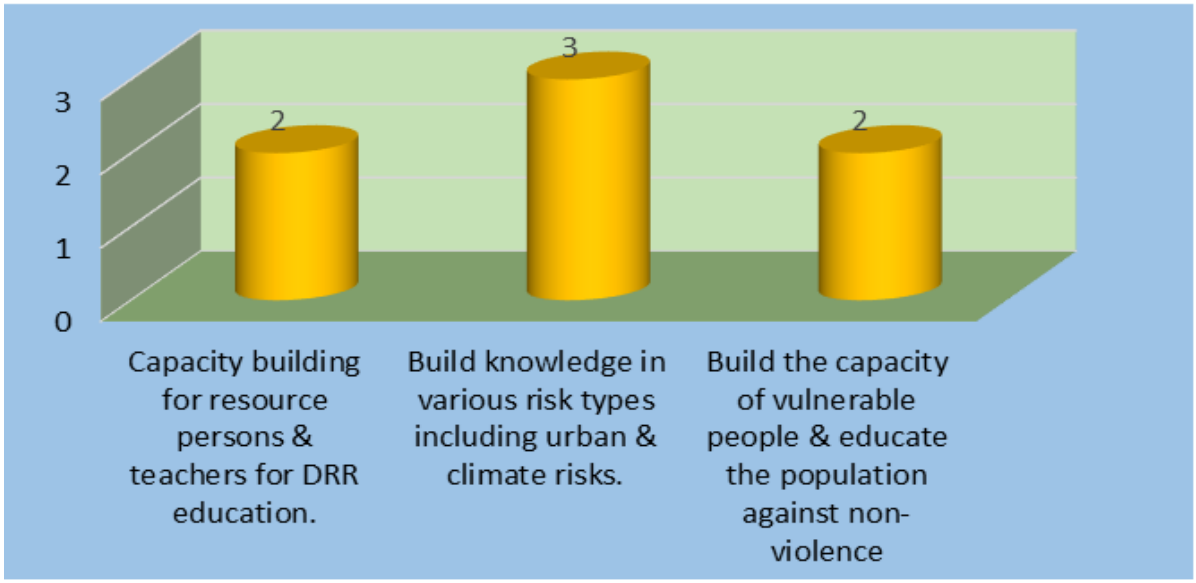

Figure 6: The Most Prominent Educational Content

Educational Organisations

The educational organisations identified are those already existing in countries that could support DRR education. As captured in Figure 7, 62.5 % (N=5) of the Platforms discussed DRR education themes such as the educational institutions/systems/sector and University/tertiary and academic institutions while four Platforms (50%) mentioned it in the context of schools, higher education, and capacity building institutions (see Figure 7 and Table 1). Since DRR education institutions could vary in different countries, the Platforms could have more in-depth discussions to ascertain the levels of DRR education and the appropriate organisations to host them. More details need to be provided on the best type of institutions to host DRR education as very little or no mention was made of vocational/technical schools and professional/practical training other than training for DRR educators.

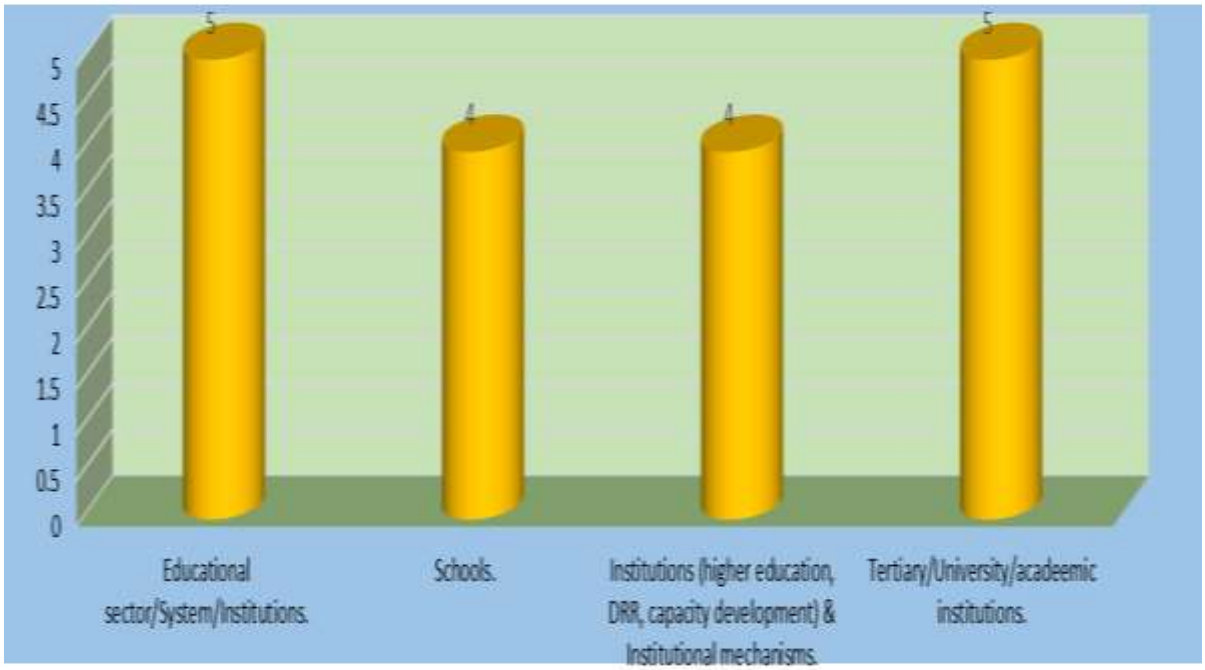

Figure 7: The Most Prominent Educational Organisations

Educational Challenges

The most captured explicitly mentioned educational challenges are weak DRR institutional capacities and a deficit of technical capacity (37.5%, N=3); Insufficient DRR educational resources (37.5%, N=3) and insufficient knowledge/understanding of DRR (25%, N =2, Figure 8, Table 1). It seems the educational challenges are implied in points for improvement highlighted in the other determinants. Nevertheless, the identified challenges align with secondary data showing the key DRR challenges in Africa are limited DRR resources and skills/knowledge among stakeholders (Apronti et al., 2015; Aghaie et al., 2018). The Platforms should address these issues and proffer solutions on how to improve them.

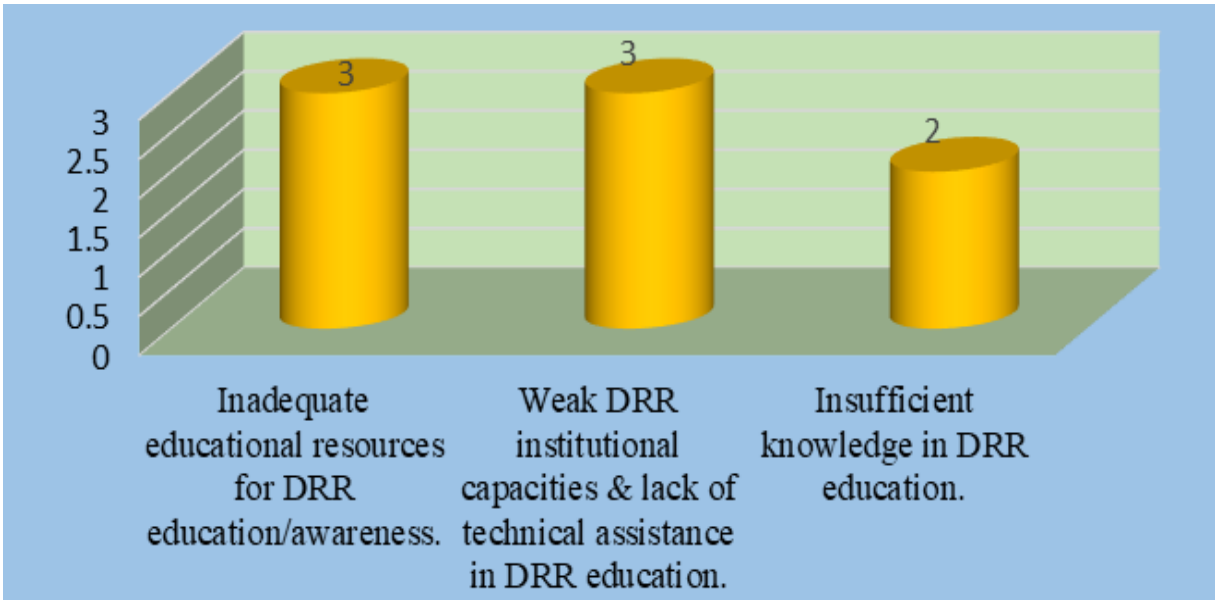

Figure 8: The Most Prominent Educational Challenges

DISCUSSION AND RECOMMENDATIONS

The success of DRR in Africa depends arguably on how the ARPs are explicit about the determinants of DRR education. Assessing the educational needs of a community is relevant to develop efficient DRR educational programs. The educational needs addressed in the various platforms are insufficient since those requiring an examination of the interests, abilities, capabilities, experience, expertise, and/or knowledge of the populace/community (Aghaei et al., 2018) have not been limited. The unsystematic discussion of educational needs in the report is also an impediment to its clarity.

Knowledge-raising measures must be taken more seriously since developing and implementing DRR knowledge is important for decision-making, DRR practice, policy, and coordinated action (Weichselgartner and Pigeon, 2015). Nevertheless, the expansion of DRR knowledge systems does not automatically translate into risk reduction (Weichselgartner and Obersteiner, 2002). This view is supported by Briceno (2015) who noticed the uneven evolution of DRR knowledge and its practical application to mitigate disaster risks.

While all the platforms captured elements of educational approaches, contemporary strategies to reach wide sectors of the populace were missing. The limited discussion on community engagement and media use for DRR needs addressing. With the advent of digital communication, various media outlets are good tools for disseminating and optimising disaster education (Aghaei et al., 2018). Nevertheless, social media in this digital age is increasingly being utilised to disseminate false messages, deception, fraud, etc. In addition, problem-solving skills and critical analysis are invaluable to DRR education (Patel, 2008).

Educational planning is one of the most articulated DRR determinants albeit not discussed in a systematic manner, which makes it difficult for stakeholders to capture. Secondly, the agencies responsible for facilitating the planning are not mentioned. Discussing the appropriate stakeholders involved is important to enhance planning since the development, administration, and crafting of DRR education require the participation of people with different expertise.

These could be education experts, academics, relevant authorities, community groups, and people in positions of authority (Chen and Lee, 2012).

The relatively sparse discussion of DRR educational tools indicates an insufficient understanding of their importance. Since different educational tools are suitable for different societal groups, the Platforms should properly address this attribute. For instance, children's educational tools should be tailored according to their skills, special needs, and age (Aghaei et al., 2018). Furthermore, there has been a renewed emphasis on the use of participatory appraisal tools and other methodologies to enhance experiential and active learning. This includes conducting vulnerability, capacity, hazard, and exposure assessments (UNESCO/UNICEF, 2012). Delegates should critically discuss these approaches.

Elements of educational content are scanty. This indicates a lack of key focus areas for DRR education. The content could be tailored towards peculiar DRR challenges in various countries. For instance, vulnerabilities or socio-environmental challenges and appropriate mitigation and response measures (Patel, 2008). Indeed, bespoke DRR education content is best for different community groups (Hogan, 1997; Efthymis et al.,2012) and should be emphasised during the meetings to guide DRR education curriculum development or content.

Limited discourse on educational organisations is worrying considering their pivotal role in developing, crafting, and administering DRR education. The platforms need to go beyond the use of words/phrases like schools, educational system/institutions and tertiary institutions and expatiate on other organisations in the private sector that could facilitate DRR education and/or training. Although Ministries of Education seem the logical location for DRR education in many countries (Chen and Lee, 2012), specialist training, short courses and impacting technical DRR knowledge (Aitsi-Selmi et al., 2015) can also be provided by professional organisations or private institutions.

Surprisingly, educational challenges were not exhaustively discussed. Considering member states were to share experiences and proffer solutions for improvement, DRR education challenges could have been prominent. This is because recognising the challenges plaguing DRR education is a preliminary step for resolving them. Similar diagnoses across the continent would indicate focus areas to resolve and share experiences in subsequent meetings. Of the DRR challenges captured, the most prominent (insufficient resources for DRR knowledge) aligns with findings in the literature (Porter and Graham, 2016; Aghaie et al., 2018). Nevertheless, there is a need to shift the focus from financial resources and examine the limited human/technical resource (knowledge/understanding of DRR issues) which is also concerning.

Overall Assessment of DRR Education as a Critical Tool in the Platforms

Table 1 systematically presents a summary of the findings, guided by an assessment of the scope of DRR educational inclusion as a tool for DRR (first objective) and an assessment of the depth to which the determinants of DRR education were inculcated in the Platforms (second objective). As indicated in the table, a Likert scale grading (Poor, Mediocre, Fair, Satisfactory, Good, and Excellent) with "Poor" as the lowest and "Excellent" as the highest has been used to assess the enquiries.

The assessment criteria for the first objective were based on the number of DRR education attributes or determinants discussed in each Platform while the number of Platforms that discussed a specific DRR determinant and the depth to which the attributes were discussed (number and how explicit they were) was used as criteria for assessing the second objective.

Additionally, the unsystematic discussion of DRR education during the Platforms and how it has been presented (scattered in reports) is also a factor.

The grading for the individual Platforms and DRR determinants is presented at the end of the appropriate columns/rows in Table 1. The overall grading of each and both combined is *"Mediocre to Fair*" as shown in Table 1. While the grading is subjective, it paints a good picture of the scope and extent of the Platform's integration of DRR education.

African Journal of Education and Practice
ISSN 2519-0296 (Online)
Vol.9, Issue 3, No.1, pp 1 - 29, 2023

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Table 1: Summary of how the various Determinants of DRR Education Have Been articulated in the Various ARPs for DRR

●Determinants of DRR Education	Africa Regional Platforms (ARPs) and High Level Ministerial Meetings for DRR								*Assessment of the various DRR Determinants	Overall Assessment of the DRR Determinants
	1st ARP for DRR	2nd ARP for DRR	3rd ARP for DRR	4th ARP for DRR	5th ARP for DRR	6th ARP for DRR	7th ARP for DRR	8th ARP for DRR		
Educational Needs Assessment. • See Section 4.1	• Knowledge acquisistion & manangement. • Capacity building.	• Use DRR education, knowledge & innovation to build a culture of safety & resilience. • Assessing the educational sector's capacity and resilience. • Make DRR a national education priority.	• Use DRR knowledge & education to build a culture of safety & resilience. • Target vulnerable communities for DRR education. • Minstream DRR education into the educational system. • Facilitate youth involvement in DRR capacity development. • Make DRR a national education priority.	• Women & children are the target for DRR education. • Resource provision to integrate DRR education into school programs. • Strengthen knowledge on DRR education. • Foster DRR education to enhances community resilience.	• Use of knowledge & DRR education to cultivate a culture of safety and resilience.	• Make DRR a national priority. • Target communities for DRR education. • Foster disaster prevention, preparedness & risk reduction.	• Apply knowledge, innovation, & education to build a safety & resilience culture. • Build youth capacity for DRR. • Consider gender (women) inclusiveness in DRR education. • Develop DRR awareness of vulnerable people with disabilities like children & the youth.	• Target groups for DRR education should be local & indigenous people, including women & tpeople with disabilities. • Enhance risk knowledge in countries. • Use education to promote disability inclusiveness.	Fair	*"Mediocre to Fair"*
Strategies for Raising Knowledge. • See Section 4.2	Not identified.	• Knowledge sharing • Creating partnerships for raising knowledge. • Integrate DRR into the school curriculum. • Strengthen institutional mechanisms for DRR education.	• Access to traditional knowledge for DRR. • Knowledge development for risk assessment.	• Intensify collaboration with DRR institutions in different countries to build risk knowledge. • Develop risk knowledge in collaboration with local & national institutions. • Incentivize the education sector via funding.	• Increase DRR knowledge sharing & best practices between countries. • Facilitate knowledge transfer from the community to the national level.	• Inter-religious organisations should facilitate enhancement of DRR education. • Shared integration of knowledge systems between countries. • Encourage knowledge exchange, best practices & innovation between African cities.	• Expedite DRR plans via DRR education. • Increase information & data analysis on DRR. • Enable media communication of disaster risks. • Establish community programmes on disaster risks. • Need to blend ILK for enhanced DRR.	• Develop & access DRR knowledge database. • Greater access to risk knowledge for decision-making. • DRR stakeholders should access lessons learned from disasters. • Decolonise global hostility towards ILK. • Foster interactive & ancestrial knowledge. • Develop risk information to support disaster plans. • Validate ILK & practices on DRR. • Include women's indigenous knowledge of weather forecasting.	Fair	
Educational Approaches. • See Section 4.3	Not identified.	• Enhance DRR training programme for teachers. • Broaden DRR research to include multidisciplinary aspects. • Boost formal & informal education in DRR.	• Train teachers in DRR education. • Mainstream DRR education into the tertiary education sector. • Integrate DRR educatioin into postgraduate degree courses. •Train resource persons & build their capacity to implement plans/programmes in DRR.	• Integrate DRR into the educational systems of countries. • Increase information sharing for enhanced decision making.	• Integrate DRR education into the curriculum of schools. • The private sector should use DRR education for training. • Strengthen existing networks for DRR education. • The private sector should facilitate knowledge transfer.	• Mainstream DRR knowledge into the educational system. • Substantially increase the number of partnership & regional networks for knowledge exchange.	• Develop DRR multihazard educational programmes & coursees in the higher education system. • Use DRR education to promote disability inclusiveness in society. • Examine national capacity strategies for DRR through multi-disciplinary training. • Foster professional development through DRR education. Advance DRR knowledge via the sharing of experiences.	• Blend DRR education into the syllabus of primary schools. •Increase sectorial knowledge in DRR like climate observations. • Cocreate knowledge to make data more understandable. • Increase research, innovation & information sharing in DRR. • Universities should promote scientific research on DRR.	Fair	
Educational Planning. • See Section 4.4	Not identified.	•Create partnerships with universities. • Establish formal & informal DRR education. • Integrate DRR into the educational institutions at all levels. • Create an African coalition for knowledge management & capacity development.	• Integrate DRR education into the educational system. • Create a network of capacity development institutions for research, information management & training. • More research should be done on DRR. • Mobilise resources for DRR capacity building.	• Coordinate community DRR education across the public, private & government sectors. • Increase funding & technical support to DRR education. • Create a network of DRR educational institutions in the region. • Mainstream DRR education in the tertiary education sector.	• Establish DRR educational tools. • Prevent risks & build resilience in disaster risks. • Enhance development on how to catalyse DRR approaches.	• Increase the number of institutions delivering DRR education. • Aggressively persue DRR education. • Increase regional network for DRR knowledge management. • Build institutional capacity for DRR education. • Increase investments & skills for disaster management. • Strengthen capacity for anticipating and managing disaster risks.	• Expedite DRR plans through education programs. • Create avenues to build capacity in DRR education & professional practice. • Address quality education. • Generate funds to expedite strategies for DRR. • Increase awareness of DRR in civil society. • Conduct in-depth review of quality education. • Science and technology should capture local knowledge in DRR.	• Create a Resilience Hub in Africa to share DRR knowledge & expertise. • Local community participation in policy-making. • Incorporate climate risks into the educational system. • Integrate DRR education into the curriculum of primary schools. • Strengthen the DRR capacity of academic institutions.	Fair	

African Journal of Education and Practice
ISSN 2519-0296 (Online)
Vol.9, Issue 3, No.1, pp 1 - 29, 2023

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Continuation of Table 1

●Determinants of DRR Education	Africa Regional Platforms (ARPs) and High Level Ministerial Meetings for DRR								*Assessment of the various DRR Determinants	Overall Assessment of the DRR Determinants
	1st ARP for DRR	2nd ARP for DRR	3rd ARP for DRR	4th ARP for DRR	5th ARP for DRR	6th ARP for DRR	7th ARP for DRR	8th ARP for DRR		
Educational Tools. • See Section 4.5	Not identified.	• DRR Public awareness & knowledge management.	• DRR education and public awareness campaigns for vulnerable communities.	• Encourage community DRR education & awareness.	• Use local knowledge in DRR.	• Undertake DRR education, simulations & awareness campaigns. • Embed DRR education in women's associations & community centres.	• Engage in public awareness campaigns. • Establish DRR education programs in countries.	• Encorage community participation in DRR education. • Use ILK for community participation in policy decisions. • Combine science and ILK to enhance DRR decision making.	Mediocre	"Mediocre to Fair"
Educational Content. • See Section 4.6	Not identified.	• Develop DRR training for teachers.	• Build the capacity of resource persons to implement plans & programmes in DRR.	• Build knowledge in urban risk management.	• Use education to establish the link between DRR & conflict. • Educate the populace about nonviolence.	• Enhance DRR education for disaster preparedness & prevention.	• Foster DRR education on the various risk types. • Develop curriculum to build the capacity of vulnerable people.	• Ensure LIK contribution to DRR. • Inculcate indigenous women's knowledge of weather forecasting in DRR. • Foster DRR education for climate risks.	**Poor**	
Educational Organizations. • See Section 4.7	Not identified.C16:I1C16:J16	• Educational sector. • Schools • Institutional mechanisms.	• Educational system. • Tertiary education. • Capacity development institutions.	• Tertiary education • School. • DRR institutions. • Local & National institutions. • Public, private & government sectors. • Education sector, system or institutions.	• Schools. • Private sector.	• Inter-religious organisation. • Educational institutions delivering DRR education.	• Higher education institutions.	• Primary schools. • Resilience Hub. • Universisites. • Educational system. • Academic institutions.	Mediocre	
Educational challenges. • See Section 4.8	Not identified.	• Inadequate educational resources.	• Inadequate resources for risk analysis. • Limited DRR education investment. • Weak institutional capacities in DRR education. • Insufficient understanding of the relevance of investing in DRR education.	• Not identified or specifically mentioned but couild be implied in recommendations for enhancing DRR.	• Insufficient resources for DRR education. • Low public awareness of DRR m easures. • Weak engagement of DRR education with higher education institutions.	• Limited sharing of DRR knolwedge. • Meagre practices between countries for DRR education.	• Not identified or specifically mentioned but couild be implied in recommendations for enhancing DRR.	• Lack of technical assistance in DRR. • Low capacity in DRR education.	Mediocre	
*Assessment of all the DRR Determinants in the ARPs.	Poor	Mediocre	Fair	Fair	Mediocre	Mediocre	Fair	Fair	The overall assessment of DRR Educational Inclusion in the ARPs & the various DRR determinants is "Mediocre to Fair".	
Overall assessment of all Determinants in the ARPs	**"Mediocre to Fair"**									

● Section four has details of the various Determinants of DRR Education.
* Overall assessment of the DRR determinants is based on a subjective Likert scale comprising, Poor, Mediocre, Fair, Satisfactory, Good, and Excellent with "Poor" and the lowest end and "Excellent" at the highest end.

Source: Table Developed by the Author.

CONCLUSION

The overarching aim of this paper was to gain insights into the scope/extent to which DRR education has been mainstreamed during the Platforms. The application of DRR education and its determinants as a strategic tool for mitigating disaster risks has been underscored in this paper. The findings have revealed, through critical analysis and assessment of all the platforms, the limited integration of DRR education to mitigate disaster risks. By applying a Likert scale assessment to the summary of the findings in Table 1, the overall grading has been determined to be "*Mediocre to Fair*".

Arguably, the Platforms have not yet considered DRR education a core tool for mitigating disaster risks. This has implications for the clarity, depth, passion, inclusiveness, and holistic approach with which the Platforms discuss DRR. Notably, education is a critical component of DRR (UNICEF/UNESCO, 2012) and empirical research evidence suggests communities that have received DRR education are more resilient to disaster risks (Asian Disaster Preparedness Centre, 2008). Hence, there is a compelling case to argue for mainstreaming DRR education and its determinants in the Platforms to be more explicit and instil greater value in the discourse.

This paper has great potential to contribute to literature and knowledge in the field. It also provides strategic guidance on the application of education for enhanced DRR. The findings shall also inform DRR educational policy and strategic deliberations at national, regional, and international levels. Since education is perceived as one of the most effective tools to enhance resilience to disaster risks (Adiyoso and Kanegae, 2012; UNICEF/UNESCO, 2012) this paper amplifies the need to integrate DRR education at the core of Africa's strategic discourse on DRR in the continent. Being exploratory, it also serves as the basis for further research on DRR education in Africa and beyond.

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