

Strengthening Mozambique's Capacities for Assessing School Facilities

Implementation of the UNESCO-VISUS methodology for assessing school facilities and providing critical information to decision-makers.

PHASE II FINAL REPORT TEMPLATE: INCLUDING MONITORING SELF-ASSESSMENT



List of acronyms

CEDH-UEM	Centro de Estudos e Desenvolvimento do Habitat da Universidade Eduardo Mondlane (Centre for Habitat Studies and Development of University Eduardo Mondlane)
DRR	Disaster Risk Reduction
EPC	Complete Primary School (Escola Primária Completa)
FAPF-UEM	Faculdade de Arquitetura e Planeamento Fisico (Faculty of Arquitecture and Physical Development of Eduardo Mondlane University)
GADRRRES	Global Alliance for Disaster Risk Reduction in the Education Sector
GFDRR	Global Facility for Disaster Risk Reduction and Recovery
INGC	Instituto Nacional para a Gestao de Calamidades (Mozambique National Institute for Disaster Management)
MINEDH	Ministério de Educação e Desenvolvimento Humano de Mocambique (Mozambique Ministry of Education and Human Development)
NGO	Non-Governmental Organization
SPRINT	Safety and Protection Intersectoral Laboratory – University of Udine
SFDRR	Sendai Framework for Disaster Risk Reduction
UEM	Universidade Eduardo Mondlane (Eduardo Mondlane University)
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
VISUS	Visual Inspection for defining Safety Upgrading Strategies
WISS	Worldwide Initiative on School Safety

BE – GFDRR Challenge Fund

PHASE II FINAL REPORT TEMPLATE: INCLUDING MONITORING SELF-ASSESSMENT Please address the following in narrative form, as applicable, to your project.

 Name of project, target country(ies), USD amount and time frame of Phase II grant VISUS (Visual Inspection for defining the Safety Upgrading Strategies) Implementation in Mozambique, USD 150,479.78, 18 May 2017-28 February 2018 (a No Cost Extension was approved from 1 January to 28 February 2018. The initial finalization date for the project was foresaw for 29 December 2017).

II. Please provide updates on this project since the submission of inception report

1. VISUS Stakeholder Meeting

The meeting was held on 20 September 2017 and attended by 16 participants from 10 government and non-governmental organizations. The summary from the meeting can be found in the following link:

http://www.unesco.org/new/en/jakarta/about-this-office/singleview/news/launch_of_the_unesco_visus_school_safety_methodology_in_moza/

2. VISUS Training Series - These trainings included:

- 2.1 Training for Decision Makers on 22 November 2017. Twenty-six (26) participants attended it from seven government and non-governmental organizations,
- 2.2 Training for VISUS Trainers on 23 November 2017. Ten (10) Professors from the Faculty of Architecture and Physical Planning (UEM-FAPF) at Eduardo Mondlane University, and a technical staff from the National Institute of Disaster Management of Mozambique INGC, attended this training.
- 2.3 Training for VISUS Surveyors on 24 November 2017 to 1 December 2017. The training was attended by thirty (30) students and ten (10) professor from the FAPF-UEM, and a technical staff from the National Institute of Disaster Management of Mozambique INGC.

3. VISUS School Survey in 100 schools.

The survey was done in about three weeks from November to December 2017 and led by University of Eduardo Mondlane. On table 1 below, it is listed of the schools that were surveyed. The link to the schools report can be found in the following links:

- The individual reports can be downloaded from the links in the map <u>https://drive.google.com/open?id=1-ZFovt2-fnwT9u-</u> wMhbauYGndGY1BtlP&usp=sharing
- 2. You can download the collective report (.docx) from the following link: <u>http://sprint.uniud.it/sites/default/files/visus/Mozambique/2017/UNESCO-</u> <u>VISUS_Mozambique_FinalReport_v1.1%20-%20Full.docx</u>

3. Map

https://drive.google.com/open?id=1-ZFovt2-fnwT9uwMhbauYGndGY1BtlP&usp=sharing

Note:

- For both training and survey, the summary of these activities can be found in this link: <u>https://en.unesco.org/news/improving-school-safety-mozambique</u>
- The Final report of project activities can be found in http://www.unesco.org/tools/fileretrieve/3290ce7d.pdf

	-	LIST OF VISUS SCHOOL SURVEYED IN MOZAMBIC	UE 2017
No	Code	School Name	Province,District
2	MZ 110007 MZ 110004	ESCOLA PRIMÁRIA COMPLETA A LUTA CONTINUA	MAPUTO, CIDADE
3	MZ 110024	ESCOLA COMUNITÁRIA SANTO ANTÓNIO DA POLANA	MAPUTO
4	MZ 110120	E.P. COMPLETA DE MINKADJUINE	MAPUTO
6	MZ 110135 MZ 11000337	ESCOLA PRIMÁRIA COMPLETA DO ALTO MAÉ	MAPUTO, CIDADE
7	MZ 50008	ESCOLA PRIMÁRIA COMPLETA 1 DE JUNHO	MAPUTO, BOANE
8	MZ 50013	SCOLA PRIMÁRIA COMPLETA 3 DE FEVEREIRO MACHAMBA ESTATA	MAPUTO, BOANE
10	MZ 50037 MZ 50126	ESCOLA PRIMARIA COMPLETA MATOLA RIO ESCOLA PRIMÁRIA COMPLETA	MAPUTO, MATOLA
11	MZ 50127	ESCOLA PRIMÁRIA COMPLETA DA MARAGRA	MAPUTO, MANHIÇA
12	MZ 50128	ESCOLA PRIMÁRIA COMPLETA EDUARDO MONDLANE	MAPUTO, MANHIÇA
15	MZ 50528 MZ 50533	ÁRIA COMPLETA DO INSTITUTO DE FORMAÇÃO DE PROFESSORES	MATOLA MAPUTO, MATOLA
15	MZ 50563	ESCOLA PRIMÁRIA COMPLETA 30 DE JANEIRO	MAPUTO, MATOLA
16	MZ 50686	ESCOLA COMUNITÁRIA CARLOS FILIPE TEMBE	MATOLA
17	MZ 110095 MZ 110094	ESCOLA PRIMARIA COMPLETA DA KATEMBE ESCOLA PRIMÁRIA COMPLETA DO GUAXENE	MAPUTO, KATEMBE
19	MZ 50457	ESCOLA COMUNITÁRIA DAEJO CHEILE	DADE DA MATOLA, MAPU
20	MZ 50025	ESCOLA PRIMÁRIA COMPLETA DE FICHE	MAPUTO, BOANE
21	MZ 50034 MZ 50040	ESCOLA PRIMARIA COMPLETA DE CHINONANQUILA ESCOLA PRIMÁRIA COMPLETA 4 DE OUTUBRO	MAPUTO, BOANE
23	MZ 50243	ESCOLA PRIMÁRIA COMPLETA O DE BOLAZ	MAPUTO, MARRACUENE
24	MZ 50244	ESCOLA PRIMARIA COMPLETA DE MATALANE	MAPUTO
25	MZ 50256	ESCOLA PRIMÁRIA COMPLETA 2 DE FEVEREIRO	MAPUTO, MARRACUENE
20	MZ 50449 MZ 50464	ESCOLA PRIMARIA COMPLETA DE KHONGOLOTE	MAPUTO, CIDADE
28	MZ 110131	ESCOLA COMUNITÁRIA DE SÃO JOAQUIM	MAPUTO, CIDADE
29	MZ 110132	ESCOLA PRIMÁRIA COMPLETA DE INHAGOIA B	MAPUTO, CIDADE
30	MZ 110136 MZ 50122	ESCOLA PRIMARIA DA UNIDADE 10 ESCOLA PRIMÁRIA COMPLETA DE RIBANGUA	MAPUTO, CIDADE MAPUTO
32	MZ 05224	Escola Primária 16 de Junho	MAPUTO
33	MZ 50121	ESCOLA MARISTA DA MANHIÇA	MAPUTO
34	MZ 50140 MZ 50266	Escola Primária Completa 7 de Abril ESCOLA PRIMÁRIA COMPLETA	MAPUTO MAPUTO MARRACUENE
36	MZ 50537	ESCOLA PRIMÁRIA E COMPLETA DA LIBERDADE	MAPUTO, MATOLA
37	MZ 50540	ESCOLA PRIMÁRIA/SECUNDÁRIA PARÓQUIA SÃO MARCOS	MAPUTO, MATOLA
38	MZ 50561	Escola Primária da Dignidade	MAPUTO
40	MZ 039269 MZ 110162	ESCOLA PRIMÁRIA E COMPLETA 12 DE OUTOBRO	MAPUTO
41	MZ 110167	Escola Primária Matchik Tchick	MAPUTO, CIDADE
42	MZ 110204	Escola Promária Completa das Mahotas	MAPUTO, CIDADE
43	MZ 050115 MZ 050116	ESCOLA PRIMARIA COMPLETA DA MANHIÇA ESCOLA PRIMÁRIA COMPLETA DE MULEMBJA	MANHIÇA
45	MZ 50208	ESCOLA PRIMÁRIA COMPLETA DE MUBOCO	MANHIÇA
46	MZ 050225	ESCOLA PRIMÁRIA DE MBUVA	MAPUTO, MACANETA
47	MZ 050238 MZ 050239	ESCOLA PRIMARIA 1 HODJANA ESCOLA PRIMÁRIA COMPLETA DA MACANETA	MARRACUENE-MACA
49	MZ 50478	ESCOLA PRIMÁRIA COMPLETA DA MACHAVA A	MATOLA, CIDADE
50	MZ 050481	ESCOLA PRIMÁRIA COMPLETA SAO DAMASO	MATOLA
51	MZ 050525 MZ 110159	ESCOLA PRIMARIA DE LINGAMO	
53	MZ 110163	ESCOLA PRIMÁRIA COMPLETA MAXAQUENE B	MATOLA, CIDADE
54	MZ 110166	ESCOLA PRIMÁRIA COMPLETA 4 DE OUTUBRO	MATOLA, CIDADE
55	MZ 050114 MZ 050179	ESCOLA PRIMÁRIA DO 28. GRALL DE MANHICA	MAPUTO
57	MZ 050203	ESCOLA PRIMÁRIA DE MALUNGANA	MAPUTO
58	MZ 050235	ESCOLA PRIMÁRIA COMPLETA CENTRO EDUCACIONAL	MAPUTO
59	MZ 050262	ESCOLA COMPLETA DE 29 DE SETEMBRO	MAPUTO
61	MZ 050470	ESCOLA PRIMARIA COMPLETA DE ONIDADE 1-5	MAPUTO
62	MZ 050535	ESCOLA PRIMÁRIA COMPLETA DE ZAVELA	MAPUTO
63	MZ 050610	ESCOLA PRIMÁRIA DE MBALANE	MAPUTO
65	MZ 110155 MZ 110161	ESCOLA PRIMARIA COMPLETA AV. DAS P.P.L.M ESCOLA PRIMARIA UNIDADE 25	MAPUTO
66	MZ Maxaquene D	ESCOLA PRIMÁRIA COMPLETA MAXAQUENE D	MAPUTO
67	MZ 50020	ESCOLA PRIMÁRIA COMPLETA UMPALA	MAPUTO
69	MZ 50044	ESCOLA PRIMARIA COMPLETA DE CAMPOANE ESCOLA PRIMÁRIA COMPLETA DAS SALINAS	MAPUTO
70	MZ 50482	ESCOLA PRIMÁRIA COMPLETA BUNHIÇA	MATOLA, CIDADE
71	MZ 50487	ESCOLA PRIMÁRIA COMPLETA BUNHIÇA C	MATOLA, CIDADE
73	MZ 50595	ESCOLA PRIMARIA COMPLETA MATOLA D ESCOLA PRIMÁRIA COMPLETE DE TCHUMENE	MATOLA
74	MZ 110096	ESCOLA PRIMARIA COMPLETA SAUL FILIPE TEMBE	ΜΑΡυτο
75	MZ 110116	SCOLA PRIMÁRIA COMPLETA LHANGUENE CENTRO 'RAINHA-SOFI	MAPUTO, CIDADE
76	MZ 110117 MZ 110137	ESCOLA PRIMARIA COMPLETA DE LHANGUENE PILOTO ESCOLA PRIMÁRIA COMPLETA UNIDADE 18	MAPUTO, CIDADE
78	MZ 214142	ESCOLA PRIMÁRIA COMPLETA 12 DE OUTUBRO	MATOLA
79	MZ 50011	ESCOLA PRIMÁRIA COMPLETA DE BOANE SEDE	MAPUTO, BOANE
80	MZ 50036 MZ 50051	ESCOLA PRIMARIA COMPLETA DE JONASSE BOANE ESCOLA PRIMÁRIA COMPLETA 25 DE SETEMBRO	MAPUTO, BOANE
82	MZ 50231	ESCOLA PRIMÁRIA COMPLETA HABEL JAFAR	MAPUTO
83	MZ 50234	ESCOLA PRIMARIA DE ZINTAVA	MAPUTO, MARRACUENE
84	MZ 50236 MZ 50486	ESCOLA PRIMARIA DE MARRACUENE ESCOLA PRIMÁRIA COMPLETA MISTA DE SIKWAMA	MAPUTO, BOANE
86	MZ 50492	ESCOLA PRIMARIA COMPLETA MACHAVA KM 15	MAPUTO, MATOLA
87	MZ 50612	ESCOLA PRIMÁRIA COMPLETA 8 DE MARÇO	MAPUTO, MATOLA
88	MZ 110124	ESCOLA PRIMARIA COMPLETA MISTA DE LURDES MUTOLA	MAPUTO, CIDADE
90	MZ 110125	ESCOLA PRIMÁRIA 25 DE JUNHO	MAPUTO
91	MZ 050401	ESCOLA PRIMÁRIA COMPLETA DE COCOMELA	MAPUTO, NAMAACHA
92	MZ 50L007942	ESCOLA PRIMÁRIA COMPLETA DA COSTA DO SOL	MAPUTO, CIDADE
93	MZ 50402 MZ 50406	ESCOLA PRIMARIA DE GERMATINE ESCOLA PRIMÁRIA DE CHIMUCHUANINE	MAPUTO, NAMAACHA
95	MZ 050407	ESCOLA PRIMARIA MATIANINE A	MAPUTO, NAMAACHA
96	MZ 50L022142	ESCOLA PRIMARIA COMPLETA DE CHIANGO	MAPUTO, CIRCULAR
98	MZ 050423 MZ EP NDONGUENE	ESCOLA PRIMARIA COMPLETA DE MUGADO ESCOLA PRIMÁRIA NDONGUENE	MAPUTO, NAMAACHA MAPUTO, NAMAACHA
99	MZ MATIANINE B	ESCOLA PRIMÁRIA COMPLETA MATIANINE B	MAPUTO, NAMAACHA
100	MZ 050405	ESCOLA PRIMÁRIA COMPLETA GRAÇA MACHEL	MAPUTO, NAMAACHA

 Table 1. List of schools assessed in the framework of this project

4. Development of Fillable VISUS Survey Forms

In order to ease the data process and transferring from the application to VISUS Server, the SPRINT (Safety and Protection Intersectoral Laboratory of University of Udine – Italy) developed a fillable set of VISUS Form that can be installed in tablet or smart phone. This activity was done on April 2018. The form can be downloaded in:

https://www.dropbox.com/s/uj19d09s7jhr7xl/VISUS_survey_forms_2.0_fillable.zi p?dl=0

5. Development of VISUS Android based Application

A mobile application for Android operate system was developed by Unggul Cipta Technology Company in Indonesia. The Application -named VISUS Finder- is available to be downloaded via Google Store with restricted access, and available in Bahasa, English, and Portuguese (soon in French and Spanish).

- a. Access to VISUS Finder: http://syntaxindo.co.id/visusfinder/v2/apk/visus_finder-release-1.0.2r6.apk
- b. Guidelines for installment in Youtube: https://youtu.be/BLUXZ5Au0jU

The trial or test of the app was done in 8 schools in Jakarta in partnership with Muhammadiyah Disaster Management Centre (MDMC) on March 2018, under its Safe School Program.

In order to scale up VISUS to the other remaining Asia and the Pacific Region Countries, UNESCO is planning to hold a VISUS Scientific Group Expert Meeting by mid-year 2018. It is expected that VISUS Project can be implemented across the region and acknowledged by government of each countries, such as in Indonesia. In Indonesia, VISUS is endorsed by the Ministry of Education and Cultural as a methodology for auditing the school building. It is mentioned as part of case study and reference as in written in its Education Resilience Handbook (see http://www.risikobencana.co/ebook/download/13).

III. Description of tool, approach, toolkit

a. Was it demand-led? If yes, how?

Mozambique schools are highly exposed to different natural hazards. The Ministry of Education and Human Development of Mozambique, in close cooperation with the University Eduardo Mondlane and UN Habitat, have been working on identifying the risk affecting the educational facilities, as well as, in a developing a better understanding of the general weakness that these facilities are having and the potential solutions that could be applied for reinforcing structures. Nevertheless, the way to assess the vulnerabilities of individual schools, in a multi-hazard context, was missing in the country strategy. Therefore, and as identified in Stakeholder Meeting in Mozambique on 20 September 2017, participants coming from the above mentioned organizations, as well as for other involved organizations, expressed the urgent need for a methodology that could identify individual

vulnerabilities in terms of site, structure performance, non-structural issues and functionality, for every single school while building a geo-referenced database for the whole country. In the meantime, the need to create national capacities for performing such assessment was also highlighted.

- b. Did you work with local beneficiaries in Phase II to develop your tool?
- Yes, we received support from the Eduardo Mondlane University, the Ministry of Education and Human Development, as well as from the National Institute of Disaster Management of Mozambique – INGC in order to adapt the VISUS methodology to the Mozambique context, notably in terms of hazard profiles of the country, building typologies and local cost for construction, rehabilitation and retrofitting.

c. If yes, how many local beneficiaries and how were they involved?

- Decision-makers, notably from the Ministry of Education and Human Development, the National Institute of Disaster Management of Mozambique, and other local organizations, such as Architects without Borders, were trained on the methodology and on the way to draw strategies resulting from the outcomes of the assessment. At the same time, the researchers and scientists from the Eduardo Mondlane University were fully involved in the adaptation of the method to the country. Moreover, and in order to secure the knowledge and technological transfer to the country, professors from the Eduardo Mondlane University and technical staff from the INGC were trained on the sciences behind the method, so that they can replicate these training on other academic institutions (training of trainers). To finalize thirty last year students were trained on the different aspects of the survey, including the important elements to be characterized during the survey.
- d. What is 'new'? In other words, what did Challenge Fund monies support in Phase II?

A part of the different tools developed and adapted in the framework of the VISUS implementation in Mozambique, the Challenge Fund provide the opportunity to create a detailed information on the individual vulnerabilities identified in each school, which could be linked to their national database and inventory. The individual report, allows to decision-makers at the local level to take science-based decisions on how to increase the level of safety in each school. Also, it allowed to create and strength capacities for developing assessments in a holistic manner (multi-hazard perspective and different elements to be analyzed –not only structural-)

e. How does it support risk identification and decision-making?

The UNESCO-VISUS methodology is used to measure the level of school safety from disasters through multi-hazard school safety assessment based on five issues are investigated:1) site conditions, 2) structural performance, 3) local structural criticalities, 4) non-structural components and 5) functional aspects. The data that are collected using a mobile application and paper based provided using simple

graphical indicators. The surveyors assisted by the school staff identify the risks they are exposed to, map their vulnerabilities and capacities, and enhance school safety. Based from these field survey data, the analysis on finding are summarized in the form of individual and collective school reports. These reports will help decisionmakers from the Ministry of Education and Human Development, the National Institute of Disaster Management of Mozambique and other relevant institutions in understanding which schools need priority interventions, which interventions are required and how much they would cost, and which upgrade actions are possible based on available resources. For instance, the decision makers can identify the type of retrofitting works that can be done to improve the school building resistant to particularly hazard, to learnt about the sturdily of traditional building, and to evaluate the existing building standard based on the historical disaster events that happened and affected the building structures.

- f. Describe the degree to which it is openly-available and how users can access it. In one hand, the tools created in the framework of this project, such as the VISUS Finder mobile application for data collection are available for public, for instance to download in Google Play Store. However, a technical assistance through specific VISUS Training is needed in order to provide a global understanding about the importance of multi-hazard assessment and the different element to be characterized and the explanation behind it. In the other hand, information resulting from the assessment is fully available and easy to understand for any user that would need to access and take informed decisions on the way to improve school safety (safe school facilities).
- g. Discuss how it enables (or will enable) users to make more effective disaster management and resilience decisions.

The results from this project, which are the 100 school individual reports, and the collective report, are providing a scientific based and comprehensive information about the current situation related to school safety, particularly for safer school facilities in Mozambique. The reports will enable the Ministry of Education (MoE) to make priority on which schools need intervention for retrofitting and reinforcement to avoid disasters disasters. This based on the information provided. This will help the MoE to be more effective in context of budget spending and more schools could be reached in a national program for rehabilitation, replacement, relocation and retrofitting. In addition, it allows to have in place a system that permits to track progress on the improvements made to every single school, with the condition, that regular assessments continue to be part of the national strategy for school safety.

IV. Description of partnerships (active in Phase II, but which could have started in Phase I), in particular those involving local partners.

Did you work in partnership(s) with a local partner(s)? If yes, please provide the name(s) of the local partner(s) and the nature/strength/sustainability of the partnership.

Yes, in this project UNESCO is working with national university, Centre of Studies and Development of Habitat University of Eduardo Mondlane (CEDH-UEM). UEM has been the main partner for the Mozambique Ministry of Education and Human Development on Safe School initiatives in the country. Previous projects with the ministry include the development of Guidelines on School Safety and Resilient School Building Codes, in close cooperation with UN Habitat and the World Bank. Professors at the CEDH-UEM are part of the VISUS Steering Committee. At the end of the project, a number of decision support tools have been developed and a critical mass of experts, notably at the University, are able to implement them. As a result of this project, the country counts, since now on, with the knowledge on multi-hazard assessment and its respective tools and the trained personnel to scale up the work proposed in the whole country and herein rendering the proposed outputs sustainable.

V. Description of capacity building of local stakeholders.

Did you conduct training in Phase II for local communities or beneficiaries in the use of your tool? If yes, please describe the type of the training and the number/type of beneficiaries trained.

Yes, we organized three types of training, as follows:

- 1. Training for Decision Makers on 22 November 2017. Twenty-six (26) participants attended it from seven government and non-governmental organizations,
- Training for VISUS Trainers on 23 November 2017. Ten (10) Professors from the Faculty of Architecture and Physical Planning (UEM-FAPF) at Eduardo Mondlane University, and a technical staff from the National Institute of Disaster Management of Mozambique – INGC, attended this training.
- 3. Training for VISUS Surveyors on 24 November 2017 to 1 December 2017. The training was attended by thirty (30) students and ten (10) professor from the FAPF-UEM, and a technical staff from the National Institute of Disaster Management of Mozambique INGC.

Did you measure change in knowledge as a result of your training? If yes, please provide results.

Yes, professors and students as part of the beneficiaries from the project gained knowledge by learning from the experience and examples from other countries that were presented in the training. As for the students they were able to understand more about mainstreaming DRR into education sector by practicing their skills and knowledge during the school survey activity using VISUS Methodology that introduced to them.

Did you follow up in any way after the training to see if what you discussed was put into practice? If yes, please explain.

We followed up via CEDH UEM about the progress of the survey in the field and asked for any feedback related to the methodology that was used. The professors

and the students implemented school surveys without any assistance from the VISUS International Steering Committee. At the end, only few cases needed minor corrections or further verifications.

VI. **Did you leverage private or public sector resources**? (If yes, please describe the source of the leverage as well as the total USD amount of combined cash and in-kind contributions. If relevant, please describe the nature of your relationship with the source(s) of leverage)

Unfortunately, we were not able to leverage the project with private nor public resource sector due to time constraint, as well considering that this is a new project for UNESCO in Mozambique. Instead, we were trying to build the ownership from the government, Ministry of Education and Human Development in order to gain their approval and support for the project in order to scale it up to the national context. In addition, the outcomes of the project will be used by the Ministry in order to leverage funds allowing them to perform interventions in the most vulnerable schools.

VII. How did your project consider gender in any aspect of project planning or implementation? Was a gender analysis or assessment conducted?

If yes, did your project address any gap identified in the assessment? If yes, please describe how. All Phase II projects are required to integrate gender into their work. Please use what you wrote in your inception report on gender as the starting point for this section.

UNESCO encouraged women participation in all aspect of the project. However, there were less representatives of women in the project activity as well in the Steering Committee. The proportion of women participation in this project is described in the table below:

Activity	# of Women	# of Men
Stakeholder Meeting	2	13
Training (Training for Decision Makers, Training of Trainers,	2	61
and Training for Surveyors) and Survey		
Adaptation of VISUS Methodology, Development of VISUS	5	8
Finder App, and Reporting- Led by VISUS Steering Committee		
(University of El-Salvador, UNESCO HQ, UNESCO Jakarta,		
UNESCO Mozambique, University of Udine, and UCT)		

VIII. Discussion of how tool or approach can be brought to scale in the future.

The implementation of the UNESCO-VISUS methodology in Mozambique has been developed aiming to sale it up to the national level. To this end, the involvement of other academic institutions in the country is fundamental, in close coordination with the University Eduardo Mondlane and under the leadership of the Ministry of Education and Human Development, and with the technical support and cooperation of the World Bank, UN Habitat, UNICEF and UNESCO, among other agencies. At the same time, the Mozambique experience could be replied within Africa and other regions of the world.

IX. What were main points of learning from this phase of the project?

- a. It is fundamental that countries developed a well-established Education Management Information System (EMIS) that could be reinforced with the outcomes of individual school assessments in a multi-hazard perspective.
- b. Countries need to create and reinforce their technical and human capacities in order to perform continues assessments to their critical infrastructures, -notably schools-. Taking the advantage of the already established resources on academic institutions such as Universities and Technical Institutions, the capacities of the country could be easily scale up all around the country.

X. Additional Monitoring Data regarding Tool Uptake

- a. Is your tool openly available to the broader user community? If yes, please provide the name of the platform.
 Yes, one of the related tools for data collection, regarding the methodology is available at the Google Play Store. Nevertheless, the use of the tool is strongly related to the capacity building activities.
- b. How many downloads of your tool have occurred throughout both Phase I and Phase II? How is this being measured?
 For Phase I, there were more around 30-40 people that download the previous App that developed by ESRI. While in the Phase II, there were around 60 users which are

that developed by ESRI. While in the Phase II, there were around 60 users which are mostly VISUS Steering Committee members, trainees and surveyors. This was measured based on the data received by the ICT Company.

- c. How many decision makers have accessed your tool throughout Phase I and Phase II? Of these, how many access your tool on a regular basis? How is this measured? (it can be through conversations, email, direct observation or another way) For Phase I, the access to the VISUS Methodology and related tools was granted for focal points from Ministry of Education and National Disaster Management Agency in Indonesia. These focal points are the officials that appointed to carry responsibility in the implementation in country safe school program. For the Phase II, the access is granted for the local partner, UEM, the Ministry of Education in Mozambique and the INGC. They will be able to use the related tools of the method and the method itself as needed.
- d. Have any policies, plans or investments been informed/influenced by your tool? If yes, please provide a bit more detail on how your tool has informed/influenced investment/policy/plans; if possible, provide USD amounts of local budgetary changes or other investments. If the influence was policy-based, please describe the policy change your tool informed. If the influence was in planning, please provide detail.

Through this project, the VISUS Methodology provides an average costs for school rehabilitation/retrofitting, or reconstruction based on local standards. The calculation on the costs is done based on the school survey findings. This will support the development of investment plan strategies that can be efficiently be

drawn from the Mozambique School Rehabilitation Program. It is expected that decision-makers at the Ministry of Education and Human Development, will use the outcomes of the methodology for improving the safety conditions of the assessed schools.

e. Was your sustainability goal for the project achieved? Please provide the metric used and explain the results achieved.

Yes, it is. The VISUS Adaptation in Mozambique Project specifically achieved Goal 4 on Ensure Inclusive and Equitable Quality Education and Promote Lifelong Learning Opportunities for All, in particularly related to Target 4A which aimed to build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all. The VISUS Methodology resulted school reports that outline the finding on safety related problems that need to be intervened by the decision makers to improve the safety of the schools for their school communities. At the same time, the project a has provided with the adaptation of a number of decision support tools and build a critical mass of experts who are able to implement the VISUS method.

f. Do you have an exit strategy for your project? If yes, please explain.

Yes, there will be a Reporting Meeting inviting related stakeholder and Mozambican officials. A comprehensive presentation and recommendation resulted from the project implementation and findings will be shared and handover to the Mozambique Ministry of Education and National Disaster Management Agency. This meeting will be conducted on early March 2018. Moreover, and as discussed in the previous point, it is thus believed that now the country has self-sufficiency for implementing multi-hazard assessment. This project has provided a basis upon which further work from the country may be founded. Mozambique have now the tools and the trained personnel to scale up the work proposed herein rendering the proposed outputs sustainable.

	GFDRR Funding	In kind Funding	Other Funding	Total Funding
CONSULTING SERVICES (fees, travel, per diem) 1. Mr Jair Torres 2. Ms Margherita Fanchiotti 3. Professor Edgar Pena	22,677 USD 9,560USD 7 120 USD			
TASK TEAM SUPERVISION(List key personnel and their related expenditure)1. Mr Ardito Kodijat2. Ms Yuniarti Wahyuningtyas3. Mr Sergio Rejado Albaina	6,972.78 USD 5,970 USD 2,600 USD			

XI. Please detail how the budget was spent through the course of phase II?

DISSEMINATION (Translation, editing, publication, etc.)			
LOGISTICS			
(Training, workshops,			
consultations, etc.)	52.044.065		
1. University of Eduardo Mondiane	52,814 USD		
2. University of Udine	15,434 USD		
GOODS AND WORKS 1. Unggul Cipta Teknologi	10,000 USD		
OTHER			
(please specify):			
Indirect Cost			
Project Support Cost (13%)	17,332 USD		
TOTAL			150,479.78 USD

XII. Please attach any additional project related documents you may have to the final report.

- a. Annex 1-VISUS Training Workshop Summary Report
- b. Annex 2-Minute of Meeting VISUS Steering Committee
- c. Annex 3-VISUS App Development Report and Links
- d. Annex 4-VISUS Reporting Meeting TOR

ANNEX 1- VISUS TRAINING WORKSHOP SUMMARY REPORT

VISUS TRAINING WORKSHOP REPORT

A. Training for Decision Makers (Wednesday 22 November)

1. Background

This training was aimed to train stakeholders from national and local authorities on how to use results from the assessments. The participants were expected to meet the following criteria: have sound and basic understanding of the English language; hold a senior managerial position; and develop or establish a safe school program in his or her agencies. Nevertheless, this training was also open for other stakeholders or donors that provide financial support or risk financing for the school safety program.

The training involved 26 participants from:

- Ministry of Education and Human Development (MINEDH: Ministério de Educação e Deseonvolvimento Humano)
- National Institute of Disaster Management (INGC: Instituto Nacional para a Gestão de Calamidades)
- National Directorate for Urbanization and Habitation
- Arquitectura Sin Fronteras
- Mozambique National Commission for UNESCO
- FAPF-UEM / CEDH-UEM
- IBE

Time	Activity	Resource person
8:30 - 9:00	Participants' arrival and registry	FAPF-UEM
9:00 - 9:10	Welcoming remarks	MINEDH
9:10 - 9:20	Welcoming remarques	National Commission for UNESCO
9:20-9:30	Welcoming remarques	UNESCO Maputo Office
9:30 – 9:45	Welcoming speech covering the challenges and opportunities of the implementation of the VISUS methodology in Mozambique	VISUS survey coordinator in Mozambique: Prof. Luís Lage
9:45 – 10:15	Global Framework on School Security	UNESCO HQ
10:15 - 10:45	Coffee Break	
10:45 - 11-30	VISUS: A support tool for decision-makers (Part 1)	University of San Salvador (EL Salvador), Prof. Edgar Peña
11:30 - 12:15	VISUS: A support tool for decision-makers (Part 2)	UNESCO HQ, Prof. Jair Torres
12:15 - 12:45	Questions and answers session	Everybody
12:45 - 13:45	Lunch break	
13:45- 15:30	Workshop – Group work	UNESCO HQ
15:30 - 16:45	Plenary session: results from group work	Working groups
16:45 - 17:00	Closing remarks	UNESCO HQ

2. Workshop agenda

3. Workshop Summary

The workshop began with the official welcoming speeches by the Director of the FAPF-UEM This was followed by the welcoming words by Mrs. Elia dos Santos Vaz Bila (Director of the Mozambique National Commission for UNESCO) and Mr. Marcos Cherinda (National Education Officer at UNESCO Maputo, acting as deputy Head of Office during the absence of the UNESCO Representative to Mozambique). Finalizing the opening session, Mr. Luis Lage (the survey coordinator for the VISUS implementation in the country) gave

an official beginning to the workshop with an introduction to the challenges and opportunities posed by the adaptation of the VISUS methodology to Mozambique.

Mr. Jair Torres and Mr. Edgar Peña alternated as leads of the presentations and discussions that took place during the rest of the day. After beginning with an introduction to the international framework and background on school safety that led to the creation of VISUS: the Sendai Framework for Disaster Risk Reduction, the Global Alliance for Disaster Risk Reduction in the Education Sector, and the Worldwide Initiative on School Safety.

Once the global framework was explained, Mr. Torres and Mr. Peña proceed to introduce the methodology, its scientific basis, and its applications during a specific presentation tailored for decision makers. Until the lunch break, this presentation covered the following topics:

- What CSS (Comprehensive School Safety) is, and which safety goals it contains
- Which are the main concerns for decision makers related to school safety (with a focus in hazard-prone areas)
- How to plan for school safety at a large scale: resource allocation, cost-effective upgrading strategies, intervention prioritization
- The VISUS methodology:
 - o Triage analogy
 - Assessment indicators
 - Global safety indicators
 - o Integrated approach and multi-hazard assessment
 - o Training materials and strategy
 - Tablet-based surveys
 - Activities and outcomes
 - Individual and survey-wide school reports
 - Decision making support

After the lunch break, the workshop divided the participants in small groups (composed each by 3 or 4 participants) for a practical exercise. Participants were given the results of a VISUS survey performed in a hypothetic country with only eight schools. They were also told they had a hypothetic budget, and a reference list of costs for different types of upgrading interventions. They were then asked to compare the results for the different schools, interpreting them in order to come up with a prioritized list of upgrading interventions. Mr. Torres and Mr. Peña coached them on the decision making process, before they asked the groups to present their decisions to each other. This was followed by an open discussion on the results, which led at the end of the workshop to a wider exchange of views and impressions on the VISUS methodology and the advantages and challenges of its utilization in the Mozambican context.

B. Training for Trainers (Thursday 23 November)

1. Background

This training aimed to build the capacity of lecturers from the FAPF-UEM to be able use or apply VISUS Methodology into their programs, though other stakeholders (government officials, UN Agencies and NGOs) that work on education and safer learning facilities were also invited to participate.

A total of 10 Professors from the FAPF-UEM, and a technical staff from the National Institute of Disaster Management of Mozambique – INGC, participated in this workshop. The selected lecturers that benefitted from the training were expected to meet the following requirements: they should teach in Civil Engineering/Architecture/Construction courses, have a minimum five years of teaching experience, have professional or educational background in civil engineering, architecture, or construction, and have a sound understanding of the English language. In addition, it was expected that they were going to take part in the training for VISUS Surveyors and in the assessment of the schools.

Time	Activity	Resource person
08.45-09:00	Arrival and registration of participants	Event Organizer (EO)
09.00-09.15	Welcoming words	Prof. Edgar Peña, University of El-Salvador
		Mr. Jair Torres, UNESCO HQ Paris
09:15-11:00	Module TDs	Prof. Edgar Peña, University of El-Salvador
	Scientific basic of VISUS methodology	
11.00-11.30	Coffee break	EO
11:30-12:30	Module TDb	Prof. Edgar Peña, University of El-Salvador
	VISUS budget allocation	
12:30-13:00	Question and Answers	Mr. Jair Torres, UNESCO HQ Paris
13.00-14.00	Lunch break	EO
14.00-15.00	Module Session D1	Prof. Edgar Peña, University of El-Salvador
	VISUS definitions	
15.00-15.30	Question and Answers	Mr. Jair Torres, UNESCO HQ Paris
15.30-16.00	Coffee break	EO
16.00-17:00	Module FP	Mr. Jair Torres, UNESCO HQ Paris
	Country implementation of VISUS	
17.00-17.30	Closing Remarks	National Commission UNESCO for Mozambique

2. Workshop agenda

3. Workshop Summary

Since most of the participants in this workshop had already participated in the training for decision makers of the previous day, the introductory remarks for this training were short and straight to the point, covering the personal presentations of Mr. Torres, Mr. Peña, and all participants. This workshop was more theoretical and technical in nature that the training for decision makers, and it covered the following topics:

- Scientific basis of the VISUS methodology:
 - $\circ~$ The problem of seismic safety in schools
 - $\circ~$ The goals of school safety
 - How to manage the problem at the regional level
 - Triage for planning: the VISUS methodology
 - Applications: seismic safety
 - Applications: multi-hazard assessment
 - Safety upgrading strategies

- VISUS budget allocation:

- VISUS outcomes
- VISUS intervention needs
- Range of budget allocation
- Index of Upgrading Financial Commitment
- Index of the upgrading actions
- o Incidence of required intervention
- Indexes of requests for the interventions

- VISUS definitions:

- \circ School complex
- o Building
- Building classification
- Parts and structural units
- Building identification
- Subjects of investigation

- Country implementation of VISUS:

- Steering Committee
- Local Committee
- o Phases: preliminary phase, organization phase, survey organization phase

C. Training for surveyors (Friday 24 November to Friday 01 December)

1. Background

The VISUS Training for Surveyors aimed to introduce VISUS Methodology and provide technical skills to conduct VISUS Assessment on the schools in Mozambique. The teachers that participated on the specific training for trainers joined a group of selected students from the FAPF-UEM.

A total of 11 trainers and 30 students participated in this workshop. In order for them to participate, they were expected to meet the following requirements: all participants should have a minimum basic knowledge and understanding of the English language, the students must be in their 3rd or 4th grade, majoring in civil engineering or architecture, with a focus on structure or geotechnics.

The training contained two main planned activities

- 1. To conduct VISUS Training for Surveyors for Teachers and Students of the FAPF-UEM
- 2. To test the VISUS application and forms that have been adapted to Mozambique context in 6 local schools in Maputo city

After the training, the participants had earned the capacity in providing technical expertise to Ministry of Education and Human Settlement, and Ministry of Public Works, Housing, and Water Resources to assist the safety assessment of existing school buildings in order to support the school/classroom rehabilitation program and to monitor safer learning facilities in Mozambique. Out of the 10 teachers and 25 students, 5 teachers and 15 students were selected to conduct the field survey for this project.

Time	Activity	Resource person				
Friday, 24 Nov	Friday, 24 November 2017					
07.00-08.00	Registration of Training participants and observers	Event Organizer (EO)				
08.00-09.00	Welcome Remarks, Presentation of Participants	UNESCO Office Maputo				
		Prof. Edgar Peña, University of El-				
		Salvador				
		Mr. Jair Torres, UNESCO HQ Paris				
09.00-10.30	Module T1	Prof. Edgar Peña, University of El-				
	VISUS for comprehensive school safety	Salvador				
	Module T2	Mr. Jair Torres, UNESCO HQ Paris				
	VISUS: an expert-based approach					
10.30-11.00	Coffee Break	EO				
11.00-12.00	Module T3	Prof. Edgar Peña, University of El-				
	VISUS survey forms	Salvador				
	Module T4U					
	VISUS characterization: focus on ordinary use					
12.00-13.00	Lunch Break	EO				
13.00-15.00	Module T4F	Prof. Edgar Peña, University of El-				
	VISUS characterization: focus on fire	Salvador				
	Module T4W					
	VISUS characterization: focus on water					
15.00-15.30	Coffee Break	EO				
15.30-17.30	Module T4E	Prof. Edgar Peña, University of El-				
	VISUS characterization: focus on earthquakes	Salvador				
	Module T4A					
	VISUS characterization: focus on air					

2. Workshop plan and agenda

Monday, 27 N	ovember 2017	
08.00-10.00	Module T4S	Prof. Edgar Peña, University of El-
	VISUS characterization: focus on status	Salvador
10.00-10.30	Coffee Break	EO
10.30-12.30	Module T5	Mr. Jair Torres, UNESCO HQ Paris
	How to manage a VISUS survey	
12.30-13.30	Lunch Break	EO
13.30-14.30	Module T6	Prof. Edgar Peña, University of El-
	Data entry of collected data	Salvador
14.30-16.00	Preparation and planning	Mr. Jair Torres, UNESCO HQ Paris
	Division of participants divided into five groups,	
	consisting of 7 surveyors each; planning of the first 6	
	surveys	
16.00-16.30	Coffee Break	EO
16.30-18.00	Data entry exercise and demonstration	Prof. Edgar Peña, University of El-
		Salvador
		Mr. Jair Torres, UNESCO HQ Paris
18.00-19.00	Comments by groups and clarifications	Prof. Edgar Peña, University of El-
	(with facilitators)	
		Mr. Jair Torres, UNESCO HQ Paris
Tuesday, 28 N	ovember 2017	
08.00-13.00	First survey	Prof. Edgar Pena, University of El-
	Survey in "EPC 3 de Fevereiro"	Salvador
		Mr. Jair Torres, UNESCO HQ Paris
13.00-14.00	Lunch Break	
14.00-16.00	Data entry exercise	Prof. Edgar Pena, University of El-
	from first survey	Salvador
10.00.10.20	Coffee Dreed	Mr. Jair Torres, UNESCU HQ Paris
16.00-16.30	Cojjee Break	EU Draf Edam Daño Universita of El
16.30-18:0	(with facilitators)	Prof. Edgar Pena, University of El-
	(with facilitators)	Salvauoi
19 00 10 00	Discussions and Final commont nor group	Prof Edgar Doãa University of El
18.00-19.00	(challenges/suggestion)	Salvador
	(chancinges) suggestion)	Mr. Jair Torros, LINESCO HO Daris
Wodposday	9 November 2017	MIL Jail TOTTES, UNESCO HQ Paris
		Survoy tooms
08.00-13.00	EPC "A Luta Continua"	Survey teams
	EPC São Antonio de Polana	
13.00-14.00	Lunch Break	EO
14:00-16:00	Quality control, validation, and data entry	Prof. Edgar Peña, University of El-
		Salvador
		Mr. Jair Torres, UNESCO HQ Paris
16.00-16.30	Coffee Break	EO
16:30-20:00	Quality control, validation, and data entry	Prof. Edgar Peña, University of El-
		Salvador

		Mr. Jair Torres, UNESCO HQ Paris
Thursday, 30 I	November 2017	
08.00-13.00	Field survey	Survey teams
	EPC do Aito Mae	
	EPC de Unidada 7	
12 00 14 00		50
13.00-14.00		EO
14:00-16:00	Quality control, validation, and data entry	Prof. Edgar Peña, University of El-
		Salvador
		Mr. Jair Torres, UNESCO HQ Paris
16.00-16.30	Coffee Break	EO
16:30-20:00	Quality control, validation, and data entry	Prof. Edgar Peña, University of El-
		Salvador
		Mr. Jair Torres, UNESCO HQ Paris
Friday, 01 Dec	ember 2017	·
08.00-9.00	Training evaluation and field survey planning – for the	Prof. Edgar Peña, University of El-
	EO, trainers, and facilitators	Salvador
		Mr. Jair Torres, UNESCO HQ Paris
09.00-13.00	Questions and answers session with surveyors	Prof. Edgar Peña, University of El-
		Salvador
		Mr. Jair Torres, UNESCO HQ Paris
13.00-14.00	Lunch Break	EO
15:00	End of workshop	EO

3. Workshop Summary

3.1 VISUS Training for Surveyors for Teachers and Students of the FAPF-UEM (Friday 24 and Monday 26 November)

The first days of this capacity building activity brought together the selected teachers/professors and students for an in-depth introduction to the VISUS methodology and its practical technical implications. These sessions were conducted by Prof. Peña and facilitated by Mr. Torres. The contents covered were:

- Session 1: VISUS for comprehensive school safety

- $\circ~$ VISUS in the CSS framework
- o Safety assessment: a multi-dimensional problem
- VISUS indicators
- o Structural performance evaluation methods
- Why multi-hazard assessment?
- \circ New Vs existing schools
- Session 2: VISUS as an expert-based approach
 - Assessment: the expert's reasoning
 - $\circ~$ VISUS IT tools
- Session 3: VISUS survey forms
 - VISUS survey: fundamentals
 - o Educational infrastructures
 - $\circ~$ VISUS survey forms
 - $\circ~$ How to fill the VISUS survey forms
- Session 4: VISUS hazard characterization
 - Focus on air (wind hazard)

- Focus on water (flood hazard)
- o Focus on earthquakes
- $\circ~$ Focus on fire
- o Focus on status
- Focus on ordinary use
- Session 5: How to manage a VISUS survey
 - $\circ~$ VISUS survey strategy and procedure
 - VISUS survey team
 - VISUS survey kit
 - o Importance of a good photo reportage
 - \circ $\,$ Suggestions on how to use tablet or smartphones during the survey

- Session 6: Data entry of collected data

During these sessions, there were frequent rounds of questions and answers during which the professors and teachers could interact with the UNESCO experts, solving all doubts about the methodology, definitions and terms, and the application of the methodology. The session finished with the creation of the survey groups and the explication and planning of the first surveys to take place in the following days.

3.2 To test the VISUS application and forms that have been adapted to Mozambique context in 6 local schools in Maputo city (Tuesday 27 November to Friday 01 December)

The practical part of the workshop began with the division of the participants on five survey teams. On Tuesday 27 November, all five teams participated on a field visit to the Escola Primária Completa (EPC) 3 de Fevereiro (3rd February Complete Primary School), in Eduardo Mondlane Avenue, Maputo. In the morning, the workshop participants visited the school and learnt how to apply the VISUS methodology with the help on the UNESCO experts. During the afternoon, all participants returned to FAPF-UEM for a practical demonstration on management, entry and uploading of the gathered data.

School	Day of visit	Persons or team in charge	Members of team in charge
EPC 3 de Fevereiro	Tuesday 28	UNESCO experts	Edgar Peña & Jair Torres, all surveyors
EPC "A luta continua"	Wednesday 29	Team 2	Prof. Martin Nganhasy Rose Mary Manaca Dias Harisse Abdulcadre Jany Tongay Dango Elton Sigauque
EPC São Antonio de Polana	Wednesday 29	Team 3	Prof. Hermenegildo Boaventura Prof. Raimundo Sitoe Abel Rafael Mutisse Amédius Alphonce Manyanga Stelio Orlando Macamo Jaime Arnaldo Tivane Hélio Nhamposse
EPC do Alto Mãe	Thursday 30	Team 5	Prof. Helder Maquico Manuel Vicente Honwana Fernando Lívio Matsinhe Alfai Banqueiro Bene Sofia Eugênio Saguate
EPC de Mikadjuine	Thursday 30	Team 4	Prof. Ilídio Cambula

			António Agostinho Manjate Hatibu Iddi Jumaa Elvis Enihad Rutebuka Felizmundo Lázaro Maurício
EPC da Unidade 7	Thursday 30	Team 1	Prof. Bernardino Jaieia Ermeio Armindo Zandalema Anselmo da Silva Pedro Baciquete Ivandro Fernandes Pombo Jaime Chilengue

With this newly acquired knowledge, the survey teams were assigned one school each, for which they were going to be in charge of leading and conducting the assessment. Each group would be accompanied by other groups, taking the lead and reporting the results. The first two schools were visited on Wednesday morning, with a quality control, validation, and data entry exercise during the afternoon.

On Thursday, the three survey teams that had not taken the lead yet were responsible for leading and reporting the assessment of the remaining three schools. During the afternoon, a second quality control, validation, and data entry exercise was conducted for the three newly-assessed schools.

Finally, a wrap-up session took place on Friday morning. First, the UNESCO experts met with the Focal Points and professors to discuss the practical arrangements for the survey to be undertaken were discussed, and the UNESCO experts provided feedback on the selection of schools and planning of the field survey. The objective was set to assess a total of 94 schools (adding up to 100 with the first six that had already been assessed at that point) in the provinces of Maputo, Gaza and Inhambane over the first half of December. This planning exercise was followed by a plenary with all participants for an open round of questions and answers with the objective of clarifying all remaining doubts.

ANNEX 2-MINUTE OF MEETING VISUS STEERING COMMITTEE (UNESCO Office Jakarta, UNESCO Office Maputo, UNESCO HQ Paris, Unggul Cipta Teknologi Company, University of Eduardo Mondlana, and University of Udine)

A. Initial Meeting on Development of VISUS Application

Day/Date/Time	: Monday/30 October 2017, 13.20-15.00
Venue	: UNESCO Office Jakarta, Galuh Meeting Room, Jalan Galuh II No.5,
	Selong-Kebayoran Baru, Jakarta Selatan

Attendees

- 1. Mr Ardito Kodijat/National Program Officer of DRR TIU of UNESCO Jakarta Office (<u>0816971196/a.kodijat@unesco.org</u>)
- 2. Ms Astrid/Syntaxindo (081220560660/astrid.fn@syntaxindo.co.id)
- 3. Mr Irwan/ Syntaxindo (081297173622/irwan@syntaxindo.co.id)
- 4. Mrs Yuniarti Wahyuningtyas/Program Assistant of DRR TIU Unit of UNESCO Jakarta Office (081281842508/y.wahyuningtyas@unesco.org)

Point of Discussion

1. VISUS Program of UNESCO - Mr Ardito Kodijat

:

- Mr Ardito explained that VISUS is a global program of UNESCO that has been tested in several countries, including: Italy, El-Salvador, Lao, Indonesia (Bandung and Ambon), Peru, and Haiti.
- Previously, UNESCO used ESRI to conduct the survey in Bandung under the support from World Bank. Unfortunately due to license, this application is no longer free and cannot be accessed now.
- UNESCO received Phase II Grant from World Bank to continue the project in Mozambique. It was suggested by them to use open data source for the apps
- The activity in Mozambique will begin on 22 November 2017, 100 schools will be surveyed. If possible to have a beta test of the apps during the period of this activity. The end product can be deliverable end of the year
- Vendor form must be submitted to UNESCO in order to established contract. Beside Vendor Form, the company should have SIUP and Company Bank Account. Since the contract value above USD 5,000 it might require HQ to transfer the payment directly, instead of the Field Office. UNESCO will be able to provide down payment maximum 33% from the total contract value. The payment will be done based on terms.
- Due to contract value is above USD 5,000, UNESCO needs to have a three quotation as comparison. If possible to have reference for another companies, UNESCO previously engaged with web developer for VISUS Indonesia (<u>www.visusindonesia.org</u>)
- The company can be in in any form of legal bodies, as long the type of services is fit with the requirement.
- The survey is being done by the students of Vocational School-Construction Major. The surveyors need to identify the problem, select the option based on actual condition, and take picture of the object problem. The questionnaire and pictures are linked to one another. The picture can represent multi problem.
- Mr Ardito explained that the surveyors need to be trained before they are able to fill the forms. He later explained about the survey forms. The number of forms survey as follows:

- a. SPO: it can have a multi forms on this type, depend on the number of building that exist in the schools
- b. SP1: contain of information on the location (the surveyor needs to capture the school name board and gate)
- c. SP2: contain information on school yard (the surveyor needs to capture/taking picture of the object from every corner)
- d. SP3-SP4:depend on the number of building that exist

In each of the observation object, there is a code. This represent the type of form that is used/filled.

- The forms are developed based on specific hazards, for Mozambique there is an additional objects related to drought
- Syntac Syndo can add its logo to the apps

B. Meeting on the Review and Progress of VISUS Finder Application Development

Day/Date/Time	: Monday/8 January 2018, 15.00-17.15 Hrs				
Venue	: UNESCO Office Jakarta, Galuh Meeting Room, Jalan Galuh II No.5,				
	Selong-Kebayoran Baru, Jakarta Selatan				

Attendees

- 1. Mr Ardito Kodijat/National Program Officer of DRR TIU of UNESCO Jakarta Office (<u>0816971196/a.kodijat@unesco.org</u>)
- 2. Ms Astrid/Syntaxindo (081220560660/astrid.fn@syntaxindo.co.id)
- 3. Mr Irwan/ Syntaxindo (081297173622/<u>irwan@syntaxindo.co.id</u>)
- 4. Mrs Yuniarti Wahyuningtyas/Program Assistant of DRR TIU Unit of UNESCO Jakarta Office (081281842508/y.wahyuningtyas@unesco.org)

Point of Discussion

- Mr Ardito asked about the number of the schools that were surveyed in Mozambique using VISUS Finder Application. According to Mr Irwansyah, the data that were received by the server so far came from 32 schools. While for the users, there were 10 people that were downloaded the application from Google Play (Mrs Yuniarti confirmed that among the users, were herself and using 4 UNESCO Samsung Tablet Account).
- Based on the input from UNESCO Paris and according to suggestion from Pak Udrekh, it would take more time for development of VISUS Apple IOS. Therefore, this assignment point will be taken out from the contract agreement
- As explained by Mr Jair Torres from UNESCO Paris, due to time constraint and there were some error while tried out VISUS App during last year training in Mozambique, the country team led by University of El Salvador decided to use paper based for the school survey. Therefore the output to hand over 100 school survey data that initially requested to UCT, will be taken out from the contract as well
- UNESCO Office Jakarta is consulting with UNESCO Paris and University of Udine about the revision and corrective on the VISUS Android based app. Another technical meeting via Skype Call will be arranged with both organizations as soon as possible after we receive their confirmation.
- In order to fill the gap and as part of trial of the app, VISUS Finder will be tested in several schools in Jakarta. UNESCO Office Jakarta will try to approach Muhammadiyah Disaster Management Centre (MDMC) that was interesting to use VISUS Methodology for their schools. 10 schools of Muhammadiyah will be surveyed using VISUS Finder App. Further discussion will be conducted with MDMC for planning and implementation of VISUS Training pre survey. UCT will be invited as speaker to introduce the VISUS Finder.
- In order to substitute the outputs that were taken out from the agreement, UCT is asked to provide additional service on maintenance- adding other languages (French and Spanish) and managing bugs issues, and provide necessity support for designing or lay outing additional obs and features. The UCT server will be used temporarily until 1 month after the agreement is ended. Data that will come to UCT Server after the month, will be retrieved by forwarding to Udine's server in Italy.
- There should be a restriction on who can download and would be granted to access the VISUS Finder in the Google Play. One email address can only be used for 1 user to download the app. Another form of restriction would also by restricted the countries accessibility,

provide confirmation of authorization and verification for the users that are downloading the app, as well checking the authorization of the survey results that are captured by the users. By taking past experience with ESRI, the restricted users for VISUS App was done by inserting the VISUS Surveyor certificate number as unique code to access the system. While in avoidance of in written negative comments in the Google Play Webpage, comments can be replied to the users directly through the webpage of Google Play Store.

- UNESCO will start processing the UCT's contract amendment on 12 January 2018. This new contract end date would be 23 February 2018. Payment will be done in two installment. The first one, worth 33% or around USD 3,300 (the value will be converted to IDR based on Indonesia Government Regulation) from the total contract value will be paid to UCT once we received Proforma Invoice and Narrative Report from the process of App development that has been done so far, including the results from meeting and coordination via Skype and WA with related stakeholder: UNESCO and Udine. The final payment will be done once UNESCO received the manual, final version of App, and trial results from the selected schools that will be surveyed. The final output from UCT should be handed to UNESCO in the form of either CD or Flash Drive.

C. Meeting Discussion on to Review the Development of VISUS Finder App

Day/Date/Time	: Friday/19 January 2018, 14.00-17.15 Hrs				
Venue	: UNESCO Office Jakarta, Galuh Meeting Room, Jalan Galuh II No.5,				
	Selong-Kebayoran Baru, Jakarta Selatan				

Attendees

- 1. Mr Ardito Kodijat/National Program Officer of DRR TIU of UNESCO Jakarta Office (<u>0816971196/a.kodijat@unesco.org</u>)
- 2. Ms Astrid/Syntaxindo (081220560660/astrid.fn@syntaxindo.co.id)
- 3. Mr Udrekh/Syntaxindo (081310791006/udrekh@syntaxindo.co.id)
- 4. Mrs Yuniarti Wahyuningtyas/Program Assistant of DRR TIU Unit of UNESCO Jakarta Office (081281842508/y.wahyuningtyas@unesco.org)

Point of Discussion

A. Brief Information on Administrative of Contracted Service

Mr Ardito explained the situation related to Unggul Cipta Teknologi (UCT's) contract. Due to internal system that was down last December 2017 to early January 2018, caused the contract of UCT could not be extended. Therefore the ToR for UCT is still the same, and the deliverables, except the development of IOS should be shared to UNESCO. The survey in 100 schools in Mozambique has been completed by the University of Eduardo Mondlane (UEM). Mrs Yuniarti has downloaded their reports and can be used as part of the deliverables. However the technical components from the application still needs to be improved, maintained, and upgraded based on the inputs from SPRINT Lab University of Udine, and UNESCO Geo-hazard Risk Reduction Unit of UNESCO Headquarter.

B. Inputs on Technical Aspects on the VISUS Finder App

- Mr Ardito explained that the App was not able to be used or operated during the School Survey in Mozambique last December 2017. Based on email from Petra and Jair, they both mentioned that the App should be corrected for its method, updating set of OBS with new codes created for the revised data collection form, and further information concerning the server that will be put for the app (source codes and survey outcomes).
- Mr Ardito shared the plan in conducting trial for the App that will be done with Muhammadiyah Disaster Management Centre (MDMC) through VISUS training on 5 to 9 March 2018. It is expected that the UCT Team can deliver the session in introducing the App and assist the operational of the App to survey 10 schools in Jakarta. 10 schools are targeted to be surveyed using the App, later MDMC will roll out to its other schools (in total MDMC managed 88 schools in Jakarta).
- Mr Udrekh requested that the Agency for Technology Development and Application (BPPT) can participate in the training. He asked the possibility to get 5 slots of seat for its staff
- Mr Ardito requested to have further discussion to link UCT server to Udine and on how the algorithm can be read by the UCT Server
- Mrs Yunarti explained that the results of filing the App and the analysis survey report from Udine is different. There are some codes, such as rose needle, stars, and cost for retrofitting that are resulted by Udine data/analytical processor/reader.

C. Review on the App (Trial in filling the data from 1 school in Mozambique-MZ 50L007942, Portuguese Version)

- To add the column on name of surveyors team and their contacts
- To translate the Month and Date to Portuguese Language (this part is still using English)
- In order to add the school data (Number of students, teachers, and administrative staff) the nominal of zero must be deleted first
- On the section of Type of School, Daily Use, and Grade Level change to radio button
- In the form of SP0, SP1, SP2, SP3, and SP4, the representative of school picture, and overview of school picture should be available to be taken/captured
- The code number of SP0, SP1, SP2, SP3, and SP4 parts should be reflected in the App
- The pictures that are captured should be able to be added with written notes/information of its attachment to which Obs
- The Obs should be organized based on the form not alphabetical
- In order to separate each part of the SP form, there should be a line separator with pictures of element
- The selection or tick can be applied to all Obs, not a closed/locked selection
- The lay out should be 1 page per group of obs. To make it horizontal not vertical scroll up
- For quantity data or information, separation on the numerical using coma
- The SP2 is not available in the App/missed out
- The format output from the App would still be in the form of fdf.
- The access for downloading the VISUS Finder App in the Google Play should be restricted, only authorized surveyors that have been trained can submit the results of the survey that have been filled in. while of ordinary users they can still playing around with the App
- The Go To button should be available to be used for searching the key words
- By the end of the survey, the summary of the questions and forms that have been filled can be reviewed or shown in the screen.

D. Skype Call Meeting Discussion on Technical Review of VISUS Finder App

Day/Date/Time	: Monday/22 January 2018, 19.00-20.45 Hrs
Venue	: Each Office

Attendees

- 1. Mr Ardito Kodijat/National Program Officer of DRR TIU of UNESCO Jakarta Office (<u>0816971196/a.kodijat@unesco.org</u>)
- 2. Ms Astrid/Syntaxindo (081220560660/<u>astrid.fn@syntaxindo.co.id</u>)
- 3. Mr Irwansyah/ Syntaxindo (081297173622/irwan@syntaxindo.co.id)
- 4. Mr Jair Torres/International Consultant for Geohazard Risk Reduction UNESCO Paris (j.torres@unesco.org)
- 5. Dr Petra Malisan/Researcher in Safety and Protection Intersectoral (SPRINT) Laboratory at the Polytechnic Department of Engineering and Architecture of University of Udine (petra.malisan@uniud.it)
- Prof Stefano Grimaz/ Director of Safety and Protection Intersectoral (SPRINT) Laboratory at the Polytechnic Department of Engineering and Architecture of University of Udine (stefano.grimaz@uniud.it)
- 7. Mrs Yuniarti Wahyuningtyas/Program Assistant of DRR TIU Unit of UNESCO Jakarta Office (081281842508/<u>y.wahyuningtyas@unesco.org</u>)

Point of Discussion

A. Current Status on VISUS Finder App

- Mr Ardito Kodijat explained that the extension of UCT contract is failed to be established. Therefore, the deliverables of the UCT will be adjusted based on the initial contract. Last Friday/19 January 2018, UNESCO Jakarta Office had a meeting with UCT to follow up the status of the apps development based on the review and input from Jair and Udine colleagues.
- The current status of the apps is that it has been translated into Bahasa, English, and Portuguese. We need to translate into 2 other languages: French and Spanish. The temporary server contains of project data is
- The server of project data is temporary stored in Syntaxindo/UCT, further discussion is needed for the connected with the server of UNESCO HQ Paris or Udine in Italy
- Due to time constraint, it was agreed not to continue the development of VISUS IOS. As substitution to this output, UCT agreed to provide maintenance and bug fixing of the app.

B. Problems on VISUS Finder App

- Mr Jair Torres explained that there were some problems in the obs during the trial of the app in Mozambique. It failed to be used during the training and survey, therefore due to time constrain the survey in Mozambique was done using paper or manually. However, Mr Torres encouraged to improve the development of the app and fix some errors. As well to provide updated method of the app based on the methodology in Haiti and Mozambique that has been adapted. The app will be useful for future implementation and it can be tested for VISUS implementation in Jakarta or Iran. The translation of French and Spanish will be shared to UCT, Udine, and UNESJAK. Instead of developing IOS Version, it is better to use only one platform that well developed.

- Prof Stefano Grimaz introduced briefly about the vision of VISUS following the pilot projects that were implemented, improvement made to VISUS Methodology. More less obs are still the same from various pilot projects, the difference was on data collection.
- Dr Petra Malisan promised will share the new obs, new aspects, and survey form. These are the same, the changing is on the position of some obs and code names.
- The issue with the App is that the view compare to the PDF version. In the PDF Version, you can see all visual obs, while in the App each of inputs and obs should be checked on their every single inputs. Another issue is that it is impossible to apply for the obs without taking pictures. Simpler solution and quicker app needs to be considered for the surveyors. if possible for the surveyor to see the result from the survey, or create the summary of data acquired or how the form is built.
- Mr Torres, the surveyors could see the obs that he/she has been selected or making correction on his/her selection. By the end of the survey, a PDF Form can be shown based on the information that has been collected.
- Mr Irwan explained that there has been a selection function that is set for the App. After the login, if the data saved, the data can be edited (there is an EDIT Button) and you can select the QUESTIONNAIRE and NAME OF RESPONDENT, the app will show the list of questions partly and their answers. You can click on the List and it will jump to the question, so it can go back and forth, and the answer can be modified before it is submitted.
- Furthermore, Mr Irwan mentioned that in the Questionnaire Form, on the left side corner, there is a GO TO button in order to jump to the question from the list. This has been added to the functionality in the context of selecting the answer.
- Mr Ardito asked for confirmation on the all information that filled in the survey, would it be possible to be printed in PDF Version. Mr Irwan answered that it is possible, but before the submission of the form.
- Dr Petra asked to improve the visualization of the form SP 1, SP 2, SP3, and SP4, nigt juts list of questions. Prof Grimaz emphasized that the app for the surveyors should overview all obs or problems in the section, then questions can come later. Mr Irwan explained that in the early phase of developing the App, the ODK is used as standard. It is based on the library grouping. In order to make it alike the form would be difficult. The main problem is on the time constraint, therefore we use the ODK which is based on the library order, it would need more time to modify it as an open solution. We used previous format from ESRI.
- Mr Torres advised the visualization on the app should be precise with the form, in order for the surveyors have the visual idea on what happening in the schools based on the information that is provided, also it needs to consider the internal aspect of the schools. We need to think on how the app can be organized alike with the method, not just to replace ESRI
- Mr Irwan suggested to have further discussion on the lay out with UNESJAK. Mr Ardito mentioned that it has been discussed last week with Mrs Astrid and Mr Udrekh. The trained surveyors will see the problems in the schools, then searching for the obs. Mr Ardito though that the Go To button is able to find the issue and Obs authomatically. The app should enable to identify the problems in the field and look into the correlated obs. Mrs Astrid stated that this issue has been discussed last week, and list of the problems and feedback

from the last meeting will be shared to UNESCO, currently it is circulated limited to UCT Team only.

Mr Ardito explained that last week meeting, UNESCO and UCT tried to fill in the form by assessing 1 schools and making comparison with the form with the App. Mr Irwan proposed to have another meeting with UNESCO to discuss about the lay out of the App. UCT will make some suggestions on the lay out for reference of selection for UNESCO.

C. Input for VISUS App

- Mr Jair suggested to make visualization on the ideas without developing or improving the app. To simplify, the ideas can be written and proposed to Petra instead of making a complete presentation. Mr Ardito emphasized on the time constraint for improving the app and agreed to meet again in one or another two weeks ahead.
- Mr Jair asked to Udine to share the modification from pilot in Mozambique, and translation in French and Spanish. Next Skype Call, discussion will be done in order to review the translation, the modification, and improvement on the visualization.
- Prof Stefano gave warning from Haiti and Mozambique projects, in which required a lot of time and data that were collected from the last version are match with the last modification. Dr Petra suggested to rearranged the logical framework and redefine the data. The obs are about to be completed and can be provided within few days ahead.
- Mr Irwan asked for confirmation to select the obs without picture. In the current app, we need to do both way, with or without picture. The methodology that is being corrected by Prof Stefano, should be implemented in the App?. Dr Petra and Prof Stefano explained that it does not necessary. The changes were made on obs and codes that are reorganize in order to adjust with the building type in Mozambique. For the translation, Udine has been done for five languages and already shared to team in Dropbox. Prof Stefano asked for last confirmation to Mr Ardito on the logos of organizations that are put in the all VISUS Products.
- Mr Jair asked Petra to share the VISUS materials in five languages to be reviewed by the country team in order to check all the quality of the translation and it will be available by next week.
- Prof Stefano advised that the server should be sent directly to Udine in order to have direct control of data, yet Udine will need technical information on the server with the IT of SPRINT Lab of Udine. Mr Irwan will share information on server application and database that are used by UCT to the group.
- Mr Jair suggested that the collection of data will be put in the SPRINT Lab since they are the one that control and manage the data.

D. Accessibility for VISUS Finder App

 For the app to be available in Google Play should be made restricted. The public can get overview on the App, yet will unable to send the data and generate the date. For the people that download the app will be applied with unique code. It is important to manage credential of the app. Prof Stefano suggested that the official guide UNESCO on VISUS should be finalized. On the other side, we can lost the credibility on the app, but it can also be used to promote the App and explaining that it comes from UNESCO.

- Mr Ardito suggested to have further discussion to make it available. Mr Jair shared information that this year, UNESCO HQ is going to publish VISUS Guideline for public. For the App should be made it restricted in Play Store, using code and can only be downloaded by trained surveyors. Mr Irwan suggested to have group users to submit the data. Only the registered users that can submit the data. The question in on who will be the host and using whose server for this matter. Dr Petra and Prof Grimaz commented that it is not good for public to see and know the obs in the app. Prof Grimaz added that the app should be able for limited access, only for those who already accredited to it. Prof Grimaz suggested that there should be additional information for public that are unable to download by providing information on how and where they can get information about the App.
- Mr Ardito ended the call by proposing to have an internal meeting with UCT and once the App is finalized, we will arrange another skype call with Udine and UNESCO HQ colleagues.

ANNEX 3-VISUS APP DEVELOPMENT REPORT AND LINKS

VISUS MOBILE APPLICATION – **PROJECT REPORT**

EXECUTIVE **SUMMARY**

- 1. UNESCO is developing mobile application for VISUS (Visual Inspection for defining the Safety Upgrading Strategies) and through an auction, PT. Unggul Cipta Teknologi (UCT) is appointed to develop the application.
- 2. As for the result, UCT is responsible for close collaboration with UNESCO and the SPRINT-Lab University of Udine prepares a Beta version of a mobile application for Android, which will transform the VISUS formularies in a mobile app formulary to collect text and picture data.

DISCUSSION & MEETINGS

During development, there are several meetings conducted to track the progress and resolve any issues.

- 1. Meeting on 30/10/2017 Preliminary Project
 - a. The purpose of this meeting is to define the project, timeline development, scope of work and result/deliverables.
- 2. Meeting on 6/11/2017 Progress Report
 - a. The meeting purpose is to check the progress of the application development and file/data exchange required to support the development.
 - b. The mobile app is expected to be operable on November 29th, at the time of school survey in Mozambique.
 - c. For the first implementation, the mobile application should be available in three languages: Bahasa Indonesia, English and Portuguese.
- 3. Meeting on 8/01/2018 Beta Testing
 - a. The meeting is conducted to check if there are still any technical issues and collect feedbacks after first implementation in Mozambique.
 - b. Due to the deficiency of time for surveyor to adjust the habit from paper-based survey to mobile app survey, the first implementation was unsatisfying. Thus, UNESCO is planning to manage another field survey to test the app and gather feedbacks on the mobile apps.
 - c. There will be another meeting (Finalization) to recapitulate the feedback and issues (based on the second field survey) and to discuss about the scope of maintenance.
 - d. There is also discussion about contract amendments regarding changes in scope of work, deliverables, payment terms and the progress so far.

BUG FIXING & REQUEST HANDLING

The record of bug fixing and request handling is attached as an annex in this report.

PHASE - I DELIVERABLES

The following is deliverables phase I:

- a) VISUS Mobile Application can be downloaded on Google Play https://play.google.com/store/apps/details?id=org.odk.visus.android
- b) VISUS Mobile Application Tutorial can be viewed on Youtube https://youtu.be/BLUXZ5Au0jU
- c) The specification of VISUS Mobile App:
 - a. In Android Platform
 - b. Available in three languages: English, Bahasa Indonesia and Portuguese.
- d) Documentation (attached as an annex in this report):
 - a. System Outline
 - b. Function List
 - c. Database Structure

SYSTEM OUTLINE

VISUS formularies (SP0, SP1, SP2, SP3, SP4, SPS and SPN) with the following specifications:

- a. For SPO, the App allow the selection of information cases information and the input of text data. The app permit to include a Representative Picture of the School, Overview Pictures of the School (SPO), as well as, Overview Pictures of the Location (SP1) and of the schoolyard (SP2).
- b. For SP1 and SP2, the App allow the input of text data and the selection of pre-determinate characteristic information (OBS) normally represented by a alphanumerical code e.g. 1G13L and link this selection with a picture.
- c. For SP3 and SP4, the App allow the generation of multiple formularies as equal to the number of buildings in the schools to be assessed. Also, the App allow the selection of pre-determinate characteristic information (OBS) normally represented by a alphanumerical code e.g. 1G13L and link this selection with a picture.
- d. For SPS the App permit to include a Picture representing the sketch of the school.
- e. At the end of the formulary, the App automatically create:
 - 1) a folder in the tablet with the ID code of the school;
 - a single or separate .pdf files with all of the information selected (SP0, SP1, SP2, SP3 X No of Buildings, SP4 X No of Buildings, SPS, and SPN); which will be inside the folder of the specific ID code school;
 - 3) a subfolder with all of the pictures and these ones related with the alphanumerical code.

FUNCTION LIST

Function List:

- 1. User Login
- 2. User Register
- 3. Forget Password / Password resend
- 4. Change Password
- 5. Survey Input
- 6. Setting Management
- 7. Setting System

- 8. Setting Language
- 9. Edit Survey
- 10. Delete Survey
- 11. Send data to server
- 12. View send form

Mobile Backend:

- 1. User login handler
- 2. User registration handler
- 3. FDF format data parsing
- 4. Data upload to drop box

DATABASE STRUCTURE

Entity List					
No		Logical Entity Name	Physical Entity Name	Remark	Tag
	1 mob_log		mob log	table containing user loggin	
2 tbl_login		tbl_login	tbl login	masterusertable	

System Name	Visus Finder		Author	irwan	
Sub-system Name			Created On	1/12/2017	
Schema Name	visus_finder	visus finder			
Logical Entity Name	mob log		Tag		
Physical Entity Name	mob log				
Remark					
mn info		Bata Torra	N N W	Defailt	Barra II
Logical Name	Physical Name	Data Type	Not Null	Default	Remark
ia.	la 1	int(11) auto_incremen	tes (PK)		ID Address aligns
ip1	ip1	varchar(255)			IP Address client
u u u u u u u u u u u u u u u u u u u	uraktu	datetime		10000-00-00	Time of login
script	script	warehar(255)		0000-00-00	The of login
pars get	pars get	text			login parameter
pars post	pars post	text			login parameter
out	out	text			response
ex info	-				
x info Index name	Column List			Unique	Remark
x info Index name ationship info (FK Side)	Column List			Unique	Remark
x info Index name ationship info (FK Side) Verb	Column List		Reference Enti	Unique ty Name	Remark Rerernce Column List
x info Index name ationship info (FK Side) Verb	Column List Coluimn List		Reference Enti	Unique ty Name	Remark Rerernce Column List

y Info						
System Name	Visus Finder		Author	irwan		
Sub-system Name			Created On	1/12/2017		
Schema Name	visus_finder		Modified On			
Logical Entity Name	tbl_login		Tag			
Physical Entity Name	tbl_login					
Remark						
mn info			-	-		
Logical Name	Physical Name	Data Type	Not Null	Default	Remark	
id	id	int(11) auto_increm	Yes (PK)			
userid	userid	varchar(8)	Yes (PK)		login id	
usemame	username	varchar(50)	Yes		User full name	
password	password	varchar(20)	Yes			
leveluser	leveluser	tinyint(1)	Yes			
email	email	varchar(150)	Yes		User email address	
active_flag	active_flag	tinyint(1)	Yes		0: 1: active	
x info						
Index name	Column List		Unique	Remark		
tionship info (FK Side)	-					
Verb	Coluimn List		Reference Entity Name		Reremce Column List	
tionship info (PK Side)						
Verb	Column List	Reference So	erence Source Entity N Reference Source Column List			
	y Info System Name Sub-system Name Sub-system Name Logical Entity Name Physical Entity Name Remark nn info Logical Name id userid userid userid userid email active_flag active_flag active_flag info Index name cionship info (FK Side) Verb Verb	y Info System Name Visus Finder Sub-system Name visus_finder Logical Entity Name tbl_login Physical Entity Name tbl_login Remark nn Info Logical Name Physical Name id id userid userid userid userid userid userid userame usermame password password leveluser leveluser email active_flag active_flag cinfo Index name Column List cionship Info (FK Side) Verb Column List	y Info System Name Visus Finder Sub-system Name visus_finder Logical Entity Name tbl_login Physical Entity Name tbl_login Remark nn Info Logical Name Physical Name Data Type id id int(11) auto_increm userid userid varchar(8) username username varchar(50) password password varchar(20) leveluser linvint(1) email email varchar(150) active_flag active_flag tinvint(1) email varchar(150) active_flag active_flag tinvint(1) email intername varchar(150) Index name Column List conship Info (FK Side) Verb Column List	y Info System Name Visus Finder Author Sub-system Name visus_finder Modified On Logical Entity Name tbl_login Tag Physical Entity Name tbl_login Remark nn Info Logical Name Physical Name Data Type Not Null id id int(11) auto_incref Yes (PK) userid userid varchar(8) Yes (PK) username username varchar(50) Yes leveluser linvjint(1) Yes email email varchar(150) Yes active_flag active_flag tinvjint(1) Yes i info Index name Column List ionship Info (FK Side) Verb Column List Reference En	y Info System Name Visus Finder Author irwan Sub-system Name Visus_finder Created On 1/12/201 Schema Name visus_finder Modified On 1/12/201 Logical Entity Name tbl_login Tag 1/12/201 Physical Entity Name tbl_login Tag 1/12/201 Remark Physical Entity Name tbl_login Tag 1/12/201 Inn info Data Type Not Null Default Default Id id int(11) auto_incref Yes (PK) 1/12/201 Inn info Userid varchar(8) Yes (PK) 1/12/201 Idid id int(11) auto_incref Yes (PK) 1/12/201 userid userid varchar(8) Yes (PK) 1/12/201 username userid varchar(20) Yes 1/12/201 password password varchar(10) Yes 1/12/201 genail email varchar(150) Yes 1/12/201 info Unique 1/12/201 1/12/201 1/12/201	

ANNEX 4-TERM OF REFERENCE REPORTING MEETING (Representative from WB is expected to be present in the meeting)

Strengthening Mozambique's Capacities for Assessing School Facilities Implementation of the UNESCO-VISUS methodology for assessing school facilities and providing critical information to decision-makers.

Final Report Presentation

Mozambique is highly prone to a broad range of natural hazards, including tropical cyclones, floods and earthquakes. Disasters caused by natural hazards can have a major impact on children, youth and education systems.

Based on the official's record from the Ministry of Education and Human Development, disasters have caused a disruption of education in Mozambique for quite some time. For instance, in 2012, Cyclone Funso and Tropical Storm Dando damaged 1,000 classrooms along the eastern coastline; in 2013, heavy flooding affected 250 classrooms in the Limpopo Basin; and in 2015, another flood occurred and inundated 335 school buildings. Each time that a disaster strikes, children and youth are greatly affected.

When tropical cyclone Dineo made landfall in the country in February 2017, the need to invest in school safety became apparent. According to a United Nations Office of the Resident Coordinator Situation Report, the cyclone has had a severe impact on pupils and educational facilities, damaging 2,200 classrooms and affecting 207,000 students, as well as 4,500 teachers, who have been consequently in need of emergency educational services. The need to enhance the level of safety of schools and other critical infrastructure has been identified as a pressing need for the country in order to recover from Dineo and to learn from this experience to prevent similar losses in the future. Given that the frequency and intensity of extreme events is increasing under climate change, there is an urgent call to take action to save lives and reduce losses.

Between September and December 2017, UNESCO implemented a VISUS pilot project in 100 schools in Mozambique, in partnership with the Ministry of Education and Human Development of Mozambique, Eduardo Mondlane University, the National Institute of Disaster Management of Mozambique and the SPRINT-Lab at the University of Udine in Italy, with financial support from GFDRR and the Belgian Development Cooperation. This project was funded under Phase II of the GFDRR Challenge Fund: a previous Phase I of the GDRR Challenge Fund had already supported the implementation of VISUS in 100 schools in Ambon City and the Molucca District of Indonesia in 2015-2016 ; following the successful completion of the pilot in Indonesia, the project was extended to Mozambique, with support from the Belgian Development Cooperation-funded "Building Resilience through Innovation and Open Data" project.

The project was implemented through coordination between UNESCO Maputo Office, UNESCO Jakarta Office and UNESCO's Section on Earth Sciences and Geo-Hazards Risk Reduction at UNESCO's

headquarters in Paris, together with all above-mentioned partners and in close consultation with the other agencies operating in the study site, notably UN-HABITAT and UNICEF.

Hundred schools in the province of Maputo were assessed. This project contributes to reducing the risk of damage to school infrastructure, protecting the children inside and ensuring that education facilities remain functional. The results from the implementation of this project will be presented during the meeting.

<u>Programme</u>

- 1) Opening remarks by the Rector of the Eduardo Mondlane University
- 2) Opening remarks by the Head of Office and UNESCO Representative to Mozambique
- 3) Presentation of the final results of the project implementation
- 4) Remarks by a representative of the Belgium Government and the World Bank
- 5) Final remarks by H.E Mrs Conceita Ernesto Xavier Sortane, Minister of Education and Human Development of Mozambique
- 6) Lunch or cocktail