Phase 1A

A Process Documentation of the Education Safe from Disasters Project

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Acronyms

Acronym	Definition
API	Application Protocol Interface
CSS	Comprehensive School Safety
BEIS	Basic Education Information Systems
DRRMS	Disaster Risk Reduction Management Service
DRRMIS	Disaster Risk Reduction Management Information Systems
ERWG	Education Resilience Working Group
RADaR	Rapid Assessment of Damages Report
SWApp	School Watching Application
WinS	Water, Sanitation and Hygiene in Schools
ICTS	Information Communication and Technologies Service

Overview

Introduction

Children's right to a basic quality education is dependent upon their right to safety and survival. Every day, children in highly disaster-prone areas across Southeast Asia risk their lives attending school. Over recent decades, the building of new classrooms has brought education to millions of children globally, but many of these buildings are unsafe. The very thing designed to give a child a bright future, may be the thing that abruptly takes it.

The Philippines, a country frequented by hazards, with at least 20 major and minor typhoons each year and situated within the Ring of Fire earthquake zone, there is an urgent need to ensure safety for children in schools. This is the context that led to the conceptualization of the Education Safe from Disasters project.

The Education Safe from Disasters project intends to inform the development of similar DRRM information systems in other countries or Departments and generate relevant evidence and learning which can be used to ensure the sustainability of their approach within the DepEd and help inform scale-up efforts within the Philippines as well as across Southeast Asia.

The first of its kind, the project moves forward while consciously collecting lessons and insights in every step of its implementation. These lessons will inform program implementation as the project proceeds with its subsequent phases. The project also recognizes how crucial it is to document the processes and capture learnings in order to contribute to a limited body of knowledge and reference materials relative to CSS, especially in the Philippine context.

Documentation Goal and Audience

This documentation is the first of a series that will be developed until the end of the project. This is primarily for DepEd's use as the process owner of the DRRMIS. Other intended audience include other government agencies within the Philippines and across the Southeast Asian region who are interested in developing a DRRMIS. This aims to inform and strengthen their own efforts, as well as those of other practitioners in comprehensive school safety. Since the project is guided by the Principles for Digital Development, these principles will be highlighted vis a vis a rundown of key project activities for this phase. The section on Digital Principles Applied is designed to:

Digital Principle	describe the Principle applied
Project Activities and Processes	summarize project activities and processes that apply the Principle
Challenges to Implementation	identify challenges encountered in the conduct of activities and processes
Recommendation	share insights and recommendations for practitioners

Methodology

This documentation draws from a desk review of Phase 1A meeting notes, activity reports, workshop outputs, and project documents such as proposal and logframe. This was followed up by a validation with project staff and other relevant parties through interviews and consultations. Insights and recommendations were gathered from the project implementation team through a workshop and individual interviews.

Project Background

The Education Safe from Disasters project is a three-year initiative that aims to effectively address the challenges and barriers that prevent the scale up of safe schools in the Philippines. It aims to design a strategy to bring about transformational change for children's lives. This will be done by supporting the improvement of systems, mechanisms, and capacity on Comprehensive School Safety (CSS) at all levels of DepEd, to reduce children's vulnerability from all hazards and threats, leading to:

> • Reduction in the number of children experiencing days out of school because of emergencies and/or disasters and reduction in number and percent of total student school days lost;

> • Improvements in the number and percent of schools that meet the safe school standards; and

> • Increase in the number and percent of schools implementing high quality Disaster Risk Reduction and Management (DRRM) education services and activities.

Prudence Foundation and Save the Children have been working together for four years to make more children safe at schools in the Philippines and across Asia. This work has had lifesaving and protecting impact on the ground, but with their joint ambition to make all schools in Asia safe, and to reach every last child, they have taken on a more ambitious approach with this project. Similarly, the partnership between DepEd and Save the Children is longstanding, including the support Save the Children provided to establish the DRRMS office itself, and their co-leadership of the National Education Cluster. DRRM is a high strategic priority for the DepEd and Save the Children and Prudence Foundation can provide technical expertise, approaches, and tools to guide and strengthen their implementation.

The project operation follows a framework mapped out in the Project Logframe.
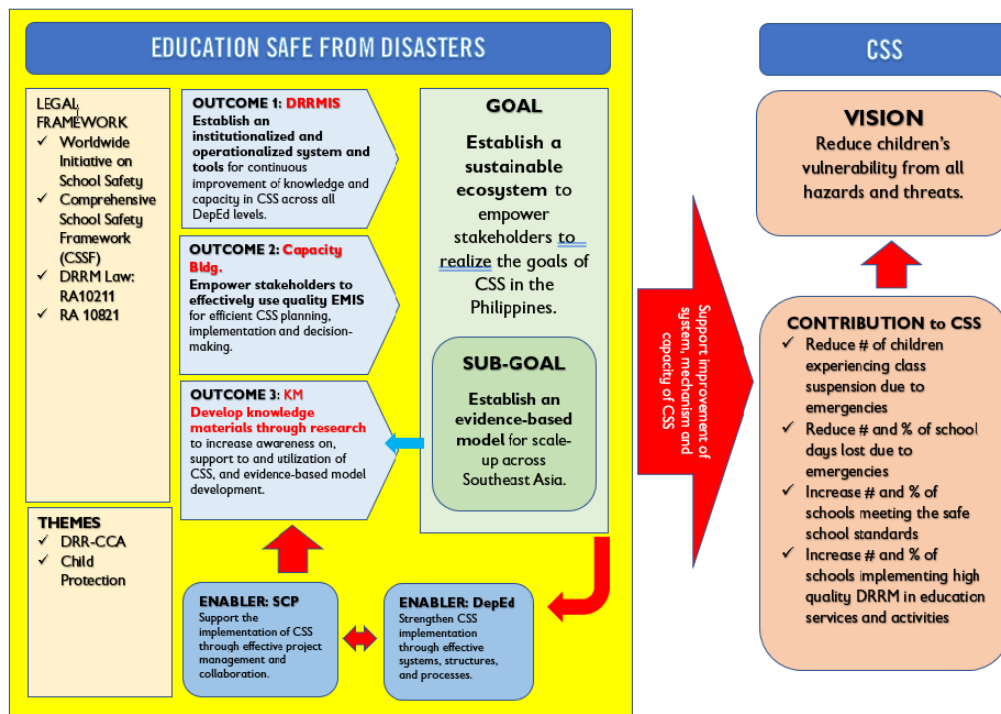
It details how existing legislation and themes informed the project's conceptualization, and upon analysis of gaps in these, three key outcomes were identified. These are:

>1: An institutionalized and operationalized system and tools for continuous improvement of knowledge and capacity in CSS across all levels (national, regional, division, school and community) are established;

>2: Stakeholders are empowered to effectively use (access and take action on) quality EMIS information for efficient CSS planning, implementation and decision-making; and

>3: Research on CSS is generated and utilized in practice.

Two enabling actors (DepEd and Save the Children) will be vital in the implementation and accomplishment of such outcomes, which the project believes can lead to the goal of establishing an ecosystem to realize the goals of CSS in the Philippines.

Once the system is operational, the aim is for DepEd to own and maintain the process. Eventually, the project will contribute to the larger CSS program, acting as a support system for the three pillars of Comprehensive School Safety to be put in practice.

The project's Intervention Strategy will be delivered through three key phases, namely:

- Phase 1 (18 months): Develop and Test
  - This phase will be split into two, with an eight-month duration for Phase 1a and a ten-month duration for Phase 1b.
- Phase 2 (12 months): Pilot and Refine
- Phase 3 (6 months): Expanding Rollout

The Principles for Digital Development

The Principles for Digital Development are nine living guidelines that are designed to help integrate best practices into technology-enabled programs. They include guidance for every phase of the project life cycle, and they are part of an ongoing effort among development practitioners to share knowledge and support continuous learning. The Digital Principles were created in a community-driven effort, the result of many lessons learned in using information and communication technologies (ICTs) in development projects.

The Principles are:

- Design With the User
- Understand the Existing Ecosystem
- Design for Scale
- Build for Sustainability
- Be Data Driven
- Use Open Standards, Open Data, Open Source, and Open Innovation
- Reuse and Improve
- Address Privacy & Security
- Be Collaborative

Initial Stage

Phase Zero

The project's early stage consisted of Save the Children conducting initial coordination with the DRRMS, ICTS, and the Office of USec. Pascua. The project was conceptualized with Save the Children working closely with the different DepEd Offices to identify their gaps and come up with the most appropriate solution. Through these meetings, the need for an information management system was identified and a project proposal further explored this possible intervention.

To ensure the soundness of the proposal, an external consultant, SAP Philippines Inc., was tapped to conduct a review and assessment of DepEd and Save the Children's existing structures, resources, and capabilities, as well as provide recommendations for project improvement. One of SAP's recommendations adapted by the project was the use of quality gates. The project utilized quality gates in its implementation to formally specify and record the transition between critical stages in the project lifecycle; manage project risk; verify that acceptance is met for the deliverables required and actions to be completed for the associated critical stage; and improve transparency.

Setting Up Management

The formation of management units ensured that the project has teams to conduct operational as well as high-level discussions and decision making. Given that the project is a partnership of government, non-government, and a private institution, a venue for regular discussion is helpful in managing the partnership and ensuring well thought and guided project implementation.

The Project Steering Committee

The Steering Committee acts as the senior governing body of the partnership between DepEd, Save the Children, and Prudence Foundation. The Committee is comprised of high ranking officials from the partners, namely, Usec Alain del Pascua (DepEd, Undersecretary for Administration, DRR and IT), Atty. Albert Muyot (Save the Children, Chief Executive Officer), and Marc Fancy (Prudence Foundation, Executive Director). This serves as the venue for high level engagement in the project, governance, and strategic guidance, and ensures that the projects' activities are well integrated within the wider architecture of DepEd's strategic and capacity building efforts. The Committee meets quarterly and during the end of each phase to endorse that the project has met its quality gates and issue clearance for implementation to progress.

In the course of Phase 1A, the Steering Committee conducted two meetings. The first meeting involved a review of their Terms of Reference as the project's main governing body and established USec Pascua as the Committee's Chair and the DepEd as the regular venue for their meetings.

In the second meeting, they discussed updates on the project milestones and key achievements, and resolved matters consulted by the implementing team.

The Project Management Team

This is a technical and governance body, reporting to the Steering Committee, made up of representatives from the Project Implementation Team, ICTS, DRRMS and Save the Children Philippines Country Office Senior Leadership Team. This team is responsible for guiding the project strategy, design and implementation on an operational basis, meeting more regularly than the Steering Committee.

Launching the Project

Preparations

Several meetings were conducted in preparation for the project launch. Communications representatives from the three organizations collaborated on preparing a joint press release. Save the Children arranged the logistics, event visibility, and programme, while DepEd's DRRM handled invitations to guests, and their communications division took the lead in organizing the press conference.

Activity Highlights

The project launch was a success with 130 participants gracing the occasion. Majority of attendees were representatives from the Department of Education, particularly from the Central Office, DRRMS, ICTS, Communications, and Schools Division Offices. Their attendance and overall support to the preparations clearly manifest the agency's buy-in and ownership of the project. It was also indicative of an effective and strategic working relationship with key partners Save the Children and Prudence Foundation, who also manifested their full support to this event. Also present were national government agencies, international organizations, school children from Nagpayong High School, Pru Life UK, and ADEC Innovations. From the key implementers to other stakeholders, the general response to the three-year initiative was of anticipation and encouragement.

The event was covered by various members of the media. In attendance were leading names in Philippine media including ABS-CBN and the Philippine Star; government networks such as RTVM, Philippine News Agency, PTV4; and other networks such as UNTV, Radio Veritas, and SMNI News Channel. These media outlets covered the launch's program and participated in the press conference held shortly after.

Digital Principles Applied

Build for Sustainability

Principle

This principle suggests that building sustainable programs, platforms and digital tools is essential to maintain user and stakeholder support, as well as to maximize long-term impact. Sustainability ensures that user and stakeholder contributions are not minimized due to interruptions, such as a loss of funding. A program built for sustainability is more likely to be embedded into policies, daily practices and user workflow. To ensure project sustainability, local technology partners were selected and managers of the DRRMIS are in the process of appointment. Discussions on sustainability also formed part of various discussions amongst the project implementation team.

Project Activities and Processes

Selecting ADEC Innovations	The IT Implementation Partner was selected based on capacity, expertise, and experience. Specifically, they had to have a team of technology experts with skills in web development, mobile app development, and database administration, and expertise in IT security and MS Excel. Following the build for sustainability principle, the project invested in a local information technology service provider who met the necessary skills and hired ADEC Innovations. The selection team was composed of representatives from ICTS, DRRMS, and SCP.
Planning Activity	The ICTS, DRRMS, ADEC, SCP have discussed about how the whole ecosystem can be sustainable. Part of the discussion was the inclusion of DRRMIS in the Information Systems Strategic Planning and the future hardware and software requirements for the project. DRRMS is also currently hiring additional staff who will focus on the management and maintenance of the information system (ie. IT Manager, Information System Officer).

Understand the Existing Ecosystem

Principle

This project defines **ecosystem** as the agents and the broader systems where they act, such as the legal, technical, and political environment, and the process by which information is collected, shared,

used, and analyzed. Specifically, this means that the project is not limited to the information technology component but of its actual use, capacity building, working with various levels of DepEd, partnership engagements, and the social accountability component.

This principle highlights the need to engage with target users and consult existing research to develop an understanding. It also recommends coordination with other implementing organizations, civil society, and government early in the project. Likewise, it suggests alignment of an initiative to existing technological, legal, and regulatory policies.

As guided by the principle, several consultation activities were done to ensure that the project engaged with all users and their needs are considered in the system design. Likewise, the project looked at existing systems within DepEd for integration and harmonization.

Project Activities and Processes

Consultation Workshop in Region VIII for SWApp	A team from Save the Children and DRRMS conducted consultations with DepEd personnel, schools, and students involved in the development and pilot testing of the School Watching App in Region 8. The activity allowed the team to learn the strengths of the application, issues and challenges during the rollout, technical concerns, possible enhancements, and future plan of the region on the rollout. They used focus group discussions with students, key informant interviews with DRRM Coordinators, and play workshop with children.
Mapping Activities and integration of the CSS System Design to the existing BEIS of DepEd	Mapping activities and several consultations with DRRM Coordinators from central, regional, to school level were conducted to ensure that the design is well-architected and caters to the requirements of stakeholders across all levels. There were also some changes from the original plan of the project to ensure it will be integrated in the existing information systems within DepEd. The majority of the data collection using the existing DepEd CSS Monitoring Tool was initially planned to be included in the CSS School Self-Assessment Survey application. However, upon conducting a series of consultations with DRRMS, ICTS and ADEC, it was agreed that DRRM-related information adapting the CSS Monitoring Tool will now be lodged to the Basic Education Information System (BEIS) for effective data collection. BEIS, supported by Department Order 68 s. 2011, is DepEd's current management information system that collects school information and other data requirements for planning, quality assurance, monitoring and evaluation, and other decision-making activities. The integration within BEIS will address the challenge of compliance and connectivity of schools. This will also synchronize all the data collection for efficiency and prevent duplication of data collection efforts at school level. Other components for analysis, consolidation,

	report generation, action plans, and MOVs will be integrated in the CSS Mobile App and DRRMIS.
	All data needed in the DRRMIS will be pulled out in BEIS using the Application Programming Interface (API) after the submission cut-off date. Among the data to be pulled out in the BEIS for DRRMIS utilization are relevant school information, CSS and DRR, WinS and infrastructure related data. Using these data from BEIS and those gathered from RADaR and SWApp, the DRRMIS will focus on data consolidation, analysis, report generation, MOV submission and tracking of action plans. These findings together with the results of the consultations conducted and assessment of existing building block tools, namely RADaR and SWApp, were the bases of the development of the initial CSS/DRRMIS design that were signed off by ICTS and DRRMS.
Consultation with Region III Schools for the CSS Tool	Members of Save the Children visited the provinces of Nueva Ecija and Pampanga to conduct consultations to validate information gathered during the SIPAG Clustered Conferences. Data collection was conducted through either Key Informant Interviews (KIIs) or Focus Group Discussions (FGDs) depending on the number of respondents present during the visit. The same set of guide questions was administered to all respondents across the 2 provinces. The mode of data collection was thru an informal interview to ensure that respondents are comfortable in responding to the questions and for them not to feel that they are being evaluated in implementing the tool. Further, it was emphasized at every beginning and end of the interview that the purpose of the data collection is to KNOW about the implementation process of the CSS tool and NOT to assess schools on their compliance and achievements relative to it. The team visited six schools and forwarded results and recommendations to ADEC Innovations who also contributed guide questions for the consultations. Results included key considerations and preferences of schools on the content and interface of the app.

🖌 Design with the User

Principle

This principle recommends that solutions should be designed to improve users' current processes and developed appropriately to its users' context and informed by their priorities and needs. As such, the project conducted activities geared towards better understanding of existing processes through observation, conversation, and co-creation.

Project Activities and Processes

Clustered Consultations on Comprehensive School Safety (CSS) Monitoring Tool and RADaR	Save the Children and ADEC Innovations were invited to DepEd's Synchronized Instruction, Procedures and Guidelines (SIPAG) Regional Clustered Conferences on Administration, Procurement, Finance and Operations 2019 in Subic. During these consultations with Regional and Division DRRM Coordinators of sixteen (16) Philippine regions, the team from Save the Children and ADEC Innovations demonstrated the RADaR application and gathered feedback for enhancement, reviewed the CSS monitoring process and tool based on the actual experience of DRRM Coordinators, and gathered feedback and recommendations on the possible digitization of the CSS monitoring tool. The *RADaR* and CSS Tool consultations were conducted as break out sessions on the 3rd day of each week's SIPAG Conference. The results of the consultations to the DRRM Coordinator from regional to school level served as the primary bases in the development of the information system to ensure that it is well-architected and caters to the requirements of stakeholders across all levels.

Assessment of the existing Building Block Tools	ADEC Innovations conducted the review and assessment of existing building block tools namely RADaR and SWApp to prepare these applications for nationwide use and align these to DepEd-ICTS systems roadmap. One of the major recommendations for enhancement is to integrate the three (3) systems through the Application Programming Interface (API) so that data sets can be merged for comprehensive analysis and report generation.
	   For RADaR 2.0, the specific findings and recommendations after the assessment are as follows:
	     o Application should be available for IOS mobile phones;

	o Enhance compatibility of web portal for all major browsers such as Chrome, Mozilla, IE, Opera and Safari; o Enhance notification and error handling; o Enhance documentation of programming code; o Use of Secure Socket Layer (SSL) and Hyper Text Transfer Protocol Secure-(HTTPS) for security purposes; o Single sign in using DepEd user accounts; o Integration of the application with the DRRMS Hazard Monitoring Tool. For SWApp, the specific findings and recommendations after the assessment are as follows: o Application should be cloud hosted for national use; o Enhance image upload feature by reducing size before upload without losing image clarity; o Add security protocols (SSL/HTTPS) on mobile and web application; o Use of Single Sign on DepEd credentials for all 3 core app systems; o Integrate data to CSS analytics and report. The assessment results of the building block tools contributed in the overall design of the CSS ecosystem to harmonize the 3 systems and identify the needed enhancements.
Regular meetings with ICTS and DRRMS	Meetings with the focal of concerned offices (DRRMS and ICTS) were regularly conducted to update and consult relevant staff on the progress of the project. They were also involved in signing off critical decisions in the development of the system and tools. For ease in coordination and to provide further support to DepEd, staff were likewise seconded to DRRMS and ICTS.

Challenges to Implementation

The project had to adapt to ICTS' process on synchronizing the technology to be used by the entire department. They are now shifting from the use of open source to Microsoft technologies. Also, it was initially agreed that the CSS data will be collected using the CSS Monitoring Tool. However, it was then recommended to be lodged in DepEd's Basic Education Information System (BEIS), along with other DRRMIS data needs. These were the major discussion points considered before the development of system design as these have implications in the effective data collection and sustainability. The process of coming up with a decision agreed by partners took time, hence the delay in the development of system design.

Design for Scale

Principle

Designing for scale means thinking beyond the pilot and making choices that will enable widespread adoption later, as well as determining what will be affordable and usable by a whole country or region, rather than by a few pilot communities. This principle recommends planning and designing for scale from the start, gathering evidence and demonstrating impact before attempting to scale, and identifying partners who can help scale the solution. Following this principle, the project engaged with partners who can scale up the project through effective implementation, evidence generation, and decision-making.

Project Activities and Processes

Working with the Policy, Research and Development Division and DRRMS in identifying priority areas for DRRMS.	Members of Save the Children and DRRMS met with Director Roger Masapol and Ms. Mariel Bayangos of DepEd's Policy, Research and Development Division to provide them a brief orientation about the project and discuss the research component. They highlighted the importance of linking the objectives of the research component of the project to the policy agenda of DepEd. Through this meeting, an initial set of potential research topics were identified. This initial meeting was important as the PRDD will be an important partner in the research component of the project. The identification of the research areas is the first step to gathering evidence before scaling up the project.
Partnering with DepEd Central Office	As a result of initial consultations, the DepEd Central Office was identified as the partner who can help scale the solution. Since they own the information system, and given the department's centralized operations, having them as a key implementation partner is strategic to scale the project.
Formation of PMT and PSC	By forming these management units, the project demonstrates how it was planned and designed for scale from the beginning. The members of these units have been identified as the partners who can help scale up the project. By involving the Office of Administration, it ensured that the project will be aligned to DepEd's goals.
Selecting Pilot and Rollout Regions	The proposal initially identified the National Capital Region (NCR) as the pilot region but after discussions with the DRRMS, it was established that Region III has a more advanced way of implementation of CSS, meaning they can provide more insight for its enhancement and digitization. The region (specifically in Subic/Clark area) is also considered the Hub of The Department of Education Central Office, in the event of a large natural disaster hitting Metro Manila. Thus, DepEd is prioritizing Region III in their procurement of IT equipment and the project can benefit from this capacity building initiative.

Consultation and Assessment of SWApp	The School Watching Application (SWApp) was originally designed for use on a specific region. As one of the building blocks of CSS, the requirement is to look at the overall structure and design of SWApp if it is aligned with RADaR and CSS. After a series of consultations with Schools, Regions, Divisions, and the Central Office, an assessment report has been submitted on how SWApp can be enhanced and scaled up for national use.

👥 Be Collaborative

Principle

Being collaborative means sharing information, insights, strategies and resources across projects, organizations and sectors, leading to increased efficiency and impact. By collaborating, those working in digital development and beyond can pool their resources and expertise not only to benefit each initiative but also to strengthen the global community. In the spirit of collaboration, the project engaged with partners, both locally and internationally, to gather insights, share lessons, and encourage participation early on in the project.

Project Activities and Processes

ASEAN Regional Conference on School Safety	Representatives from the DRRMS and Save the Children presented the RADaR and School Watching App as examples of school safety innovations in the thematic sessions of this conference held in Bangkok, Thailand. This event convened officials from National Disaster Management Offices and Ministries of Education in ASEAN, agencies involved in school safety work, local school authorities, and consortium partners of the ASEAN Safe School Initiative (ASSI).
Meetings with ERWG	Save the Children and DRRMS attended the Education Resilience Working Group (ERWG)'s 2nd Regular Meeting at the Philippine Red Cross Office. The ERWG was organized to gather all DepEd partners working on disaster prevention and mitigation, climate change adaptation, and education in emergencies arising from conflict, during the non-emergency period. It has been established to institutionalize inter-agency coordination and collaboration, primarily during non-emergency period, to promote a culture of safety, and to strengthen the resilience of the education sector.

They presented the Education Safe from Disasters Project to ask for the ERWG's support to the implementation of the project, specifically in the review of the DRRM Information System and |

	Learning Modules, and in response, the Working Group showed great appreciation of this endeavor.

🔒 Address Privacy and Security

Principle

Addressing privacy and security in digital development involves careful consideration of which data are collected and how data are acquired, used, stored and shared. This includes considering the sensitivities around the data they have collected, being transparent about how data will be collected and used, minimizing the amount of personal identifiable and sensitive information collected, creating and implementing security policies that protect data and uphold individuals' privacy and dignity, and creating an end-of-life policy for post-project data management. Considering this principle, ADEC Innovations, the project's IT Implementation Partner, applied the necessary measures as part of their assessment of the existing tools to identify all sensitivities and potential security issues.

Project Activities and Processes

Penetration Testing	The IT Consultant (ADEC) performed vulnerability scanning as part of the assessment of CSS building blocks.
Server Hardening	ADEC identified the needed software services running on the server background and disabled other services that might be used to compromise the system.

🌐 Use Open Standards, Open Source, Open Data

Principle

This principle suggests that software code be developed to be open source, which anyone can view, copy, modify and share, and distribute the code in public repositories. Open data is composed of information that can be freely accessed, analyzed, and shared, while maintaining privacy protections.

Project Activities and Processes

Use of PHP/Laravel/mySQL	After a series of discussions with ICTS, it has finally been decided to use Opensource instead of Microsoft Technologies for the

and other Open Source Technologies	development of the system. DepEd's major systems like LIS, BEIS, SBIS were all developed using Opensource, thus it will be easier to integrate and technically support CSS with the use of the same Opensource technology.

Challenges to Implementation

Alongside the discussion in Phase 1A, DepEd was also in the process of aligning DepEd major systems with the use of Microsoft Technologies. The ICTS Director suggested that the team study the use of Microsoft for the development of the 3 core apps (RADaR, SWApp, CSS) which then took additional weeks of discussion.

Lessons Learned

Reflections: Strengths and Challenges

Through a workshop, the Save the Children team reflected on the status of target outputs and identified several strengths of the project as well as challenges faced in the initial phase of its implementation. They noted the delegation of project focal persons in some DepEd departments, continuous coordination with ICTS, DRRM, and other stakeholders, and technical support as facilitating factors to the project.

Some external factors out of Save the Children's control affected the implementation timeframe of some activities planned for Phase 1A which are considered as partially achieved or that will be finalized in Phase 1B. For instance, the busy schedule of DepEd offices in the last quarter of 2018 affected the implementation of the official launch, consultation activities and schedule of PMT meetings. Alongside this, some activities were postponed due to emergencies such as the two major earthquakes in April 2019, national level activities (Palarong Pambansa), and preparations for the upcoming national elections of May 2019. Mitigation measures adopted include carrying out separate meetings with the focal of concerned offices (DRRMS and ICTS), identifying secondary members who can attend and make decisions during PMT meetings, and mobilizing our staff that were seconded at DRRMS and ICTS. Most of our activities for Phase 1A were limited and dependent on the DepEd Central Office. Once we start working on the ground (Region, Division, and Schools), we can have more flexibility in terms of our schedules. The next General Elections will be conducted in 2022 (Phase 3 of the project) and we will assess the potential impact of this on the project as it draws closer.

The project had to adapt to ICTS' process on synchronizing the technology to be used by the entire department as they are now shifting from the use of open source to Microsoft technologies. In addition, it was initially agreed that the CSS data will be collected using the CSS Monitoring Tool. However, it was then recommended to be logged in to DepEd's Basic Education Information System (BEIS), along with other DRRMIS data needs. These were the major discussion points considered before the development of system design as they have implications on effective data collection and sustainability. The process of agreeing on a common approach with all partners took time, delaying the development of system design and enhancement of the existing building blocks tool (RADaR and SWApp).

A project implementation assessment and lessons learned generation will be conducted with DepEd in the next phase. Thus, this section will be further revised to ensure more holistic and well-rounded insights.

Recommendations

- **On mapping out of TORs, stakeholders, and system requirements**
  Aside from the technical and technological aspects of the project, other equally
  important factors that need to be mapped out include DepEd's existing policies, researches,
  plans, and their own readiness and priorities. This ensures that innovation interventions will be

aligned to their over-all direction. As such, mapping and consultation activities involving other bureaus within the department

- **On secondment of project staff**
  The team recommends assigning project staff to the government agency partner for   better project implementation. Project staff assigned to DepEd's DRRMS and ICTS can provide technical support to DepEd while the project is ongoing. Given the workload of these partners, this support is beneficial to their participation in the project. This also leads to easier coordination with the partners and a better understanding of their needs as project staff interact with them daily. Project staff can also spearhead project activities while working in the partner offices.