

GLOBAL SCHOOLS PROGRAM



Global Schools
Program

DRAFT REPORT

**THE OPPORTUNITIES AND CHALLENGES OF
CURRICULUM LOCALIZATION FOR THE
SUSTAINABLE DEVELOPMENT GOALS:**

**RESULTS OF THE GLOBAL SCHOOLS PILOT
STUDY IN GHANA**



Global Schools
Program



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Global Schools Country Research Program, an initiative of the Sustainable Development Solutions Network (SDSN) aims to demonstrate how countries can reform their education systems in line with Education for Sustainable Development (ESD) and Global Citizenship Education (GCED) principles. The project currently comprises 3 Country Research Teams, composed of leading educational research institutions from Morocco, Ghana, and Turkey.

This report was written by a group of independent experts who have not been nominated by their governments. Any views expressed in this report do not necessarily reflect the views of any government or organization, agency or program of the United Nations. The views, data, and analysis outlined in this report belong solely to the authors and their respective team of contributors.

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UN Sustainable Development Solutions Network

The UN Sustainable Development Solutions Network (SDSN) was set up in 2012 under the auspices of the UN Secretary-General. SDSN mobilizes global scientific and technological expertise to promote practical solutions for sustainable development, including the implementation of the Sustainable Development Goals (SDGs) and the Paris Climate Agreement. SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society.

Global Schools Program

The Global Schools Program is an initiative of the SDSN working in support of UNESCO's Global Action Program on Education for Sustainable Development (ESD). Through research and advocacy, Global Schools develops the tools, resources, and programs to support schools and educators around the globe. The vision of the program is to create a world where every primary and secondary school student is being equipped with the knowledge, values, and skills necessary for effectively responding to the greatest challenges of this century and shaping a sustainable and prosperous world for all.

Millennium Promise Alliance, Ghana

The mission of Millennium Promise Alliance (MPA) is to advance achievement of the Sustainable Development Goals (SDGs) on local and national levels across Sub-Saharan Africa using innovative solutions and scalable systems aimed at achieving the SDGs, including the end of extreme poverty. MPA works with governments and partners across Sub-Saharan Africa and beyond to tackle the root causes of extreme poverty. From 2005-15, Millennium Promise provided the operational platform and resource mobilization for the Millennium Villages Project which deployed a holistic, science-based approach to accelerate progress on the Millennium Development Goals for more than 500,000 people across sub-Saharan Africa.

University of Education, Ghana

The University of Education, Winneba (UEW) was established in September, 1992 as a University College under PNDC Law 322. On 14th May, 2004 the University of Education Act, Act 672 was enacted to upgrade the status of the University College of Education of Winneba to the status of a full University. The University College of Education of Winneba brought together seven diploma awarding colleges located in different towns under one umbrella institution. These Colleges were the Advanced Teacher Training College, the Specialist Training College and the National Academy of Music, all at Winneba; the School of Ghana Languages, Ajumako; the College of Special Education, Akwapim-Mampong; the Advanced Technical Training College, Kumasi; and the St. Andrews Agricultural Training College, Mampong-Ashanti. The University of Education (UEW) is located in Winneba, Central Region of Ghana. UEW has a Memorandum of Understanding (MoU) with the Millennium Promise Alliance (MPA) on the Sustainable Development Goals. The MoU will enable the university and the MPA to collaborate on policy study, review, and advocacy in the areas of sustainable development, leveraging both institutions' comparative strengths. The three sites in Winneba now referred to as the Winneba campus is the seat of the Vice-Chancellor with satellite campuses at Kumasi, Mampong and Ajumako.

Background

One of the biggest challenges of implementing ESD and Global Citizenship Education around the world has been the process of localization. Every education system around the world is different - in terms of standards, laws, priorities, content and curriculum, delivery model, and degree of flexibility. As such, localizing a universal and global concept like ESD can often be challenging. Localizing ESD curriculum requires knowledge, decision-making, and examinations of local cultures. More specifically, to create ESD lesson plans, educational communities need to identify locally relevant issues, perspectives, skills, values, and behaviors central to sustainable development in each of its components: environment, economy, and society.

Another significant point is that, much of the ESD curriculum used in classrooms around the world is not being evaluated, especially in the long run. To put it another way, it is unclear if ESD is affecting student behaviors, attitudes, skills, and so on. Furthermore, ESD (i.e. Target 4.7) is currently not being comprehensively measured in K-12 education, especially in developing countries.

To address the above mentioned challenges, the Global Schools Program ran a pilot in three countries: Morocco, Ghana, and Turkey. In each country, Global Schools partnered with eminent research teams and advocacy institutions (country teams) with expertise and practice in education. The pilot centered on two core objectives: (1) Localizing the core ESD competencies, as defined by UNESCO, in the pilot country; and (2) Documenting the localization process in each pilot country and developing a localization toolkit that other Ministries of Education can use to localize ESD in their respective countries.

The project was implemented over an 18 month period across 6 separate phases, which included an analysis of educational policies and laws; a comprehensive K-12 curriculum audit; the creation of a national committee comprised of the key education stakeholders; adaptation and creation of lesson plans and contents; and finally an evaluation of the lesson plans in classrooms using a range of research methods and technique. The instructions for each phase were provided by Global Schools, with Country Teams given the opportunity to adapt their approaches based on local circumstances and priorities. Therefore, the views, data, and analysis outlined in this report belong solely to the authors and their respective team of contributors.

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Executive Summary

Following the United Nation's adoption of the Agenda 2030 resolution, and the African Union's implementation of Agenda 2063, Ghana, as a member of the United Nations and African Union is expected to institute measures to ensure the attainment of these ambitions. Given UNESCO's recognition of inclusive equitable quality education as pivotal to the achievement of all the SDGs, questions remain as to how Ghana, through its educational policy and curricula, is prioritizing the attainment of SDGs. This report is the outcome of the Global Schools Pilot project sponsored by the Sustainable Development Solutions Network, the Millennium Promise Alliance Inc., and the University of Education Winneba as the host institution.

The purpose of the project was to:

- a. conduct situational analysis to determine the connectedness of Ghana's educational policies, legal documents, and curriculum to Agenda 2030
- b. establish a National consultative committee for advocacy
- c. adapt and localize SDGs in policy and curricula; and
- d. test and evaluate the intervention.

These objectives were structured around six phases of the project to be implemented sequentially within a structured timeline.

Following from the introductory phase of the project, in phase two of the project, seven (7) Ghanaian educational policy documents together with twenty (20) K-6 curriculum documents were analyzed to highlight gaps and explore the linkages and synergies, between the content of these documents with the Agenda 2030 Education learning outcomes. From the analysis, it was observed that more recently formulated policy documents had a higher prevalence of SDG concepts and competencies compared to documents promulgated before 2015. It was also observed that some explicit references were made to SDGs and Learning Objectives in the K-6 curriculum but they were focused on a section of the SDGs and concentrated in only a few subjects. Significant sections of the SDGs received very few to no mentions at all in the entire K-6 curriculum. Based on these findings, recommendations are made for the review of outdated educational policies, a forceful push for the incorporation of SDGs in the under-reviewed Grades 7-12 curriculum, and the further engagement of policy makers and key stakeholders on the outcome of this research.

For phase three of the project a national committee was constituted with the purpose of receiving and assessing the report of phase two, and strategizing measures for advocacy to champion the inclusion of SDGs in policy documents and curricula. Following the guidelines provided, a criteria was developed and used to select 21 national committee members, consisting of representatives from educational practices, government entities, civil society, and academics and management from the University of Education, Winneba. To date, 18 members have confirmed their participation, with the recruitment of the 3 remaining members still pending. Unfortunately, due to interruptions posed by the Covid-19 pandemic, coupled with the uncertainties of the general elections in Ghana, these unforeseen challenges prevented further progress beyond the formation of the national committee and the consequent phases that were to follow. Further to highlighting these challenges, a potential for championing SDGs in Ghana's curriculum is explained, whilst recommending that the project is to be sustained in order for the Ghana team to complete the entire process beyond the original timelines.

Phase 1: Team Formation

Phase 1 of the pilot project consisted of team onboarding and an initial call with the Global Schools Program Director, Project Lead and Project Officers. In Phase 1, each country team was briefed on the pilot methodology

Phase 2: Situation Analysis and Curriculum Mapping

Background

On 25 September, 2015, the United Nations adopted the resolution called “Transforming our World: The Agenda 2030 for Sustainable Development”. The Agenda 2030 outlines the 17 Sustainable Development Goals (SDGs) and 169 Targets as a universal roadmap to eradicate poverty, one of the greatest global challenges, by 2030. The SDGs, which became effective on 1 January, 2016, do not only build on the Millennium Development Goals (MDGs) but also intend to accomplish what the MDGs could not achieve. For instance, the SDGs promote human rights, gender equality, empowerment of all women and girls and to foster lasting protection of the planet (UN, 2015).

UNESCO recognizes SDG 4 which aims to “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all” as pivotal in the achievement of all the SDGs and has proposed the Global Education 2030 Framework for Action as the guideline for the implementation of the SDGs (UNESCO, 2017, p. 7). The document, also known as Education for Sustainable Development (ESD), aims at developing competencies that empower individuals to reflect on their actions; considering current and future socio-cultural, economic and environmental impacts, from both local and global perspectives (UNESCO, 2017).

Prior to Agenda 2030, African countries had adopted the Africa Union Agenda 2063 (AUA 2063), which seeks to bolster prosperity within Africa through inclusive growth and sustainable development. (African Union Commission, 2015). AUA

2063 emphasizes good governance, democracy, respect for human rights, justice and rule of law. The United Nations (UN) recognizes the importance of AUA 2063 and considers it an integral component of the SDGs. Ghana has, therefore, initiated legislations and policies in support of the AUA 2063 and the SDGs. For example, Ghana has initiated a Ghana Beyond Aid Policy that focuses on transforming the country to ensure that every citizen has access to education, training and productive employment. The policy intends to eradicate hunger and promote access to the basic necessities of life such as healthcare, water, sanitation, and decent housing (Ghana Government, 2019; Ministry of Finance, 2018).

It is important to note that since 2015, Ghana has undertaken major transformations within its education system to foster education for sustainable development. For example, the Education Strategic Plan (ESP) 2018-2030 is one such major transformation spearheading Ghana’s roadmap towards achieving the SDGs. Policies such as this have provided the foundation for this research. This section provides a situational analysis of Ghana’s educational policies, legal documents, and K-12 curriculum. The research highlights the gaps in such documents and explores the linkages, synergies and relationships between the Education 2030 learning outcomes and the national education curriculum (K-12).

Objectives

The overall aim for this phase of the project was to conduct a situation analysis in order to determine the prevalence of ESD indicators as well as

the 2030 SDG Learning Objectives in Ghana's Education Policy Documents and Curriculum respectively.

Specifically, the following objectives were set:

- a. to assess the prevalence of SDG concepts and competencies in policy documents
- b. to assess the prevalence of SDG concepts and competencies in K-12 curriculum
- c. to provide recommendations for policy action

Methodology

To achieve the stated objectives, a mixed approach content analysis design was adopted. In particular, the research purposely selected and analyzed the seven most relevant and most recent key education policies, planning documents, and laws in Ghana. Additionally, the official curriculums of basic schools were assessed. While the focus of the research was to assess the entire K-12 curriculum, we limited the analysis to Kindergarten to Basic 6 curriculum (K-6) because at the time of the research, the State was in the process of reviewing the Basic 7-12 curriculum. Due to this, twenty K-6 curriculum documents were used for the project.

Each of the documents were read iteratively by the researchers in order to familiarize and understand all current and relevant data (Clarke & Braun, 2013; Creswell & Creswell, 2018). We reviewed and coded policy documents relative to the ESD indicators (Concepts and Competencies) highlighting key words that emerged from the data as well as others provided in the GSPP Worksheet (see Annex 1). We then weighted each policy document based on the ESD indicators to determine key references based on the GSPP Worksheet. We coded X for explicit references, N for non-explicit, and blank for non-reference. Following this path, we also included the weighting of the concepts as submitted in a Worksheet guide by attaching 1 to the X (X1) and N (N1) if the reference is 'for' and 2 as in X2, N2 for the reference if it is 'through'.

We contend that an important standard for determining the prevalence of the ESD indicators and Learning Objectives in the documents is to measure the degree of pervasiveness and salience. We therefore developed a formula to determine the degree of pervasiveness of indicators (Concept and Competency) in each policy document and Learning Objective in the Curriculum. We developed a formula each for Concepts, Competencies, and Learning Objectives. Second, we developed a model (see Figure 1a & 1b) to show the degree of salience of indicators and Learning Objectives using the weighting guide of X and N as provided by GSPP Worksheet guide. We have also added a third weighting code, NM to represent non-mention.

To determine the degree of pervasiveness of a Concept in a policy document we developed the formula:

$$x = \frac{(OC(100))}{NC}$$

To measure the degree of pervasiveness of a Competency in a policy document we developed the formula:

$$x = \frac{(Oc(100))}{Nc}$$

To determine the degree of pervasiveness of the Learning Objectives in each subject/grade curriculum we developed the formula:

$$x = \frac{(ob(100))}{Nb}$$

Tables and Figures were generated to provide a graphic representation of the results.

Research Findings

In this section, we present the findings and analysis for the Concepts and Competencies relative to the seven selected relevant and recent key education policy, planning documents and laws

in Ghana. We viewed these documents as potentially influential in designing the strategies for implementing Goal 4 in Ghana. Then, we follow it up with the findings and analysis of the outcomes of the learning objectives on the curriculum in Ghana. The findings and analysis are the outcomes of the coding exercise and the data generated from the education policies and curriculum as captured on the GSPP Worksheets. It is important to reiterate that in this report, we operationalize the expression 'policy' to include all education documents, policies and laws within the country.

Second, our findings and analysis are also based on the GSPP Secretariat's generated Worksheet and keyword guide as well as other keywords that emerged from our own review of the education policy documents. The guide provides that we code X for explicit references, N for non-explicit, and blank for non-mention. Following

this path, we also included the weighting of the concepts as submitted in the Worksheet guide by attaching 1 to the X as in(X1) and N as in (N1) if the reference is "for"; and 2 as in X2 and N2 for the reference if it is "through". We conducted the analysis for the Concept (under Indicator) using the three sub-indicators comprising sustainable development, global citizenship and 21st century skills.

Policy and Legal Analysis

For this section of the report, we present the findings for the Concepts and Competencies relative to seven purposely selected relevant and recent key education policy, planning documents and laws in Ghana. The list of these policy documents is shown in Table 1. We viewed these documents as potentially influential in designing the strategies for implementing Goal 4 in Ghana.

Name of Document	Acronym
National Pre-Tertiary Curriculum Framework 2018	NPTCF
National Teacher Education Curriculum Framework 2008	NTECF
Education Strategic Plan 2018-2030	ESP
National Science Technology and Innovation Policy 2017-2020	NSTIP
ICT for Accelerated Development 2003	ICT4AD
Inclusive Education Policy	IEP
Education Act 778 (2008)	Act 778

TABLE 1: Key Education Policies and Frameworks in Ghana

Details of our findings as contained in the worksheet can be referenced in Annex 1 within this report. We provide forth with anecdotal commentary of these findings.

Under the sub-indicator of *sustainable development*, we found that explicit references were made in the policy documents ESP, NPTCF, NTECF and NSTI. This implies that the documents made adequate references to the concept of

sustainable development through identified keywords. This revelation is not surprising as all the four policy documents were developed in the post-SDG period or within the last 3 years (2017-2019). However, the three other policy documents, ICT4AD, Act 778, and IEP made no direct or indirect reference to *sustainable development*. Again, this finding is predictable as the three documents were developed either several years before the development of the SDGs or the period

immediately preceding it. The implication is that a document such as the Education Act 778 (2008), which serves as a major legal document from which all other educational policy and planning documents derive their mandate from, should be amended to provide a solid legislative foundation and framework for the country's SDG educational vision. Again, it is important to state that the conspicuous non-mention of *sustainable development* in important policy documents like IEP and ICT4AD heavily defeats the stride towards providing inclusive education for all by 2030.

On the two sub-indicators of *Global Citizenship and 21st Century Skills*, we found explicit mentions in only two policy documents: NPTCF and NTECF. Again, the rationale for such revelation has already been captured in the preceding paragraph; both documents are situated in the post-SDG era and adequately took into consideration the demands of SDG4. Policy documents ESP, ICT4AD, IEP, NSTI and Act 778 failed to capture or make reference to the *global citizenship* concept. Furthermore, the findings are indicative of the challenges that exist in the education system in equipping and training Ghanaian youth to become universal citizens as the five prevalent education planning and policy documents lack the inclusion of any of the tenets of *Global Citizenship*.

The documents ESP, NPTCF and NTECF made explicit references to *21st Century skills* with the same value and level of inclusion as were covered under the earlier sub-indicators of *sustainable development* and *global citizenship*, and we explain with the same degree of rationale. ICT4AD, IEP, NSTI and Act 778 policy documents failed to make any reference to *21st Century Skills* and as such leave serious gaps in our educational bid to provide learners with the needed millennial skills.

Competencies

We coded and analyzed the eight overarching competencies expected to be embodied in the

seven selected policy documents. The eight Competencies include *systems thinking, anticipatory, normative, strategic, collaboration, critical thinking, self-awareness* and *integrated problem solving*. As indicated earlier in our methodology, keywords were generated for each competency and same were coded and analyzed.

Under the Competency sub-indicator of *systems thinking*, there were explicit references in two documents- NTECF and ICT4AD. We found that the explicit references are due to two factors: NTECF is a post-SDG policy document whereas the nature of the ICT4AD makes it inherently system-inclined. The rest of the documents: ESP, NPTCF, IEP, NSTI and Act 778 made no reference to the sub-indicator implying a huge lacuna in the documents. For details of this analysis, refer to Annex 1.

Relative to the *anticipatory* sub-indicator, ESP, NTECF, ICT4AD and NSTIP made explicit references to this competency while the NPTCF and Act 778 documents made non-explicit references. IEP made no reference at all to this competency.

The *normative* competency was explicitly captured in only the three post-SDG designed documents: ESP, NTECF, and NPTCF; the ICT4AD, IEP, NSTI and Act 778 documents made no references to this competency.

The *strategic* competency was explicitly captured in ESP, NPTCF, and ICT4AD whereas the NTECF provided a non-explicit reference. However, IEP, NSTI and Act 778 made no direct or indirect references to the competency.

Collaboration as a competency appeared explicitly in only three documents- ESP, NTECF and NPCTF. On the other hand, ICT4AD, IEP, NSTI and Act 778 gave no manifest or latent references to the competency.

Critical thinking competency was also captured explicitly in only two documents: NTECF and

NPTCF. The other four documents including ESP, ICT4AD, IEP, and NSTI did not superficially nor inherently reference this competency.

Self-awareness competency is referenced explicitly in four documents: ESP, NTECF, NPTCF and NSTI. The ICT4AD, IEP and Act 778 failed to represent this competency in any form in the content of the documents.

The eighth sub-indicator competency- *integrated problem-solving*, was captured explicitly in the NTECF and NPTCF documents. The rest of the policy documents including ESP, NPTCF, IEP, NSTI and Act 778 did not make any reference to keywords that indicate the presence of the competency.

Degree of Pervasiveness of Indicators (Concept and Competency)

We also recognized the importance of determining the extent to which an entire category of *Concepts* and an entire category of *Competencies* are pervasively captured in each document. As presented under the methodology section, we developed a formula each to determine the degree of pervasiveness of *Concepts* and *Competencies*.

The formula for determining prevalence or pervasiveness of *Concepts* in a document is:

$$x = \frac{OC(100)}{NC}$$

Therefore, as an illustration, to measure the degree of pervasiveness of the entire set of Concepts in the NPTCF document:

x- NPTCF
OC- 3 (because we observed all the 3 concepts in the document)
NC-3 (total number of concepts is 3)

Where:

$$NPTCF = \frac{3(100)}{3}$$

Therefore, the degree of pervasiveness of Concepts in the NPTCF document is 100%.

The results for degree of pervasiveness of the set of Concepts is captured in Table 2 below:

Concepts			
Policy Document (x)	Observed Indicator(s) (OC)	No. of Concepts (NC)	% of Degree of Pervasiveness
NPTCF	3	3	100
NTECF	3	3	100
ESP	2	3	67
NSTIF	1	3	33
ICT4AD	0	3	0
IEP	0	3	0
Act 778	0	3	0

TABLE 2: Degree of Pervasiveness of Concepts in Ghana's Educational Policy Documents

As can be seen from Table 2 above, under the Concepts Indicator, out of the seven policy documents selected for the study, three of them, NPTCF, NTECF and ESP had more than 60% degree of pervasiveness of the Concepts and

therefore could be said to have adequately captured the ESD concept. It also means that the framers of the policy had adequately catered for the ESD Concepts. It is also important to note that two documents NPTCF and NTECF fully and

pervasively captured the ESD Concept with a high score of 100% whilst the ESP document was laced with about two-thirds of the ideas of the ESD concepts. As has been said earlier, these documents were drafted within the last three years and were done in line with the SDG4.

However, the ESD Concepts in the other four documents NTSIF, ICT4AD, IEP and Act 778 contained none of the concepts or had only a third of the ESD Concept ideas (as in the case of NSTIF). It is important to state that unless these policies and laws are amended or reviewed to fully reflect the ESD *Concepts*, the country's goal of achieving the SDG4 cannot be attained.

We followed similar process to determine the degree of pervasiveness for the Indicator Competency and arrived at Table 3.

The formula for determining prevalence or pervasiveness of Competency in a document is

$$x = \frac{(Oc (100))}{Nc}$$

Therefore, for example, to measure the degree of pervasiveness of the entire set of Competencies in ICT4AD document:

X= ICT4AD

Oc= 3 (3 competencies were observed in the document)

Nc= 8 (total number of competencies is 8)

Where:

$$ICT4AD = \frac{(3 (100))}{8}$$

Therefore, the degree of pervasiveness of Competency in the ICT4AD document is 38%.

However, we must add that the varying results of the degree of pervasiveness of Concepts and Competencies in policy documents do not represent nor suggest watertight boundaries of discrete values because the indicators in practice, fuse into each other in a more fluid rather than static pattern. The result for the degree of pervasiveness of the set of Competencies is captured in Table 3 below:

Competencies			
Policy Document (x)	Observed Indicator(s) (oc)	No. of Competencies (nc)	% of Degree of Pervasiveness (DP)
NTECF	8	8	100
NPTCF	7	8	88
ESP	6	8	75
NSTIF	4	8	50
ICT4AD	3	8	38
Act 778	2	8	25
IEP	0	3	0

TABLE 3: Degree of Pervasiveness of Competencies in Ghana's Educational Policy Documents

Curriculum Analysis

The second part of the analysis focuses on the ESD Learning Objectives and how they reflect the seventeen SDGs (see Figures 3a and 3b). As indicated in the methodology, we took each SDG (1-17) and content-analyzed its level of *salience*

and degree of *pervasiveness* in the 12 subjects of the K-6 curriculum. We also reiterate that we collapsed the grades into one stream of class and mapped the subject for that entire stream (K-6) and content-analyzed for both level of *salience* and degree of *pervasiveness*. Thus, for a subject

like English, we collapsed the entire K-6 grades into one stream of class and mapped the 15 Learning Objectives of each SDG to that subject to determine the levels of *salience* and *pervasiveness*. This approach eased analysis, saved time, space (since grade-by-grade analysis would have provided an over laborious documentation of findings and analysis) and, as well, easily provided an excellent bird's eye view of the ESD Learning Objectives. In this section, we also lay more emphasis on the NM (Non-Mention) as a category of weighting since this level of salience seems to characterize almost all the K-6 subjects under study. Table 4 shows the subjects of the K-6 Curriculum.

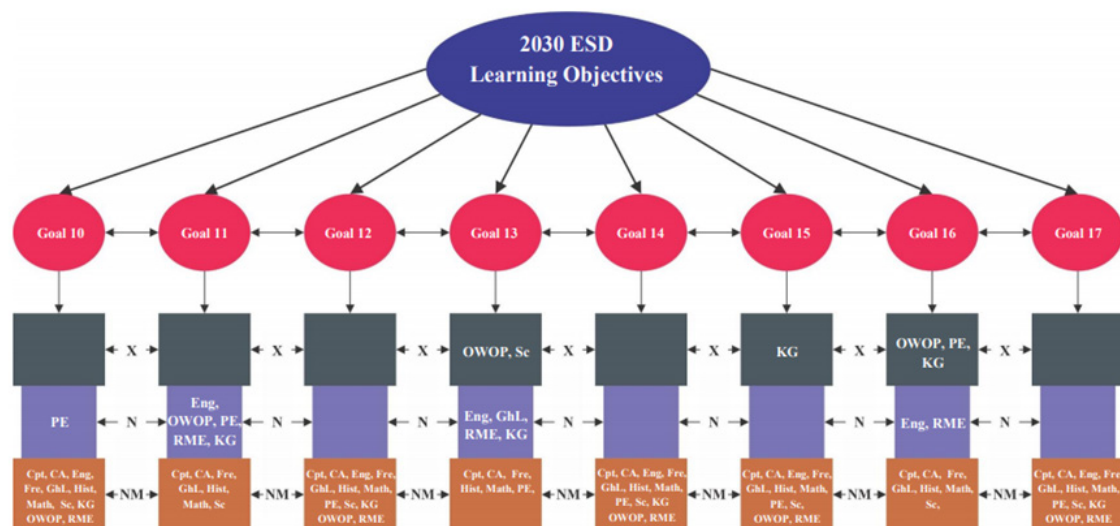
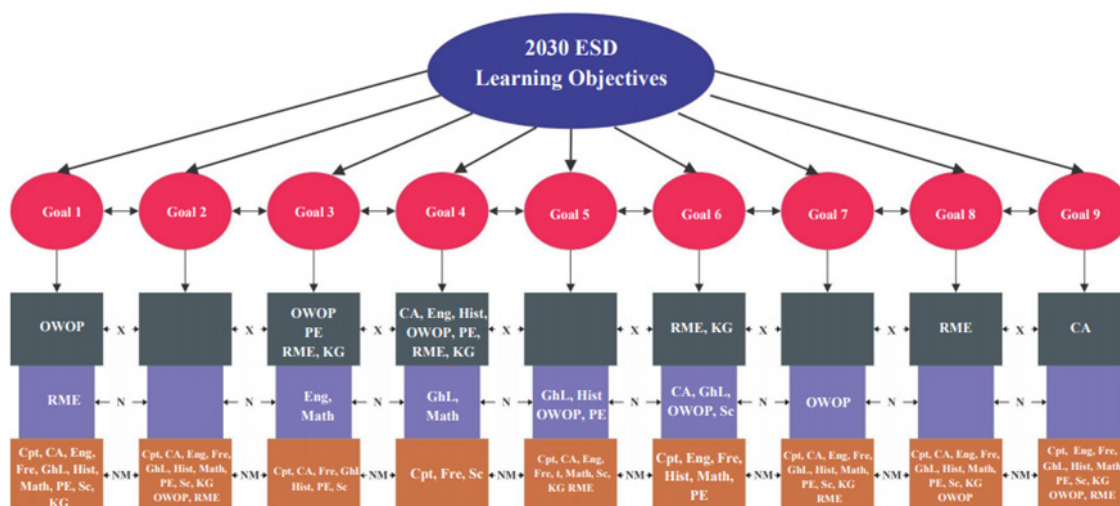
Our analysis revealed that there are generally huge gaps in the K-6 subjects relative to the inclusion of the ESD Learning Objectives. On the average, more than 80% of the subjects under review fall under category NM (Non-Mention) of the ESD Learning Objectives. Goals 2, 5, 7, 10, 11, 12, 14 and 17 were not explicitly captured or mentioned at all in any of the subjects. Only Goals 3 and 4 have been explicitly captured in seven subjects including OWOP, PE, RME, KG, ENG, HIST, CA (see Figures 1a and 1b). Goals 1, 6, 8, 9, 13 were captured explicitly by just a single subject meaning 11 of the subjects did not make any manifest mention of the Goals to instructors and pupils.

Subject/Grade	Acronym	Level
Computing	Cpt	Grades 4-6
Creative Arts	CA	Grades 1-3 Grades 4-6
English	Eng	Grades 1-3 Grades 4-6
French	Fre	Grades 1-3 Grades 4-6
Ghanaian Language	GhL	Grades 1-3 Grades 4-6
History	Hist	Grades 1-6
Mathematics	Math	Grades 1-3 Grades 4-6
Our-World-Our-People	OWOP	Grades 1-3 Grades 4-6
Physical Education	PE	Grades 1 – 6
Religious & Moral Education	RME	Grades 1-3 Grades 4-6
Science	Sc	Grades 1-3 Grades 4-6
Kindergarten¹	KG	N/A

TABLE 4: List of K-6 Subjects and their Corresponding Levels

¹Curriculum for Kindergarten follows an integrated organization pattern.

the curriculum is indicative of the need to review the K-6 curriculum if the SDG framework is to be achieved. We submit that any learning objective that is not inscribed explicitly or in manifest manner would fail to promote the attainment of the SDGs.



Subjects	Observed X	Observed N	Non- Mention	Observed X+ N	Degree of Pervasiveness
OWOP	60	119	76	179	70.2
Math	20	94	141	114	44.7
KG	72	38	145	110	43.1
ENG	10	94	151	104	40.8
RME	34	42	179	76	29.8
GhL	12	61	182	73	28.6
CA	27	29	199	56	22.0
SC	20	32	203	52	20.4
PE	27	19	209	46	18.0
HIS	8	19	228	27	10.6
CPT	1	17	237	18	7.1
FRE	1	2	252	3	1.2

TABLE 5: Degree of Pervasiveness of ESD Learning Objectives in K-6 Curriculum

We also analyzed the degree of pervasiveness of the ESD Learning Objectives similar to the process adopted and the formula used to determine the degree of pervasiveness for Concept and Competency. The result of the degree of pervasiveness of ESD Learning Objectives is displayed in Table 5 above.

As indicated in the methodology, we developed a formula and used same to assess the degree of pervasiveness reproduced as follows:

Degree of Pervasiveness:
$$x = \frac{Ob(100)}{Nb}$$

Where Ob = observed objectives
Nb = number of objectives
x = Subject/Grade

As an illustration, to determine the degree of pervasiveness of the ESD Learning Objectives of English Language as a subject, the observed objectives 104, which is the sum of observed X (10) and observed NM (94) is expressed in a relationship with the total number of Learning Objectives Nb (255) as follows:

$$\begin{aligned} \text{thus,} \quad x &= \frac{Ob(100)}{Nb} \\ \text{therefore:} \quad x &= \frac{(104 \times 100)}{255} \\ X &= \text{English} \end{aligned}$$

As can be observed from Table 5, only one subject, OWOP achieved 70% degree of pervasiveness of the ESD Learning Objectives across the K-6 Curriculum. The rest of the 11 subjects scored less than 45%. Indeed, with the exception of OWOP which had mostly explicit content of the Learning Objectives, subjects like PE, CPT, HIST and FRE had less than 20% degree of pervasiveness (see Table 6). It is also important to note that a subject like English which is the major medium of instruction in schools had only 40% of pervasiveness. Indeed, subjects like RME, GhL, CA, and SC scored less than 30%. In essence, 80% of the subjects of instruction at the K-6 level does not adequately incorporate the ESD Learning Objectives. More importantly, core subjects like English, Mathematics and Science which are major

requirements have failed to adequately cater for the ESD Learning Objectives in the K-6 curriculum. There is therefore the need to further review the entire K-6 curricula to ensure explicit inclusion of the ESD Learning Objectives in all subjects.

Conclusions and Recommendations

In this report, we have analyzed the prevalence of ESD indicators as well as 2030 Education Learning Objectives in Ghana's Education Policy Documents and Basic School Curriculum. The study particularly mapped the ESD concepts and competencies against basic policies and laws relating to education and assessed the K-6 curriculum in line with the SDG learning objectives. We find evidence that while policy documents developed in the post-SDG period adequately took into consideration the demands of the ESD Concepts and Competencies, those that were developed years before the SDGs made no direct or indirect reference to the ESD indicators. We also find that, generally, there are gaps in the K-6 subjects relative to the inclusion of the ESD Learning Objectives. Having extensively reviewed policy documents and K-6 curricula of Ghana, we draw on the significant findings and conclusions to make the following recommendations.

First, we recommend that the Ministry of Education, and all other relevant agencies consider a review of policy documents predating the adoption of the SDGs. It has been enormously clear in our research that higher prevalence of SDG concepts and competencies were observed in more recently formulated policy documents (i.e. post 2015). Specifically, we recommend a revision of

the Education Act (Act 778), the Inclusive Education Policy, ICT for Accelerated Development, and National Science Technology and Innovation Policy to make them more responsive towards the SDGs. Again, while acknowledging explicit references to the SDGs and Learning Objectives in the K-6 Curriculum, we express concern that significant sections of the SDGs received very few to no mentions at all. Specifically, SDGs 7, 8, 9, 10, 12, 14 and 15 had very minimal prevalence in the K-6 Curriculum. We consider the current review of K 7 -12 Curriculum as an opportune time to push for NaCCA to make the SDGs more pronounced, prevalent, and embedded within these curriculums. Moreover, with the promise to review the curriculum every five years, we recommend that NaCCA becomes mindful of the need to make the SDGs the key focus for the next curriculum review for K-6.

Also, for the SDGs that received significant mentions in the curriculum, we are curiously wondering how teachers are enacting the explicit references to SDGs in their teaching. We recommend that UNESCO, through its country agency, commissions a national curriculum implementation research to ascertain the reality of learners' experiences in the implementation of SDG compliant subjects of the K-6 curriculum. We also recommend that the outcome of this research be brought to the attention of policy makers and other governmental and non-governmental organizations through policy briefs and research dissemination fora. Such dissemination will be very critical in facilitating discussions towards a more impactful action towards the attainment of the SDGs.

Phase 3: Committee Formation

Background

The world came together in 2015 to adopt the 2030 Agenda for Sustainable Development, and the goals set out within them - the Sustainable

Development Goals (SDGs). The SDGs are a plan of action for a better world, agreed to by all governments, to be achieved by 2030. Our global challenges of extreme poverty, wealth inequality,

conflict and climate change will escalate quickly and dangerously if we do not urgently change course. The Sustainable Development Goals (SDGs) give us a globally agreed-upon plan to fight these challenges and foster a better world for future generations.

To achieve the Sustainable Development Goals, it is critical that every individual acquires the sustainable development knowledge, global citizenship values, and 21st century skills necessary to tackle the greatest challenges of our time, and shape a sustainable future. Education is a crucial enabler for this transformation. In fact, target 4.7 of the 2030 Agenda states:

“by 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.”

Against this background, the Ghana team of the Global school project sought to establish and convene a national committee to mobilize the leading voices in the field of education and sustainable development to support the implementation of Education 2030 and SDG 4.7 in K-12 education across the national education system.

Objectives

The purpose of the exercise was to setup a National Committee, which:

1. provides feedback on the Education 2030 research outcomes and applications.
2. provides advice on priorities and strategies to implement Education 2030 at the national level.
3. advocates for the effective implementation of Education 2030 in their respective sectors, and more generally with the decision makers.

Methodology

To achieve the stated objectives, the Ghana team mobilized to establish a National Committee. In composing the committee, we followed the guidelines provided by the GSPP Secretariat to create a defining criterion for selection. We selected for the categories of Practice, Government, Civil Society, Academia & Management. For each of the categories, the team spent time to propose potential representatives following which nomination criteria was used to assess the suitability of the candidate. Each of the candidates were assessed based on the following:

- Experience with Education 2030 or associated issues
- Network potential of the candidate
- Influence of the candidate on their network
- Willingness and availability to support the cause
- Contribution to committee’s diversity

A four-point system was used based on the five criteria, with a maximum point value of 20. For each of the categories, all the potential candidates were listed, assessed individually and points awarded for each of the criteria. The total marks obtained were summed, and the candidates with the most points were selected to join the committee.

The next step was to reach out to the individuals to invite them to join. The team made initial phone calls to discuss the invitation and those who showed interest were sent formal invitation letters. In the instances when potential candidates turned down the invitation, we reverted to the assessment sheet to select the next person in line.

A Major Setback

In composing this national committee, the Ghana team was very conscious of ongoing education and curricular reforms and recognized the potential to make greater impact if key government persons involved in the reform are made part of the national committee. Thus, we shortlisted the

Minister of Education, The Director General of the Ghana Educational Service, and the Executive Secretary of the National Council for Curriculum and Assessment. Unfortunately, the timing was not very conducive as Ghana went to the polls for an election and uncertainties surrounding who forms the next government kept us waiting for a while longer. Although there is continuity in government as the ruling party won the election, it is considered a new government and so new appointments had to be made at the top hierarchy before other appointments below the hierarchy. For this reason, we could not get the confirmation of the 3 key persons in government to be part of the national committee.

It is informative to stress that, our political dispensation is unlike those elsewhere, as advocacy although helpful, has lesser impact in Ghana. In order to attain the progressive influence in policy and curriculum decisions that we are seeking, the buy-in and support of key governments officials is necessary. As our team placed a significant emphasis on the value of attaining these key government officials or representatives, we do not wish to simply choose other individuals that will not deliver the level of impact and authority needed, and therefore, could not proceed beyond this stage of the project.

Committee

Following the procedures described in the methodology section, we were able to compose a national committee of eighteen members with

three more members that we await their confirmation. The breakdown of members by the categories and gender is shown in Table 6.

The full list of committee members who have accepted the invitation through writing is attached to this report as Annex 2. As can be observed, the committee is fairly even in terms of gender distribution. Persons from Academic and Management background were even in terms of gender whereas those from Civil Society and Practice were skewed in favors of male and female respectively. In general terms, the committee is a very rich one, full of wealth and expertise from their specific backgrounds and the potential they bring to the table.

Challenges and Opportunities

While this project was built on strong motivation and composed of a dedicated team, we could not have anticipated some of the challenges that arose in our attempts to work through each of the three phases that were initially agreed upon. As mentioned, as we worked through phases one and two, we were met with some barriers in terms of timelines in completing the third and final phase which are outlined below.

This project started on a strong and vibrant note. The Ghana team was intrinsically motivated by the overall agenda and were very optimistic of the impact of the outcome. Working through phase 1 and 2, little did we anticipate that we might not be able to go through all the phases within the

Category	Gender		Total
	Male	Female	
Academic & Management	2	2	4
Civil Society	5	1	6
Government	2	2	4
Practice	0	4	4
Awaiting (Government)	(3)		
Total	9 (11)	9	18(21)

TABLE 6: Demographic Characteristics of National Committee Members

allotted time. This happened because the Ghana team was challenged from a number of fronts.

Covid-19 and the UEW situation

Ghana recorded its first case of the deadly Covid-19 pandemic on March 12th, 2020 and by March 16th, 2020, schools and universities had been ordered to close down. As part of this order coming from Ghana's President, universities such as UEW were to institute forms of online learning, as students moved off of campus. These events considerably hampered our ability to conduct the pilot research. Coincidentally, Ghana's team was made up of very senior members of the UEW, including the Pro-Vice-Chancellor, and Deans, who in that instant had to unexpectedly prioritize the transition to virtual learning and ensure the logical conclusion of the academic year, further curtailing our efforts to progress to the next phase of the project.

Covid-19 restrictions, which included lockdowns in the big cities, implied that for a greater part of 2020 no physical meetings could be arranged. Furthermore, it appeared irrational and insensitive to be discussing SDGs when the country was in a state of emergency. Thus, the Ghana team were forced to put breaks on its activities, hence our inability to complete the entire project within the timelines.

Logistical Challenges

The Ghana team was again challenged logistically. Infrastructural support for digital meetings was very limited. Internet connectivity is very unstable in Ghana and particularly for Winneba, where the team is based. Consequently, the team missed out on virtual meetings for this project. When Covid-19 disrupted physical meetings, the team was challenged in organizing virtual meetings because members could not access reliable connectivity from their residence.

Administrative Bureaucracies

As mentioned earlier, a major obstacle to our progress beyond the third phase was getting key government officials to complete the national

consultative committee. Political leaders and Policy makers are not easily accessible in Ghana. Seeking their audience requires administrative procedures and bureaucracies that take extended amounts of time. Particularly for this project, the situation was compounded by a general election held in December 2020, the desolation of government in January 2021, and the current wait period for new political leaders to work with. To this extent, this situation rendered us incapacitated.

Timelines

Much as we appreciate the structured nature of this project, we were slightly hampered by the somewhat structured timelines. We appreciate the urgency with which GSPP operated but we wish that we had more time to reorganize ourselves following the Covid-19 disruptions. Given that our counterparts progressed through the phases we felt demoralized that we were letting the project down by not meeting the timelines.

Opportunities

Regardless of these, there is an opportunity to champion SDG inclusion in the curriculum of Ghanaian schools. As mentioned earlier, the state is sponsoring curriculum reforms in pre-tertiary institutions. Presently, curricula for Kindergarten through grade 7 are being implemented. The curricula for grades 8 through 12 are still being developed and we see a great opportunity to effect change through them.

Recommendations and Next Steps

We recommend that the Ghana team be given more time to complete the remaining phases of the project. Although the structured timelines have elapsed, we request that GSPP grants an exception for us to keep working in spite of the official closure of the project. This way we will be able to reach the ultimate goal of bringing about impactful change in our educational policy and curriculum.

Again, we request that funding be made available for advocacy in our bid to continue to research the necessary changes that should be made in our curriculum. From our initial interaction with stakeholders, it appears public awareness on the SDGs is very low and it might take a big more convincing among decision makers for the change. We see the potential impact of the national consultative committee but we suspect that it might need more time and a structured mandate to be able to influence decisions in the most crucial spaces for change to happen. To do this, funding will be required to organize symposia, workshops and sensitization drives to get other stakeholders like the media on board in order to champion the urgency for prominence of SDG and ESD in our policies and curricula.

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Annexes

ANNEX 1: Policy Documents Assessment Worksheet

Indicator	The Ghana ICT for Accelerated Development Policy 2003						Education Act 778
	Education Strategic Plan 2018/2030	National Pre-Tertiary Curriculum Framework 2018	National Science Technology Innovation Policy (2017-2020)	Inclusive Education Policy 2015	National Teacher Education Curriculum Framework 2018	National Science Technology Innovation Policy (2017-2020)	
Concepts							
Sustainable Development	X1	X2			X1	X2	
Global citizenship		X1			X1		
21st century skills	X1	X1			X1		
Competencies							
Systems thinking			X1		X1		N2
Anticipatory	X1	N1	X1		X1	X1	N2
Normative	X1	X1			X1		
Strategic	X1	X1	X1		N2	X1	
Collaboration	X2	X1			X1		
Critical thinking		X1			X1		
Self-awareness	X1	X1			X1	X1	
Integrated problem-solving	N2	X1			X1	N2	

ANNEX 2A: List of National Committee Members

Full name	Gender	Committee Role	Position/Role	Organization	Biography (affiliations, expertise, experience) ~ 100 words max	Sector/segment (as per table 1 of workplan)	Email address
Prof. Ruby Hanson	Female	Ordinary member	Academic & Management	Dean, Faculty of Science, University of Education Winneba	Chemistry Education	Government	rhanson@uew.edu.gh
Dr. Theresah Addai-Mununkum	Female	Ordinary member	Academic & Management	Coordinator for Gender Advocacy, University of Cape Coast	Gender Advocacy	Government	tennin@ucc.edu.gh
Prof. Anthony K. Edusei	Male	Ordinary member	Academic & Management	Kwame Nkrumah University of Science and Technology	Health Education	Government	eduseiak@gmail.com
Prof. Andy Ofori-Birikorang	Male	Chairman	Academic & Management	Pro-Vice-Chancellor University of Education, Winneba	Academic, Communication	Government	andyobk2@gmail.com
Dr. R. Addai-Mununkum	Male	Administrator	Academic & Management	Head, Department of Educational Foundations, University of Education, Winneba	Academic, Curriculum & Pedagogic Studies	Government	raddaimununkum@gmail.com

ANNEX 2B: List of National Committee Members

Full name	Gender	Committee Role	Position/Role	Organization	Biography (affiliations, expertise, experience) ~ 100 words max	Sector/segment (as per table 1 of workplan)	Email address
Ebenezer Obeng-Baffoe	Male	Ordinary member	Civil Society	Chief Executive Officer, Casa De Ropa Limited	Business, Leadership	Private	vimunits@yahoo.co.uk
Carina Appiah	Female	Ordinary member	Civil Society	UNAG Youth Member of Parliament, Juabeng Constituency	Youth empowerment, community mobilisation	Private	appiahcarina97@gmail.com
Benjamin Yeboah	Male	Ordinary member	Civil Society	Vice-President, Graduate Students Association of Ghana	Student leadership	Private	yeboahben58@gmail.com
Wonderful Baisie Ghartey	Male	Ordinary member	Civil Society	Retired officer of WHO	Health Economics / Project Management	Private	wonderfulgb@gmail.com
Mr. Issaka Lamisi Akudugu	Male	Ordinary member	Civil Society	Vice-President, Student Representative Council, UEW	Student leadership	Private	akudugulamisi@gmail.com
Grace Boateng Nketiah	Female	Ordinary member	Government	Administrative Manager, Ministry of Health	Health Education	Government	afiatutuwaah@yahoo.com
Priscilla Baaba Bansah (Mrs)	Female	Ordinary member	Government	Head, Documentation & Information Section Directorate of Public Affairs University of Cape Coast	Communication/Public Relations	Government	pbansah@ucc.edu.gh

ANNEX 2C: List of National Committee Members

Full name	Gender	Committee Role	Position/Role	Organization	Biography (affiliations, expertise, experience) ~ 100 words max	Sector/segment (as per table 1 of workplan)	Email address
DCOP David S. Eklun	Male	Ordinary member	Government	Deputy Commissioner of Police, Ghana Police Service	Security	Government	davidsenanueklu@gmail.com
Prof. George Kankam	Male	Ordinary member	Government	Chairman of Governing Council, University of Energy and Natural Resources	Academic, Teacher Education	Government	georgekankam@hotmail.com
Dr. Grace Sintim Adasi	Female	Ordinary member	Practice	Principia, Ago College of Education	Teacher Education	Government	rev.graceadasi@gmail.com
Ama Koranteng	Female	Ordinary member	Practice	Principal, Beacon Springs Christian International School, Accra	Private School Leadership	Private	amakoranteng@gmail.com
Millicent Esinam	Female	Ordinary member	Practice	Teacher, Saforo MA Basic School, Mamfe- Akwapim	Teacher	Government	Millicent_millicent@yahoo.com
Emmanuel Nii Adama Mensah	Male	Ordinary member	Practice	Graduate Assistant, University of Education Winneba	Media and Communications	Private	manuelmensah7@gmail.com

