

WORKING PAPER

EDUCATION DATA SYSTEMS IN NORTHWEST SYRIA

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Executive Summary

Syria has been engulfed in a violent conflict since 2011 which has severely damaged the country's foundations of peace, justice and development. The Northwest of Syria (henceforth NW Syria) has witnessed brutal military operations that have led to a huge toll of people killed and injured, missing, tortured and forcibly displaced. In addition to a destruction of infrastructure, there has been degradation of social relations and environment, and distortion of public institutions.

The education sector and learning process have suffered from severe damages to the drivers of learning, namely, accessibility, quality, continuity and coherence. This data systems report aims to provide in-depth insights on the current landscape of education in North West Syria, focusing on existing data systems, including information on access, quality, continuity, and identifying notable data gaps.

The study is based on key informant interviews (KIIs) with key stakeholders who have knowledge of the education data systems in NW Syria. This paper presents findings on the current education data systems and explores what types and quality of data they collect. It identifies challenges affecting the data systems from three angles, namely, context, outputs and processes, in addition to suggesting policy options.

Context: The conflict significantly disrupted Syria's education data systems, causing fragmentation, and capacity and infrastructure damage. Pre-conflict educational institutions in NW Syria became nonfunctional, and data collection ceased in many areas. In the absence of a coherent national system, multiple non-state actors (Syrian Interim Government (SiG) and Syria Salvation Government (SSG)), external actors (Turkish government), humanitarian organisations (UN agencies, international non-governmental organisations - INGOs), and local civil society organisations and initiatives (Assistance Coordination Unit - ACU, and non-governmental organisations - NGOs), have attempted to fill the gap.

The current education data systems operate in an environment where there is lack of security and conflicting priorities among the key actors. There is a lack of coordination and integration among the data systems, and further challenges linked to the dominance of short-term humanitarian approaches, and the dependency on funding from external donors.

Outputs: The data systems analysed include formal administrative data, and data systems within

independent statistical organisations, civil society organisations, research centres, INGOs, and international private companies. These systems primarily cover basic and secondary education. Further analysis reveals the varying degrees to which they collect data relating to educational drivers such as accessibility, quality, and continuity, or more detailed data to analyse issues such as dropout rates, school infrastructure conditions, teacher/student ratios, qualifications, and learning resources in NW Syria.

Gaps remain in several areas, such as the quality of the curriculum, school–community relationships, learning outcomes, and factors related to the context which may affect learning, among others. Furthermore, data to do with indicators of continuity, coherence and outcomes are significantly lacking for displaced children in camps, and for informal education generally. There are examples of more comprehensive data collection taking place. The ACU data system captures data on indicators relating to quality and context. Additionally, Manahel, an education programme in NW Syria delivered by an NGO, conducts surveys on outcomes, school security and protection, and student disability, although the geographical scope covered is limited.

Processes: The fragmented governance and lack of a unified oversight of the education sector in NW Syria has led to inconsistencies and difficulties in sharing and disseminating education data. Key gaps in the data systems regarding accessibility, quality and coherence have been identified, affecting the overall planning, collection, analysis, storage and dissemination processes. Data collection is primarily conducted through education directorates or NGOs, often funded by international donors.

The planning and implementation of data systems is hampered by a lack of transparency, coordination and continuity. Various entities, which are responsible for the data systems, often face challenges such as limited resources, a reliance on traditional methods, and security concerns. The ACU data system is by far the most advanced in terms of data processes and dissemination.

To address the challenges identified, recommendations include adopting modern technologies, further training for staff, ensuring the quality of data, and enhancing transparency and coordination among stakeholders to support effective decision–making and policy formulation.

Options: The suggested alternatives focus on enhancing coordination, adopting transdisciplinary and participatory approaches, establishing an independent bureau of statistics, creating an institute for data skills and tools, and diversifying funding sources. These options aim to improve education data systems' ethics, governance, quality and accessibility, while promoting cooperation among stakeholders to mitigate conflict–related challenges.

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ACRONYMS

ACU	Assistance Coordination Unit
CBS	Central Bureau of Statistics
CFS	Child Friendly Spaces
ECD	Early childhood development
ERICC	Education Research in Conflicts and Protracted Crises
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
FCDO	Foreign, Commonwealth & Development Office - UK Government
GOS	Government of Syria
HNAP	Humanitarian Needs Assessment Plan
HNO	Humanitarian Needs Overview
IDP	Internally displaced person
IMU	Information Management Unit
INGO	International non-governmental organisation
KII	Key informant interview
MICS	Multiple Indicator Cluster Surveys
MoE	Ministry of Education
NGO	Non-governmental organisation
OCHA	United Nations Office for the Coordination of Humanitarian Affairs
SCPR	Syrian Center for Policy Research
SDQ	Strengths and Difficulties Questionnaire
SiG	Syrian Interim Government
SSG	Syrian Salvation Government
TIMMS	Trends in International Mathematics and Science Study
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	(originally) United Nations International Children's Emergency Fund
UNRWA	United Nations Relief and Works Agency for Palestinian Refugees
WFP	World Food Programme

I. INTRODUCTION

The assessment of educational data systems is a crucial component of the ERICC framework as the data supports the education process through providing rigorous evidence for planning, implementation and evaluation, and enhances access to information and accountability.

The paper methodology is based on the ERICC conceptual framework focusing on identifying and explaining education systems and processes that affect children's outcomes in conflict and protracted crisis settings, where the state's function is disrupted and has become unsustainable to maintain and operate existing education systems (Kim et al. 2022). Mapping of data systems was carried out through semi-structured interviews to identify the data that is available and the gaps in data across both host communities and internally displaced person (IDP) camps in NW Syria. The paper covers entities managing data collected from Idlib and rural Aleppo governorates.

The paper analyses the key educational data systems in NW Syria through three analytical stages: Firstly, it assesses the context of the conflict and its impact on the education process. It identifies the main education data systems in NW Syria and the roles of different local and international actors in terms of regulating, implementing, funding, and use of the data systems. Secondly, it summarises the outputs in terms of demographic data and the education drivers of accessibility, quality, continuity and coherence. Moreover, it details the degree to which the data system's outputs are made available more widely.

Thirdly, the paper analyses the key steps of the data process in each data system by identifying the main advantages and disadvantages of the planning, collection, storage and sharing stages, and identifying the role of data in decision-making processes. The paper concludes by highlighting the key challenges faced in relation to the education data systems in NW Syria that link to the conflict context, governance, coordination, scope, resources and dissemination, among others. Finally, it specifies policy options and recommendations to improve the data systems.

A. An introduction to ERICC

The Education Research in Conflict and Protracted Crisis (ERICC) Research Programme Consortium is a multi-country research programme funded by the UK Government Foreign, Commonwealth and Development Office to carry out rigorous and operationally relevant research on the most effective approaches to education delivery in conflict and protracted crisis contexts.

ERICC is a multi-country programme carrying out country-specific research within a cross-country Research Agenda. It focuses on seven countries (Syria, Jordan, Lebanon, Nigeria, South Sudan, and cross-border research on Rohingya displacement in both Bangladesh and Myanmar).

The objective of the ERICC programme is to build and maximise uptake of evidence on the most effective approaches to education delivery in conflict and protracted crisis contexts. The desired impact of the programme is to produce research that drives: (1) more robust evidence-based policies; (2) more effective educational interventions; and (3) better value-for-money programmes in conflict and protracted crises. ERICC is focused on building and maximising the uptake of evidence on the most effective approaches to education delivery in conflict and protracted crisis contexts. The broad Research Agenda addresses the following six cross-cutting research themes:

- Political settlements
- Accountability
- Data, monitoring and evaluation
- Quality and learning
- Protection and inclusion
- Cost-effective delivery

The six cross-cutting themes guide the research questions and discussions of the country scan. To generate an evaluation of current approaches and critical analyses of desirable pathways, we will develop an analytical framework that builds on the ERICC conceptual framework of the four drivers of learning and development (Kim et al, 2022).

B. Syrian conflict context

The warring actors in Syria have continued their use of violence and fear to subordinate the population, which in turn has entrenched even further the levels of injustice in Syria. Identity politics has been one of the main factors fuelling the conflict, through abuse of the diversity in religions, ethnicities, economic and social backgrounds, relations and regions, to create fragmentation and polarisation in society. The regional and international actors that are directly involved in the conflict have further aggravated the social fragmentation and inequality (SCPR, 2023; UNICEF, 2023).

The education system became fragmented into several systems characterised by distorted governance, a shortage of qualified teachers, differences in curricula, and a decline in the quality of education. The infrastructure and school facilities were also subject to severe destruction or were used for other purposes, such as housing displaced people. Policies of siege and discrimination have also hindered children's access to education. The COVID-19 pandemic has further exacerbated education challenges, including school closures and lack of alternatives, health concerns, and preventive measures. Additionally, the lack of security and the increasing poverty have increased school dropout rates (ACU, 2023).

The deterioration of public education services has led to the expansion of the roles of civil society and the private sector in education. However, their contribution remains modest compared with the substantial educational deficit, which can be reflected in the rates of enrolment in basic education. In this regard, the SCPR (2022) report shows that the percentage of out-of-school children in basic education was about 45% between 2014 and 2017 and further deteriorated to approximately 34% between 2018 and 2022. The overall loss in basic education up to 2021 reached 24 million school years compared with the counterfactual scenario, with more than 2.5 million children having been deprived of being able to enrol in school (SCPR, 2022).

The earthquake on the 6 February 2023 also significantly impacted on the education process in the affected areas – mainly in NW Syria. Education was suspended in 208 schools in areas under Government of Syria (GOS) control, according to the directorates of education in the governorates. The number of damaged schools in NW Syria reached 392, including 11 destroyed schools and 48 schools that were converted into shelters. In the education sector, The number of casualties in the education sector was reported to be 68 teachers and 79 injured.¹

¹ Assistance Coordination Unit. (March 13, 2023). Humanitarian Situation in North-West Syria Following the Devastating Earthquake.

The ERICC research project in Syria is focusing on the region of NW Syria specifically. This region has been chosen as the focus due to several factors including the level of destruction it has experienced, the level of ongoing dependency on humanitarian aid, as well as the number of displaced people, the ratio of out-of-school children, the ongoing insecurity status, and the rate of poverty. This is a region with a complex system of actors and governing bodies. NW Syria is governed by several non-state actors, the Syrian Salvation Government (SSG), and the Syrian Interim Government (SiG), in addition to the important role played by the UN agencies, the Education Cluster, INGOs, NGOs, the private sector and donors.

The role of Türkiye is critical in this region and the role of the Syrian government indirectly affects the education system. The northwestern region continues to suffer from brutal armed battles, siege, displacement, grave human rights violations and collective punishments, mainly by the GOS. However, Turkish-backed actors, the SiG and SSG have been involved in military battles and violent activity including forced displacement and the conflict economy that have had a devastating impact on both human and material resources. Furthermore, this region is highly dependent on humanitarian assistance led by cross-border UN mechanisms, alongside the essential role played by civil society.

NW Syria can be understood as two distinct areas. The first area is controlled by the SiG and backed by Türkiye. This area includes rural Aleppo and includes Azaz, Albab up to Jarablus and Mare', Afrin, Jandiers, and part of north Raqqa and North Hassakeh. The educational processes are supervised by Türkiye, through the Turkish education directorates and coordinated in neighbouring Turkish cities. The second area is controlled by the SSG, and includes most of Idlib, part of the western rural part of Aleppo, and a small northern part of rural Latakia. Here, the curriculum is identical to the SiG curriculum. There is a level of cooperation between the SSG and the SiG in terms of exams and progress for secondary school level. However, the SSG totally controls all education-related activities in the area, including humanitarian activities related to education.

In NW Syria areas, different civil society initiatives have been in place to rehabilitate schools and compensate for the lack of teachers. Yet, most of these initiatives have not been sustainable due to the lack of funds or the dramatic change in the political authorities controlling educational provisions. Some NGOs were able to sustain their support to schools by providing external funds. The SiG has amended the curriculum that was in place previously and printed and distributed books to the schools in opposition-controlled areas.

However, they have faced a range of challenges including scarcity of financial resources and disruptions in teaching and learning due to the continuation of military operations. Additionally, there is an absence of sufficient and qualified staff, a lack of accreditation, and the inability for children to continue on to higher education. Furthermore, thousands of children in the besieged areas suffer from malnutrition and lack of security, which contributes to psychological trauma and hinders their ability to engage in the educational process (Save the Children, 2020).

Therefore, our approach to data collection has been fully informed by this contextual understanding of the different actors and governing bodies present in the region. The team has conducted participatory research within NW Syria and has engaged the different actors as appropriate, being very mindful of the dynamics and security issues present in the region. Where possible, research activities have been conducted in person, whilst a few activities like training the researchers or the national dialogues were conducted online. To capture the disparity of the education system and outcomes across local communities, the research involved participants from different regions in NW Syria as detailed below.

II. METHOD

The ERICC conceptual framework focuses on identifying and explaining education systems and processes that affect children's outcomes in conflict and protracted crisis settings, where the state's function is disrupted and has become unsustainable to maintain and operate existing education systems. (Kim et al. 2022). The framework focuses on explaining children's experience of education systems and processes in the contexts of conflict and protracted crisis. The primary goal is to help explain and generate evidence to improve education systems, policies, and programmes that support children's outcomes (Kim et al. 2022).

Beginning in August 2023, the Syria Country Research Team conducted a country scan to identify evidence gaps, research priorities, data systems, and engage with relevant stakeholders to contribute to the development of strategies for collecting evidence that will inform education policy and practice. The country scan activities have been carried out in cooperation with key stakeholders, leading to the co-production of the country's research agenda and plan for future studies.

This study aims to answer the following research questions in relation to NW Syria:

1. What types of data are available to the education system for decision-making on access, quality, continuity and children's education outcomes in settings of conflict and protracted crisis?
2. What are the sources of available data for education decision-making?
3. Who is/was responsible for collecting the data and at what frequency?
4. How (sample, whole population, periodicity, regularity) is data collected, processed, stored and used?
5. What types of data are necessary but unavailable to the education system?
6. What are the protocols for data access and sharing among ministries, directorates, agencies, organisations, and users for implementation and decision-making?

A mapping activity of data systems was carried out through semi-structured interviews to identify the data available and the gaps in data across both host communities and IDPs in camps in NW Syria.

The key informants interviewed hold different positions in the education sector and were selected because of their awareness of data management. Some of them are currently involved in data systems management, whereas others have experience of working on education data. The choice of the data systems and key informants was determined by analysis of the actors mapping and the evidence review conducted within the ERICC project country scan research activity.

- **Sampling:** We interviewed a total of seven respondents with experience of information management (IM) from different entities including: the Syria Education Programme (Manahel, funded through the UK Government FCDO), the Assistance Coordination Unit (ACU), the Directorate of Education, research centres and the ministries of education (SIG, SSG). Two follow-up interviews were conducted, one with two experts from Manahel to identify the outcome surveys, and another one with a previously former expert in the Central Bureau of Statistics in Syria (CBS). Table 1 below shows the selected database details in terms of implementing partners, donors and geographical coverage.

The research team also analysed data relevant to data systems that emerged from the data collection activities carried out in other stages of the country scan. These activities included 17 KIIs carried out as part of the stakeholder mapping activity in Idlib and Aleppo, and relevant

questions from the 40 in-depth semi-structured interviews which formed the primary data collection phase of the country scan.

The study covers entities managing education data collected from Idlib and rural Aleppo governorates. Most respondents are based in NW Syria whilst the ACU conducts its operations from its headquarters in Gaziantep, Türkiye, through field teams based in the region.

Annex 1 provides information on the position of the respondents, their organisations, and details the common data types that they collect on education.

- **Instrument:** A Data System Review and Documentation Protocol was developed by a cross-regional team of ERICC researchers (Haque et al, 2022) and adapted by the research team to contextualise it to NW Syria (Annex 2). The questionnaire uses a combination of quantitative closed questions and qualitative open-ended questions, designed to gather information from different organisations about a range of aspects relating to the data collection they carry out, including, but not limited to, the types of education data they collect, frequency of data collection, purposes of data collection, and funding sources.
- **Process:** The core research team conducted a training session with the field research team on the context-adapted Data System Review and Documentation Protocol and the data collection questionnaire. The core and field research teams worked together to identify the major focal stakeholders for education data management in relevant organisations, and the field research team contacted them in advance for an appointment, and explained and sought their informed consent using the consent form to be found in Annex 2, before carrying out the semi-structured interview. For those stakeholders who were unable to attend interviews in person, two virtual interviews were conducted via Zoom application.

The KII transcripts were analysed and triangulated with the results from the Evidence Review paper (Akkar, et. al, 2024) and the results from the primary in-depth KIIs and actors' mapping activity in the country scan to provide an understanding of the situation in NW Syria in relation to the production and use of education data in response to the research questions outlined in this paper.

- **Time:** The interviews were conducted in November and December 2023.

Table 1. The selected education data systems in NWS

Database name	Implementing partner	Supervisor/donor	Geographical area studied	Description of the data collected
Manahel	Chemonics	FCDO	Idlib	Database on 300 schools for basic education. Administrative data and EGRA and EGMA surveys for disability and safety.
MoE-II +2	Education directorates	Ministry of Education SSG	Idlib	Administrative data from schools.
Research	Research centre	Donors	R-Aleppo	A research project on specific region in rural Aleppo.
MoE-A	Education directorates	Ministry of Education SiG/Türkiye	R-Aleppo	Administrative data from schools.
ACU1+2	ACU	SiG/donors	Idlib and R-Aleppo	ACU surveys from all formal schools, including detailed data on schools, students, parents, and teachers.

III. CONTEXT AND ACTORS

This section describes the education data systems in NW Syria before the conflict and elaborates on the impact of conflict on them in terms of governance, capacity and resources. Additionally, it identifies the key actors that influence them in the absence of a coherent national data system.

A. Education data system before the conflict

In this sub-section, the paper briefly describes the findings in relation to the education data systems before the conflict. Prior to 2011, the Government of Syria (GOS) Ministry of Education (MoE) was responsible for governing the education sector in the whole of Syria. The MoE regularly collected the administrative data from schools, including: (1) the number of students by their age, gender, class, in addition to their grade progression, and grade repetition of the schooling year; (2) the number of teachers by age, gender, and their qualifications, status (permanent, temporary), teaching hours, and salaries and compensations; (3) the other administrative staff numbers by age, gender, positions and salaries; (4) the number of schools and classrooms, utility, books and equipment.

These data were collected for early childhood education, basic, secondary, and vocational schools, across public, private and the United Nations Relief and Works Agency for Palestine Refugees (UNRWA)² providers. Statistical summaries of the administrative data were published on a yearly basis in the Annual Statistical Abstracts by the Central Bureau of Statistics (CBS) in Syria³. CBS, by the law of Syria, is the only agency that is responsible for collecting statistics on the national level.

Before the conflict, CBS conducted several types of data collection surveys such as the household income and expenditure surveys (2004, 2007, 2009); the labour force surveys (2001–2010) on a yearly basis and sometimes on a quarterly basis; the demographic and health surveys (2001, 2009); and the Multiple Indicator Cluster Surveys (MICS) (2006), among others. These surveys included detailed data relating to education including education levels (the last certificate achieved), literacy levels, and school enrolment of children within households.

The surveys in general adopted strata cluster random sampling based on the framework of population drawn from the national census (the last census was conducted in 2004). A summary of the survey's statistics was published regularly, especially after 2003, by CBS. It includes essential demographic and socioeconomic data on the household's status. The raw data have never been published.

Whilst the GOS funded the above data systems, many UN agencies contributed to the financing of surveys – such as the United Nations Development Programme (UNDP), UNICEF, the United Nations Population Fund (UNFPA), the World Food Programme (WFP), among others. Qualitative and educational outcome data have rarely been collected; one of the examples are the Trends in International Mathematics and Science Study (TIMSS) that was conducted in 2007 and 2011 (TIMSS, 2008 and 2012); and the transition from school to labour market in 2009 (ETF, 2012).

The data before the conflict indicated the poor performance of education in northeastern and NW Syria, with the exception of the city of Aleppo, in terms of literacy and enrolment rates, especially for girls and women in rural areas (ANND, 2014).

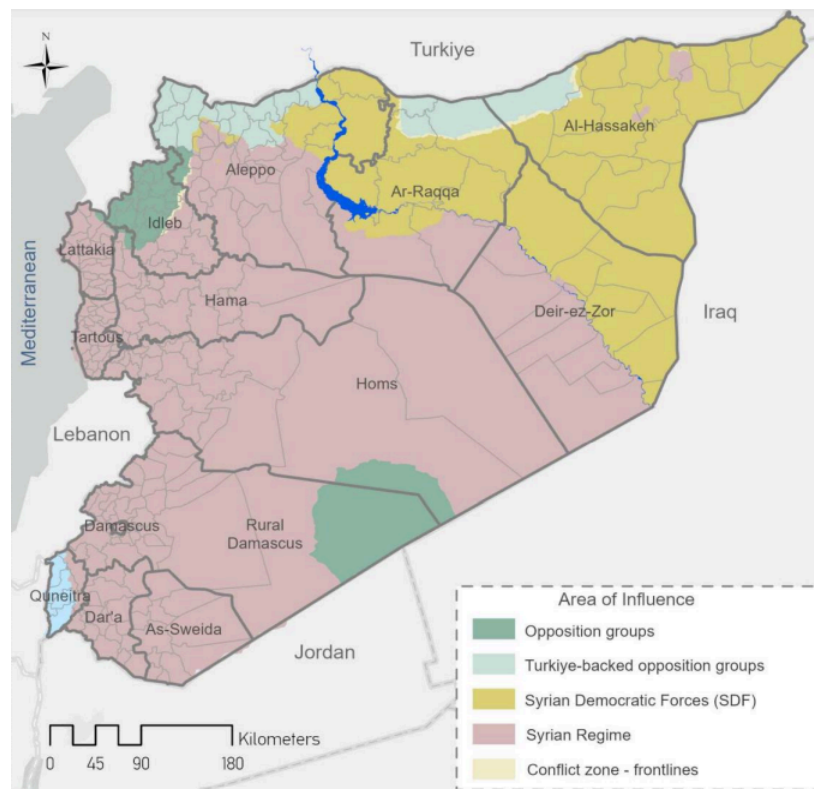
B. The conflict and data systems

The conflict has hindered educational institutions from maintaining a coherent formal data system due to the resultant insecure environment and instability, fragmentation of the controlling political actors, and the deterioration in the performance of public institutions. Forced displacement of households and students, and the destruction of infrastructure and archives, have also had a negative impact on the education data systems. For instance, education statistics departments in the damaged or besieged areas became partially or fully nonfunctional. The representative surveys on household level ceased in many affected areas due to the massive movement of populations and the insecurity situation, and many households and students lost their official documents, including the students' educational records.

² UNRWA schools were established for the Palestinian students.

³ <http://cbssyr.sy/index-EN.htm>

Map 1. The map of Syria with highlights of the de facto controlling actors



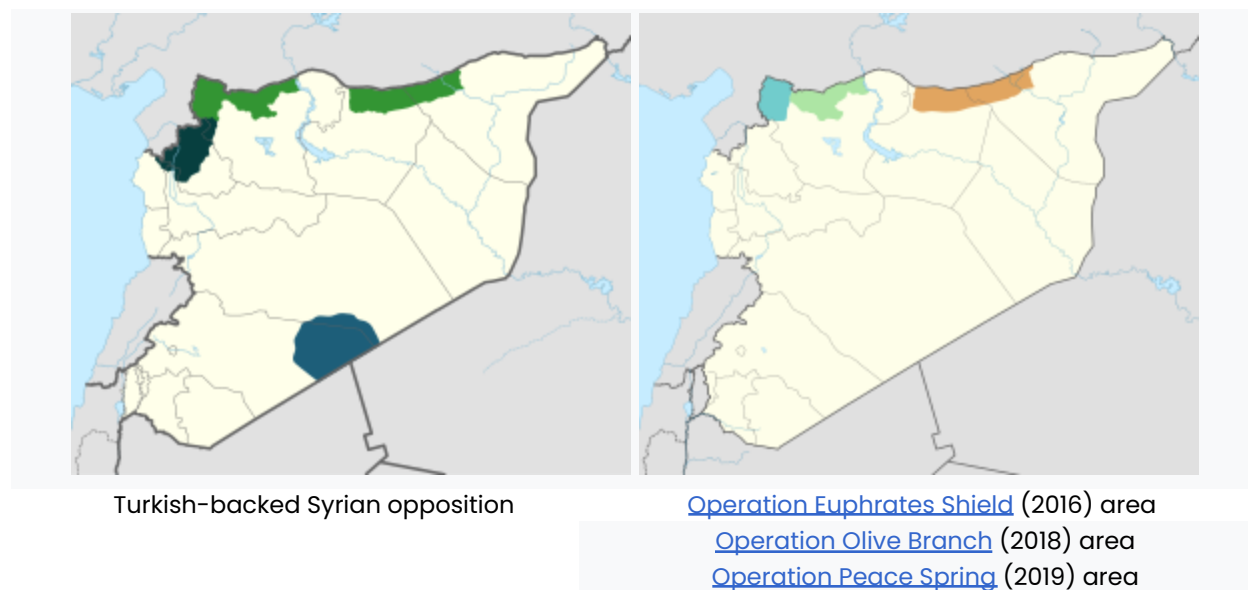
Source: Assistance Coordination Unit, Syria 2023. <https://acu-sy.org/>

The intractable conflict resulted in the fragmentation of the country among various controlling actors, creating different political and socioeconomic systems (Map 1). This instability, along with the brutality of conflict including grave violations against civilians, the destruction of infrastructure and forcible displacement of populations, has prevented the emergence of the stable and consistent institutions that are needed to oversee the stewardship of the education sector. As a result, the MoE discontinued its operations in areas that were out of the regime’s control, including tracking students’ records.

The GOS MoE gradually lost its ability to govern the sector across the country and many ad hoc educational systems emerged in different regions. CBS also could not reach the whole of Syria and its coverage gradually shrank. Furthermore, the MoE and CBS technical capacities were severely reduced due to the loss of qualified human resources and lack of interest by the GOS as priorities shifted towards conflict-related issues, with a subsequent lack of funds (SCPR, 2023).

The Russian direct military intervention in Syria from September 2015 led to a significant shrinkage of the regions controlled by opposition groups between 2016 and 2019 and caused severe damage in the northwestern region, with an increasing number of IDPs. Furthermore, the Turkish direct military intervention through three main military operations against the Autonomous Administration in northeastern Syria, led to the expansion of the regions controlled by the opposition and since then, the Turkish government controls the governance in these regions in northeastern and NW Syria.

Map 2. Turkish-backed Syrian opposition areas and the Turkish military operations in North Syria



Source:

https://en.wikipedia.org/wiki/Turkish_occupation_of_northern_Syria#:~:text=A%20cross%2Dborder%20military%20operation,of%2034%20Turkish%20military%20servicemen

Since the relative stability experienced since 2019 in NW Syria, the region has been associated with the expansion of public services including health, education and utilities. The NW Syria region which is the focus of this study is divided between two governments/political actors: the Syrian Salvation Government (SSG) and the Syrian interim Government (SiG). They share key characteristics such as belonging to the opposition against the Syrian regime, and their dependency on direct and indirect support from the Turkish government. The mobility of people and goods within this region is less restricted compared with other regions in Syria, and the region consequently hosts large numbers of IDPs, whilst also suffering from enormous destruction.

However, the two governing bodies differ in several aspects. The involvement of the Turkish government is more direct in SiG regions, and the involvement of UN actors in the SiG region is coordinated with Türkiye, whereas Türkiye classifies the SSG as a terrorist group and imposes sanctions on it. In terms of military operations, the SSG region still witnesses attacks by the Syrian regime. Finally, governance of the education sector is controlled by the Turkish government in the SiG region, whilst it is controlled by the SSG in the SSG region.

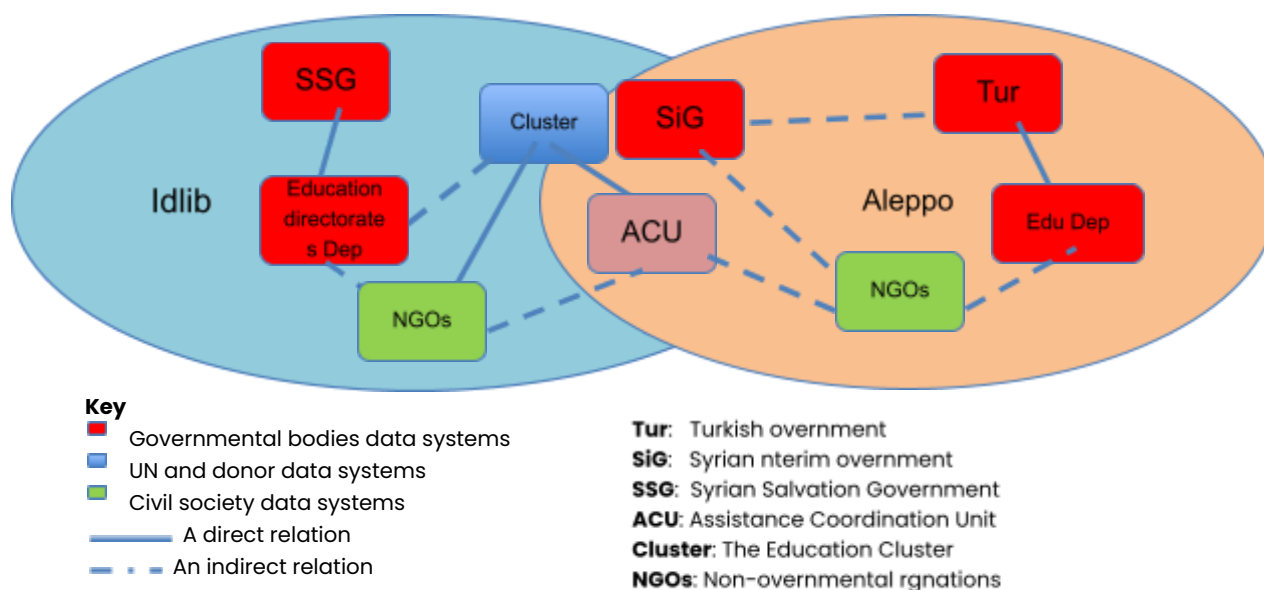
There are 1.9 million people in the SiG region, of which 0.58 million are IDPs, and the enrolment rate for basic education is 45% (ACU 2023; HNO 2023; SCPR 2023). The SSG region includes 2.7 million people, of which 1.1 million are IDPs, and the enrolment rate for basic education is 44% (ACU 2023; HNO 2023; SCPR 2023). More than half of the children are out of school. Furthermore, to understand the depth of the crisis, given that this situation has been ongoing since 2012, more than half of children who are of basic school age have been deprived of their access to education for the 13 years (to date) since the conflict began.

This complicated, fragile geopolitical scene has affected the production and dissemination of education data. The conflict has created different interests in relation to education data for civil society,

UN agencies and non-state actors. Also, the production of data is dominated by the focus on addressing humanitarian needs and the documentation of the violation of human rights, such as the targeting of education workers and infrastructure in the conflict. In this regard, the relative decline in military operations since 2020 has had the effect of enabling education institutions to increase their capabilities to collect data on education.

However, the data collected have been of varying levels of quality. Figure 1 below shows a simple illustration of the key actors who produce the data on education in NW Syria.

Figure 1. The key data producing actors in NW Syria



The main data systems in the NW can be described as follows:

In the SiG region, administrative education data are collected by the Turkish government MoE through the education directorates and local councils. These data are only shared with the SiG by the Turkish government in aggregated form, even though the SiG is operating as the local government in control of the region. Many NGOs have collected project-based data related to education; in most cases these data focus on informal education in specific areas. These NGOs share the data with SiG and donors.

In the SSG region, the MoE governs the sector and it produces administrative data through its education directorates. The NGOs have more autonomy in this region in relation to collecting data and they share it with donors and the Education Cluster (led by the UN), although NGOs' data are neither systematic nor comprehensive.

INGOs and private companies also collect data related to their projects and share it with donors and at times with the Education Cluster and education directorates. For example, Adam Smith and Chemonics companies gather data related to their projects in NW Syria, and monitoring and evaluation companies gather data for the donors and implementing parties for specific projects.

The only comprehensive and systematic data collection in both regions, beyond the collection of administrative data, is by the ACU which publishes detailed results and shares the data with the education directorates and the Education Cluster. Although the ACU is technically independent, it is registered under the umbrella of the Syrian National Coalition.

Additionally, the Syria Cross Border Education Cluster is a coordinating body for the Northwest Syria Response, and includes many NGOs and donor representatives, led jointly by UNICEF and Save the Children. The Education Cluster mainly collects data and information from the NGOs and it depends on data collected by the ACU and from the Humanitarian Needs Overview (HNO) and the Humanitarian Needs Assessment Plan (HNAP).

In summary, the conflict has significantly disrupted Syria's educational data systems, causing fragmentation and damage to both capacity and infrastructure. Pre-conflict educational institutions in NW Syria became nonfunctional, and data collection ceased in many areas. In the absence of a coherent national system, multiple non-state actors (SiG and SSG), external actors (the Turkish government), humanitarian organisations (UN agencies, INGOs), and local civil society organisations and initiatives (ACU and NGOs), have attempted to fill the gap.

The current education data systems, as demonstrated in the findings below, face significant challenges, such as insufficient security measures, conflicting priorities among key stakeholders, poor coordination and integration across systems, an overreliance on short-term humanitarian approaches, and a heavy dependence on external donor funding.

IV. OUTPUTS OF DATA SYSTEMS

This section focuses on the availability of data, frequency, purpose, scope and use. It assesses the data through the lens of the ERICC framework to address the context and drivers of education (access, quality, continuity and consistency) and outcomes.

The data systems that are analysed in this process can be categorised into formal administrative data systems, and those of independent statistical organisations, civil society organisations, research centres, INGOs, and international private companies. The paper concentrates on the comprehensive data systems that are in operation across NW Syria. However, we recognise that there are many other efforts, especially by NGOs, to gather information on education for needs assessment and/or programme monitoring and evaluation.

As shown in Table 2, the data systems within this paper mainly cover the levels of basic and secondary education, and a few of them cover early childhood development (ECD). Several factors have affected the scope of the data systems, for example, humanitarian strategies generally focus on basic education rather than higher ECD or higher education, and the data collected on informal learning provision is usually conducted by NGOs and tends to be fragmented.

Table 2. Education levels coverage in the studied data systems in NW Syria

Geographical studied area	Database name	ECD	Basic	Secondary	Higher education	Informal
Idlib	Manahel	0	1	0	0	0
Idlib	MoE-I1	1	1	1	0	0
Idlib	MoE-I2	1	1	1	0	0
R-Aleppo	Research	0	1	1	0	0
R-Aleppo	MoE-A	0	1	1	0	0
Idlib+R-Aleppo	ACU1	0	1	1	0	0
Idlib+R-Aleppo	ACU2	1	1	1	0	0

Source: ERICC data systems in Syria 2024

Key: one/green available or included; zero/red not available or excluded.

The data systems were analysed in terms of the drivers of learning that they cover as shown in the Table 3 below. The data systems cover the drivers of accessibility, quality and continuity to varying extents, while only one data system includes coherence (Table 3). Fewer data collected on IDP camps cover the learning drivers; one example is the ACU reports on camps (ACU, 2024).

Table 3. Education drivers coverage in the data systems studied in NW Syria

ID	Geographical studied area	Database name	Access	Quality	Continuity	Coherence
1	Idlib	Manahel	1	1	0	0
2	Idlib	MoE-I1	1	1	1	0
3	Idlib	MoE-I2	1	1	1	0
4	R-Aleppo	Research	1	1	1	0
5	R-Aleppo	MoE-A	1	1	1	0
6	Idlib+R-Aleppo	ACU1	1	1	1	1
7	Idlib+R-Aleppo	ACU2	1	1	1	0

Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

A. Access

The ERICC conceptual framework defines access to education as the awareness of and the opportunity and capacity to participate in educational experiences (Kim et al. 2022). The concept of accessibility includes the provision of formal or informal education in a physically and psychosocially safe environment for children.

Accessibility is covered mainly by the administrative datasets (education directorates) and ACU datasets. It includes the number of schools, students, teachers, and most of them include disaggregated data by age, orphan status, arbitrary arrests of family members, feelings of security, repeated absences, bullying and punishment, lateness, and the reasons for lateness.

The ACU report, 'Schools in Syria 2024', highlighted the number of formal schools in NW Syria with several details on accessibility. For example, dropout rates for the children aged between 6 and 18 years were 63% in Idlib, 62% in Afrin, and 52% in the northern countryside of Aleppo (ACU-a, 2024), highlighting significant challenges in access to education for children in NW Syria.

The lack of surveys on households' income levels creates a gap in the data for out-of-school children in terms of their number and the factors that hinder their access to school and attendance. In this paper, we have estimated the enrolment ratios in NW Syria based on an estimation of the number of children in schools as reported by the ACU, considered together with the HNO and Syrian Center for Policy Research (SCPR) estimations of the population by age and sex. From this calculation, we estimate that the enrolment ratios for basic education in 2023 were around 44% in the SSG region and 45% in the SiG region, which is a concerning indication of the level of simple physical access to a school place.

Table 4. Schools coverage in the studied data systems in NW Syria

ID	Geographical studied area	Database name	School - type (public or private)	School-sec tor (formal or informal)	School-rural or urban	School-geographic location	School-Language of education
1	Idlib	Manahel	1	1	1	1	0
2	Idlib	MoE-II	1	1	1	1	1
3	Idlib	MoE-I2	1	1	1	1	1
4	R-Aleppo	Research	1	1	0	1	1
5	R-Aleppo	MoE-A	1	1	1	1	0
6	Idlib+R-Aleppo	ACU1	1	0	1	1	1

7	Idlib+R-Aleppo	ACU2	1	0	1	1	1
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Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

The key data systems collect information about schools in terms of type (formal, informal), sector (public, private), geographical region, and the language that education is delivered in (Table 4). The administrative data collected include information on the number of classrooms, shifts, utilities, and damage to school infrastructure. Furthermore, the ACU collects information about the governing actor in the region, the security situation, any non-educational use of the facility, remnants of war, the ownership of school, cleanliness, protection (walls, gates), and distance from local residential areas. However, the ACU generally does not cover private schools.

The ACU report 2024 showed that 30% of the assessed schools did not meet “the safety and security standards outlined by the INEE Minimum Standards for Education” (ACU-a, 2024). In terms of IDP camps, out of 1,509 camps in NW Syria, 1,329 lacked schools and 24% of the available schools were found to be tents (ACU-b, 2024). The poor conditions in schools in terms of the availability of heating, electricity, toilet and furniture, is a key reason for the high dropout rates (ACU-a, 2024).

B. Quality

The ERICC conceptual framework defines the quality of education as the quality of the resources and support within classrooms/schools, households and communities, as well as the quality of the relationships, norms, practices and interactions that are necessary to safeguard and improve children’s holistic learning, development and wellbeing (Tseng & Seidman, 2007; Kim et al. 2022).

Consideration of the quality of education in the context of conflict is particularly important. Traditionally humanitarian assistance has focused on the physical enrolment of students in basic education, with little attention paid to the factors that negatively affect the ability of the education system to address the impact of conflict on children and their communities. Therefore, the ERICC conceptual framework considers the quality of education as an essential driver of education that needs special focus in contexts of intractable crises to avoid the pitfalls of traditional humanitarian interventions.

The data systems covered in this paper have addressed, to some extent, indicators of the quality of education such as teacher/student ratios, teacher qualifications, learning facilities, teachers’ attendance, and equipment. Most of the data systems gather information on teachers in terms of sex, years of experience, training courses undertaken, and socioeconomic background. The ACU report in 2024 detailed key quality indicators in NW Syria. For example, 18% of teachers are non-regular, which means that they lack formal qualifications from relevant educational institutions, and they joined the education process due to “the shortage of regular educators” (ACU-a, 2024).

The same report indicated that 43%, 17% and 6% of schools in northern rural Aleppo, Afrin and Idlib respectively were overcrowded; less than 1% of schools were equipped with functional laboratories or computer facilities, and 3% of schools had functional libraries, whilst only 4% of schools were “equipped to receive children with disabilities” (ACU-a, 2024). However, many other aspects of the quality of

education are missing from most of the datasets, such as the quality of curricula, and the quality of the relationships within schools between teachers and students and administration staff.

In relation to this, Manahel programme is conducting a survey on the security and protection in its target schools. The survey assesses the needs and risks in schools. Manahel also invests in a protection unit in each of its target schools to assure the engagement of trained teachers to deal with student challenges, including but not limited to: traumas, disability and learning difficulties. Additionally, it has 45 centres within Manahel schools for students with a disability. However, the scope of Manahel is restricted to the 300 target schools in the programme. This highlights the lack of available funds and programmes that can address the real needs of students throughout NW Syria.

The ACU is the most comprehensive dataset in terms of the scope and coverage of the quality of education, since it gathers data on numbers of children per class, the recognition of certificates, the percentage of children completing the curricula, and the availability of alternative curricula (accelerator/compensatory). For instance, the ACU assessed the type and subjects of curricula and asked the teachers' opinions on the current curricula compared with pre-2011 ones; around 80% indicated that there was no significant difference.

Additionally, the ACU survey asked about the recognition of certificates, which is considered a main cause of dropout of schools (ACU-a, 2024). It also covered the quality of relations between teachers and students, the existence of a code of conduct for teachers, the quality of labs and equipment, and the availability of books and hygiene products. Alongside gathering this information, the ACU asked the teachers about their opinions on the education policies, and the reasons for absence by teachers and students. For example, 10% of surveyed students reported feeling unsafe at school; while in the teacher survey, 35% of teachers indicated that at least one student indicated feeling unsafe within the school environment (ACU-a, 2024).

Overall, the ACU produces the main dataset that focuses on many aspects of the quality of education. We found that the SiG administrative database is less comprehensive compared with the SSG administrative database. Moreover, the experiences of teachers and children are only sparsely covered in the data systems.

Table 5 below shows which data systems collect these aspects of the quality of education.

Table 5. Education quality coverage in the studied data systems in NW Syria

ID	Geographic area studied	Database name	Teacher-student ratio	Qualification of the teacher	Learning facilities	Teacher supervision	Class size	Ratio of books to students	Number of books available	Attendance of teachers
1	Idlib	Manahel	0	1	0	1	0	0	1	1
2	Idlib	MoE-II	1	1	1	1	1	1	1	1

3	Idlib	MoE-I2	1	1	1	1	0	1	0	1
4	R-Aleppo	Research	1	1	1	1	1	1	1	1
5	R-Aleppo	MoE-A	1	1	1	1	1	1	1	1
6	Idlib+R-Aleppo	ACU1	1	1	1	1	1	1	1	1
7	Idlib+R-Aleppo	ACU2	1	1	1	1	1	1	1	1

Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

It is worth mentioning the urgent issue of access to the available data. While the ACU, with the most relevant data system, shares its data with governments and stakeholders, the administrative data of the MoE are not shared with relevant stakeholders. In addition, the data collected by NGOs and INGOs are only shared with relevant donors and sometimes with educational directorates.

C. Continuity

The ERICC framework defines continuity as the sustained exposure to education that allows progression in both learning and grade/school transition. Continuity is critical to overcoming the challenges of disjointed programming, frequent disruption and school closures, attendance challenges, programme and grade repetition, and dropouts prevalent in crisis contexts (Kim et al., 2022).

The data systems covered in this paper have several continuity indicators which include dropout rates, repetition, moving to the next level, grade promotion, and graduation. For example, according to an ACU report, 91% of surveyed students “moved to higher levels of education by passing the final school examinations successfully” (ACU, 2024), yet a number of key informants indicated that the schools are not strict enough in failing underperformed students.

There are a few datasets such as the ACU that document the reasons for the dropout and lack of completing school levels. Nevertheless, out-of-school children are not included in comprehensive data systems using panel data or representative surveys. Programmes like Manahel focused on children between grade 1 and grade 4 in the school that is linked to the programme so they can follow up with the cohort of children within their routinely collected data.

Table 6. Continuity coverage in the studied data systems in NW Syria

ID	Geographical studied area	Database name	Dropouts	Repetition	Moving to the next level	Attendance for students	Grade promotion	Graduation
1	Idlib	Manahel	1	1	1	1	0	0
2	Idlib	MoE-I1	1	1	1	1	1	1
3	Idlib	MoE-I2	1	1	1	1	1	1
4	R-Aleppo	Research	1	1	1	1	0	0
5	R-Aleppo	MoE-A	1	1	1	1	1	1
6	Idlib+R-Aleppo	ACU1	1	1	1	1	1	1
7	Idlib+R-Aleppo	ACU2	1	1	1	1	1	1

Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

An additional challenge to being able to record and analyse continuity is the lack of integrated data on informal education, which is mainly collected by the NGOs, INGOs and private companies. Displaced children in the camps have been the most affected by the conflict and there are few data systems that cover their access to, let alone their continuity in, education.

D. Coherence

The ERICC framework considers coherence and alignment across macro and local systems and stakeholders in education systems as a crucial step towards improving access, quality, and continuity of effective and equitable education in crisis settings (Kim et al, 2022). In a conflict context, such as NW Syria, the political and military actors focus on reallocating resources for military and security purposes at the expense of development sectors such as health, education and social security. Moreover, lack of coherence can occur because of the different approaches of political actors in governing the education sector; or within approaches of the donors, and/or between them and the implementing humanitarian agencies and NGOs.

The data systems in this paper show a lack of data relating to the coherence of education at both the macro and local levels in terms of implementing policies and the alignment between programmes and activities. A few exceptions can be found in the ACU dataset which has some questions on the relations between communities and schools, such as the parents' survey that addressed the opinion of parents in curricula, relations with school, and the challenges that the children face. Additionally, the principal survey addresses the meetings with parents and the existence of a student parents' council at schools (ACU-a, 2024).

The gap in coherence is substantial in terms of documenting the implementing policies and the assessment of alignment between the key factors such as non-state actors, foreign political actors, humanitarian actors (UN, INGOs, NGOs), schools, local community teachers, parents and caregivers. These gaps need to be considered by assessing the coherence across regions, type of schools, formal/informal learning initiatives, and levels of vulnerability of different communities.

It is worth mentioning that the data systems themselves need to be assessed through a coherence lens; for instance, this paper provides an assessment of the incoherence between education data systems in terms of cooperation, integration, planning and dissemination. Examples include the lack of access to administrative data by stakeholders, and the poor sharing of data between donors, which is highlighted in the next sections.

E. Outcomes

The ERICC framework connects preexisting conditions, interventions and learning drivers to outcomes such as policy alignment, accountability and adaptability at the macro level, and children's academic, social, emotional, physical and mental health outcomes at the local level (Kim et al., 2022). It emphasises achievement and equity in child outcomes as the long-term goals of supporting education in conflict settings (Kim et al., 2022).

The data systems assessed in this paper covered some of the outcome indicators such as literacy, mathematics, social and emotional learning, and physical health within the schools. However, existing indicators did not include out-of-school children and did not properly measure outcomes such as mental health.

Table 7. Outcomes coverage in the studied data systems in NW Syria

ID	Geographical studied area	Database name	Literacy	Mathematics	Academic, not mathematics or reading and writing	Social emotional learning	Mental health	Physical health
1	Idlib	Manahel	1	1	0	0	1	0

2	Idlib	MoE-I1	1	1	1	1	1	1
3	Idlib	MoE-I2	1	1	1	0	1	1
4	R-Aleppo	Research	1	1	0	1	1	1
5	R-Aleppo	MoE-A	1	1	1	1	1	1
6	Idlib+R-Aleppo	ACU1	0	0	0	0	0	0
7	Idlib+R-Aleppo	ACU2	0	0	0	0	0	0

Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

The most advanced data system for learning outcomes is conducted by Manahel, through two assessments: Early Grade Reading Assessment (EGRA) and Early Grade Mathematics Assessment (EGMA). Manahel implements the learning programme for both assessments in all Manahel schools and chooses a random sample of 20% of these schools (10 students per school) to be involved in the exams. These assessments measure the ability of children in reading and arithmetic.

Also, Manahel conducts two annual surveys covering disability and safety (Strengths and Difficulties Questionnaire – SDQ; and Child Friendly Spaces – CFS) with children in Manahel schools to assess their physical and psychological abilities. This shows that they have supported some children with a disability. The scope of these assessments is limited to 300 schools, which also highlights a substantial gap in the available data regarding outcomes.

F. Demographic data

Demographic data refers to information that is collected about the specific characteristics of a population. These data include indicators such as age, gender, ethnicity, income, education level and marital status. The data systems in this paper barely include data related to the community. For instance, a few indicators are collected that consider the parents of students in terms of sex, region, demographic characteristics, socioeconomic status such as the work, health, and living conditions/situations, and their relation to the children’s learning. However, they do not cover the whole community nor do they cover parents of out-of-school children.

The analysis shows a substantial gap in data systems regarding the community and context indicators that affect the education process. Furthermore, the specific challenges that women and girls face in

dealing with insecurity, poverty, losing family members, and the constraints imposed by social norms, are not covered. In general, the impact of displacement, poverty, engagement in conflict-economic activities, social polarisation, and trauma, on children’s capabilities to learn, are missing from the data systems. Some exceptions are provided by ACU surveys, for example, the living conditions of teachers were included in the 2024 report which showed that 97% of teachers described “their salaries as insufficient to address their daily life demands” (ACU, 2024).

Table 8. Education communities’ coverage in the studied data systems in NW Syria

ID	Geographical studied area	Database name	Gender	Language / Ethnicity	Geographic area	Social and economic status	Displacement situation
1	Idlib	Manahel	0	0	0	0	0
2	Idlib	MoE-II	0	0	1	0	0
3	Idlib	MoE-I2	0	0	0	0	0
4	R-Aleppo	Research	0	0	1	1	1
5	R-Aleppo	MoE-A	0	0	1	0	0
6	Idlib+ R-Aleppo	ACU1	0	0	0	0	0
7	Idlib+ R-Aleppo	ACU2	0	0	0	0	0

Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

The current education data systems concentrate on the education indicators within the education process without addressing, in most cases, the contextual dynamics. This is due to the lack of interdisciplinary approaches in building integrated data systems and surveys that include cross-sectoral indicators; this reflects the lack of coordination between the data systems covering health, security, education, and living conditions. On the other hand, addressing the causality of the contextual factors on learning creates more political and social sensitivities, as it may expose the role of political actors in hindering the children’s learning.

In summary, this section discusses the data systems outputs in terms of availability, frequency, purpose and scope in NW Syria, with a focus on access, quality, continuity and coherence of education. The data systems analysed include formal administrative data, independent statistical organisations, civil society organisations, research centres, INGOs, and international private companies, primarily covering basic and secondary education. The analysis of these data systems reveals varying coverage of educational drivers such as accessibility, quality and continuity, with detailed data highlighting issues

such as dropout rates, school infrastructure conditions, teacher/student ratios, qualifications, and learning facilities in NW Syria.

However, gaps remain in several areas, such as curriculum quality, school-community relationships, learning outcomes and context factors affecting learning, among others. Furthermore, continuity, coherence and outcomes indicators show significant shortcomings in covering displaced children in camps, or addressing informal education. Nevertheless, The ACU data system is an advanced attempt to capture comprehensive quality and contextual indicators. Additionally, the Manahel programme conducts surveys on outcomes, school security and protection, and student disability, but is limited in its geographical scope.

V. DATA SYSTEMS PROCESSES

The education sector in NW Syria is impacted by several challenges including the absence of a unified stewardship of the sector as many actors influence the governance of the sector, including the non-state actors (SiG, SSG), the state actor (GOS), the UN agencies (UNICEF, OCHA, and the Education Cluster), and external actor (Turkiye), in addition to the expanding role of civil society organisations and local initiatives. The lack of coordination and coherence on macro and local levels has led to a lack of consistency and integration of education data systems, as well as restrictions on sharing and disseminating the data.

For instance, the two administrative education data systems in the NW region are not unified or harmonised, with SSG and Turkish authorities only sharing summaries with the SiG, and this can be seen as a reflection of the power asymmetries amongst the de facto actors. Another example of the lack of coordination is the data collections by INGOs and NGOs which are, in most cases, project-based data and only shared with project donors.

As discussed in the previous section, the main data systems in NW Syria have several gaps regarding accessibility, quality, continuity and coherence. In this section, we will assess the data processes in terms of planning, data collection, analysis, storage and dissemination. This section also highlights the data process in terms of planning, collection, analysis, storage, data-sharing, funding, and its relevance to the policy-making process.

The data systems analysed in NW Syria show a variety of purposes for the use of data, including needs assessment, monitoring and performance, yet few data systems assess impact on children's learning outcomes. All main data systems collect quantitative and qualitative data; most of them collect data on infrastructure, schools administration, students, teachers, parents, and a few of them collect data on the community. The data for all the systems are collected on an annual basis or less (monthly in the case of administrative data). The data systems are funded mainly by international donors within the UN humanitarian response plan or outside it, in addition to public funds in the case of administrative data systems.

A. Planning

The power structure within the conflict context has shaped the type and purpose of the data systems in NW Syria. The formal data systems that collect the administrative data in the educational directorates face many challenges. These include the lack of transparency of data design and distribution; the dominance of external actors (Türkiye), as in the case of the SIG region, or non-state actors such as in the SSG region; the lack of data on what factors cause educational challenges; and the lack of coherence and outcomes data. Some interviewees raised concerns about the lack of clear and transparent education policies and poor levels of participation in designing the plans.

The administrative data collected by schools and produced by the planning department in the MoE includes information on student age, sex, grade, number of classes and teachers, appointment dates and human resources. The exams department collects relevant data, such as the number of students who apply for the basic and secondary certificates. Recently in the SSG region, the Planning Commission used comprehensive software to collect data from the schools. This goes to the educational complex (groups of schools in one area), then to the Education Directorate and finally to the MoE. These data are then used to identify needs, analyse performance, allocate resources, and pay salaries.

The ACU designed comprehensive and regular surveys to collect data in NW Syria. The surveys depended entirely on external humanitarian donors to fund the process. Furthermore, many NGOs and INGOs collect data based on the projects they implement that are mainly funded by external donors. These datasets are fragmented, most are shared only with donors and are not publicly available. Their main purpose is to serve said projects in terms of needs assessment, performance and impact evaluation.

Numerous challenges emerged during the planning phase of surveys. Lack of capacity, means and expertise, along with a prevalent fear of discontinuing support, posed significant hurdles according to the respondents from Manahel and the Education Complex. One interviewee added that there is a notable gap between the priorities of donors and the observations of research centres operating directly in the field. For example, some donors prioritise financial shortages and access to basic education at the expense of governance and secondary school priorities. Additionally, the lack of continuity in project funding posed significant concerns, with some entities terminating projects abruptly, often in the middle of the school year, thereby jeopardising the safety and stability of both students and teachers.

One key informant indicated that clear educational policies, such as official holidays and the format of exams, are notably absent, and that the current focus centres on providing basic elements such as schools, students, teachers and books. Some interviewees highlighted the lack of resources and other factors such as earthquakes, the security situation, and the impact of COVID-19, as further compounding the challenges.

To address the identified challenges, the key informants proposed several recommendations. These included the provision of computers or tablets, rehabilitation and training for planning personnel, and training courses for those involved in planning and design. Others said a clear educational policy independent of political influences was of paramount importance, as was the expertise and sustainability in financial assessments. Meanwhile, one key informant recommended the recruitment of

specialised education professionals, along with support for the training of education employees, to enhance overall planning and design strategies.

B. Data collection

The data collection and comparison stage involves the collaboration of various entities. Key contributors include the Department of Statistics, UN agencies, Educational Complex (particularly the Statistics Office and staff), local councils, specialists, directorates of education, and local partner organisations.

The data systems in this paper are mainly conducted at the population level with few exceptions of random samples. The data-gathering is done regularly, on an annual basis or less (each semester or monthly). Data collection is carried out through education directorates or NGOs.

Several challenges were said to be encountered during the data collection and comparison process. Almost all key informants agreed on a series of constraints impeding data collection such as lack of human resources and relevant expertise, reliance on traditional means with limited inherited experience, and insufficient tools and expertise. As expressed by the respondent from Manahel, these challenges affect overall data quality. The interviewee from the ACU stressed that lack of accuracy and credibility in data collection stems from the routine procedures, and the lack of commitment from decision-makers in addressing challenges. Moreover, approval processes, distances and population density further contribute to difficulties.

The respondent from Manahel stressed that the education directorates need to develop their data collection and analysis capabilities. For this, the key informant organises training for all parties involved including class teachers and parents to collect accurate data. The key informant from the Directorate of Education suggested regular updates of data whereas the ACU proposed increasing the number of researchers in highly populated areas to distribute the burden as there is a necessity for the expansion of data collection in higher and non-formal education and vocational education.

The respondent from the Manahel programme explained that their data collection process is a systematic and comprehensive endeavour, initiated through meticulous preparation. Firstly, this involves the preparation of questionnaires by the expert along with tables, data design, and explanation and training on how to collect data electronically. Initially, data collection is conducted by school teachers using Kobo software. The process is supervised by a protection officer and the data collection is undertaken in 20% of schools. The key shortcoming is that these data are collected only in 300 schools in Idlib, and this does not cover the rest of schools in NW Syria.

Meanwhile, the Research Centre respondent noted that its data collection process takes place in four stages: (1) before the start of the school year; (2) after the start of the school year; (3) during the school year; and (4) after the end of the school year. The data collection process eventually results in the production of an annual report.

In the SiG MoE, the data collection starts with a first workshop on the data census with the principal of the school, who transfers the data to a relevant designated person of the school. Afterwards the designated person transmits the data to the statistical office of the educational complex. In turn, the

statistical office shares the data of the schools within its group with the Department of Statistics of the Directorate of Education. At different times, specific statistics or data are requested, including but not limited to the number of students and teachers who have been killed, crisis-affected persons, displaced persons, and buildings under threat.

The ACU provided in-depth insights on data collection. These noted that its data collection process involves comprehensive questionnaires targeting stakeholders, students, parents, school principals, employing tools in both paper and electronic formats. When collecting data electronically, ONA software is used to ensure efficient and modern data entry and management practices. Subsequently, data are transmitted to servers, where coordination with field personnel ensures quality of data. Analytical tools, developed collaboratively with partners, are used by an analysing group to incorporate crucial aspects.

Researchers undergo training, and the subsequent analysis is delivered to an analytical team specialising in text analysis. The ACU respondent elaborated on data collection issues. According to them, NW Syria, especially Idlib, is a region where data collection is impeded due to the absence of approval from authorities, although there has been a concerted effort since 2015 to coordinate with the Directorate of Education.

In North Aleppo, data collection is relatively smooth, yet the approval process from Türkiye is causing delays. These delays reflect the centralised education system in SiG areas as the requests need approval by the Turkish authorities which takes time and effort. Discrepancies with Turkish numbers are noted, prompting a careful comparison, especially in formal education settings.

Different approaches are used by different actors to ensure data quality. The respondent from Manahel mentioned relying on the technical and administrative expertise of workers. The information management team compares new data with previously obtained data to ensure quality. The Research Centre focuses on periodic meetings and sessions where employees and experts discuss specific issues and learning from experiences outside the organisation to enhance their expertise. The MoE, the Education Complex, the Directorate of Education and the ACU put emphasis on selecting and training in relation to data collection for enumerators. The respondent from the ACU highlighted the Information Coordination Unit (IMU)'s efforts to review data for analysis after collection.

Table 9. The data collection place

ID	Geographic area studied	Database name	School	Household	Community /village/city	Local government/district	Other
1	Idlib	Manahel	1	0	0	0	0
2	Idlib	MoE-II	1	0	1	0	0

3	Idlib	MoE-I2	1	0	1	0	1
4	R-Aleppo	Research	0	0	1	0	0
5	R-Aleppo	MoE-A	1	0	1	0	0
6	Idlib+ R-Aleppo	ACU1	1	1	0	0	0
7	Idlib+ R-Aleppo	ACU2	1	1	1	0	0

Source: ERICC data systems in Syria 2024

Key: One/green available or included; Zero/red not available or excluded.

Finally, various recommendations were made by key informants to address the challenges that have been identified. Most suggested training staff working in this field, provision of modern tools and means, with the establishment of courses for competent cadres, support for managers through the provision of tools and expertise. They also emphasised the importance of the experience and competence of data collectors to ensure credibility.

C. Analysis

The data processing and analysis stage involves the collaboration of various entities. Key contributors include education statistics bureau experts, the Directorate of Education, research centres, NGOs and the ACU.

Almost all key informants noted that information management teams utilise Excel and SPSS software programmes for extracting and comparing indicators with general benchmarks. Specific metrics, such as part-time attendance, male-to-female ratio, and completion rates, are defined for each segment. The approach taken by the ACU is varied as, in addition to Excel and SPSS, the IMU employees utilise DAX, Query Editor, Arc GIS, and Adobe software tools at different stages for a comprehensive analysis.

Several challenges were encountered during the data processing and analysis stage. The majority of the respondents mentioned the lack of a culture of data processing and analysis, given the low demand for data analysis, especially by governmental entities who mainly use the administrative data for records of number of students or salaries of teachers and not to develop policies and interventions.

Additionally, several humanitarian agencies and donors use basic indicators to identify basic needs, without processing in-depth analysis of the available data. On the other hand, there are insufficient human resources and expertise, and a lack of modern tools and means. Additional challenges raised by the MoE include low capacity, old equipment, power outages, and devices that are not sufficiently sophisticated. The ACU's response was focused more on work pressure and time constraints which negatively affect the project management cycle.

To address the challenges that were identified, various recommendations were proposed. These include the training and qualification of staff working in this field to foster a culture of data processing and analysis. There is a call for the adoption of modern technologies to achieve speed and quality in data processing and analysis, along with the provision of modern data devices and systems. The need for processing systems capable of absorbing information and providing a stable supply of electricity and technology is emphasised. Introducing new techniques for faster data analysis and processing was also suggested. Interestingly, the ACU considers expansion of the team to be an important aspect of increasing overall efficiency.

D. Storage

The storage stage involves the collaboration of various entities. For the administrative data systems, the data are stored in a server within the Department of Statistics in the MoE in Idlib, with high restrictions on accessing the data. The data users are mainly the education directorates and other governmental bodies. In the SiG region, the data are stored in servers within the Turkish authorities. Many key informants referred to difficulties in accessing these data even for education directorates in rural Aleppo.

Summaries of these data are shared with the SiG MoE. The ACU used its servers to store the data with restrictions on accessing the raw data, yet it shares the detailed unidentifiable data and indicators publicly. Overall, the main data systems use digital storage format and ensure restrictions on accessing the data, however the sharing of data with users varies between the data systems.

Several challenges were reported during the storage stage. The respondents unequivocally agreed that the lack of modern storage equipment and severe security situation cause serious disruption in storing data. Continuous shelling causes power and internet outages (computers or hardware), and organisations often depend on traditional means and devices.

To ensure secure storage requirements and conditions, locating data storages in a safe place, and purchasing tools and equipment to guarantee the security and integrity of information, were key factors mentioned in the KIIs. ACU respondents particularly suggested utilising cloud storage solutions such as Microsoft Azure and SharePoint with restricted access as a solution.

E. Data-sharing and dissemination

The publishing, dissemination and sharing stage involves the collaboration of various entities. Key contributors include the Directorate of Education, research centres and NGOs, UN agencies, donors, the Education Cluster and the ACU.

The administrative data systems are not publicly available, and there are many restrictions on sharing data beyond the education directorates. In the SiG-controlled area, the data are managed by the Turkish education directorates, and they only share aggregate indicators with the SiG. The MoE in the SSG only shares data with the government education institutions. The lack of sharing and publishing data reflects the poor participation and transparency of the government education entities in the NW region.

The key informant from Manahel explicitly stated that their data are shared with other partner organisations, donors and other stakeholders. It is noteworthy, however, that data outputs collected within the Manahel programme are not publicly available. As regards the ACU, the approach to sharing is 'upon request'; however, it does publish detailed results of the surveys for the public.

Data-sharing is facilitated through a diverse set of tools and resources. The most common tools noted by all participants were email and cloud storage platforms in the form of Google drive. Additionally, Manahel teams used presentations containing graphical models, indicators, and simplified tables, whereas the ACU tends to publish quantitative and qualitative reports and video maps at community or camp levels.

A series of challenges became evident during the KIIs. Most respondents mentioned the absence of permissions to publish, different supervising actors, and the retention of information as private property, as major obstacles. The ACU raised issues related to difficulty in dissemination owing to timing and delays caused by approvals, contextual pressures, compression of priorities, and limited reviews.

Most participants said that development and expansion of information-sharing with relevant stakeholders is needed to capture the contextual reality of the region. The ACU interviewee said resource mobilisation was necessary to supporting these efforts. Moreover, the key informants proposed certain recommendations. The responses from Manahel, the Education Complex and the Directorate of Education were centred around ensuring credibility and transparency. On the other hand, the Research Centre key informant recommended drawing in new donors who could bring more funding. The MoE emphasised the significance of investing in highly skilled specialists while the ACU argued that new methods should be explored to measure impact and better capture the overall learning outcomes of children.

The Research Centre interviewee said that more efforts should be channelled towards the development of digital platforms capable of quantitative and qualitative data analysis, including the creation of tables, figures, building indicators, along with facilitating interactive sessions with experts and advisors in the field.

F. Data and decision-making process

Different informants noted different purposes for using data to inform their decisions. The primary goal is to provide an assessment of the educational process's performance. Then, this potentially contributes to the formulation of policies and plans and helps decision-makers to monitor challenges, resulting in fair and efficient provision of education for all.

The key challenges in the policy-making process are the fragmented governance of the education sector, the lack of interest in evidence, and poor participation and transparency. The governmental

bodies, donors, and humanitarian agencies do not fully cooperate to use integrated and comprehensive evidence.

Several reasons were mentioned by key informants as causing this lack of cooperation: (1) the central governmental entities that control information and data and generally do not share it outside the official departments, as they do not adopt evidence-based and/or participatory policy-making processes; (2) data-sharing and transparency enhance accountability which some may not welcome; (3) the competition between humanitarian organisations over funds and projects creates a conflict of interest between and within these organisations including UN agencies, INGOs, and NGOs; (4) security reasons affect the sharing of data, with some donors and implementing agencies fearing the risk of using data to target communities or projects during the war.

Meanwhile, the respondents from the Research Centre and the Education Complex considered displacement and an insecure environment as causes of interruptions in the process. Additionally, most key informants highlighted the lack of funding and human resources as primary causes for data not being properly used for decision-making. The key informant from Manahel put more emphasis on the instability of humanitarian assistance as impeding them in drawing up plans for data production and sharing with relevant stakeholders.

The key informants from the Research Centre and the Ministry of Education said that steady funding from donors or UN agencies will improve the situation. Meanwhile, the interviewee from the Directorate of Education, said direct coordination with international actors is necessary. The respondent from Manahel suggested that allocating specialists focusing on planning and statistics would improve the situation. On the other hand, the Education Complex and the ACU placed emphasis on effectively measuring impact and producing relevant analytical outputs. In addition, it was said that investing in partnerships with research centres and academic institutions at various stages could enhance overall effectiveness.

The respondent from the Directorate of Education proposed an initiative to develop a public website to promote transparency in handling and presenting data to various stakeholders. Finally, the experience of the ACU reflects effective engagement with clusters, effective organisations, Humanitarian Needs Overview (HNO), education directorates, the SiG, major donors, and the Manahel programme, based on needs and requirements.

In summary, the fragmented governance and lack of unified oversight of the education sector in NW Syria has led to inconsistencies and difficulties in sharing and disseminating education data. Key gaps in data systems regarding accessibility, quality and coherence have been identified, affecting the overall planning, collection, analysis, storage and dissemination processes. Data collection is primarily conducted through education directorates or NGOs, often funded by international donors.

The planning and implementation of data systems are hampered by a lack of transparency, coordination and continuity. Various entities, which are responsible for the data systems, often face challenges such as limited resources, traditional methods, and security concerns. The ACU data system is by far the most advanced one in terms of data processes and dissemination. To address these challenges, recommendations include training staff, adopting modern technologies, ensuring data quality, and enhancing transparency and coordination among stakeholders, to support effective decision-making and policy formulation.

VI. CONCLUSION

NW Syria has been suffering from an ongoing conflict since 2011 which has severely damaged the foundations of peace, justice and development. The region has witnessed brutal military operations leading to a massive toll of casualties, injuries, missing persons, torture and forced displacement.

Additionally, there has been widespread destruction of infrastructure, degradation of social relations and the environment, and distortion of public institutions. The education sector and children's learning processes have been severely affected, with significant damages to the drivers of learning: accessibility, quality, continuity and coherence. The governance of education has become fragmented and highly dependent on humanitarian support, with more than half of a generation deprived of access to education.

The education data systems have been negatively impacted by the conflict, instability, insecurity, and the changing control of warring factions. Nevertheless, many stakeholders have launched initiatives to fill the void left by public institutions and the lack of human resources. Non-state actors have established ministries of education and education directorates, forming education data systems. Donors, UN agencies and civil society organisations have also initiated efforts to collect and disseminate education data and indicators, notably the ACU and the Education Cluster.

A. Challenges

The paper highlights several challenges and gaps in the current data systems:

Governance and coordination: The education data systems have suffered from weak and fragmented governance. During the conflict, the official education data system ceased functioning in much of NW Syria as the Syrian regime lost control of the region. The de facto authorities established administrative data systems to gather education data from schools. These emerging systems have faced challenges from various and sometimes conflicting regulatory actors, resulting in a lack of coordination and integration.

Additionally, these administrative systems are highly centralised in both the SiG and SSG regions, lacking transparency and accountability, which has jeopardised data quality and restricted data-sharing. On the other hand, other education data systems initiated by humanitarian actors, including UN agencies, INGOs, NGOs, research centres, and private companies, have been beset by security and political constraints imposed by de facto actors, with a lack coordination between donors, UN agencies and NGOs. Furthermore, these data systems have suffered from shortages in capacities, qualified experts and resources.

Resources and funds: The dependency of data systems on humanitarian funds has created challenges regarding sustainability, independence and coherence. This dependency affects the production and dissemination of education data, leading to competition and differing interests among civil society, UN agencies and non-state actors. The focus on short-term education planning has dominated data production. Potential drops in humanitarian funds threaten the sustainability of current data systems and hinder investments in good governance and long-term capacities for data producers.

Scope and methods: The main data systems face coverage challenges, such as focusing on basic education whilst neglecting early childhood development, secondary and tertiary education. Administrative data and the ACU cover most basic education schools, but other systems experience geographical limitations, especially in camps and rural areas. There is limited coverage of informal learning provision.

Participatory approaches with children, teachers and communities are rarely used, and qualitative methods to identify the dynamics and causality of needs and challenges are limited. Additionally, representative surveys to capture the challenges faced by 'out-of-school' children are seldom used. The quality of data varies across systems, as not all actors implement proper protocols considering codes of conduct and quality assurance.

Themes: The education data systems have geographical and thematic limitations. Significant gaps exist in accessibility, quality, continuity and coherence. Many aspects of quality of education are missing from most datasets, such as curricula quality and relationships within schools between teachers, students and administrative staff. The ACU is an exception, offering comprehensive data on education quality. Few data systems cover continuity across cohorts of children or outcomes at policy and local levels.

The Manahel programme is one exception, assessing outcomes in reading and mathematics, but its geographical and age scope is limited. Most data systems focus on basic education rather than secondary, higher, or non-formal education. Data on conflict-related contexts, such as the causes of children dropping out of education, and the impact of poverty, displacement, and insecurity on learning, are also limited.

Sharing and dissemination: Data-sharing in NW Syria has many restrictions, leading to poor transparency and cooperation. Administrative data are not published and are shared only with a limited number of stakeholders. Few NGO/donor data are published, despite many projects producing data and sharing it with the Education Cluster, UN agencies, and sometimes with education directorates, resulting in the redundancy of data collection efforts for needs assessment and/or impact evaluation. The ACU is an exception, publishing detailed results in comprehensive reports and sharing data with interested stakeholders.

B. Policy options

Inclusive engagement: Addressing the challenges outlined in this paper requires substantial efforts to improve coordination between different actors in data production and dissemination. This paper highlights a growing awareness among stakeholders of the importance of producing and sharing reliable data to support evidence-based education policies and interventions. Engaging stakeholders such as parents, communities, teachers, children, and civil society initiatives, in the governance of education data systems enhances the independence of such systems and facilitates equal partnerships with UN agencies, donors and educational directorates.

A Platform for transdisciplinary and participatory approaches: Mainstreaming transdisciplinary approaches and producing multi-themed data and evidence is crucial for conducting context analysis, understanding complex conflict-related phenomena, and identifying factors that hinder or promote educational processes, drivers and outcomes. Expanding the scope of data systems can bridge gaps

across conflict lines by covering all of Syria or modifying data from other regions to create comparable databases.

Data systems must adhere to ethical codes and international standards and build partnerships with global technical bodies. The ACU, NGOs, UN agencies and donors should advocate for these approaches at local and policy levels, as participatory approaches enhance the credibility and trust in the data and evidence that is produced.

An independent central bureau of statistics: The ACU, known for its comprehensive and high-quality data system in NW Syria, could be upgraded to serve as a central bureau of statistics. The ACU's experience dealing with various actors and stakeholders, including the SiG, donors, NGOs, UN agencies, and the Education Cluster, means it is well placed for this role. Since the ACU has not been completely rejected by the SSG and Turkish authorities, it has experience of producing and disseminating education data and other datasets on health, living conditions and displacement.

As a quasi-public Independent bureau of statistics, it would need to develop an inclusive governance model and expand its activities. Such a bureau would benefit stakeholders by providing relevant quality data and reducing redundancies and poor integration in current data systems, ensuring long-term ownership and sustainability.

An institute for data skills and tools: Cooperation between NGOs, the ACU, Manahel, UN agencies, donors, and global universities and research centres, is critical to establishing an institute that builds the capacities of educational directorates and other stakeholders. Such an institute would focus on data processes, particularly data analysis and a code of conduct, and develop tools and techniques for data collection, storage, processing and dissemination. It would also advocate for and upscale current successful education data initiatives that are limited in coverage, such as Manahel with its experience of conducting learning outcomes, disability and safety surveys.

Diversified funds: Ensuring the sustainability of proposed options and initiatives necessitates a diversification of funding sources. Shifting from humanitarian to development strategies; creating solidarity economy initiatives to support research and data systems; developing crowdfunding platforms; and encouraging volunteerism among younger generations, are crucial steps. Advocating for securing a share of humanitarian funds to support credible and transparent data systems is also important.

Overall, these policy options aim to expand independent institutional capacities and practices to improve education data systems in terms of ethics, governance, scope, methods, quality, accessibility, transparency and accountability. They capitalise on successful initiatives and promote further cooperation among interested actors to expand capacities and minimise conflict-related constraints and risks.

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ANNEXES

Annex 1. List of respondents

No of KIs	Organisation	Position	Location	Responsibility
1	Syria Education Programme (Manahel)	Coordinator	Kafar Takharim Idlib	<ul style="list-style-type: none"> • Collect raw data • Data cleaning and validation • Maintain datasets • Analysis of data • Donor report
2	Research Centre	Researcher	Azaz, rural Aleppo	<ul style="list-style-type: none"> • Collect regular monitoring data • Collect output data • Analysis of data • Conduct assessments • Prepare report
3	Education community	Data officer	Harim, Idlib	<ul style="list-style-type: none"> • Responsible for all the monitoring activity • Responsible for track and analysis of programme data • Guide project team for information management
4	Ministry /Directorate of Education	Data	Salqin, Idlib	<ul style="list-style-type: none"> • Collect raw data • Data cleaning and validation • Maintain datasets • Analysis of data • Donor report
5	Directorate of Education in Azaz	Former head of Directorate of Education in Azaz (Currently Coordinator at the ACU)	Azaz, rural Aleppo	<ul style="list-style-type: none"> • Collect regular monitoring data • Collect output data • Analysis of data • Conduct assessments • Prepare report

6	Assistance Coordination Unit (ACU)	Expert in data and information management	Türkiye, Gaziantep	<ul style="list-style-type: none"> • Collect raw data • Data cleaning and validation • Information management • Data analysis • Donor report
7	Assistance Coordination Unit (ACU) - CAMPS	Information management, advocacy and networking, grant management, monitoring and evaluation, and capacity-building	Türkiye, Gaziantep	<ul style="list-style-type: none"> • Collect raw data • Data cleaning and validation • Information management • Data analysis • Donor report

ANNEX 2: DATA SYSTEM REVIEW AND DOCUMENTATION PROTOCOL

(The researcher will follow this protocol; the data collection tool is an Annex to the protocol.)

Introduction: Key informant interviews (KIIs) were chosen as a tool to review the data system in NW Syria due to the complexities of the overall situation, and the lack of clarity of responsibilities and roles of the emerging education systems in the region. The focus will be on data systems in the SiG and SGG areas; and the two areas will be compared. We will conduct six interviews with key people to evaluate the available data systems.

Purpose: The purpose of the data system documentation is to identify, list and document the data that are collected, stored, and used for access, quality and continuity in settings of conflict and protracted crisis.

Objectives: The objectives of the data system review and documentation interview are to:

1. Identify and categorise the data [sample/population, routine/one-off, primary/secondary, quantitative/qualitative] collected for access, quality and continuity and children's education outcomes in settings of conflict and protracted crisis.
 - o Of particular interest are data collected by the government (at any level: national, regional, local) and any known large-scale research/data initiatives with which the ERICC Consortium may be able to connect/leverage. For example, Education Cannot Wait, FCDO, USAID/UNICEF-funded research programmes with large-scale data collection.
2. Identify **data gaps**, i.e. types of data that are desirable but not collected for access, quality and continuity in situations of conflict and protracted crisis.
3. Identify communication and data access pathways: data-sharing, agencies and individuals to which it is accessible, accessibility conditions (government, NGOs, etc.).
4. Understand data pathway from conception, collection to **repository/storage** and **use** [purpose, source, collector, processing, repository, user] and related protocols for data access, sharing, and use for implementation and decision-making.
5. Identify the **sponsors** (funders, promoters, guarantors) of data collection and the custodian of the data.

Inclusion

A data system relates to a coordinated approach for collecting data or information for education decision-making either as:

- (a) a sample that is regularly collected from the population by an agency of government or humanitarian organisation/NGO in a systematic manner, or
- (b) a population-based assessment by an agency of government, or humanitarian organisation/NGO, or
- (c) a funding agency assisting the government to collect such data which feeds or could feed into government education information repository for policy and practice, or
- (e) surveys by development partners, large-scale evaluation for tracking or policy-making.

Again, of particular interest are data collected by the government (at any level: national, regional, local) and any known large-scale research/data initiatives with which the ERICC Consortium may be able to connect/leverage. For example, Education Cannot Wait, FCDO, USAID/UNICEF-funded research programmes with large-scale data collection.

Exclusion

- (a) Studies conducted by individuals or NGOs to test some hypothesis or determine an association which is not warehoused in a publicly accessible store/repository for use by government or other relevant actors, are excluded.
- (b) Un-commissioned research activities (such as small-scale needs assessment) that are aimed at solving operational problems but not for policy and practice of education, are also excluded.

Approach

The approach may vary according to country context. Some information will be collected via interview during the KII (see the Stakeholder key informant interview (KII) protocol and tool). In some cases, these interviews will be used to identify the appropriate contact person who is knowledgeable about the data system, and a separate interview will occur. A combination of both interviews will provide information for the final data systems review product. The sequence for collecting information on the data system is described in Steps 1 to 4.

Step 1: Identify key data informants

First, each country team will **identify potential sources of information on data systems** on education in conflict and protracted crises for documentation. The team will **also identify types of education data and systems** that are available at NGOs and the sub/national levels of government. This may be done at initial stakeholder workshops or potentially as part of Key Informant Interviews. In smaller contexts, research teams may already be familiar with most data managers, though probing for additional datasets/sources that may exist is still necessary.

In Syria, the research team identified the main data sources through internal discussions and based on the work team's experiences. Questions were also designed in the actor mapping interviews about the available data systems. Based on the two sources, a list of key informants associated with the data was identified.

Step 2: Interview the contact person identified

Use the tool (in Annex below) for interviewing the contact person that has been identified as responsible for the data system.

Inquire about and make notes (or sketch) (a) the data route from collection to storage, (b) collection instruments, (c) entry and processing format and equipment, (d) storage/repository system, (e) access, distribution and sharing points, (f) use/users (with examples that could be contacted).

Step 3: Document the responses and observations

Record the responses in the spreadsheet (See Table 1 in Annex) by selecting the answer that best fits the response. Otherwise use the “other, specify” option. When selecting “other, specify” use the briefest word or phrase to summarise the response. Consult the team’s research manager/supervisor or your colleagues if you’re unsure of the option to select. You should also write the exact phrase that the respondent used in your note for later discussion with your colleagues.

After the interview, the data will be entered into electronic form to collect the data and download the information in an excel spreadsheet for analysis in Stata.

Step 4 (OPTIONAL): Observe and verify

After the interview has taken place, the interviewer would ideally observe the data system/data. This step is very desirable but optional, based on resources available to conduct this work in each country.

If there are discrepancies between the answers that the interviewee has given and what has been observed, please make note of these discrepancies but do not change answers on the survey. The survey should remain a document of the respondent’s answers.

For Example: The respondent has said that they collect data on both primary and secondary data, but the interviewer sees only primary schools present in the dataset. The interviewer will make note in the verification section that s/he could not verify the presence of secondary data.

This is the end of the protocol. The data collection tool is in the Annex to this protocol.

ANNEX 3: TOOL DOCUMENTATION OF DATA SYSTEM INFORMATION

Instruction: Use the form below to document information on data system. This interviewee should be someone identified as responsible for data on education (collation, storage, processing, use, quality/standard, discard).

Introduce yourself:

Good day, I'm (name). I am a researcher with [organisation]. I want to thank you for taking the time to speak with me today.

Explain project:

We are conducting a project to improve education in six countries who have regions affected by conflict or crisis. [Country] is one of those countries.

Our goal is to better understand the state of education in [country] in order to build upon what is already happening. We then want to identify the most effective areas for our research to address.

To achieve this goal, we are talking to individuals who work in education or education in emergencies in [country] and reviewing relevant documents and data. We would like to ask you questions about the data that is available on education in conflict and protracted crisis, especially on issues related to students' access to schooling, their ability to progress through school, and the quality of that schooling. We would also like to observe a copy of the data if accessible.

Before we start, we want to let you know that the information you provide to us will be de-identified and cannot be traced to you or other individuals in our reports. Your participation in this session is voluntary, and there will be no individual benefit from your participation. There will not be any negative effects if you decide you do not want to participate. Your responses will be written anonymously and reported in aggregate. No one will know how you responded in the final report.

You can choose not to respond to a question at any time. You can also end the discussion at any time. If one of my questions is unclear, please stop me and I'll ask it in a different way. All information collected from these sessions will be stored securely and kept confidential. None of the comments you make during today's discussion will be linked with your name in any way. The discussion should take about 60 minutes. If you have any questions, you can please ask now or at any time during the discussion.

For more information about this project, contact [INSERT EMAIL AND PHONE NUMBER].

Do you want to continue?

A. Background and respondent information (to be completed for each respondent)

1	Name of organisation				
2	Country 1. Nigeria 2. Jordan 3. Bangladesh/Myanmar Cox's Bazaar 4. S. Sudan 5. Lebanon 6. Syria	----- []	3	Subnational (e.g. state, province, region)	----- [][]
4	Sub-subnational (e.g. LGA, district)	----- [][][]	5	Community	----- [][][][]
6	Name of respondent	-----	7	Position	
8	Duration in position	-----_yrs -----_mths	9	Duration in organisation	-----_yrs -----_mths
10	Enumerator		11	Date (dd/mm/yyyy)	

B. Information on data systems (to be completed for each dataset/system)

Instruction: Where applicable, separately **circle/ring the number(s)** that correspond to the response(s) that best apply, taking care NOT to place two numbers in one circle/ring.

	Name of dataset:				
12	What type of data is it?				
12.1	1. Population 2. Sample	12.2	1. One-time 2. Routine 3. If routine, how frequently?	12.3	0. ECD 1. Primary 2. Secondary 3. Tertiary
				12.4	1. Quantitative 2. Qualitative 3. Both

- a. Less than annual
- b. Annual
- c. Every two years
- d. Every three years
- e. Every five years or less frequently
- f. Don't know
- g. Other (specify)

4. Non-formal
Select all that apply.

<p>13</p>	<p>What aspect of education is the data about? <i>Select all that apply.</i></p>	<ul style="list-style-type: none"> 1. Access 2. Quality 3. Continuity 4. Coherence 5. Other (specify) 	<p>14</p>	<p>What was/is the purpose(s) of the data? <i>Select all that apply.</i></p>	<ul style="list-style-type: none"> 1. Identifying needs 2. Monitoring a programme 3. Evaluating impact of a policy or programme 4. Screening individuals for the purposes of identifying eligibility for services 5. Assessing achievement at the individual level 6. Identifying achievement at the regional or national level 7. Other (specify)
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15	Who collected the data?	<ol style="list-style-type: none"> 1. Government agency/officials 2. Independent consultants 3. Development partners 4. INGO/NGO 5. Don't know 6. Other (specify) 	16	Who paid for the data collection?	<ol style="list-style-type: none"> 1. Ministry of Education 2. State-level government units 3. District or other subnational government levels 4. Private sector 5. Donor (specify) 6. INGO/NGO (specify) 7. Other development partner 8. Don't know 9. Other (specify)
17	<p>On what/whom is data collected?</p> <p><i>Select all that apply.</i></p>	<ol style="list-style-type: none"> 1. School infrastructure 2. School administration 3. Teachers 4. Pupils/students 5. Parents 6. Communities 7. Don't know 8. Other (specify) 	17 A	<p>If you selected "Teachers" in 17 what demographic data is collected on teachers?</p> <p><i>Select all that apply.</i></p>	<ol style="list-style-type: none"> 1. Gender 2. Years experience 3. Certification status 4. Displacement status 5. Geographic region 6. Language/ethnicity 7. Highest level of education 8. Other (specify)
17B	<p>If you selected "Students" in 17, what demographic data is collected on students?</p> <p><i>Select all that apply.</i></p>	<ol style="list-style-type: none"> 1. Gender 2. Age 3. Grade 4. Language/ethnicity 4. Disability 5. Displacement status 6. Geographic region 7. Socioeconomic status 8. Other (specify) 	17 C	<p>If you selected "Parents" in 17, what demographic data is collected on parents?</p> <p><i>Select all that apply.</i></p>	<ol style="list-style-type: none"> 1. Gender 2. Language/ethnicity 3. Displacement status 4. Geographic region 5.. Socioeconomic status 6. Other (specify)
17D	<p>If you selected "Communities" in 17, what demographic</p>	<ol style="list-style-type: none"> 1. Gender (e.g. % of the populations) 2. Language/ethnicity 	17E	<p>If you selected "School" in 17, what data is collected?</p>	<ol style="list-style-type: none"> 1. Type of school: public, private

	<p>data is collected on communities?</p> <p><i>Select all that apply.</i></p>	<p>3. Geographic region</p> <p>4. Socioeconomic status</p> <p>5. Displacement status</p> <p>6. Other (specify)</p>		<p><i>Select all that apply.</i></p>	<p>2. Sector: formal/non-formal</p> <p>3. Setting: rural/urban</p> <p>4. Geographic location</p> <p>5. Language of instruction</p> <p>6. Other (specify)</p>
18	<p>Where were the data collected?</p> <p><i>Select all that apply.</i></p>	<p>1. School</p> <p>2. Households</p> <p>3. Community/village/town</p> <p>4. Local government/district</p> <p>4. Other (specify)</p>			
19	<p>What were the main indicators of Drivers of Learning?</p>				
19.1	<p>Access?</p> <p><i>Select all that apply.</i></p>	<p>1. # schools</p> <p>2. # student enrolment slots available</p> <p>3. # of students enrolled</p> <p>4. # teachers</p> <p>5. Data not collected on this</p>	19.2	<p>Quality</p> <p><i>Select all that apply.</i></p>	<p>1. Teacher-student ratio</p> <p>2. Teacher qualification</p> <p>3. Learning facilities</p> <p>4. Teacher supervision</p> <p>5. Class size</p> <p>6. Textbook-pupil ratio</p> <p>7. Number of textbooks in school</p> <p>8. Teacher attendance</p> <p>9. Other (specify)</p>
19.3	<p>Continuity?</p> <p><i>Select all that apply.</i></p>	<p>1. Dropouts</p> <p>2. Grade/class repeat</p> <p>3. Transition to higher level</p>			

		4. Student attendance 5. Grade promotion 6. Graduation		
20	What are the main indicators of Education outcomes ?			
20.1	OUTCOMES	1. Literacy 2. Maths 3. Academic, not maths or literacy 4. Social-emotional learning 5. Mental health 6. Physical health		
21	What are the Pre-existing conditions ?			
21.1	Pre-existing conditions <i>Select all that apply.</i>	1. Distance to schools 2. Transportation to school 3. School fees 4. Disability access 5. Toilet available 6. Running water 7. Internet service 8. Electricity available 9. Safety		
22	Data storage and sharing			
22.1	In what form is the data stored? <i>Select all that apply.</i>	1. Hard copy 2. Electronic 3. Online 4. Other (specify)	22.2 With whom is this data regularly shared? <i>Select all that apply.</i>	1. Donors 2. Researchers 3. Policy-makers 4. Practitioners 5. Others (specify) -----

Qualitative questions

1. What are the processes for data collection?
2. What steps are taken to ensure high data quality?
3. How are the data analysed?
 - a. What tools and resources are used for data analysis?
4. Are data and/or findings shared? If so, how and with whom?
 - a. Tell me about the tools and resources used for sharing data.
5. To what extent are these data used to make decisions?
 - a. What are the related processes?
 - b. To what extent do those involved have what they need to make an informed decision in a timely way?
6. What are the strengths and challenges of this process of data collection, analysis, sharing, and use of data for timely decision-making?

C. Describe the data system (if you use a separate sheet for this part, for easy tracking, please write the Name of the organisation, details of the official providing information, and date information for when it was obtained)

D. Please describe the participants, challenges and recommendations for improving the various stages of data movement from planning to storage

	Stage	Key participants at this stage (funding, implementers, managers)	Challenges	Recommendations
1	Planning and design (funding)			
2	Collection and collation			
3	Processing and analysis			
4	Dissemination/presentation			
5	Sharing (access to others)			
6	Storage			
7	Data use for decision-making			

2. Would you want to add to anything regarding

a) data-sharing and access process?

b) how data is used, by whom, for what?

Say: "Thank you for providing this useful information!"

E. Verification

Please make note in this section of any discrepancies between what the respondent has told you and what you were able to verify by looking at the dataset.

ANNEX 4: IRB

International Rescue Committee
Institutional Review Board
IRB #: 00009752 FWA #: 00022773
122 E. 42nd Street, New York, NY 10168-1289
Rescue.org



November 06, 2023

Dr Silvia Diazgranados
International Rescue Committee
122 E. 42nd Street
New York, NY 10168-1289

Protocol Number: **EDU 1.00.041**
Protocol Title: **Country Scan for North-West Syria (ERICC)**
Type of Review: **Full Board Review of Initial Application**
Type of Review: **Expedited review of revised application**

Dear Dr Diazgranados,

Pursuant to 45 CFR 46, the above-referenced research protocol has been **approved** by the International Rescue Committee's Institutional Review Board through an expedited review conducted on November 11, 2023. This **approval expires November 05, 2024**.

This approval is limited to the activities described in the revised submission package, and extends to the performance of these activities at each respective site identified.

Informed consent must be obtained from subjects or their legally authorized representatives prior to research involvement. The IRB-approved consent forms must be used, and the consent process outlined in the revised application must be followed.

Changes to the approved protocol (e.g., a change in procedure, number of subjects, personnel, study locations, new recruitment materials, study instruments, etc.) or informed consent process must be reviewed and approved by the IRB before they are implemented (except where necessary to eliminate apparent immediate hazards to subjects).

The approval will no longer be in effect on the IRB expiration date. A Continuing Review application must be approved prior to **November 05, 2024** to avoid expiration of IRB approval and cessation of all research activities. It is your responsibility to apply for continuing review and receive continuing approval for the duration of the study.

The Principal Investigator is also responsible for keeping protocol and study records.

Any adverse or unexpected events must be promptly reported to the IRB. Please contact the IRB Administrator immediately and you will be provided with the appropriate forms.

Please submit all modifications to humansubjects@rescue.org. All correspondence should reference your protocol number: EDU 1.00.041.

*Approval issued: November 06, 2023
Approval expiration date: November 05, 2024*

International Rescue Committee
Institutional Review Board
IRB #: 00009752 FWA #: 00022773
122 E. 42nd Street, New York, NY 10168-1289
Rescue.org



Feel free to contact the IRB staff with any questions or to discuss this or future reviews and modifications.

Best regards,

A handwritten signature in black ink, appearing to read 'Sheree Kullenberg', written over a horizontal line.

Sheree Kullenberg
International Rescue Committee Institutional Review Board Member

ABOUT ERICC

The Education Research in Conflict and Protracted Crisis (ERICC) Research Programme Consortium is a global research and learning partnership that strives to transform education policy and practice in conflict and protracted crisis around the world – ultimately to help improve holistic outcomes for children – through building a global hub for a rigorous, context-relevant and actionable evidence base.

ERICC seeks to identify the most effective approaches for improving access, quality, and continuity of education to support sustainable and coherent education systems and holistic learning and development of children in conflict and crisis. ERICC aims to bridge research, practice, and policy with accessible and actionable knowledge – at local, national, regional and global levels – through co-construction of research and collaborative partnerships.

ERICC is led by the International Rescue Committee (IRC) with Academic Lead IOE, UCL's Faculty of Education and Society, and expert partners include Centre for Lebanese Studies, Common Heritage Foundation, Forcier Consulting, ODI, Osman Consulting, Oxford Policy Management and Queen Rania Foundation. During ERICC's inception period, NYU-TIES provided research leadership, developed the original ERICC Conceptual Framework and contributed to early research agenda development. ERICC is supported by UK Aid.

Countries in focus include Bangladesh (Cox's Bazar), Jordan, Lebanon, Myanmar, Nigeria, South Sudan and Syria.

