2024 CONFERENCE ON
EDUCATION DATA AND STATISTICS

Institutional Capacity Assessment Framework (ICAF)

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06/02/2024

HLSC's Functional Areas (FAs)

- HLSC promotes efficient and effective cooperation and harmonized actions at the global and regional levels through three FAs:
  1. Promote evidence-based policy formulation and implementation (FA1: Evidence & Policy)
  2. Monitor progress and improve the availability/use of data (FA2: Data & Monitoring)
  3. Drive financing mobilization and improve alignment (FA3: Financing)

- **FA1 (Evidence & Policy):** Strengthen the institutional capacities of education authorities to use data and evidence for policy, planning, and implementation

Strengthen country capacity: support gov.s in using evidence

Increase the accessibility of locally relevant research and evidence syntheses

Promote regional cooperation through peer learning & collab.

Support evidence-uptake through **systematic mapping of actors**

Produce global public goods
Advocate for evidence-based policy

Why the Institutional Capacity Assessment Framework?

- Gap between **availability of data and evidence** and their **use in policy formulation and implementation**
  - particularly true for student learning assessment data (IIEP, 2021)
- Root of the constraints to using data for improving policy partially lies in the **sub-optimal institutional capacities** of ministries of education at different levels
- 2022 Sustainable Development Goals Report :
  - serious data use gaps persist in education
  - need to strengthen the capacities of developing countries for using data and monitoring results and research findings
  - ensure effective evidence-based decisions and results-oriented progs
- IIEP-UNESCO and OECD combine their respective strengths and experience to address this gap:
  - IIEP: Institutional analysis, ESA
  - OECD: Use of research evidence and data for policy-making, PISA, and technical assistance

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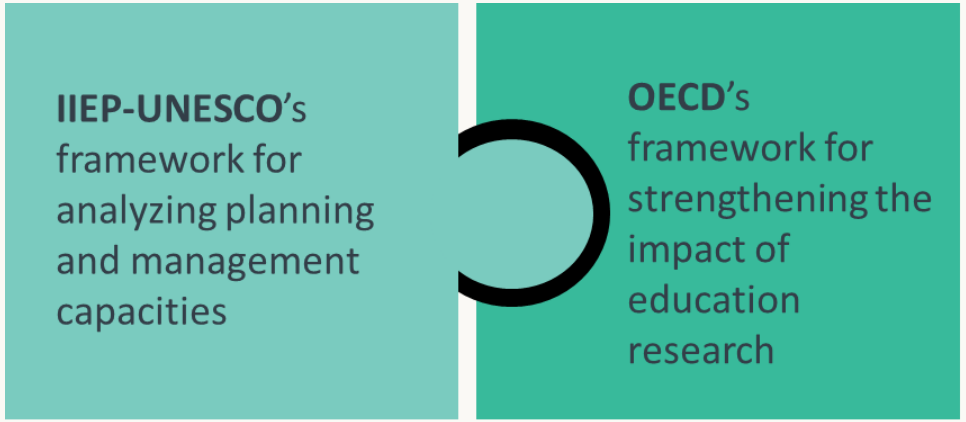
What is the Institutional Capacity Assessment Framework (ICAF)?

- A comprehensive Institutional Capacity Assessment Framework (ICAF) and corresponding methodological tools
- Aims to:
  - Assess and help strengthen the capacity of ministries of education – at different levels of the system – in the effective use of data and evidence for informing policy making and planning
  - Identification of strengths, challenges, and recommendations for improvement
    - Translation into an implementation plan, together with stakeholders ("co-construction")
- Tailored to countries' needs
  - Agencies/organisations - at different levels of the system
  - Areas of focus

- Building on:



ICAF Methodology

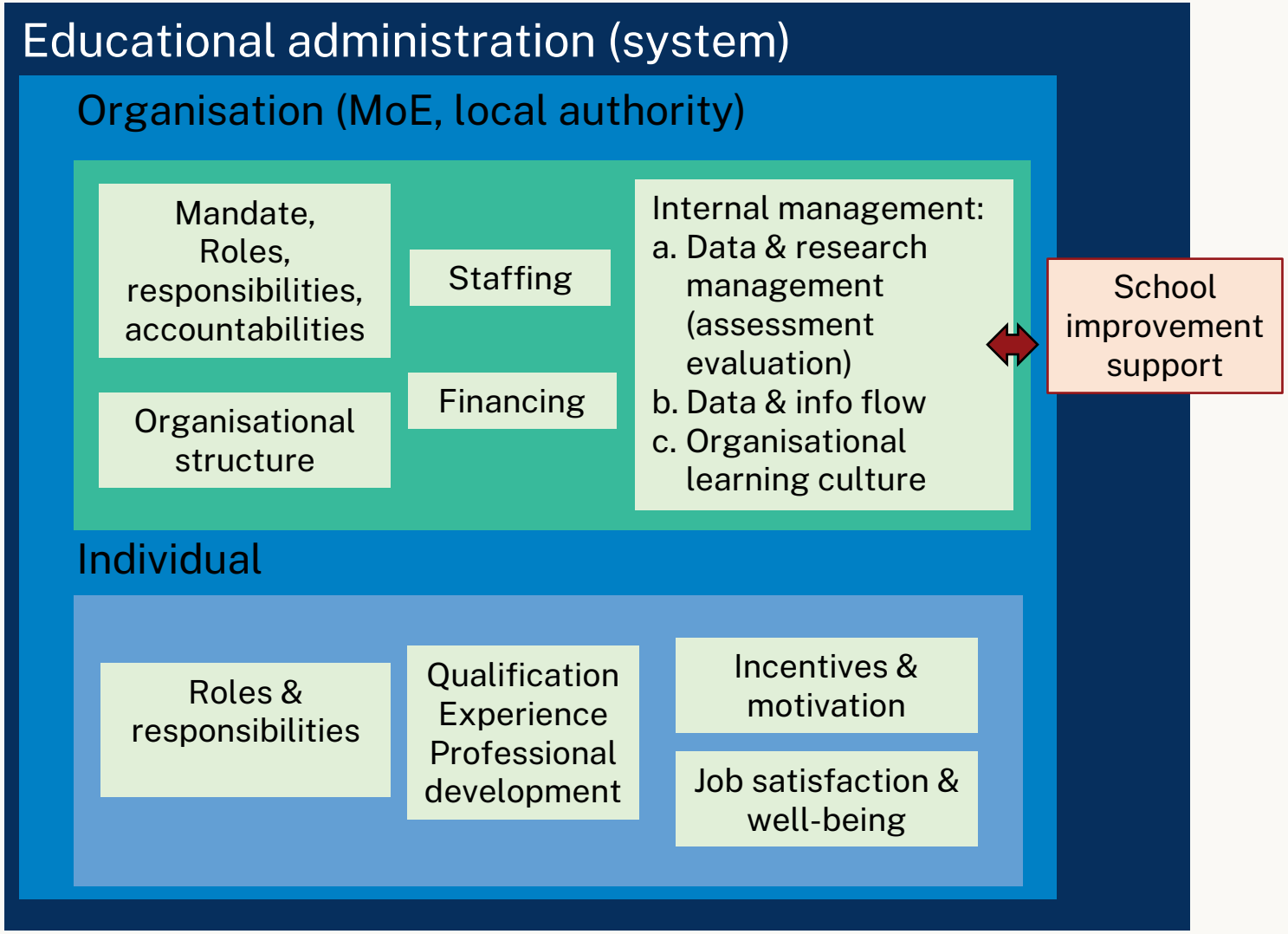
ICAF tested and refined in pilot countries through a mixed-method consisting of:

1. Desk study, including mapping of existing capacity development opportunities

2. Semi-structured interviews and online questionnaires

3. Peer learning event(s) with national and/or international stakeholders

In practice: Trialing of online questionnaires adapted to local contexts

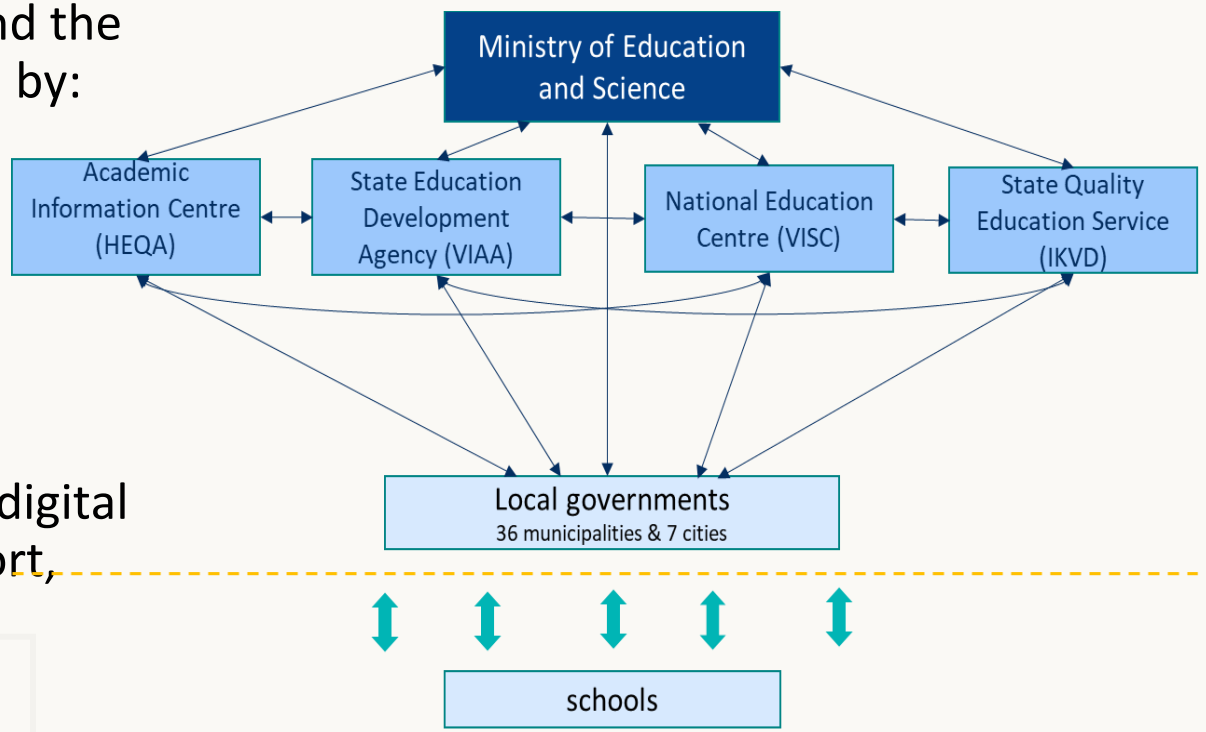


MoE and National Agencies /Local authorities

1. **You and your job**
   - role, educational background, clarity of roles and responsibilities
2. **Your Organization's learning capacity**
3. **Use of data for education quality monitoring and school improvement support**
   - types of data used, gaps, available tools
4. **Your professional development**
   - needs, barriers
5. **Your job satisfaction and well-being**

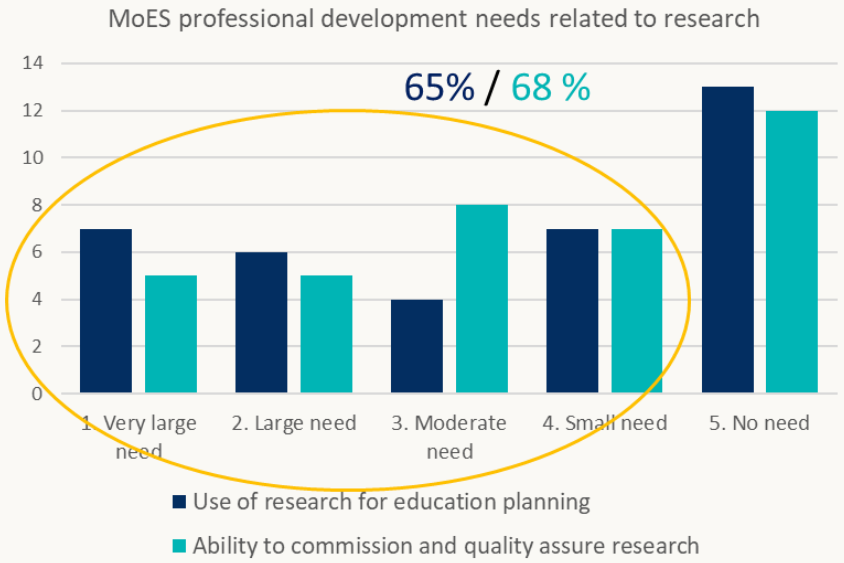
Pilot 1: Latvia

- Project title: Optimising the institutional capacity for education quality monitoring and school improvement support in Latvia
- Institutional capacity assessment focused on education quality monitoring (data and research evidence) and the provision of school improvement support provided by:
  - the Ministry of Education and Science
  - 4 national agencies
  - 43 municipalities
- Trailing of methodological innovations
- Expanding the ICA Framework: data and research, digital learning infrastructure, school improvement support, organisational learning culture.



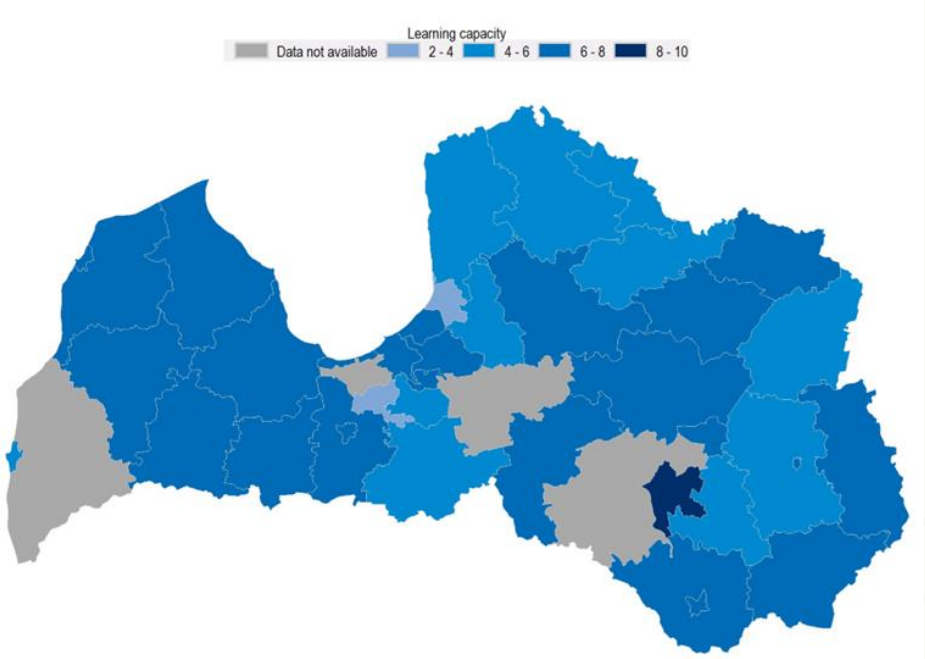
Pilot 1: Latvia - Selection of preliminary findings and recommendations

- Education quality monitoring
  - Need for a comprehensive strategy for standardized student assessments and exams
  - Updating of MoES State Quality Education System -> data aggregation and visualization platform
  - Lack of clarity on “what is a good school”? -> need for aligning different policies and tools
  - Consolidation and strengthening of research capacity -> MoES
- School improvement support
  - Mandate/mission “creep”
  - Explicit allocation of responsibility for school leadership development support -> National Centre for Education
    - Latvia’s conceptualization of its school improvement support system

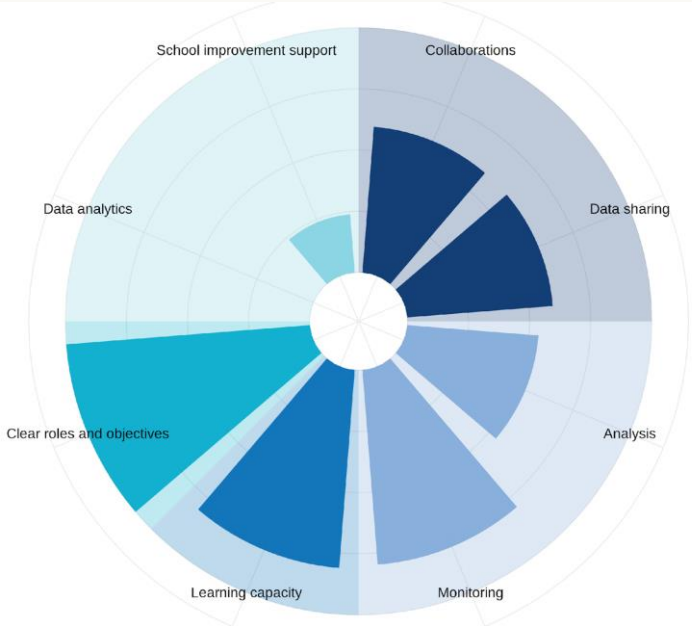


Pilot 1: Latvia - Selection of preliminary findings and recommendations

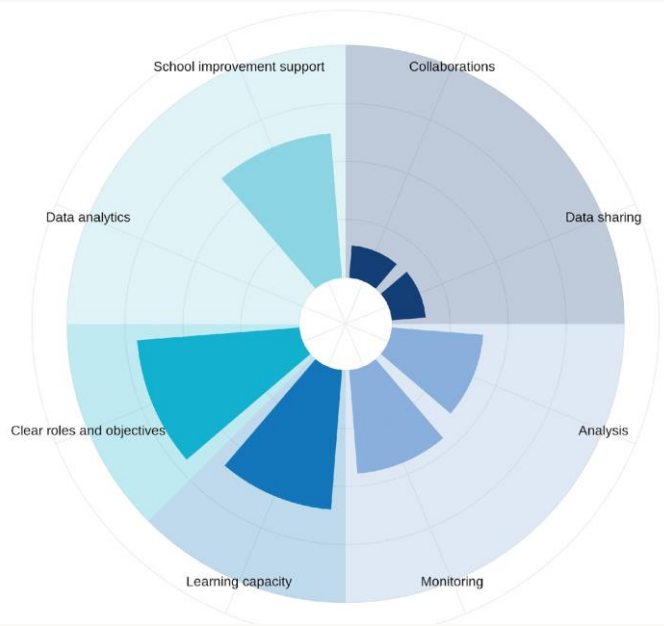
- Optimising the organisational capacity of municipalities
  - Matching the clarification of roles and responsibilities with strengthening of municipalities' organisational capacities
  - Including by optimizing the staffing for school improvement support
    - Establish "guiding" (i.e. not mandatory) standards for the number(s) of school improvement officers
    - Develop common job profiles



Municipality "A"

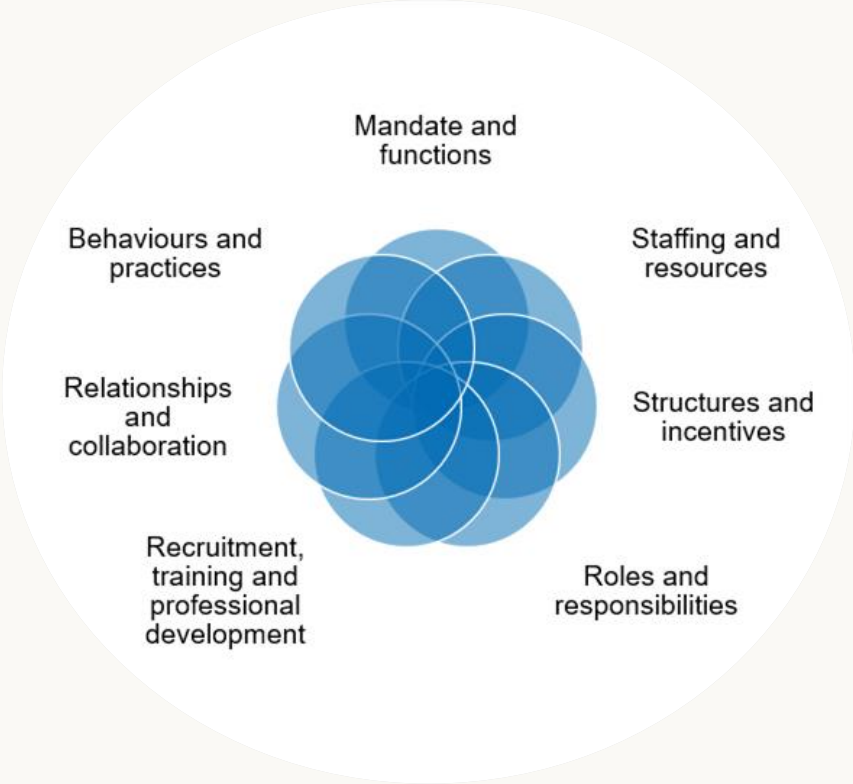


Municipality "B"



PILOT 2 : Pakistan

- **IIEP-UNESCO Research project on 'Leveraging the potential of the middle tier'**
- Conducted in the framework of the GLSEP programme
  - enhancing girls' access to quality lower secondary education
  - need to assist **District Education Officials (DEOs)** in effective school supervision, data management and community engagement
- First phase includes:
  - interviews with central level authorities
  - focus group discussion with officials at province and district level on roles and bottlenecks



Next steps

Further pilot tests planned for 2024 - 2025

ICAF methodology and tools to be refined and made available as a global public good

Development of an Institutional Capacity Toolkit for Using Data and Evidence to Address the Learning Crisis

Mapping of partners' capacity development activities on the use of data/evidence for policy, planning and implementation

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Supporting MoEs to use data and information on risks of crises: guidelines and toolkit for the inclusion of EiE data into the EMIS

Diogo Amaro, Programme Specialist, d.amaro@iiep.unesco.org

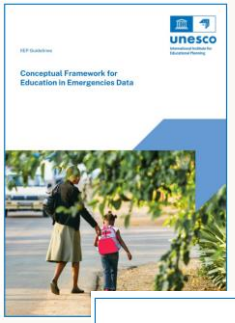
Crisis- and climate-sensitive educational planning

The planning cycle

How can EiE data be used throughout the planning cycle?

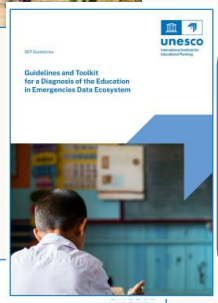
- Target policies and resources (e.g. identify groups more at risk of being left behind and the barriers to equity)
- Monitor and evaluate policy results (e.g. track progress and learn from what works and what does not)
- Advocacy (e.g. call for action, resource mobilization)

The Global Public Goods



1. EiE data conceptual framework

- Build a shared understanding around definitions, concepts and processes on EiE.
- Provide a conceptual foundation for a series of UNESCO-IIEP guidelines on EiE data.



2. EiE data diagnosis tools

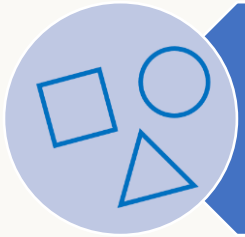
- Approaches and tools for identification of EiE data needs, data availability, stakeholder analysis and quality assessments.

3. Guidelines for EiE data institutionalisation

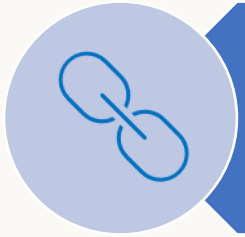
- Compilation of good practices to build institutional awareness and develop national capacities to strengthen the EiE data landscape.

1. EiE data conceptual framework

Build a **shared understanding** around definitions, concepts and processes that underpin and guide work on data for EiE and resilience

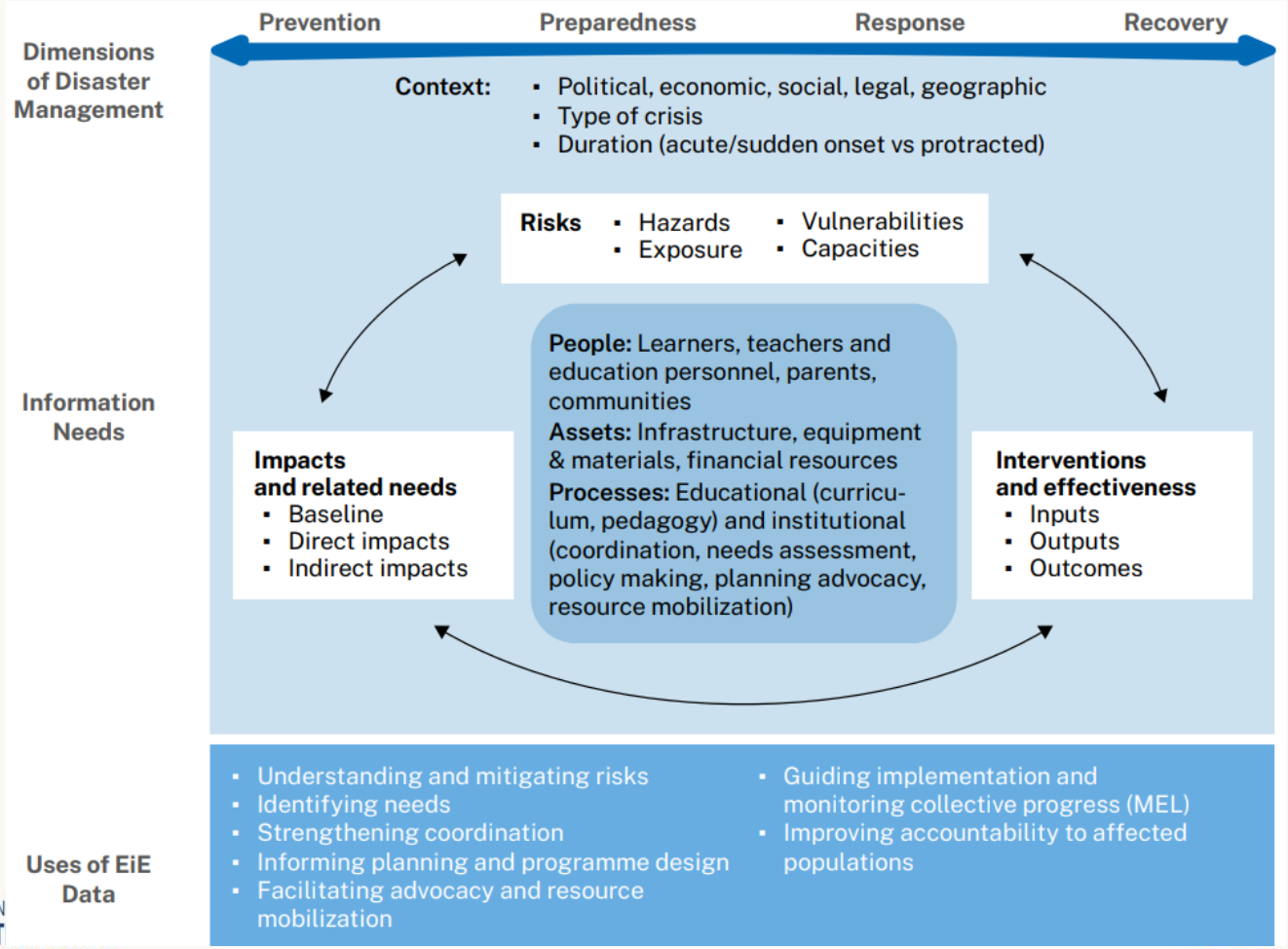


Bring together existing work on EiE data, as well as on coordination across the **humanitarian-development nexus**



Provide a conceptual foundation for a series of **guidelines and tools developed by UNESCO**, as well as the remaining Global Public goods

1. EiE data conceptual framework



2. EiE data diagnosis tools

Diagnosis phase	Tool
1. Identification of EiE normative data needs	Tool 1. Risk analysis of hazards Tool 2. Identification of data needs and data coverage
2. Mapping of the EiE data ecosystem	Tool 3. Mapping of data producers and data sources relevant for EiE Tool 4. Questionnaire to review the coordination of data production activities within the EiE data ecosystem
3. Quality assessment of the most relevant EiE data sources	Tool 5. EMIS Data Quality Assessment (EMIS_DQA) matrix Tool 6. Education in Emergencies Data Quality Assessment (EiE_DQA) matrix
4. Coverage of information needs and data gaps	Tool 2. Identification of data needs and data coverage

Click here to download the tools which are also available via the tool icon.

2. EiE data diagnosis tools – Ecosystem mapping in Jordan

- MoE
  - Open EMIS (includes GIS data) WebGIS school maintenance module National assessments
  - Emergency school planning
  - Evaluation report
- Other government data
  - Household Expenditure and Income Survey
  - Labour force survey
  - Unemployment survey
  - National budget
  - Technology in school survey
  - Census
  - JRGC spatial data
- International organizations
  - Humanitarian Data Exchange (HDX) UNHCR Operational Data Portal OCHA
  - HNOs and HRPs contain information on populations in need by sector and contextual information
  - The Emergency Events Database (EM-DAT), ACLED
  - EGMA / EGRA TIMSS / PIRLS
  - UNICEF (national diagnosis assessment)
  - CPIMS Child protection information management system
  - Bayanati ('My data'), Three stars approach (WASH) DHS
  - IDMC, Physical Assessment Survey, IOM DTM
  - UNHCR: proGres (registration data base), RAIS population census (Refugee Assistance Information System) and demographic data, VAF (Vulnerability assessment framework), Resilience assessment framework

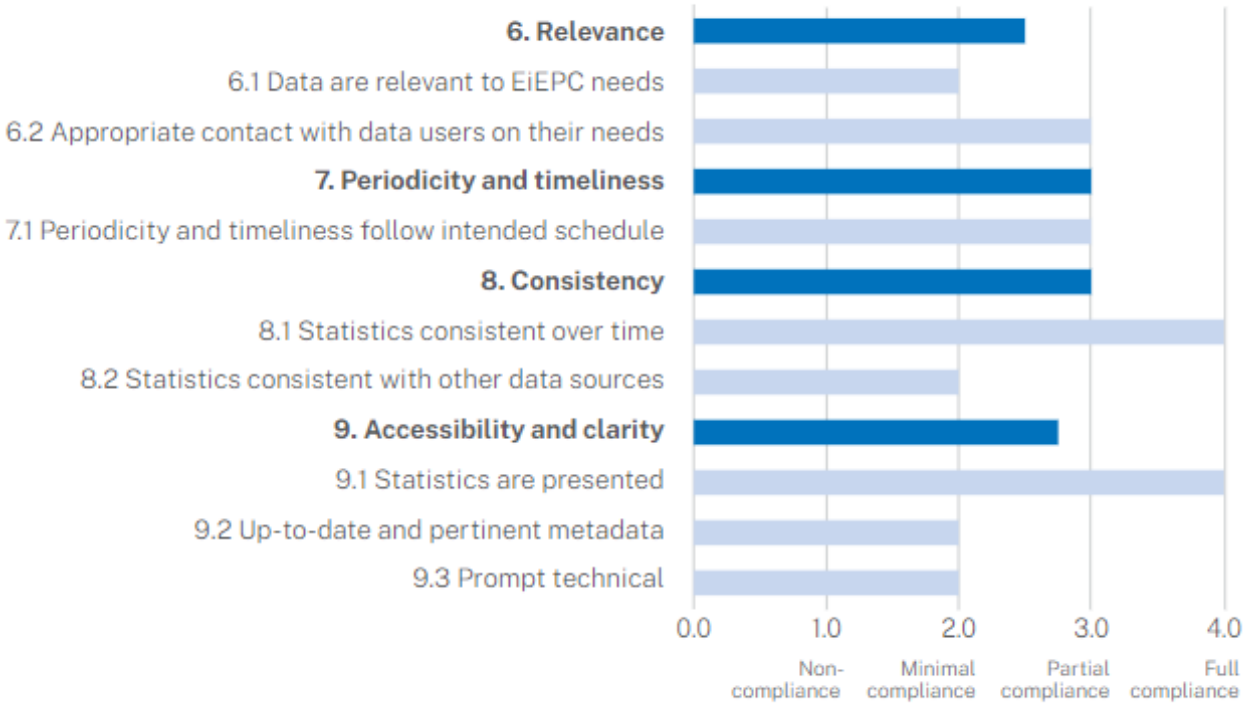
Tool 3. Mapping of data producers and data sources relevant for EiE - Examples

In blue in this table: examples provided to facilitate the understanding on the type of information to be recorded.

	Options and comments to fill in the table	Data source 1	Data source 2	Data source 3
Data source characteristics	Name of data source	National School Census	Multipurpose national household survey	
Name of data producer	Agencies responsible for definition of survey objectives, collection, analysis, and dissemination of data (list primary agency first, if more than one); include agencies and groups both within the country and outside, as applicable.	National Ministry of Education	National Statistical Office	
Type of data producer	• Government agency • National NGO • International NGO • International organization	Government agency	Government agency	
Type of data source	• Humanitarian education response data • Educational development data • Contextual data	Educational development data	Education development data	
Data collection sample	• Census. • Probabilistic sample • Non-probabilistic sample	Census	Probabilistic sample	

2. EiE data diagnosis tools

Figure 6. Presentation of DQA results

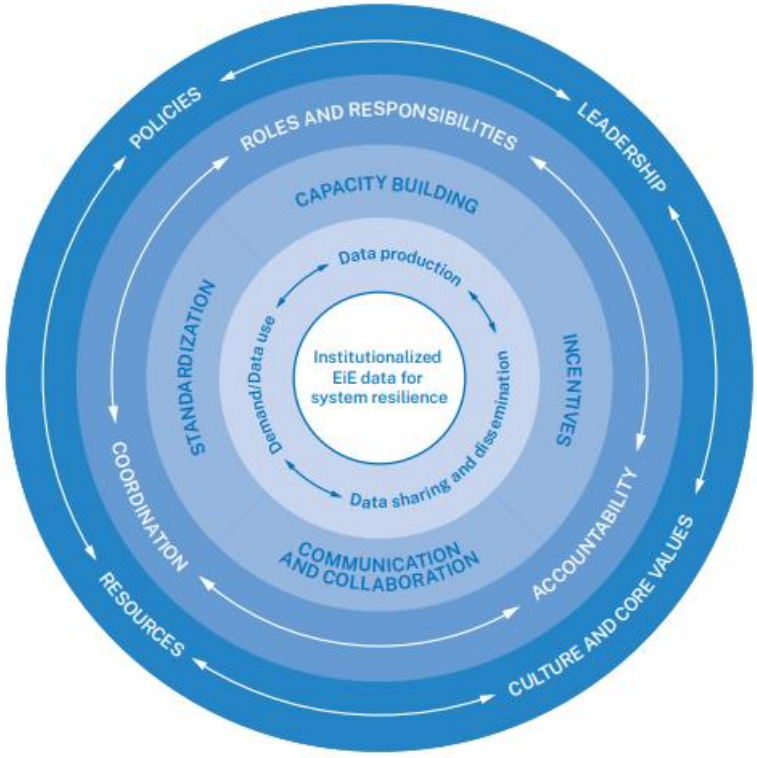


Source: Extracted from the EMIS_DQA matrix (*Tool 5*), based on a hypothetical example.

3. EiE data institutionalization

- Guidelines and compilation of good practices to:
  - Build institutional awareness and commitment
  - Support the development or adaptation of relevant policies and frameworks
  - Strengthen EiE data harmonization through improved communication, coordination, data sharing protocols and data dissemination platforms
  - Support national capacity strengthening across the data value chain (e.g. production, use, re-use for planning, monitoring & evaluation…)

Figure 1. Model of institutionalized EiE data



Source: Authors, based on existing models of institutionalization, including Kuchenmüller et al. (2022), IIEP-UNESCO (2022), Maeda et al. (2012), USAID (2000).

How were the tools used in real life?

- Ecuador
  - Provision of a series of recommendations in terms of data management and data coordination
  - Identification of key data gaps, in particular concerning preparedness and prevention
  - Development of a roadmap for implementation of the findings from the diagnosis

Hoja de ruta / 2023

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Hoja de ruta para la implementación de recomendaciones derivadas del «Informe diagnóstico del ecosistema de datos para la educación en emergencias de Ecuador»

Oficina para América Latina y el Caribe, IIPE UNESCO

Índice

Presentación

En enero de 2023, el IIPE UNESCO llevó a cabo un diagnóstico sobre el ecosistema de datos para la educación en emergencias (en adelante, EiE, por su nombre en inglés) en Ecuador. Como resultado, se elaboró un informe en torno a cuatro objetivos prioritarios. En primer lugar, presentar un mapa de riesgos y amenazas al sistema educativo para identificar las necesidades teóricas o normativas de datos para la EiE. En segundo lugar, realizar un mapeo del ecosistema de datos de EiE explorando las fuentes y los mecanismos de coordinación existentes. En tercer lugar, evaluar la calidad del Archivo Maestro de Instituciones Educativa (AMIE), una de las principales fuentes de información educativa. Por último, identificar el nivel de cobertura de las fuentes de información actuales en relación con las necesidades de información requeridas para la EiE.

A partir de los vacíos de datos identificados, se elaboró una propuesta de posibles ajustes a los dispositivos de recolección de datos existentes para que aborden esos faltantes de información.

1

How were the tools used in real life?

- Ecuador recommendations

Área	Faltante de datos	Sistema de información
Desastres naturales	Bienestar de los alumnos y del personal educativo	AMIE (módulo estudiante)
	Estructuras de las instalaciones y equipos escolares	AMIE (módulo infraestructura) y GIEE
	Esquema de virtualidad	GIA
	Trayecto entre casa y escuela	GIA y GIEE
	Identificación de los peligros en el camino de la escuela	AMIE en interoperabilidad con fuentes externas
	Características topográficas	AMIE en interoperabilidad con fuentes externas
	Proximidad de la escuela a centros de prevención y de cuidado	AMIE en interoperabilidad con GeoSalud

How were the tools used in real life?

- Jordan
  - Development of joint report with UNESCO Amman
  - Recommendations to enhance the EiE data ecosystem
    - Establishment of a Risk Management section to coordinate and share EiE data
    - Alignment of external sources of data with OpenEMIS
    - Common identifiers for students
  - CRM data diagnosis will be used to inform the implementation of the country's Crisis and Risk Management strategy

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تقييم نظام جمع البيانات لإدارة الأزمات والمخاطر (CRM) في المملكة الاردنية الهاشمية

تموز (يوليو) 2023

السياق

تعتبر تلبية احتياجات التعليم في أوضاع الأزمات، مع منع وتخفيف المخاطر المعروفة والمحتملة، خطوة ضرورية لتحقيق هدف التنمية المستدامة الرابع (SDG 4)، وكذلك جميع أهداف التنمية المستدامة الأخرى.

تهدف **إستراتيجية إدارة الأزمات والمخاطر (CRM) لوزارة التربية والتعليم** (2023-2027) الجديدة إلى تقليل المخاطر وتعزيز المرونة من خلال الجهود التشاركية المنسقة والمتكاملة التي تشمل جميع أصحاب المصلحة المعنيين، وتعزيز الاستخدام الأمثل للموارد في الاستعداد والاستجابة للمخاطر لضمان استدامة التعليم.

تتكون استراتيجية إدارة الأزمات والمخاطر من أربع مكونات رئيسية، ويهدف المكون الأول الخاص بتمكين *الأنظمة والإدارة* إلى إضفاء الطابع المؤسسي على إدارة الأزمات والمخاطر في جميع مستويات وزارة التربية والتعليم الأردنية بما في ذلك المتابعة والتحليل المتعلقين للمخاطر بالتعاون مع المركز الوطني للأمن وإدارة الأزمات (المكون الفرعي **1.1**) الذي له انعكاسات على توافر البيانات واستخداماها. ويهدف تطوير تقييم بيانات إدارة الأزمات والمخاطر إلى إثراء هذا المكون الفرعي بالإضافة إلى دعم متابعة وتقييم الاستراتيجية.

مقاصد الأهداف/الغايات

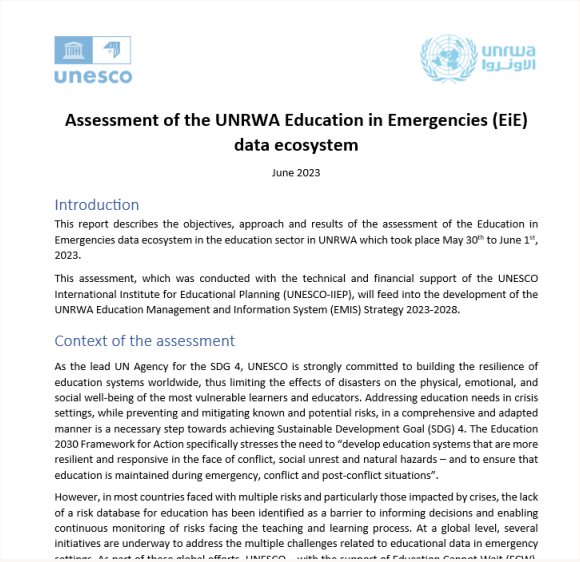
يهدف تقييم بيانات إدارة الأزمات والمخاطر في الأردن ووضع هذا التقرير إلى توجيه تنفيذ المكون الفرعي **1.1**. من استراتيجية إدارة الأزمات والمخاطر، وكذلك تفعيل الاستراتيجية ومتابعتها وتقييمها على نطاق أوسع. والأنشطة التي وجهت التقييم ما يلي:

1. ما هي البيانات الرئيسية التي يحتاجها الأردن لقياس الخطر والمخاطر التي حددتها استراتيجية إدارة الأزمات والمخاطر لوزارة التربية والتعليم؟

1

How were the tools used in real life?

- UNRWA
  - Piloting self-administration of the tools
  - Applied the tools to five contexts in parallel (Gaza, Jordan, Lebanon, Syria and West Bank)
  - Diagnosis is being used to inform the UNRWA EMIS Strategy for 2023-2027
    - Capacity development
    - Coordination and data exchange across fields
    - Development of data sharing protocols
    - Integration with national tools (for example OpenEMIS in Jordan)



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Assessment of the UNRWA Education in Emergencies (EiE) data ecosystem

June 2023

Introduction

This report describes the objectives, approach and results of the assessment of the Education in Emergencies data ecosystem in the education sector in UNRWA which took place May 30th to June 1st, 2023.

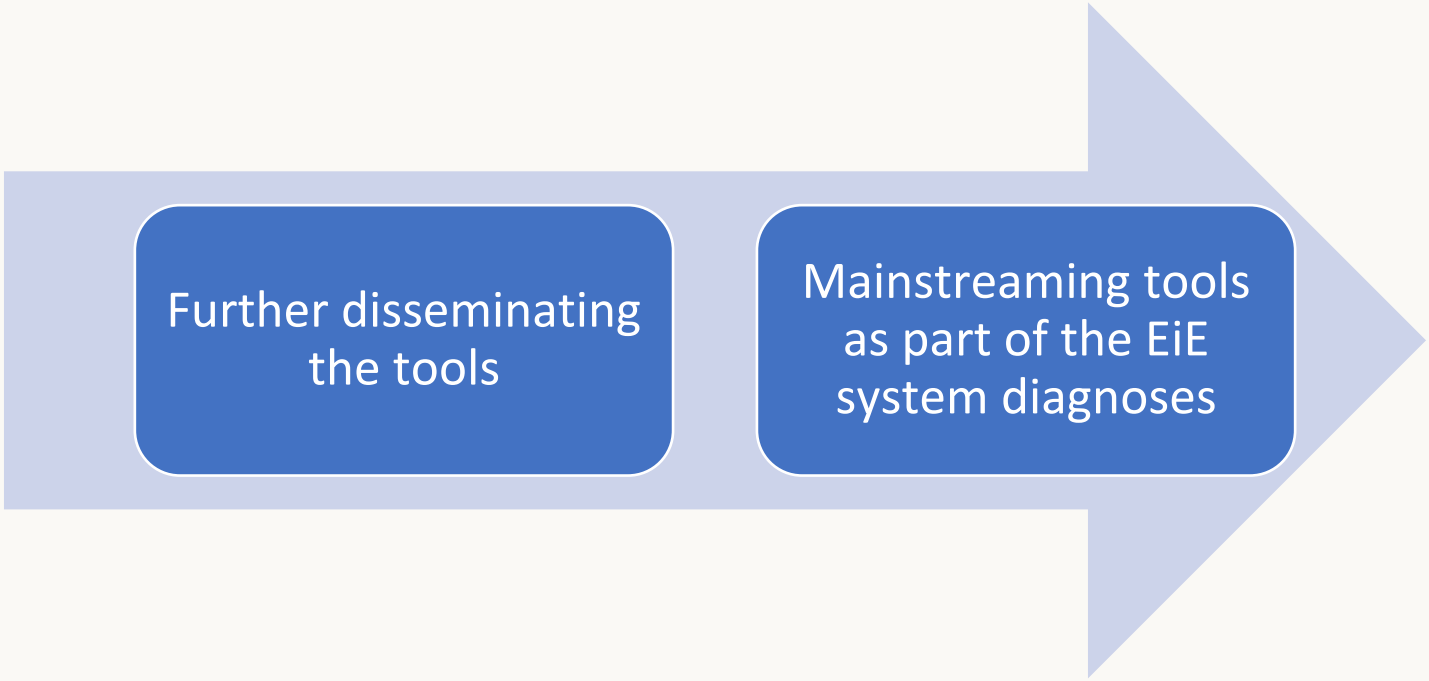
This assessment, which was conducted with the technical and financial support of the UNESCO International Institute for Educational Planning (UNESCO-IIEP), will feed into the development of the UNRWA Education Management and Information System (EMIS) Strategy 2023-2028.

Context of the assessment

As the lead UN Agency for the SDG 4, UNESCO is strongly committed to building the resilience of education systems worldwide, thus limiting the effects of disasters on the physical, emotional, and social well-being of the most vulnerable learners and educators. Addressing education needs in crisis settings, while preventing and mitigating known and potential risks, in a comprehensive and adapted manner is a necessary step towards achieving Sustainable Development Goal (SDG) 4. The Education 2030 Framework for Action specifically stresses the need to "develop education systems that are more resilient and responsive in the face of conflict, social unrest and natural hazards – and to ensure that education is maintained during emergency, conflict and post-conflict situations".

However, in most countries faced with multiple risks and particularly those impacted by crises, the lack of a risk database for education has been identified as a barrier to informing decisions and enabling continuous monitoring of risks facing the teaching and learning process. At a global level, several initiatives are underway to address the multiple challenges related to educational data in emergency

Next steps


Further disseminating the tools
Mainstreaming tools as part of the EiE system diagnoses

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Geospatial data for better decision-making in education: the Togolese experience with micro-planning

Kossi Kpomegni TSALI, Director of Education, Planning and Evaluation, Ministry of Primary, Secondary, Technical Education and Handicrafts of Togo

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Digitalization of assets in Togo

The PRISE project

The PRISE project

- Objective: geolocating all social and economic infrastructures in the country
- Goal: Reduce inequalities between regions

- Sub-domains:
  - Water
  - Electricity
  - Health
  - Economy
  - Education

- Information:
  - Location
  - Type
  - State
  - Number of employees
  - Types of employees

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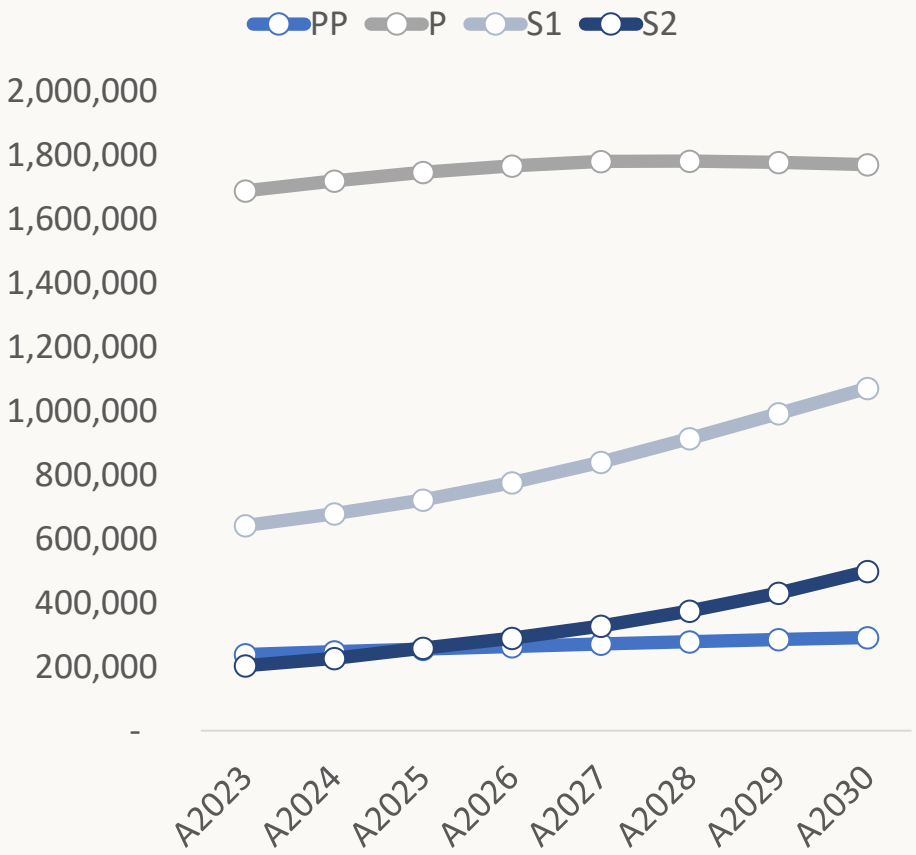
The school mapping exercise

The case of Togo

Main findings

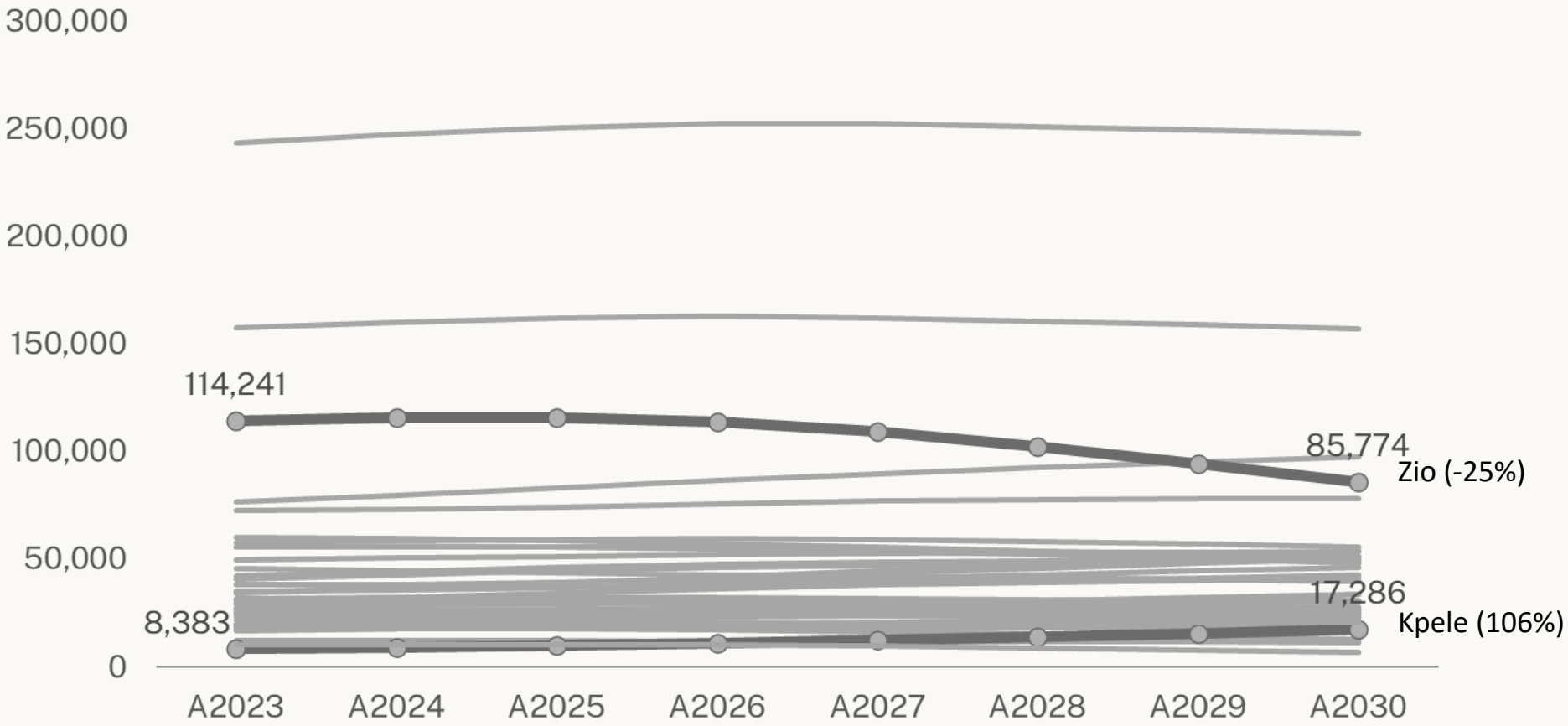
Students



Level	2023	2030	%
Pre-primary	207,436	291,880	41%
Primary	1,609,282	1,769,247	10%
Secondary I	596,137	1,069,982	79%
Secondary II	178,775	498,627	179%

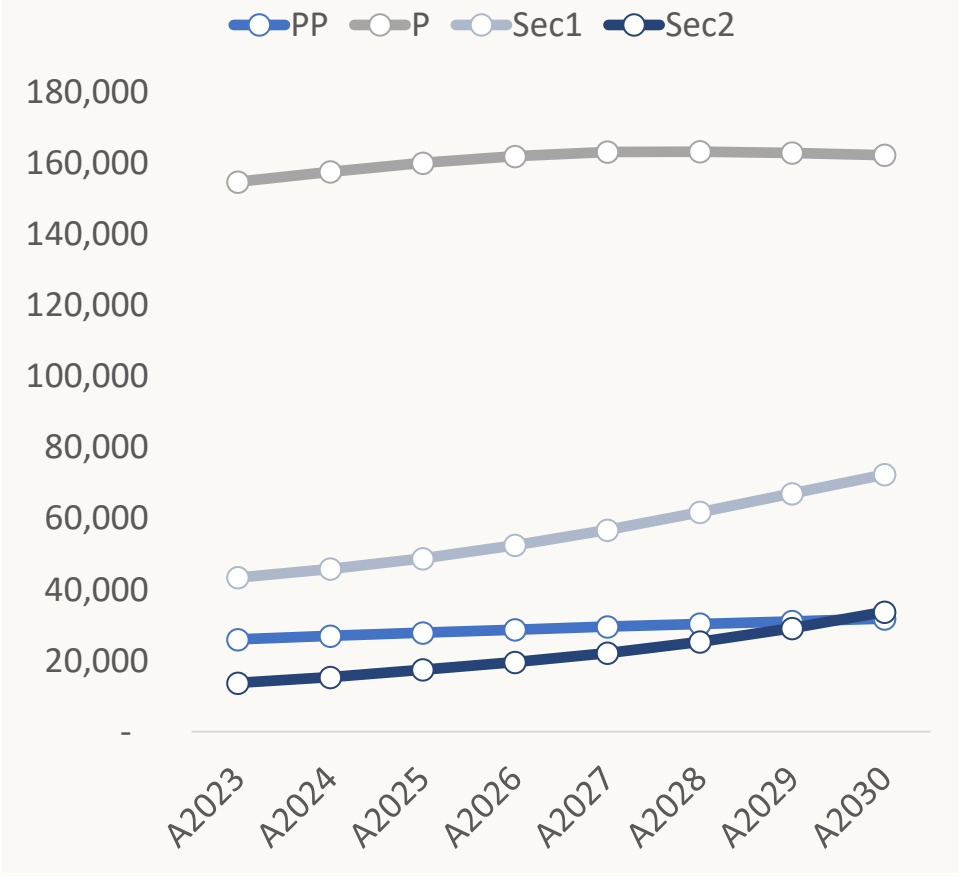
Main findings

Students (Primary by Prefecture)



Main findings

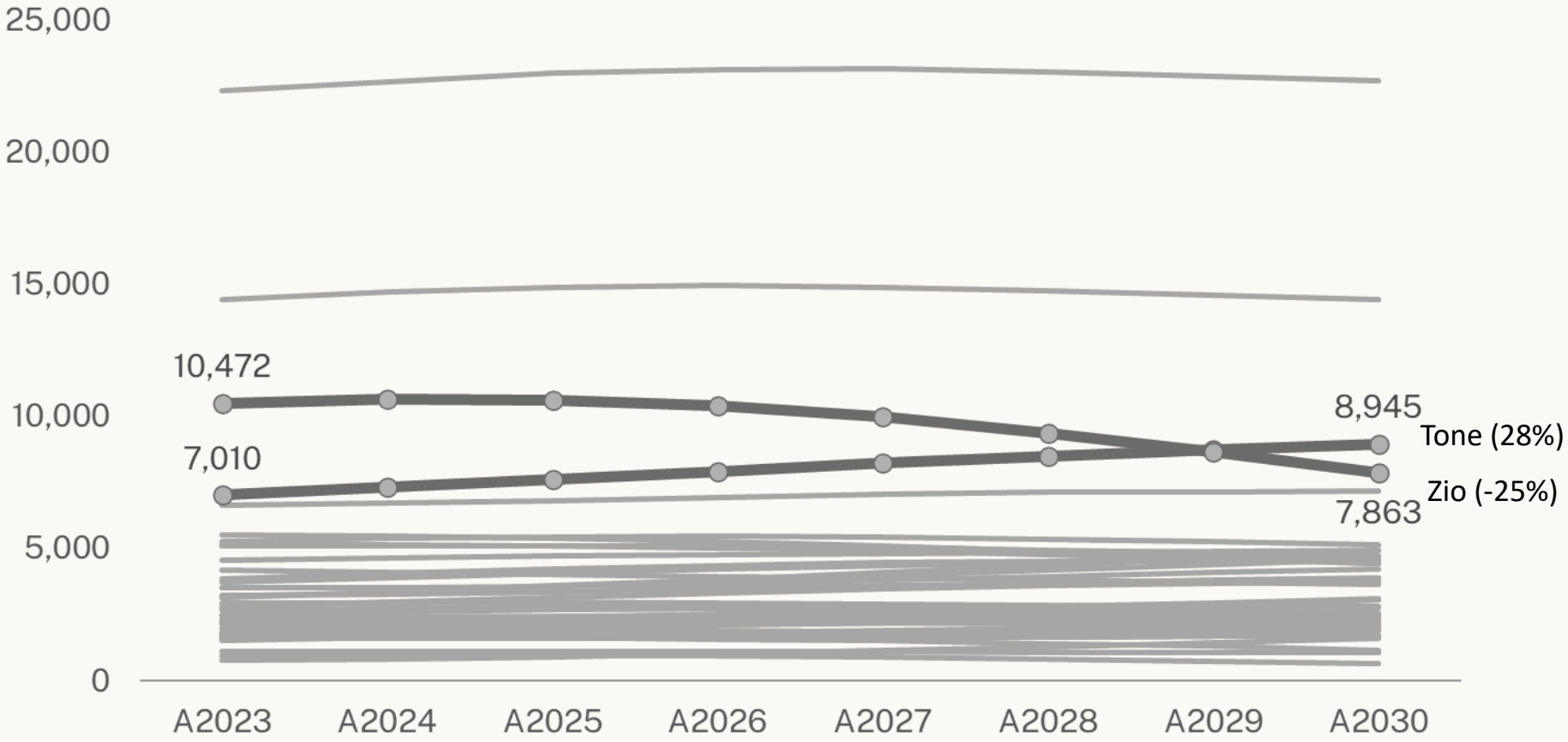
Classrooms



Level	2023	2030	%
Pre-primary	25,979	31,837	23
Primary	154,670	162,181	5
Secondary I	43,389	72,351	67
Secondary II	13,725	33,717	146

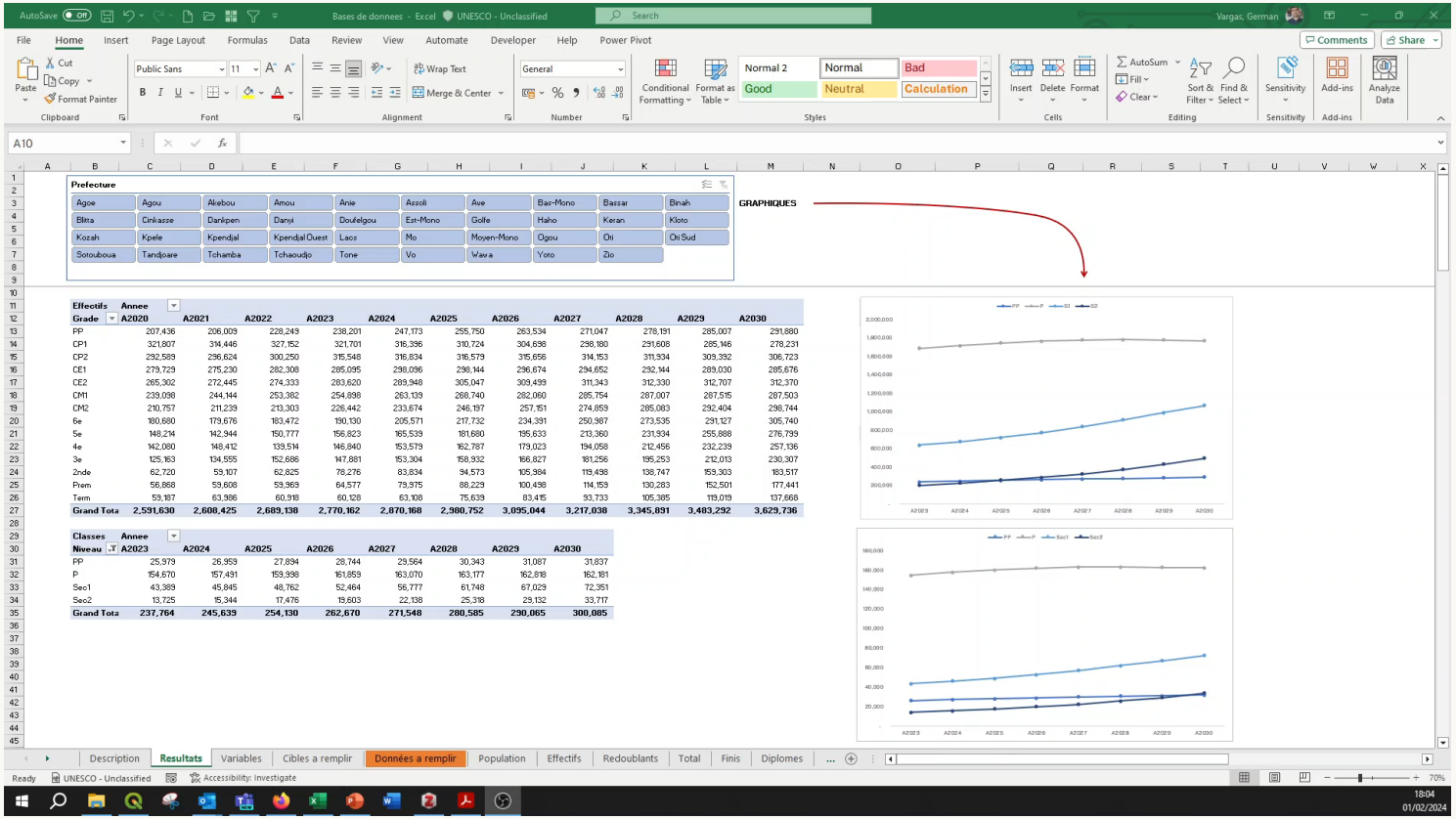
Main findings

Classrooms (Primary by Prefecture)



Integration of results

School mapping tool



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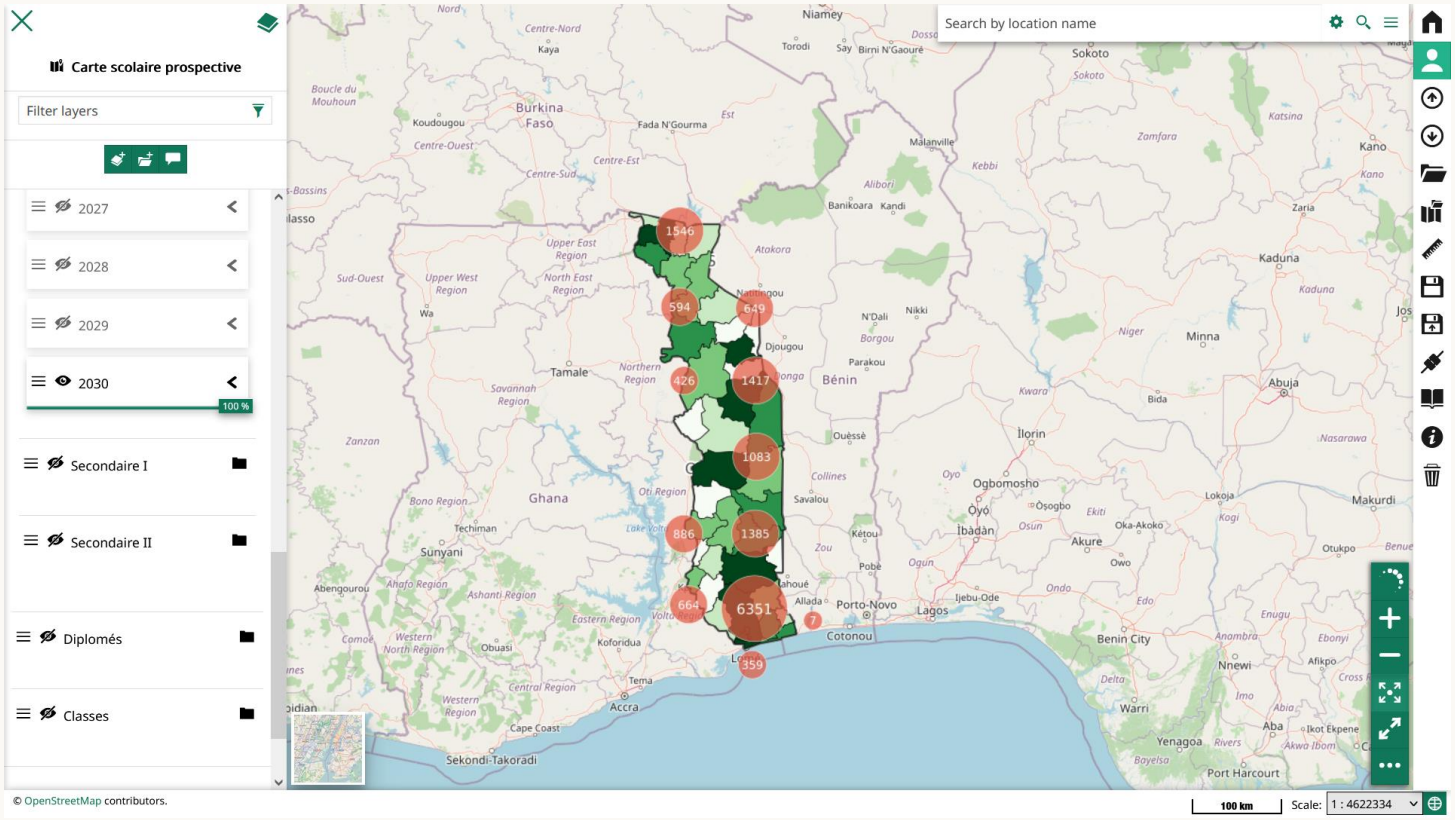
Integration of results into a visualization tool

The use of MapStore

Main interface: Prospective school map



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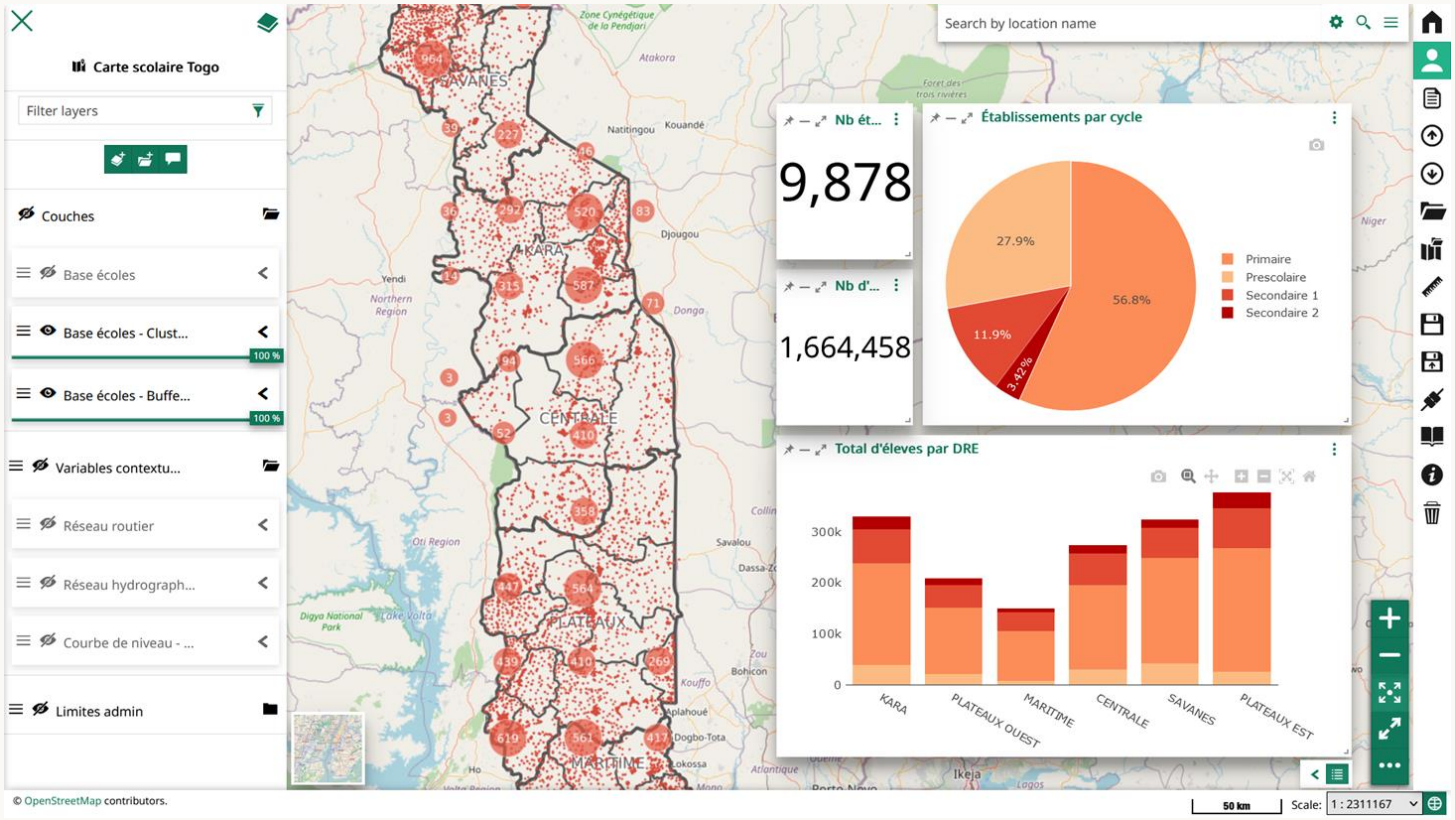
Additional analyses available: Analysis by education cycle



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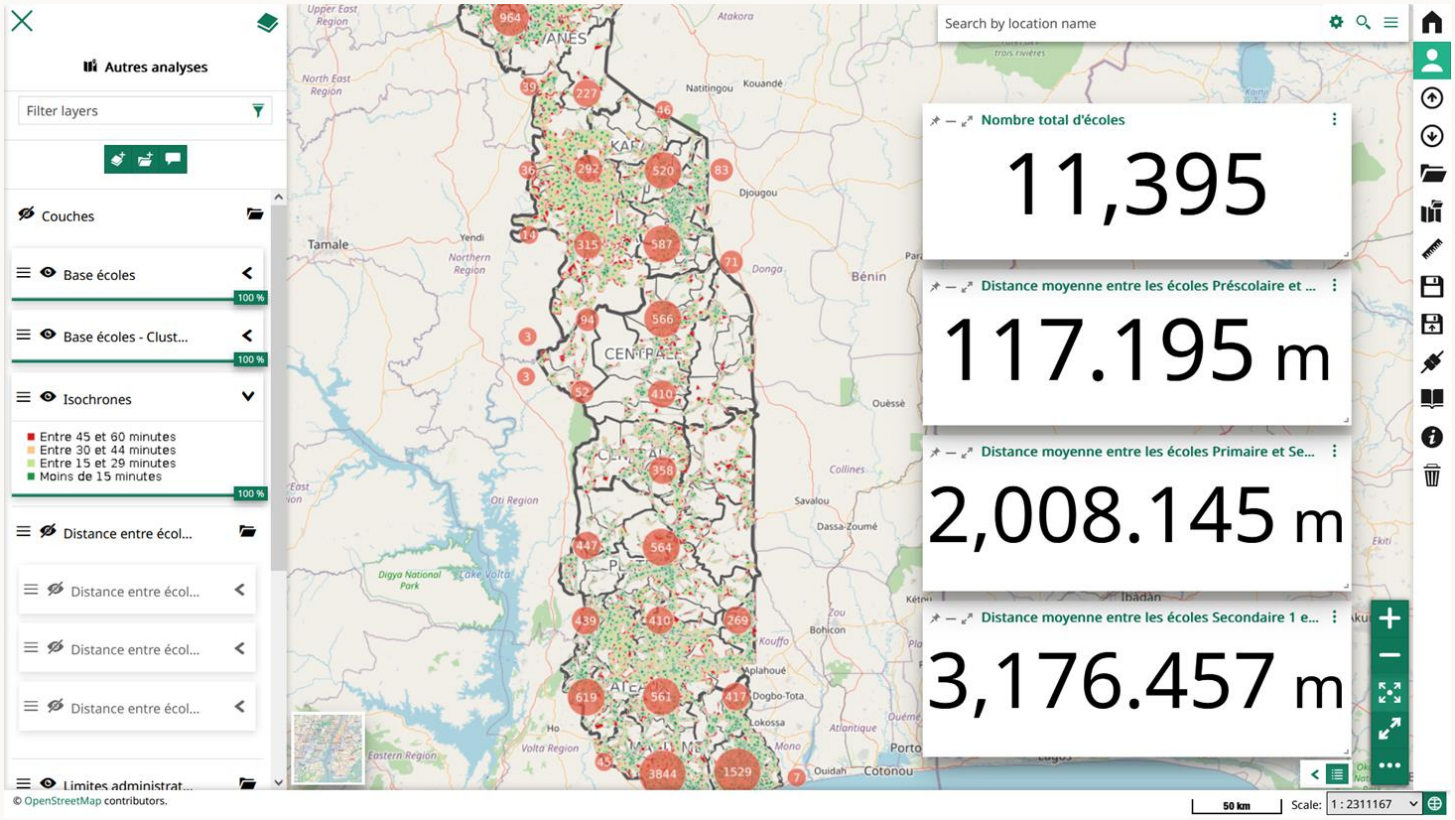
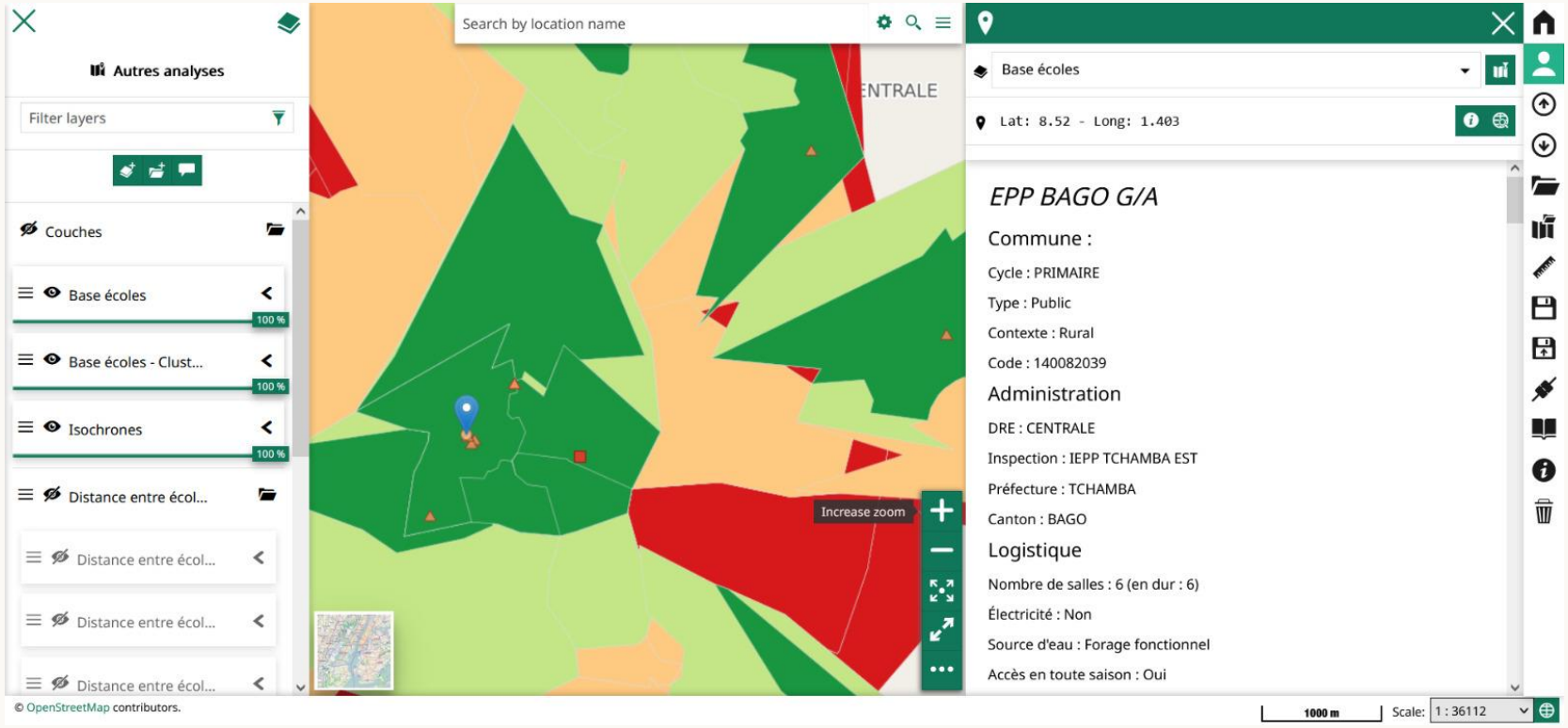
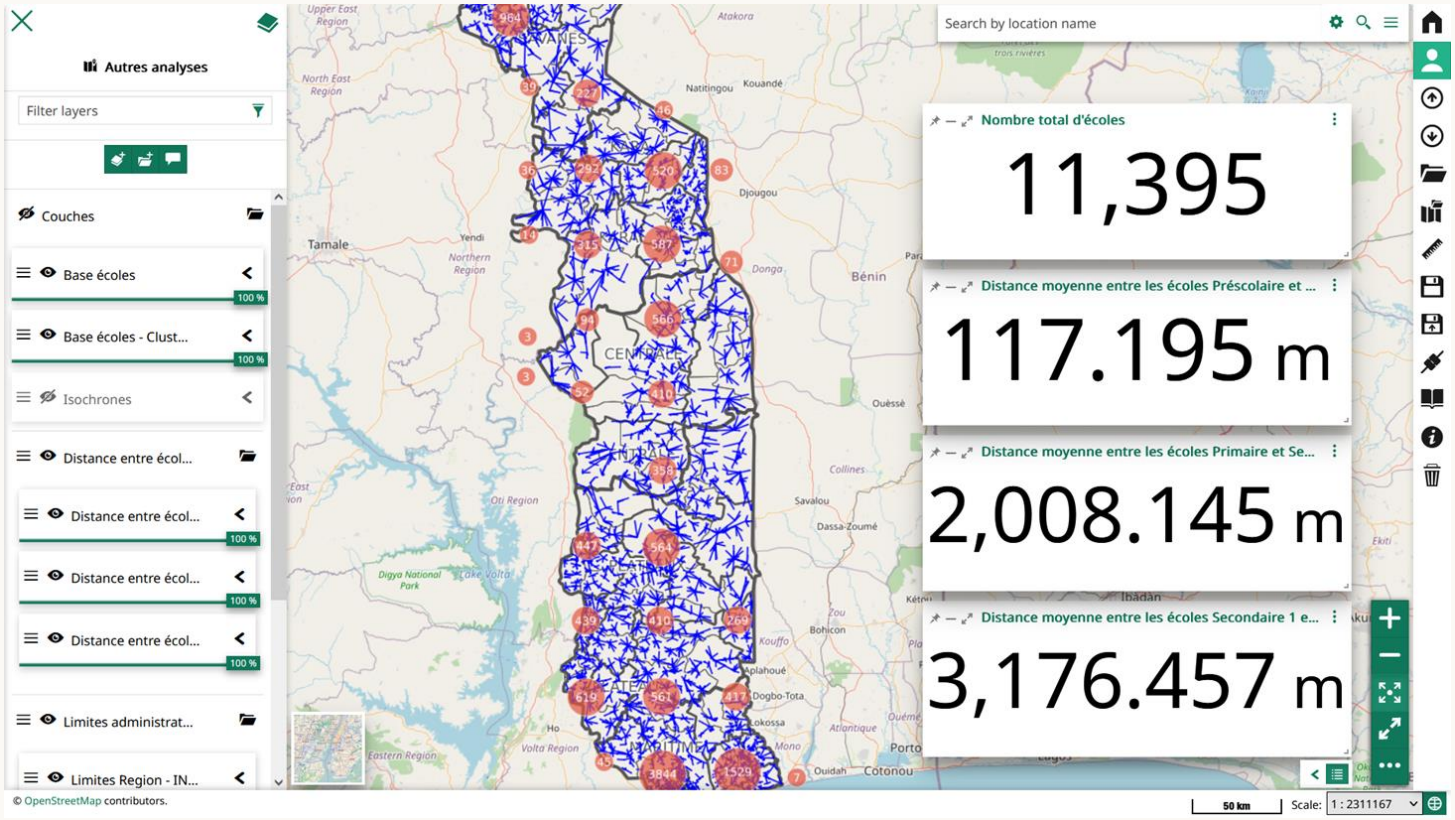
Additional analyses available: Catchment areas



Additional analyses available: Catchment areas



Additional analyses available: Distance between schools from different cycles



Current status

- Most up-to-date data, future live connection with EMIS
- Specialized trainings provided to Ministry staff for autonomy
- Creation of Admin and regular accounts for access by key decision makers at national, regional, and local level.
- System currently hosted by IIEP-UNESCO
- Technical collaboration with IT team within the Ministry of Education to host within Government servers

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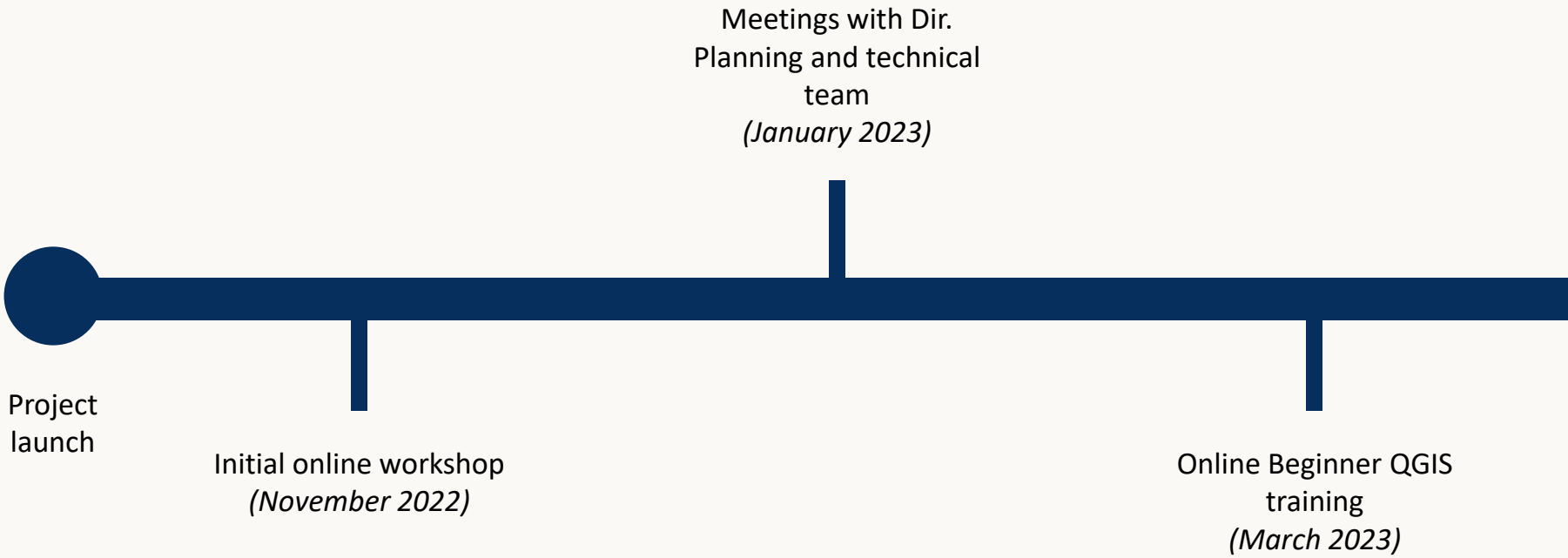
Process ownership

The school mapping exercise

Training and professional development



Training and professional development

Face-to-face Intermediate QGIS training *(April 2023)*

Online Beginner QGIS training *(March 2023)*

Online workshop on methodological guidelines *(July 2023)*

Training and professional development

Face-to-face Advances QGIS training
(August 2023)

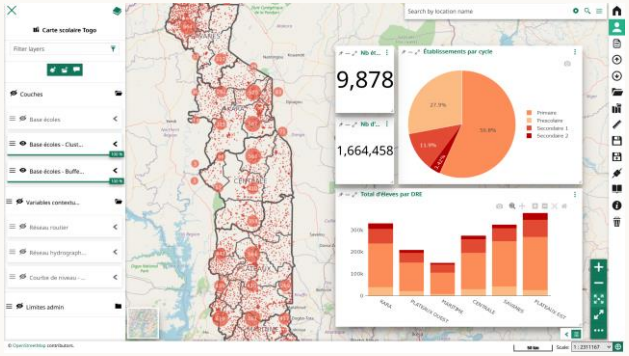
Online workshop on methodological guidelines
(July 2023)

Online workshop on the prospective school map
(September 2023)

Training and professional development

Online workshop on the prospective school map
(September 2023)

Online workshop on MapStore
(November 2023)



Contributions to research

- Challenge: How to create local school-age population estimates for small areas?
- Solution: Spatialized population projections using WorldPop data and adjusting to national estimates
  - Free, open-source code
  - Projections at any level over 100m x 100m (based on mobility trends stability)
  - Uses open-source software
  - Applicable to any other country

https://at.iiep.unesco.org/SSAPTogo

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Conclusions

Using geospatial data for decision-making in Togo

Using data for decision-making in Togo

- Circumscribed within a bigger push for data-informed policy making (PRISE)
- Prospective micro-planning, focusing on local needs
- Strong push for capacity development and ownership
- Reaching policy-makers at national, regional, and local level
- Using free, open-source software

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