



Jigawa Unified New Improvement of
Teaching and Education



A
**Government
of Jigawa State
Initiative**

JigawaUNITE Proposal

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Team:

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Submitted by:

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1. Executive Summary

Under the leadership of His Excellency Mallam Umar Namadi, Jigawa State has been making significant strides toward transforming public education in the state. To accelerate this transformation and swiftly deliver universal access to high-quality education, the government needs to adopt a systematic and equity-focused approach to catalysing change that is highly scalable, resilient, and adaptable.

The JigawaUNITE programme will transform all government Primary schools in Jigawa State to be globally competitive public schools. This will be achieved through an innovative technology and data-driven platform that will provide-

- **High-quality teaching-learning materials developed using cutting-edge research**
- **Data-driven training and ongoing coaching to teachers and school leaders**
- **360 degree support for effective monitoring and evaluation at all levels**

This integrated approach will transform teaching-learning in all public primary school classrooms, ensuring that **858,601 children** in Jigawa State can realise their full potential regardless of their birth location or socio-economic background. In doing so, JigawaUNITE will help the government in rebuilding public trust in its education system and demonstrating its commitment to serving the citizens of Jigawa State.

JigawaUNITE is also expected to generate an additional economic output of approximately **USD 3.25 billion** over the next 20 years, serving as an engine for inclusive development and heralding an era of rapid growth and prosperity for the state.

2. Background Context

Accelerating Jigawa State Education Sector for Global Competitiveness

Jigawa State is taking significant steps towards transforming its education sector to accelerate development in the state. The recent restructuring of the Ministry of Education and hiring of 4700 teachers reflects His Excellency Mallam Umar Namadi's dedication to human capital development and inclusive growth, affirming his commitment to universal access to high-quality education.

"An educated society is a progressive society."

-Gov. Umar Namadi (Governor's Office, Jigawa State), 26th January, 2024

The government's reform agenda depends on an educational system in Jigawa State that advances equity in learning—ensuring that every child in the state, regardless of their birth location or their parents' income or education levels, has the opportunity to reach their full potential.

The government's objectives will be achieved by leveraging technology to improve and modernise education at statewide levels, treating learning as a science, and the gap in learning as an emergency.

JigawaUNITE will enable the government to bridge current gaps and accelerate learning to create a more equitable and prosperous society.

3. JigawaUNITE Programme Background

JigawaUNITE will transform all government Primary schools across the state into globally competitive public schools. This will be achieved through an innovative technology and data-driven platform that provides **high-quality learning materials, effective training and ongoing coaching for teachers and school leaders, and technology-enabled support teams to create 360-degree support** to generate dramatic improvement in learning outcomes.

This programme will demonstrate that with the right innovation, training, materials, and support, existing schools staffed with government teachers can deliver radically better learning outcomes for children. This success does not need to wait for another decade but can, and will be seen in a very short number of years, so that this generation of children will have the potential to transform their state.

JigawaUNITE also recognizes that the potential to deliver on these dramatic gains in learning outcomes already exists within the existing schools and teacher population. JigawaUNITE is the transformational tool needed to provide our current teachers and schools with the technology-based up-skilling, scientifically-proven pedagogical approaches, and a complete 360-degree support system that will allow these schools to be beacons of hope across the state, helping the **government to rebuild public trust in its education system and demonstrate its commitment to serving the citizens of Jigawa State.**

JigawaUNITE will:

1. Improve teaching-learning by:

- Ensuring all teachers are trained in modern, scientifically-based pedagogy and supported through continuous professional development and coaching
- Ensuring all pupils have access to high-quality classrooms that lead to accelerated and continuous improvement of learning gains that will close the learning gap through remedial interventions and ensure every pupil is at age and grade-appropriate learning levels
- Ensuring that regular assessments are delivered to students, with the data systematically collected and used for feedback to students, teachers, and leadership development

2. Elevate levels of professionalism and accountability in public education by:

- Improving teacher attendance and “true” attendance as measured by the delivery of instruction to students throughout the entire teaching schedule
- Ensuring head teachers and support officers are able to carry out regular academic monitoring and utilise knowledge and tools to support teaching and learning in the schools

3. Fostering equity in classrooms across the state by:

- Enabling technology integration in even the most remote classrooms such that technology and data are able to drive student learning gains uniformly throughout the state

JigawaUNITE will foster system transformation at all levels:

- Student Level: accelerated learning gains for all students regardless of their starting point, parental income, or parent's education levels
- Classroom Level: well trained, accountable, teachers using data-driven pedagogical strategies within their lessons, modern approaches to classroom management to produce growth in student learning
- School Level: data-driven, technology-led accountable school management including but not exclusive to teacher attendance, time on task, pupil enrolment and attendance and performance and rigorous academic monitoring with feedback systems and growth strategies
- System Level: using new technology tools and dashboards to create a verifiable, data-driven, learning-outcomes based approach for supporting all schools and students to achieve learning gains

JigawaUNITE will specifically address the challenges in the education sector in Jigawa State, including:

Absence from school by teachers and inadequate/proper supervision

JigawaUNITE will provide support, monitoring, and oversight of teachers through their tablets which have geo-locational features, the ability to track the pace of teaching subjects with the aid of the tablets and the head teacher's daily access to material for syncing on teachers tablets and record of activities by each teacher.

Poor performance of overall and national examinations by pupils.

NewGlobe has established with proven records in the last ten years of its operations that pupils can achieve in one term (2.5months) 70% of a year's worth of Maths learning gains and 55% worth of English learning gains. Pupils from NewGlobe supported schools also pass National examinations at twice the rate of traditional non-NewGlobe supported schools.

Low enrolment of pupils

NewGlobe has shown an increase in public school enrollment of nearly 20% through programmes such as JigawaUNITE. As governments rebuild the public's trust in the public education system, parents re-enroll their students back to public schools from private schools and out-of-school pupils can be accommodated in the schools due to the enhanced teaching methods. NewGlobe also advocates for praise and feedback for pupils which has led to 55% reduction in corporal punishment.

Lack of capacity by teachers and non-child-centred teaching methods

NewGlobe can train and retain teachers to be effective in discharging their duties not only as teachers but as learning champions to their students as seen in existing partner countries in Africa where NewGlobe supports programmes like JigawaUNITE. These teachers update their knowledge and enhance their competencies.

Prepare this generation of children in the country for critical 21st Century Skills and STEM education

NewGlobe begins the preparation for critical 21st Century and STEM skills from an early age. It is infused throughout the teaching in terms of 21st century skills like collaboration, communication, critical thinking and creativity, and through preparation on core foundational mathematics and science learning that enables progress throughout a learner's career.

By addressing these challenges, JigawaUNITE anticipates rebuilding the public's confidence in the government schools in their communities. Such rebuilding of confidence does not need to wait for years, but is expected to happen within just a couple of short years, in turn increasing pupil enrollment in government schools, as well as increasing the long term social and financial sustainability of the public education system in the state.

4. JigawaUNITE Core Pillars of Transformation

The transformation of Jigawa State public schools will be technology-enabled and data-driven and will be based on the following core pillars of transformation.

Pillar 1: Innovative Technology Platform for Learning Delivery, Accountability, and Support

JigawaUNITE will deploy an innovative and integrated technology platform that includes:

Learning Management Module

Support and ensure teaching and learning are happening in the classroom

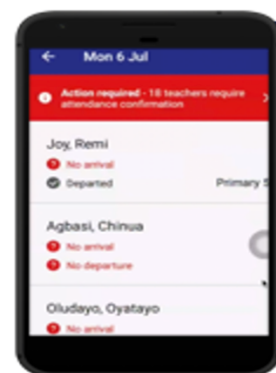
- Digitally maintained and updated Academic Schedule (as part of termly/annual scope and sequence)
- Digital Teacher Guide Delivery & Management (digital distribution, syncing to tablet, preview and delivery functionality)
- Central management web-application for lesson and assessment scheduling and management, and use for A/B testing and ongoing content adaptation
- Instructional Delivery tracking and monitoring (including start and end time for each lesson compared to schedule, pacing and % completion)
- Digital Messaging platform for providing academic and operational guidance to teachers



Accountability & Professionalism Module

Tools to monitor and drive increased professionalism

- Teacher Attendance system including timestamping arrival and departure with validated sync to Head Teacher's geotagged smartphone, including management tool for HMs on smartphone
- Student attendance system for attendance taking
- Student/Class Roster management, including student/guardian info and enrolment/admissions functionality
- Classroom/Lesson Observation Tools
- Head teacher attendance management for arrival and departure with digital time stamp and geo location



Reporting & Transparency Module

Digital Transparency Tools to Ensure Success

- Web-based dashboard application for aggregate and drill-down on disaggregated data on teaching, learning, school/class/teacher information, teacher and student performance and accountability
- Multiple levels of information from Country->LGA->School->Class/Teacher->Pupil continually updated based on platform
- Reporting Portal for accessing critical reports and information in real-time
- Web-based issue and resolution tracking



Student Performance Module

Measure & Monitor Student Performance

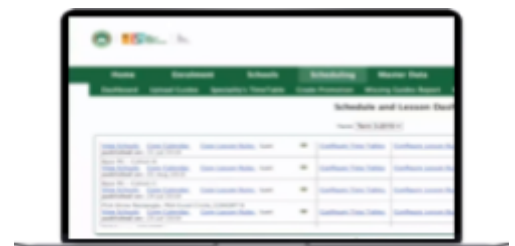
- *Entering and managing student assessment scoring*
- *Student roster creation and management, including class assignment and grade promotion*
- *Report card generation tool for supporting teachers in filling out termly reports*
- *Student attendance tracking and monitoring*



Backoffice & Support Module

System level management and support

- *Entering and managing student assessment scoring*
- *Student roster creation and management, including class assignment and grade promotion*
- *Report card generation tool for supporting teachers in filling out termly reports*
- *Student attendance tracking and monitoring*



Designed for a low infrastructure environment.

The JigawaUNITE technology platform is specially optimised and purpose-built for low-infrastructure environments. Recognizing that the programme needs be effective especially in the most marginalised communities, the platform is designed for:

- Low and infrequent electricity provision: custom tablets work for up to two weeks on a single charge
- Low speed data access: the platform requires only a 2G connection on a single device for the schools that propagate the data to the whole school system

- Unreliable data access: the system is designed around a multi-level data-caching architecture that requires only 20 minutes of daily active data connection
- Rugged hardware and local IT support/repair: 10 years of iterating and deploying hardware designs in the most marginalised and remote communities in emerging markets have led to the current design for system hardware. The JigawaUNITE Programme also includes local (in-state) IT support and repair services.

In addition to access to the Platform Modules, NewGlobe provides turnkey technology support and services:

24/7 Hosting and Servicing of Cloud-based platform

- *Server costs, datacenter hosting, data backup, security implementation, server upgrades and all third-party licensing fees necessary for the software delivery, systems, server, database and software monitoring tools. Ensures 99.9% uptime.*

End-to-End Hardware Provisioning

- *Identification, selection and procurement of latest models of devices for both teachers and headmasters. Configuration of devices, including installation of firmware, software and mobile device management.*

Ongoing Hardware Support

- *Full repair and replacement services for devices assigned to teachers and HMs. Management of asset inventory across the country, including tracking and proactively identifying problematic hardware using system health check, battery checks and monitoring tools.*

User and Technical Support

- *Provision of user and technical support through multiple channels - phone-based, WhatsApp, and web. Includes multiple level (L1, L2, L3) resolution team to directly support users on the use of the technology platform and services, as well as hardware. Full tracking of all tickets in an issue tracking and resolution system.*

Connectivity Provision and Management

- *Provision and maintenance of mobile data plans for all connected devices. Management of data plans, data provisioning, billing and ongoing support to ensure access.*

Service for Updating and Ongoing Management of Academic Scope & Sequence, Lesson Schedules, Assessment Schedules, and Teaching Calendars

- *Maintaining and updating custom schedules for each grade level and subject for each day and term to meet the changing requirements of the academic calendar on the ground. May*

include multiple schedules for the state based on different school requirements and calendars.

- *Maintaining and updating the scope and sequence to ensure that each day for each subject and grade has the appropriate lesson mapped to it and assessment.*
- *Includes full updates for changes due to new calendars, disruptions (COVID), holidays, and ensures that the updated schedule available in the system ties the entirety of the academic plan together.*
- *Updates to arrival time, departure time, and working days based on dynamic school schedules.*

Service for Updating and Ongoing Management of Teacher and Head Teacher Assignments, Class Assignments, and Supervisor Assignments.

- *Continuous updating of teacher class assignments, new teachers and HMs, teacher and Head Teacher transfers to ensure the correct content and data gets to the right classes and schools.*
- *Continuous management and updating of Supervisor mapping to schools and updating for new Supervisor and transfers.*
- *Analysing and recommending teacher transfers based on analysis of openings, and requirements. Processing the transfers through the system to ensure teacher and class rosters in each school are correct.*
- *Updating system for opening and closing of grade levels/streams for each school, including when classes need to be split into two or merged into one due to size requirements*

Customised Reporting Service

- *Work with the state to develop required reporting to be made available either through regular emails or reporting portal (e.g. Academic Progress Reports)*

Pillar 2: Data-Driven Training and Ongoing Coaching and Professional Development

A core pillar of the JigawaUNITE Programme is enabling existing government teachers to deliver outsized learning gains.

Scientifically-based Induction Training

The induction training leverages the experience of NewGlobe's 10-year track record of successfully training and preparing more than 50,000 teachers around the world. The pre-service induction training is informed by statistically identifying the top decile of teachers in terms of their impact on student learning growth (using a model jointly developed with researchers from Brown University), and rigorously studying in-depth their practices and habits using specialised academic and pedagogical innovation field teams. The data, observations, and field work are combined to create a uniquely practical, data-driven model of in-person, multi-day intensive training that every teacher participates in at the programme's outset. This training encompasses critical topics for teacher success, including content delivery and teacher-guide use, effective classroom management, behaviour management techniques, pupil assessment & individualised feedback, and building strong pupil and community engagement.

Data-Driven Ongoing Coaching and Professional Development

JigawaUNITE will utilise insights from thousands of hours of classroom-centred practice and technology to provide on-site coaching and continuous professional development for teachers and school leaders. Newly deployed Leadership and Development Supervisors will provide in-person support to teachers with regular visits, lesson observations, and real-time feedback for continuous improvement. In addition to the in-person support, teachers will be provided with digital feedback of their success through the tablet application and messaging platform. Coaching will be tailored using data from teacher tablets, which monitor lesson delivery, pacing, and effectiveness. Additionally, school leaders will be trained on using digital monitoring tools for instructional oversight, which includes conducting daily and weekly classroom observations and providing feedback on teacher success. Regional coaches will employ data generated by the digital monitoring tools to coach school leaders on student, teacher, and community engagement, and ensure accountability for learning outcomes improvement.

Pillar 3: Scientifically-based Learning Materials aligned to National Curriculum

Scientifically-based Digital Teacher Guides.

The JigawaUNITE Programme includes a world-class detailed teacher guide, digitally published to every teacher's purpose-designed tablet, for every lesson in every subject, in every class level, for every school day. This ensures that every teacher is provided scientifically-based, data-driven pedagogically-sound lesson plans for every concept and subject. JigawaUNITE leverages a decade of research and thousands of hours of pedagogy experts who spent 15 hours of research, design, and testing on every lesson delivered by a JigawaUNITE teacher. These teacher guides are 100% aligned to the National Curriculum to ensure that all expected material is covered throughout the year.

Each lesson and digital teacher guide is incorporated into a highly-researched and thoughtful scope and sequence to ensure each concept is taught with appropriate rigour, repetition and sequenced at the right time based on learning science's understanding of scaffolding. Teachers use the tablet-based applications to access daily and weekly timetables to ensure success.

Teacher guides and lessons are designed to ensure that teaching is at the right level for all students, appropriate rigour is applied and instruction is individualised and responsive to student needs:

- Each lesson provides the teacher with a clear goal and expectation and deconstructed into subsections to maximise learning potential, practice and feedback throughout a lesson based on research into most effective use of class time.
- Lessons ensure that approximately 50% of class time is used for student practice and direct, targeted teacher feedback to students.
- Each lesson introduces concepts using extensively tested activities or questions to create the highest engagement/understanding by the students. For each concept, the guide prompts the teacher to lead class through a carefully scaffolded explanation and reflection.
- Teacher guides prompt teachers to provide specific and positive feedback to students as well as utilise best-practice classroom management.
- Small Group Work - Lessons use student-centred activities aligned to the daily objective. Students work collaboratively to complete activities, apply previous knowledge, and encourage peer collaboration.
- Lessons encourage peer-to-peer learning through small group work and student-centred sharing activities.
- Teacher guides prompt teachers to individualise instruction, call upon pupils with different abilities, and ensure that all children are actively participating during the lesson.

For students, the JigawaUNITE programme also includes a complete set of printed custom supplemental instructional materials, supplemental workbooks, classwork books, and homework books that are integrated with the scope and sequence, and the digital teacher guides, and aligned to the government curriculum, to ensure that all students have access to sufficient, scientifically-based learning materials in the classroom:

Homework Books & Classwork Books

Critical resources for practice and support

Content varied by grade level. For Early childhood provides practice on essential skills. Lower primary pupils include readings and exercises designed to improve numeracy and literacy. Upper primary pupils have revision in a range of subjects, as well as challenging questions that exercise critical thinking skills



Formative and Summative Assessments

Measure & Monitor Student Performance

Range of exams evaluate pupil learning throughout a course - both against standard and set of objectives for mastery.



Training Content for Teachers & HMs

Induction Training and Ongoing PD

Includes training content related to i) vision of teacher, pupil and Program ii) classroom management, iii) how to use teaching resources, iv) feedback techniques, v) creating positive classroom environment. 100 Induction Sessions, including presentation, video, facilitator guides and 100-page workbook for every trainee



Learner Textbooks & Supplemental Materials

Literacy Books, Decodable readers in ECD, Basic Science and Technology books, Quantitative Reasoning Books, Verbal Reasoning Books.



Shared Learning Resources

Activity-based materials for classroom

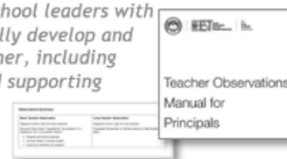
Provides opportunities for children to work collaboratively, think logically, and play. Support psychomotor and creative skills by providing high impact materials for students to engage with while also receiving positive feedback and encouragement from their teacher. Includes activity cards, sewing cards and more.



Teacher Observation Guides

Conducting Short & Long Observations

Program provides school leaders with tools to professionally develop and evaluate their teacher, including 40-page manual and supporting materials



Programme also includes continuous data-driven updates to instructional content that ensures academic content and programming continue to adapt to be fit-for-purpose based on student performance in the state and evolving academic and operational needs of the state.

Pillar 4: 360-Degree Support Teams

The JigawaUNITE Programme will create 360-degree support teams to ensure success at the classroom, school, and system level. This will happen through a combination of training and equipping existing government teams to support the newly deployed and dedicated JigawaUNITE support teams.

Newly Deployed Dedicated JigawaUNITE Support Teams

- The Programme will deploy specially trained and equipped Leadership and Development Supervisors in the field to supervise each cluster of JigawaUNITE schools. Equipped with smartphone-based applications that give real-time feedback on each and every teacher and school's success in instructional delivery and learning outcomes, Leadership and Development Supervisors provide ongoing coaching, support and accountability to teachers and head teachers. Supervisors are trained in modern techniques of coaching, observations, and feedback.
- A newly deployed School Inspection team uses purpose-designed digital, smartphone-based observation and audit tools to inspect 5% of schools on a daily basis with such observations and feedback being tracked in real-time in the JigawaUNITE management tools and provided to all support teams within the JigawaUNITE ecosystem.
- Centralised data analytics, issue tracking and telephonic/electronic support teams. A data-driven, specialised resolution team will be deployed to monitor learning and accountability outcomes, and will be made available through both electronic and telephonic channels in order to ensure rapid support and the driving of critical interventions

Supporting Existing Government Teams

Through the JigawaUNITE programme, existing government support teams will be trained in best-practice approaches for doing classroom observations and supporting teacher and school leader teams. Support teams will be provided with access to web-based toolsets that deliver real-time information about instructional delivery, learning outcomes, attendance and accountability dashboards at both an aggregated and disaggregated level in order to help them support schools. Such dashboards will also be provided at the highest levels within the government to monitor KPIs and progress.

Pillar 5: Technology-driven Monitoring and Reporting

The JigawaUNITE Programme will include real-time monitoring of performance and success in instructional delivery and learning outcomes. Through the platform and specialised reports, key government stakeholders can access weekly and monthly reporting on true lesson delivery at an aggregated and disaggregated level. Universal-access to web-based dashboards provides everyone, from school level support teams to the Governor, access to information on exactly what is happening from lesson delivery, true attendance, observations and more.

In addition, JigawaUNITE will integrate a specially designed Measurement & Evaluation Programme to baseline and measure progress against learning outcomes for the Programme. Reports of such outcomes will be regularly provided to appropriate stakeholders within JigawaUNITE.

5. JigawaUNITE is Backed by Evidence it will Generate Dramatic Improvements in Learning Outcomes

The tools, technology, approaches, and systems used in JigawaUNITE have been proven in several other emerging economies across Africa and Asia to quickly and dramatically improve learning outcomes. It is critical in deciding to implement this programme that the Government of Jigawa State has chosen an approach that has already been proven to deliver on the core goals of improved learning outcomes for all children in similarly challenging environments as that which exists across Jigawa State, and in particular in the most marginalised communities in Jigawa State.

The five core pillars of transformation as described in the JigawaUNITE proposal have been used in other countries across Africa and Asia with accelerated and significant effect. Examples of some of these impacts are included in Appendix 3 and summarised below:

- Nobel-laureate Prof. Michael Kremer found in a groundbreaking study (using a gold-standard, randomised control trial) that **NewGlobe-supported schools generated educational gains larger than almost any on the historical record (greater than 99th percentile of large-scale interventions studied)**. Prof. Kremer showed that in just two years in school, students learned the equivalent of between three and three and a half years-worth of learning.
- Gains happen quickly. Students in public schools in Edo State implementing a similar transformation **gained more than 70% of a year's worth of instructional gains in just one semester, were 45% more likely to work a full day, 54% more likely to give positive feedback to pupils, and 55% less likely to use corporal punishment**.
 - **After 2.5 months, pupils were learning at 3x rate of learning in Math and 2x the rate of learning in literacy.**
 - **After 2 years, increased public school enrollment statewide by nearly 20%** as public trust in public schools was rebuilt.
- Students in classrooms using a similar approach in Lagos, Nigeria outperformed their peers in traditionally-managed public schools by a wide margin, 1.38 and 0.86 standard deviations in literacy and maths, respectively. **This represents an estimated two or more additional years of instruction in literacy and roughly one and one-half additional years of instruction in maths.**
- In **Manipur, India**, a NewGlobe-supported Programme – STAR Education – **accelerated fluency levels 2.5x of status quo in just 18 weeks. The Programme also increased public school enrollment by 45%.**

- The gains in Lagos, Nigeria were found to remarkably be driven by equity. **For students taking part in a similar transformation, their performance on literacy and numeracy assessments are quite similar irrespective of parental income, education, or home language.** This implies that this approach overcomes the inherent disadvantages typically challenging students from low-income households and with parents with less formal education.
- In Rwanda, a NewGlobe-supported programme **increased rates of learning on fluency and numeracy by 200%+ in just 5 months**, with Primary 1 students in the Programme outperforming Primary 2 students. In that same time period, the schools witnessed a **50% reduction in teacher absenteeism.**
- The programme in Rwanda enabled the government to successfully shift the medium of instruction to English in all grade levels, while **delivering dramatic gains in BOTH English and Kinyarwanda.**
- In Nigeria, a NewGlobe-supported programme **helped public schools** in Lagos (the fifth largest city in the world) **move from reading levels on par with low-income countries** such as Niger and Chad **to middle income country levels** (e.g. Panama and Egypt) **in just three years.**

It is expected that similar gains in learning outcomes across Jigawa State will be seen through the implementation of JigawaUNITE leveraging the same core transformation principles as those done in other similar circumstances.

Transformation of the classroom experience will be visible to students, parents, and the citizens of Jigawa State within the first term. Within the first year, parents will see the difference the programme is making to their childrens' lives. These visible results will be rapid and dramatic and enable the government of Jigawa State to rebuild public trust in the public education system.

6. System Empowerment & Sustainability

A key component of JigawaUNITE is capacity building of government staff at all levels. JigawaUNITE is specifically designed to empower the government itself to deliver on the highest quality in its education system. It is not about building a parallel or private system that is not public. The programme is designed from day one to build the capacity of the whole system, from the classroom and school level up to the ministry or department.

Classroom Level. At the classroom level, JigawaUNITE will train and digitally equip teachers to use modern, scientifically-based and child-centred pedagogies to deliver learning gains in the classrooms.

School Level. At the school level, JigawaUNITE will train and digitally equip head teachers to be a critical instructional leader for all of their teachers, how to do classroom observations, provide feedback to teachers, focus on student results, and how to engage with the community.

Ministry Level. At the Ministry level, JigawaUNITE will train local district education officers on how to use data, and the digital transparency tools (including web-based dashboards) to monitor and support the schools. They will learn the most effective way to conduct school visits, conduct school inspections, conduct classroom observations and provide effective feedback to the head teachers and teachers under their charge.

This up-skilling of the Ministry's own staff is an explicit goal of the JigawaUNITE Programme. Ministry staff will accompany JigawaUNITE support officers on visits and over the course of the Programme be upskilled to utilise these research-proven approaches. At the central level, JigawaUNITE staff will train Central Ministry staff on how to use the data available in reports and dashboards provided by JigawaUNITE in order to support departmental oversight. This includes how to use the information about a teacher's true attendance and effectiveness to make staffing decisions, promotions and more. Through explicit training and support, JigawaUNITE staff will upskill the Central Ministry staff in the use of digital tools and data not just for oversight, but also in how to use the data to make policy recommendations and policy implementation.

During the course of the project, JigawaUNITE will build the capacity of the entire system to be more effective at not just managing its schools, but expecting and succeeding at delivering accelerated learning outcomes with its own staff - its own teachers, head teachers and ministry support teams.

This is accomplished with a research-proven, scaffolded, step by step model, broken into phases:

- **Phase 1 - Year 1-4** - Focus is transformation of and capacity-building of teachers inside the classroom and the head teacher at the school-level. As JigawaUNITE rolls out to each classroom and school, this phase witnesses the commencement and stabilisation of the transformation.
- **Phase 2 - Year 5** - Focus is on stabilising and sustaining the quality of the intervention from Phase 1 as well as training and equipping the government's institutions (e.g.

Ministry) to be ready to take on the supervision of all the field teams - School Supervisors and School Inspection teams. By the end of Phase 2, these teams will have been built up, trained and performance managed by NewGlobe. The Ministry will be part of that process in Phase 1, but by the end of Phase 2, the Programme will execute a planned transition of these support teams and their management to becoming managed by government, such that the quality results delivered in Phase 1 and 2 are sustained and taken on through government supervision.

- **Phase 3** - At the conclusion of Phase 2, the government will be ready to take on the supervision and management of all the field teams with NewGlobe providing all of the non-field-based services that are part of JigawaUNITE (including all of the technology, software, hardware, IT support, instructional materials, ongoing adaptation, resolution team, operational, programmatic and logistical support, training services, and project management).
- **Phase 4** - JigawaUNITE will have fully transformed every school with all field support staff now managed by the government institutions. At this point, the relationship with NewGlobe can transition into a different supporting model with multiple options, including:
 1. **Option 1:** Renewing the support services at the same level as Phase 3 for a period of time (includes all of the technology, software platform, hardware, IT support, instructional materials, ongoing adaptation, and project management).
 2. **Option 2:** Government will assume a subset of the on-ground services that through Phase 3 were managed by NewGlobe. NewGlobe will continue to provide the remainder of the on-ground services as well as long term support services (technology, technology support and updates, access to instructional content and training materials, and continuous data driven updates to the content)
 3. **Option 3:** Government will assume all on-ground services and NewGlobe will provide long term support services (technology, technology support and updates, access to instructional content and training materials, and continuous data driven updates to the content)

7. Parent and Community Engagement

Community and parent engagement activities are integrated into the JigawaUNITE holistic transformation plan in order to raise community awareness of the importance of quality education, the desired learning outcomes, and create enhanced community ownership of and pride in newly transformed schools.

Research has shown strong connections between family involvement/engagement and student academic achievement across many different studies. The earlier teachers and school leaders establish family engagement, the more effective they are in raising student performance. Family partnerships formed during primary school years build a strong foundation for future student success and continued engagement. When students receive more support, classrooms with engaged families perform better as a whole.

JigawaUNITE will incorporate a number of community and parent engagement programmes in the schools including:

- **Parent & Community Orientations** are designed to provide information about the government programme to all stakeholders, and explain how it will improve the strength of each school.
- **Informational Parent Meetings.** Parents are key stakeholders to ensure accountability of the school, its teachers and school leaders. These meetings create opportunities to disseminate information to parents concerning key outcomes, academic and calendar changes, and important events scheduled throughout the year.
- **Parent Teacher Conferences.** Parent Teacher Conferences are a vital component of fostering positive relationships between the parent and the teacher, as well as the school leader. They are also a way of inviting parents to play an active role in their pupil's performance. At the centre of the Parent Teacher Conference is a review of each pupil's current performance and how to support continued growth. These carefully structured and meaningful interactions bolster the support a pupil receives at home and in school.

8. JigawaUNITE Implementation Considerations

Field Research to Finalise JigawaUNITE proposal and implementation plan

As part of the process of finalising the implementation plan for JigawaUNITE, NewGlobe will send a team of specialists on the ground to do a full landscape assessment and academic field study of schools throughout the state. The results of this study will enable a further refinement to the JigawaUNITE proposal.

Grade Coverage

JigawaUNITE will serve Primary School grades. Expansion into Secondary can also be considered.

Curriculum/Subjects

The complete National curriculum will be taught in JigawaUNITE, with particular emphasis on foundational literacy and numeracy skills as well as 21st century skills.

Progressive School Option

JigawaUNITE will help the Government of Jigawa State manage the challenge, where it exists, of rural multi-grade schools that are understaffed in terms of not having one teacher for each grade level. The first, and best option for the government is to distribute teaching staff or rationalise schools such that every school has a teacher for every grade level. That is sometimes not a practical reality for the government. In those cases, JigawaUNITE can incorporate a unique and research-based approach for managing multigrade schools that has been shown to have substantial gains in learning outcomes even with these challenging constraints. As part of the planning process, it will be collaboratively determined which schools in Jigawa State are appropriate for the Progressive model.

Potential Rollout Plan

The Programme will transform **approximately 2324 public Primary Schools** to JigawaUNITE schools, benefitting **approximately 12,813 teachers and 858,601 students**.

9. Potential Economic Impact of JigawaUNITE

- Professor Eric Hanushek and colleagues have exhaustively studied the economic impact on a country's GDP from explicit increases in student learning levels.
- The general conclusion of their research is simple and unequivocal: improvements in the quality (as opposed to the quantity) of schooling increases the cognitive ability of the labour force, which directly translates to greater productivity and higher economic output for a state or country. More specifically, the work correlates and quantifies both improvements in education outcomes (on the 'input' side) and the corresponding increases in GDP growth (on the 'output' side).
- We draw on Prof. Hanushek's work to derive a return on investment of a programme such as JigawaUNITE. Hanushek's research concludes that if a state improves the quality of student learning by $\frac{1}{4}$ standard deviation, the state's economic growth rate (measured in GDP) increases by 0.5% annually.
- JigawaUNITE is designed to produce this level of improvement and is based on NewGlobe's work in several other countries where, according to independent studies, these programmes have achieved gains greater than the $\frac{1}{4}$ standard deviation requirement stated in the Hanushek study.
- As these substantially higher educated students graduate and eventually enter the workforce, Hanushek's research calculates the impact of that on the GDP of the country. The effect grows greater as a larger and larger proportion of the workforce comes from the students who graduate with significantly improved education.

Table: Impact on GDP over time of JigawaUNITE generating a 0.5 SD Gain in Learning Outcomes

| # Years after Implementation of Bridge Programme | Total additional economic output from the education gains (measured as % of GDP) |
|--|--|
| 10 | 1.0% |
| 11 | 1.6% |
| 12 | 2.4% |
| 13 | 3.4% |
| 14 | 4.7% |
| 15 | 6.3% |
| 16 | 8.2% |
| 17 | 10.5% |
| 18 | 13.1% |
| 19 | 16.1% |
| 20 | 19.6% |

Source: Cairneagle Feasibility Report on implementing NewGlobe-based Programme

For Jigawa State, this would be an expected additional economic output of USD 3.25 billion over 20 years of implementing JigawaUNITE.

10. About the Implementing Partner - NewGlobe

NewGlobe supports visionary governments to transform public education systems, the cornerstone of a prosperous, equitable, and peaceful society. Founded in 2007, NewGlobe opened its first community school programme in Kenya in 2009. Since then, it has expanded to 6 countries across Africa and Asia, partnering with governments to serve over 3 million children in 8000 public schools who live on less than \$2 per person per day.

Over the past 15 years, NewGlobe has established itself as a global leader in catalysing comprehensive systemic transforming through data-driven educational services that integrate the science of learning with technology to deliver dramatic learning improvements at state and nationwide scales.

With more than 3,000 employees on 4 continents, NewGlobe has the resources and experience to deliver dramatic learning gains for children across Jigawa State.

NewGlobe's impact has been proven by rigorous research

NewGlobe's impactful partnerships ensure that every child has access to quality education, unlocking their full potential for growth and prosperity. Several research studies have proven that students in NewGlobe-supported schools record dramatically accelerated learning outcomes - they pass national exams at nearly twice the rate of their peers in traditional schools, and public schools supported by NewGlobe have been shown to deliver two-years' worth of learning gains in a single year.

NewGlobe is fostering equity in education

Studies show that the NewGlobe methodology is helping children from even the poorest families attain the same learning as those from families with higher income or parental education levels. Children in NewGlobe supported schools outperform peers in traditional government schools and private schools, regardless of their socioeconomic background.

NewGlobe is transforming school management and functioning

Research proves that in schools supported by NewGlobe, the relationships between teachers, students, and the community are significantly stronger compared to similar schools. These schools exhibit considerably stronger overall management as measured by international standards. Teachers report higher job satisfaction, and the incidence of teacher absenteeism is significantly lower.

NewGlobe has been recognised by global thought leaders and investors

NewGlobe is supported by leading technologists and investors, including Bill Gates (Microsoft), Mark Zuckerberg (Facebook), Pierre Omidyar (eBay), and Learn Capital. Its work in fostering prosperity for countries has been leading international agencies such as the World Bank, the IFC, the OECD, and The Brookings Institution. NewGlobe has also received numerous awards in the field of international development, such as The Economist Innovation Award, World Economic Forum Award for Social Entrepreneurship, OPIC's Development Award, Goldman Sachs Builders and Innovators Summit, and others.

NewGlobe qualifications to successfully implement JigawaUNITE

It is critical to the success of JigawaUNITE that the Government of Jigawa State chooses an implementation partner with a research-proven track record of success in implementing similar programmes in similar contexts. In particular, NewGlobe has:

- A 15-year track record of delivering statistically significant learning outcomes (measured by multiple studies showing greater than a 0.25 standard deviations gain over status quo public schools) within similar socioeconomic communities as in Jigawa State.
- Track record of operating at scale necessary for system transformation – having educated more than 3 million students across thousands of schools in multiple countries
- Supported full management of schools in urban, peri-urban and rural areas
- Demonstrated experience leading teacher selection and training at scale (with proven capacity to train more than 5,000 teachers a year)
- Proprietary and integrated technology and data systems that provide digital transparency for classrooms and schools that work in remote areas that may have limited electricity and in schools without dedicated internet connections, with such proprietary technology systems being used in practice for more than five years at scale in multiple contexts
- Provided student, teacher, and school-level data to multiple governments on weekly, monthly, and school year bases, including attendance of students and teachers and assessment scores

11. JigawaUNITE Value for Money

The JigawaUNITE Programme provides high value for money for the Government of Jigawa State. The costs of the programme covers all of the comprehensive services and resources to deliver a complete system transformation of the education system in Jigawa State. This includes all of the technology, services, training, hardware (including repair and replacement), instructional content, materials and fully loaded cost of new support teams:

1. Technology Platform

Learning Management Module supports and ensures teaching and learning are happening in classrooms. It includes:

- *Digitally maintained and updated Academic Schedule as part of termly/annual scope and sequence)*
- *Digital Teacher Guide Delivery & Management (digital distribution, syncing to tablet, preview and delivery*
- *Central management web-application for lesson and assessment scheduling and management, and potential use for A/B testing ongoing content adaptations*
- *Instructional Delivery tracking and monitoring (including start and end time for each lesson compared to schedule, pacing and % completion)*
- *Digital Messaging platform for providing academic and operational guidance to teachers and head teachers*

Accountability & Professionalism Module includes tools to monitor and drive increased professionalism. It includes:

- *Teacher Attendance system including timestamping arrival and departure with validated sync to geotagged smartphone, including management tool on smartphone*
- *Student attendance system for attendance taking*
- *Student/Class Roster management, including student info and enrolment/admissions functionality*
- *Classroom/Lesson Observation Tools*
- *Head teacher attendance management for arrival and departure with digital time stamp and geo location*

Reporting & Transparency Module provides digital transparency tools to ensure success. It includes:

- *Web-based dashboard application for aggregate and drill-down on disaggregated data on teaching, learning, school/class/teacher information, teacher and student performance and accountability*
- *Multiple levels of information from State->School->Class/Teacher->Pupil continually*

- *Reports and reporting for requested data/analysis*
- *Web-based issue and resolution tracking*

Student Performance Module measures and monitors student performance. It includes:

- *Entering and managing student assessment scoring*
- *Student roster creation and management, including class assignment and grade promotion*
- *Student attendance tracking and monitoring*

Back Office Support Module - Backend systems for training, support and oversight

- *Induction training system for management and delivery of training session content through tablets, tracking trainee attendance, practical usage of teacher guide/scheduler*
- *Support for digital audits and reporting*
- *Device and asset management and monitoring systems*
- *Resolution team ticketing and tracking systems*

Update and Upgrades. Includes ongoing updates and upgrades to technology platform modules. Includes minor and major updates and upgrades to the existing modules above.

2. Comprehensive Technology Services

24/7 Hosting and Servicing of Cloud-based Platform includes

- *Server costs, datacenter hosting, data backup, security implementation, server upgrades and all third-party licensing fees necessary for the software delivery, systems, server, database and software monitoring tools.*

End-to-end Hardware Provision includes:

- *Provision of custom, android-based e-ink tablet for every teacher*
- *Provision of compatible android-based smartphone for every headmaster*
- *Full repair and replacement services for devices assigned to teacher and HMs (includes replacement up to 25% of active devices annually)*
- *Management of asset inventory across the state, including tracking and identifying problematic hardware using system health check, battery checks and monitoring tools.*

Technical Support

- *Provision of user and technical support through multiple channels - phone-based, WhatsApp, and web. Includes multiple level (L1, L2, L3) resolution team to directly support users on the use of the technology platform and services, as well as hardware. Full tracking of all tickets in an issue tracking and resolution system*

Connectivity Provision and Management

- *Provision and maintenance of mobile data plans for all connected devices. Management of data plans, data provisioning, billing/support to ensure access.*

Service for Updating and Ongoing Management of Academic Scope & Sequence, Lesson Schedules, Assessment Schedules and Teaching Calendars

Customised reporting services

3. Scientifically-based Learning Materials (Digital and Printed) aligned to the national curriculum

- Scientifically-based Digital Teacher Guides for facilitating highly structured lessons. They are included *for every subject, every grade and every day.*
- Aligned printed learner textbook content and supplemental materials content
- Assessments measure and monitor student performance. *Includes a range of exams that evaluate pupil learning throughout a course.*
- Shared Learning Resource Content include activity-based materials for classrooms
- Service for data-driven updates to the academic content and Programming to ensure it is fit for purpose based on student performance and evolving academic needs

4. Training and Continuous Professional Development

- In-person, multi-day scientifically-based induction training for every teacher
- In-person, multi-day scientifically-based induction training for every head teacher
- Fully staffed team of field-based professional development coaches, equipped with specialised smartphone applications for data-driven in-school coaching for each teacher (1x-3x per month)
- Training content for Teachers & HMs for induction training and ongoing professional development, training content for support officers, teacher observation guides for short and long form observation and guidance for special Programmes.

5. 360-degree Support Teams to ensure immediate implementation support

- Field-based independent school inspection team deployed to conducting digital observational audits
- Centralised telephone/electronic Analysis/Issue Tracking/Resolution Team
- Data Operations Programme Management & Analytics team providing real-time monitoring, reporting.

- Academic Services (instructional materials and pedagogical adaptation, measurement & evaluation services for comprehensive assessment and analysis of pupil academic outcomes, Academic Field Officers)
- Full project management and leadership support team
- Scaffolded Capacity-Building training for all teams within the Ministry to ensure long-term sustainability of the transformation.



Jigawa Unified New Improvement of
Teaching and Education



A
**Government
of Jigawa State
Initiative**