

Track & Trace Books:



Enhancing Book Distribution

Why Track and Trace?

Despite investing decades of funding for books in low-income countries, many early-grade classrooms have insufficient textbooks and supplemental reading materials to meet the needs of students. Textbooks and materials can go astray at any stage in the delivery process. Experience in developing countries suggests that when parents, teachers, and other local stakeholders know what books are to be delivered and when, they will advocate for on-time delivery. Government and donor agency officials may discover that materials have not arrived at schools, but without the availability of tracking information, they do not know where they were lost in transit.

What is Track and Trace?

Track and Trace (TnT), developed by John Snow, Inc. (JSI) and World Education Inc. (WEI), with funding from the All Children Reading Grand Challenge, is a technology solution that enables ministry officials, partners, and distributors to track in real-time the ordering and distribution of books and other supplies. Tracking these orders ensures they reach the schools they were destined for in a timely manner and in the right condition. TnT improves the transparency and accountability of the education supply chain by enhancing the central government and community's visibility into the location of textbooks during the distribution process.

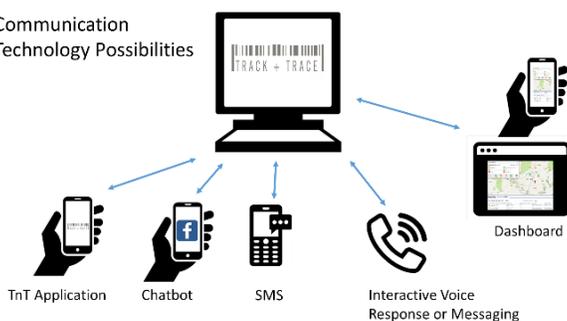
TnT is designed to make the primary school textbook supply process more efficient by three main features:

- 1) Schools report timely data and TnT assists in accurately projecting book needs for budgeting and procurement by the central ministry
- 2) Tracking “real-time” distribution of textbooks and providing visibility of issues – delayed, missing or damaged – for taking timely action
- 3) Engaging school communities to confirm books arrive and conducting classroom spot checks post-delivery to ensure textbooks are available

TnT allows for governments to monitor contractors' performance in delivering books and other supplies to schools as per their contracts. TnT will allow procurement agencies to track usage and use TnT to better forecast need for more accurate procurement. TnT allows school-community bodies, principals, administrators, and teachers to access information needed to advocate for improved supply chain performance through standard mobile phones.



Communication
Technology Possibilities



TnT utilizes various communication technologies to enable reporting of information and tracking of books and school materials throughout the ordering and distribution process. Technologies include barcodes, short messages service (SMS), interactive voice response (IVR), smartphone applications, chat-bots, and web-based dashboards with maps.

TnT was first piloted in two schools in Malawi using SMS. TnT is now being scaled to 400 schools in Cambodia with an additional request feature and using chat-bots.

Northern Education Initiative Plus (NEI+)



PURPOSE

Funded by the United States Agency for International Development (USAID), the five-year Northern Education Initiative Plus activity (NEI+) will strengthen the ability of the states of Bauchi and Sokoto to provide access to quality education—especially for girls, orphans and children enrolled in nontraditional schools—and improve reading skills for more than two million school-aged children and youth. A third state will be announced in Year Three.

Consistent with the USAID Forward strategy, this project will focus on building programmatic ownership among federal, state and Local Government Education Authorities (LGEAs), as well as increase their commitment to the provision of quality early grade reading (EGR) instruction and increased access. The Initiative seeks to strengthen LGEAs' ability to better train and manage teachers, improve their capability to plan, budget and deliver professional development, ensure school governance, mobilize community support for learning and ensure timely distribution of materials.

OBJECTIVES

The project will train and equip teachers and learning facilitators who will reach children in schools and non-formal learning centers. By incorporating EGR instruction concepts, techniques, practices, and materials into national teacher training programs, graduates will be equipped with a full set of instructional skills that will have a direct and positive impact on their students' primary school reading performance.

POPULATIONS SERVED

The USAID-supported project will train and equip around **42,000 teachers and learning facilitators** who will reach children in schools and non-formal learning centers (NFLCs).

The Initiative seeks to reach nearly:

- **1.8 million children** in grades 1 - 3
- **500,000 out-of-school children, youth, and adolescent girls** attending 11,000 NFLCs, Adolescent Girls Program Centers and Youth Learning Centers

In Sokoto state, the NEI+ Project will train over **16,000 teachers and learning facilitators** and reach almost **650,000 students** in both formal and non-formal schools.

PARTNERS

NEI+ is being implemented by Creative Associates International in collaboration with three U.S.-based organizations—Education Development Center (EDC), Florida State University (FSU), Overseas Strategic Consulting (OSC)—and four local organizations—Value Minds, Civil Society Action Coalition on Education for All (CSACEFA) and the Federation of Muslim Women's Associations in Nigeria (FOMWAN) and the Reading Association of Nigeria (RAN). The Initiative will also engage more than 60 local NGOs in pursuit of its objectives.

CONTACT INFORMATION

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EDC is a partner to Creative Associates on the Initiative and in addition to leading implementation in Sokoto State, serves as the project technical lead for monitoring and evaluation, early grade reading standards, and technology.

Track and Trace in Creative Programming

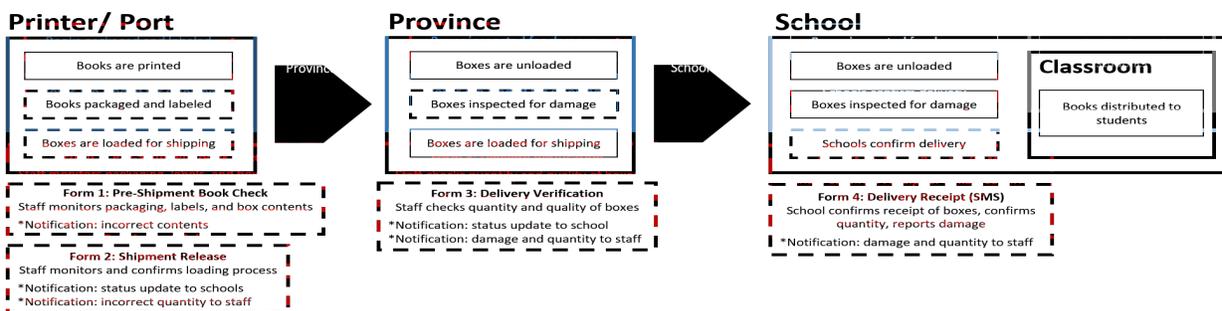
Creative Associates International currently implements Track and Trace methodology for book delivery in the USAID funded *Afghan Children Read* project and *Vamos Ler/ Let's Read!* project. The focus of these applications of Track and Trace methodology is to identify and/or plug leakages in the book delivery system that prevent student's receipt of reading materials, and to give real-time information to stakeholders of the book delivery process. The end-goal of the book tracking pilots is to improve the student to book ratios in classrooms and to provide a level of protection on the investment in school materials. Creative implements Track and Trace as an iterative process, co-designing Book Tracker with users and applying learnings with each round of deliveries.

Book Tracker

- Book Tracker is built on Geosago, a user-friendly logistics and data collection tool. The Book Tracker mobile app is available for use on Android devices, and features easy form creation and offline mobile functionality – the app can still be used on a tablet or smartphone when an internet connection is unavailable and will automatically sync data when connected. Collected data can include geospatial information allowing for data to be mapped in real-time and ready for sharing and analysis with project staff and stakeholders.
- Book Tracker features mobile and web-based data entry, a simple form designer, project-specific dashboards, customizable alerts and automatic reporting. The online platform includes a public viewer, which can be used to share maps with stakeholders outside of the project. Users who have been given access to the projects will be provided a network link that allows them to view the live, cloud data in Google Earth or other software capable of displaying geographic data. Data can be exported from the CreativeMapper online platform as a CSV, KML, or Shapefile at any time.
- Book Tracker has been integrated with other technologies (SMS and IVR) to expand options for user interaction with the tracking system.
- Languages available: Both the online platform and mobile app are available in English, French, Spanish. The forms and data can be translated to Portuguese.

Track and Trace Example Path

Tracking Printer to School



The figure illustrates the path of books in the Afghan Children Read project, which utilized in-country vendors. In *Vamos Ler*, books were tracked from the ports as materials were printed locally and internationally.