



# UNICEF CÔTE D'IVOIRE PLASTIC BRICKS



© UNICEF/Frank Dejongh

## From Plastic Waste to Building Blocks

PROGRESS REPORT  
JUNE 2023- JUNE 2024





Students file in outside a Plastic Bricks classroom. © UNICEF/Tchebakro

## SITUATION OVERVIEW

Despite the rapid progress and expansion of Côte d'Ivoire's education system over the past decade, **the country still faces persistent inequalities, structural barriers, and poor learning outcomes.** In addition, there are an estimated 1.5 million out-of-school children; even though education is compulsory for children aged 6 to 16, many children still do not go to school. Children's learning is also deeply impacted by the lack of infrastructure, with a need for at least 30,000 classrooms in order to keep pace with the number of school-aged children. Another major issue is that over 2 million students do not have access to basic or essential water and sanitation services. To face this challenge, UNICEF supports the government to increase the number of schools that meet the WASH (Water, Sanitation, and Hygiene) norms and standards.

**In addition to the challenges outlined above, climate change and environmental degradation continue to undermine the rights of every child.** The world produces about 300 million tons of plastic waste every year, which is almost the equivalent of the weight of the entire human population. A staggering eight million tons of plastic ends up in the world's oceans every year. Abidjan produces 288 tons of plastic waste every day, 90 percent of which pollutes low-income communities. Nearly half (46 percent) of households in Côte d'Ivoire – mainly single-parent families – live in poverty. Only 5 percent of plastic waste is recycled in Côte d'Ivoire, mainly informally by women and at very low prices.

**Thanks to the generous support of donors like you, UNICEF is working with the Ministry of Education in Côte d'Ivoire to help fill the gap of 30,000 classrooms in the country and providing access to quality education to all children by 2025 with the Plastic Bricks Project.**

## PLASTIC BRICKS PROJECT

**The Plastic Bricks Project is an innovative program that mobilizes a female collective to collect plastic waste, which in turn is converted into bricks to build local school classrooms.** The project not only helps to teach children the value of education, but also helps to encourage environmentalism across entire communities. Critical to this work is a partnership with Conceptos Plasticos, a family-run social enterprise that has worked with UNICEF to build the first-of-its-kind plastic brick factory in Africa. At full operations, the factory will be able to recycle 9,600 tons of plastic waste each

year. It will help develop a new recycling economy, create jobs at multiple levels of the project and keep children in school.

The Plastic Bricks Project is being implemented as part of the 2017-2020 Cooperation Program Framework and the 2021-2025 Cooperation Program Framework between UNICEF and the Government of Côte d'Ivoire. It is aligned with Côte d'Ivoire's national goals, including the compulsory education policy, which aims to reduce the number of children that are out of school. This project also aligns with Sustainable Development Goal 4, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.



A UNICEF employee holding up a plastic brick at a construction site. © UNICEF/Dejongh

## OUR PROGRESS

Following interruptions to construction last year, UNICEF has forged ahead with classroom construction across the country. To make schools safer and more comfortable for students, UNICEF has made a more concerted effort to connect classrooms with WASH infrastructure, like latrines and handwashing stations. To date:

**410**

**classrooms**

have been fully constructed since the program's launch, with 83 more underway

**10,534**

**learning kits**

distributed to schools to improve students' learning experience

**3,195.5**

**tons of plastic**

recycled since the launch of the program in 2019

During the reporting period, plastic waste was recycled into structures that will outlast traditional buildings, addressing a need for classrooms and responding to the waste crisis in Côte d'Ivoire. With funding from partners like you, 410 classrooms have been fully constructed since the beginning of the program in 2019. An additional 107 classrooms are currently under construction, and 51 are planned to complete begin construction by the end of 2024. The Plastic Bricks program also ensures that students have the necessary furnishings to have an optimal learning environment. Support from donors helped provide 10,534 learning kits to students across the country. Additionally, various teaching and



learning materials have been provided to 111 primary schools and 21 preschool classrooms for this school year, benefiting 6,600 children.

UNICEF knows that children are safest and healthiest when they have access to water, sanitation, and hygiene (WASH) facilities at or near their schools. With additional donor support, UNICEF has continued to push forward in connecting Plastic Bricks classrooms with appropriate WASH infrastructure. UNICEF is guided by the three-star approach, which aims to ensure that all students wash their hands with soap, have access to drinking water, and are provided with clean, gender-segregated toilets at school every day. Schools will work through activities to expand hygiene promotion and improve WASH infrastructure, eventually moving them from one to three stars and in alignment with national standards for WASH in schools.

Informed by an assessment of classrooms and schools' current WASH infrastructure, UNICEF has forged ahead with important construction efforts. The construction of water infrastructure is underway in 30 schools in the regions of Agnieby-Tiassa (15) and Bounkani (15). The construction of 27 boreholes equipped with handpump is being finalized while 3 schools are being connected to existing water systems. As for sanitation and hygiene, the construction of adequate infrastructure (latrines and handwashing facilities) is on-going in 17 schools in the regions of Agnieby-Tiassa (4), Kabadougou (3), Bafing (3) and Tonkpi (7).

## IMPROVING LEARNING OUTCOMES

In addition to the construction of classrooms, a component supporting access to quality education is included in all new schools built with plastic bricks to improve learning outcomes. Donor funding helped UNICEF purchase teaching and learning materials. The materials were distributed to 37 schools at the beginning of the school year 2023-2024, benefiting 12,210 children. Furthermore, classroom furnishings will be distributed to 111 classrooms of primary level and 21 of preschool level, benefiting 6,600 children. Additional education activities include:

- **Pedagogical tools:** The Ministry of Education, with the support of UNICEF, is committed to improving the level of learning outcomes among children through the implementation of a new reading and arithmetic program that reaches children in the first two levels of primary school. As part of the initiative, UNICEF helped to develop pedagogical tools in reading and in mathematics (29 and 20 new pedagogical tools for reading and math respectively). These tools will be used by teachers during classes and will be distributed in pedagogical trunks.
- **Environmental Awareness:** Early in the project, UNICEF and the Ministry of Education planned to implement a package of environmentally friendly interventions in select schools. However, both parties agreed that there could be great impact in mainstreaming environmental awareness for children into the national education curriculum. To support this learning, UNICEF developed new image boxes, which show images of



Sample images from picture boxes.

the environment and offer discussion questions for teachers and students to consider their role in the environment. In total, 6,128 image boxes will be distributed before the beginning of the 2023-24 school year, benefitting 1.8 million children across 1,021 schools.

- **National Program for the Improvement of Fundamental Learning:** Technical assistance was provided to the Ministry of Education to develop the reference document for the National Program for the Improvement of Fundamental Learning (PNAAF). This document describes the context, objectives, target audience, areas of intervention, management bodies, training disposition, monitoring and evaluation system, communication plan, and timetable for PNAAF implementation. These documents are used to produce teaching and learning materials and are used in teacher trainings.
- **Teacher Training:** During the implementation, a total of 492 teachers have been trained on the new pedagogy aiming to improve children’s learning outcomes. These trainings allowed teachers to improve their techniques for teaching reading and mathematics through traditional classroom methods and more interactive, hands-on approaches.
- **Control Tests:** After completing design of the methodology and tools used to roll out control tests, UNICEF supported schools to administer the test. Across 306 schools, 26,241 students (12,817 girls, 13,424 boys) completed the control tests. The results of the control test showed that for all the target schools, in the first year of elementary school, 91.2% of children acquired skills in mathematics and 87.55% in French. In the second year of elementary school, 91.1% acquired mathematics skills and 85.5% acquired French skills. UNICEF’s support allowed the Ministry of Education to obtain reliable results and evaluate the children’s achievements during the first phase of implementation of the PNAAF. The new test session is planned for the beginning of 2023-2024.



Teaching session with the new pedagogical tools. © UNICEF/Dejongh

## EMPOWERMENT OF WOMEN

UNICEF, in partnership with the Conceptos Plásticos Foundation, continues to support women by helping them to organize themselves into an association to optimize their plastic waste collection activities. To date, 185 women have been trained and are members of an association, which allows them to secure a minimum income and improve their living conditions. In addition, a collecting point and storage center was built in Akouedo to facilitate the storage and sorting of waste before sale.

## Challenges and Lessons Learned

As detailed in past reports, the UNICEF team faced many challenges, largely from external forces, when undertaking this program. Those included delays due to COVID-19, extensive power outages, damaging storms and heavy annual rain.

UNICEF was able to adapt and respond to these challenges with the flexible support of donors like you. The primary challenge for the program in 2024 has been managing changing dynamics within the construction industry. Many of the available companies had limited financial and technical capacities, which made it difficult to adapt to unexpected delays or difficulties. UNICEF provided many of these companies with additional training, adjusted payment installations to account for timeline changes, and began conducting capacity analyses to assess the best performing companies and retain them for on-going construction work. Unfortunately, all of the engaged companies with adequate capacities are already fully booked, so the scheduling of the remaining 51 classrooms is on hold until the last trimester of 2024 when they will become available. To supplement the current roster of construction providers, UNICEF issued a public call for expressions of interest, and newly recruited companies were trained by UNICEF and Conceptos Plasticos in April. These companies are supporting both classroom and latrine construction.

## Monitoring and Evaluation

The monitoring and evaluation of project results are being carried out within the framework of UNICEF Côte d'Ivoire's overall monitoring and evaluation plan. Result indicators are collected by the Ministry of National Education through annual routine surveys conducted by the Directorate of Strategy, Planning, and Statistics (DSPA).

Country management team meetings, which take place monthly, also allow the Country Office performance to be tracked relative to Key Results for Children (KRCs) by specifying expected outcomes, such as KRC #3 (By 2025 the proportion of out-of-school children of primary and lower secondary school age in Western and Central Africa is reduced from 34 percent to 22 percent). Progress relative to outputs and outcomes are monitored and measured using 1) data collected or tracked (annually or monthly), 2) results, and 3) other complementary data management mechanisms, when data essential to measure priority progress is lacking.

As part of this project, monitoring missions are regularly organised by UNICEF's construction engineers to ensure the quality control of the work as well as the state of construction.

In addition, in terms of financial risks, UNICEF is using the UN's Harmonized Approach to Cash Transfers (HACT) framework, a set of rules which includes transparent tenders, regular spot checks and audits, and capacity building of the various actors involved in the expenditure chain. A component related to protection from sexual exploitation and abuse has recently been added to ensure that no beneficiary of UNICEF's interventions is victimized.

Faced with several challenges during the implementation of this project, especially related to the monitoring of construction sites and the multiple phases to complete a classroom, UNICEF Côte d'Ivoire developed a dashboard providing an overview of project progress. The dashboard includes real-time data on the status of all construction steps, for all schools planned or under construction. The dashboard disaggregates all steps in the process including site identification, laying foundations, building platforms, shipment of plastic kits, assembling walls, installing roofs, and quality control missions for each location. The dashboard allows the office to identify bottlenecks early in the process to minimise potential delays.

On behalf of the children in Côte d'Ivoire, thank you.

.....

Over eight decades, **the United Nations Children's Fund** (UNICEF) has built an unprecedented global support system for the world's children. UNICEF relentlessly works day in and day out to deliver the essentials that give every child an equitable chance in life: health care and immunizations, safe water and sanitation, nutrition, education, emergency relief and more. UNICEF USA advances the global mission of UNICEF by rallying the American public to support the world's most vulnerable children. Together, we have helped save more children's lives than any other humanitarian organization. For more information, visit [unicefusa.org](https://www.unicefusa.org).