

Budding Scientists: Quality Education through science in Mali with the support of the Dutch NatCom





OVERVIEW OF THE PROJECT

Objective: Support school retention and quality of education through the study of sciences for adolescent girls and boys

- Targets:
- Project implemented in 125 schools
- 5,600 adolescents
- Training for 375 science teachers
- Provision of learning materials (school kits and and dignity kits as well science manuals for teachers
- Psychosocial support for 400 children at risk of dropping out
- 375 science clubs to be created



Key Results Update:

October 2021-August 2022

Pre-project Activities

- Diagnostics Test: Assessing children, especially girls' interests in science
- Inventory of existing science materials
- Information sessions conducted by the Ministry of Education

Result 1: Obstacles to adolescent boys and girls school attendance are lifted

Activity 1.1: Provision of learning materials (purchased and distributed)

- 5,000 school kits (100% of target)
- 4,500 dignity kits for adolescent girls (100% of target)
- 1,125 science manuals approved by the MoE (100% of target) to help teachers improve the quality of their instruction

Activity 1.2: Psychosocial support

- A total of 125 Listening Centers have been set up (1 in every target school)
- A total of 400 teachers and administrators received specialized training in psychosocial supports. While some of these trained are assigned to the listening clubs, the remaining used their skills to provide students with the necessary support so they feel that they are learning in an environment that accords them psychological and emotional safety.
- These listening club have provided psychosocial support for 469 students identified as at risk of dropping out, representing 117% of the initial target of 400
- 316 (67%) of the beneficiaries of these psychological support were young girls.
- Youth clubs (375 clubs which is the same number as science clubs) engaged in themes-based activities, including sport, debates, gender-based violence, traditional arts and intergenerational dialogue. An average of 27 of such debates were conducted per youth club. These discussions highly contributed to raising awareness about critical issues that adolescents face and these discussions were, in some instance triggering factor for referring some of

Result 2: Quality of science education and learning outcomes in science is improved for adolescent girls and boys

Activity 2.1: Creation of Science Clubs and Annual Science Fair

- Three (3) science clubs were created in each of the 125 target schools
- There was a total of 375 fully functional science clubs which benefited directly 7,500 students (which represents 133% of the initial target of 5,600) and indirectly a minimum of 22,500 students
- 54.04% (4,053 students) of the direct beneficiaries were girls, which is a good indication of the project success in reaching a majority of girls and in getting them interested in the sciences.
- 41% (9,226) of the indirect beneficiaries were adolescent girls. Though encouraging, this percent is testament to the usual higher ratio of young boys in schools
- The 3-day annual science fair, the culminating activity of the project, was held from July 25-27 of July and was a national success. It gave science-prone adolescents the perfect platform to exhibit their creative talents
- The fair was conducted in two phases: the preliminary phases where the best scientific creations were selected local level to compete at the provincial level. This phase involved all 7,500 direct beneficiaries
- 900 finalists made it to the national fair and 25 science projects were prized for their creativity and originality
- Celebration of the fair was broadcast on national television for its merits in encouraging adolescents, especially girls in pursuing science and technology
- The results of exist survey administered to the participants (students) of the science clubs indicated that over 95% of participants expressed satisfaction with the activities of this project and reported that the activities and the various project have given them confidence in studying sciences. This results a significant jump compared to the results of the initial survey which showed only 38% of science enthusiasts.

Result 2: (Continued)

Activity 2.2: Teacher trainings

- Revision of teacher training modules taking into account the science curriculum in vigor
- 47 National Science Teacher trainers trained (11 women and 36 men) in life skills and science instructional strategies to train teachers so they can better convey the necessary skills to their students
- 600 Science teachers and science club mentors (112 women and 488 men) were trained in methodology and instructional approaches to better teach life skills(leadership, community management, living together / notion of solidarity, citizenship and human rights) and sciences, including physics, chemistry, biology, and mathematics.
- A combined total of 647 educators (172% of the initial target of 375 target) benefited directly from this project. The higher rate of participation speaks to teachers' enthusiasm to improve the quality of their instruction and get their students more involved in these scientific subjects that they once deemed to difficult to tackle
- The results of an exist survey administered to participating teachers indicated 100% of the teachers and administrators that these training has helped them hone their instructional skills in an effort the make the teaching of science more appealing to students. In fact, they believe that ey now have a variety of strategies that they can use to make science instruction more practical based on hand-on experience as opposed to the traditional theory-oriented instruction.
- Teachers expressed appreciation for the in-service training received because many of these teachers have not received any in-service training for the last 10-15 years.
- This result is indeed far from the initial result of 62% of teachers who expressed confidence in their instructional practice.

Implementation Challenges

- School closure because of teacher strikes
- Alteration of the school calendar which has caused the project to start somewhat later than anticipated.

THE WAY FORWARD



Ensure the sustainability of the project

- Secure funding to ensure the continuity of the activities of existing science clubs
- Extend this project to other schools
- Provide more training for teachers
- Multiply opportunities for students to showcase their sense of creativity and invention (participation in local and regional science exhibits)



THANK YOU