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Subject: PROGRAM DESCRIPTION (PD)

General Education Activity, TABLA

Bosnia and Herzegovina (BiH)

1. GOAL AND PURPOSE

The goal of USAID's TABLA Activity is to improve student outcomes in critical thinking and STEM subjects. This activity's aim is to assist select geographical areas in integrating high-quality teacher training and education into their existing infrastructure. This will be accomplished by improving teacher capacity to incorporate critical thinking and applied knowledge in STEM into classroom teaching. This will be a five-year, \$8 million activity.

2. BACKGROUND

Education in Bosnia and Herzegovina

Equipping citizens with the knowledge and skills necessary to achieve their full potential, contribute to an increasingly interconnected and automated world, and ultimately convert better skills to better lives should be the central purpose of education policymakers. However, the education system, not unlike other public institutions in BiH, is not immune to political capture, which diverts attention and resources away from what should be the focus - improving the quality education. The status quo of the Bosnian-Herzegovinian education sector undermines reconciliation efforts and stymies both democratic and economic development. This activity's aim is to assist select geographical areas in integrating high-quality teacher training and education into their existing infrastructure.

Many schools are segregated on the basis of ethnicity and textbooks largely reinforce these divisions. This coupled with out of date curricula and teaching materials, produce students who are not challenged to develop the critical thinking skills necessary to grapple with a variety of viewpoints and assess and evaluate the large amount of information available at their fingertips. As much of Europe has transitioned to a Socratic and student-focused teaching method, the antiquated mechanical classroom structure remains in BiH, with teachers reciting scripted lessons and students dutifully writing it down. Exams merely reflect how effectively they memorize the teacher's lecture. Current and future teachers are not provided the tools and training needed to make this change in approach to classroom instruction and orient students towards a more discerning approach to information.

The international community has devoted some of its attention to education policy, however many of these interventions have generally lacked sustainability and have been undertaken in an ad-hoc fashion. In some cases, international donors have attempted support to systemic reform efforts, but these have ultimately lacked buy-in from local authorities. To date, evidence-based data about the quality of basic education in BiH has been limited. Due to the lack of financial resources the TIMSS testing was not conducted in 2011, which prevented tracking changes and trends in achievements of teachers and students, as well as the effectiveness of implemented decisions and reforms.

The analysis of "The Advantages of Application of TIMMS on the Educational System of BiH" authored by the Center for Policy and Governance, July 2013, showed the following: In 2007, TIMMS examined mathematics and natural sciences knowledge of 4,300 pupils from 150 schools was examined. According to the Agency for Statistics of Bosnia and Herzegovina this is around 10 percent of the total number of

primary schools in the entire country. Testing also indirectly assessed 150 school principals and 724 teachers. The final results showed that BiH was ranked second to last in Europe and 27th out of 50 participating countries worldwide. The points achieved (465.5 points) indicate that the country position itself as low or medium quality education system, since the international average score is 500 points. The results show that only 10% of pupils have the ability to apply acquired skills and knowledge in mathematics, whereas 14% of them show the same skills in natural sciences. Furthermore, only 32% of students have a satisfactory level of knowledge in mathematics, while 46% of students have equally adequate understanding of natural sciences.

In 2018 BiH participated in *Progress in International Students' Achievement* (PISA) for the first time, and is preparing for the *Trends in International Mathematics and Science Study* (TIMSS) 2019 and *Program for International Reading Literacy Study* (PIRLS) 2021. These international assessments of students' achievements will provide increased data about the quality of education in BiH. The first PISA results will be released in December 2019 and are expected to be low, as the test focuses on critical thinking skills and applied knowledge, areas which education practitioners, policymakers, and administrators have identified as needing serious work.

Structure of Education Institutions in Bosnia and Herzegovina

As a country in transition, Bosnia and Herzegovina, has been working toward decentralizing and improving the quality and efficiency of its education system. Since the Dayton Agreement, authority over education was given to 11 Ministries of Education (Republika Srpska, the Federation of Bosnia and Herzegovina, and the 10 cantons or federal units) and one Department of Education of Brcko District in Bosnia and Herzegovina. There is the Department of Education in the Ministry of Civil Affairs at the state level and the Federation Ministry of Education, which only have a coordination role, as opposed to a decision-making role. The Ministries of Education (MoEs) and Science are responsible for education policy in their cantons, the Republika Srpska, and Brcko District. These responsibilities include deciding about education finance, establishing and monitoring education laws and regulations, and administering canton, entity, or district institutions. The shift of educational authority to the cantons means that each canton has the legal right to govern and manage its own education system, including higher education, even though some cantons do not have higher education establishments. In seven cantons and in the Republika Srpska, there are pedagogical institutions that carry out responsibilities which vary slightly, but their main functions include some or all of the following.

- Advising ministries of education on curriculum and new legislation;
- Collecting statistical and other information from schools;
- Evaluating the quality of schools;
- Advising on the appointment of teachers and assessing and confirming their qualifications;
- Evaluating school development plans; and
- Providing professional development opportunities for teachers and setting up training courses.

Teachers and Teacher Education

Since all teachers in Bosnia and Herzegovina's public schools are government employees, they have to take a professional exam in addition to acquiring the appropriate diploma in order to qualify to work in public and private schools. Teaching in the first three or four grades of primary schools is carried out by classroom teachers, while in the upper grades of primary school it is carried out by subject teachers or secondary school teachers. Generally speaking, teaching personnel for the lower primary school grades (from first to fifth grade) undergo four years of education at the Pedagogical and Teachers' Faculties within public universities. Teaching personnel for the higher primary school grades typically obtain a Bachelor's degree. If the degree is not from a teacher training university they are required to pass training

or coursework in psychology, pedagogy, and didactics; however the extent to which they do varies by canton, entity, or district.

The transition to a compulsory nine-year education, inclusion of children with special needs into the mainstream education, the introduction of new subjects, and the introduction of new student-centered learning outcomes are only some of the changes that brought teachers a multitude of new challenges and, as such, increased the requirements concerning their initial and continued education and training. Teacher professional development and advancement is regulated by legislation at the entity level in the Republika Srpska and the cantonal level in the Federation. The Brčko district has its own legislation. Decisions concerning professional development are issued in a centralized manner, at the ministerial level (i.e., the pedagogical institute level). Apart from the pedagogical institutes, there are no specialized institutions for professional development of teachers or active teachers' associations at the entity or state level; however international donors have initiated a myriad of informal trainings to various degrees of success.

A certain number of teachers attend compulsory training programs organized by the ministries (i.e., pedagogical institutes) during summer or winter holidays. The monitoring and assessment of teachers, which is carried out by counselors or inspectors, is in a transitional phase and varies highly by canton.

Applicants are strongly encouraged to read the *Brief Assessment of Basic Education in Bosnia and Herzegovina* conducted by USAID's MEASURE project.

3. ACTIVITY OBJECTIVES AND ILLUSTRATIVE RESULTS

The proposed activity contributes to USAID/Bosnia and Herzegovina's Country Development Cooperation Strategy (CDCS) goal which states: "BiH is a more stable country closer to Euro-Atlantic integration," as an improved quality of education builds stability by better equipping students with the skills needed for the 21st century, leading to improved options for the labor market and building confidence in the country's future.

The goal of *USAID's TABLA Activity* is to improve student outcomes in critical thinking and STEM subjects. To achieve the stated goal, the activity will focus on increasing teacher capacity to incorporate critical thinking and applied knowledge in STEM into classroom teaching via four sub-purposes. The activity will take a geographically selective approach, working in only three locales (Sarajevo Canton, Herzegovina Neretva Canton, and the Republika Srpska) and potentially rolling out to future locations if success is possible in the first three. The limited geographic approach is to ensure that all changes are adopted and made to be a part of each of the three educational systems.

The first sub-purpose is support for select teaching faculties in their efforts to train future teachers in critical thinking and applied knowledge skills in the STEM subjects. The second sub-purpose will support select cantonal and entity ministries of education to institutionalize quality teacher training and professional development in the areas of critical thinking and applied knowledge in the STEM subjects. The third sub-purpose will improve school learning environments in select schools in order to provide teachers with the physical tools and contexts necessary to put their training into practice. The final and fourth sub-purpose will stimulate discussion on education reform in the wake of the 2018 PISA results.

Please note that this activity, during implementation, will need to coordinate activities with USAID's other education-related activities (see Annex I).

The **Development Hypothesis** is therefore the following:

IF teachers engage in quality professional development and in-service training opportunities that focus on critical thinking skills, applied knowledge in STEM subjects; and

IF select university students who intend to become teachers have the opportunity to complete high-quality training and engage in meaningful mentoring relationships; and

IF select schools are equipped to provide quality learning environments; and

IF education policymakers and other stakeholders are engaged in dialogues and actions to improve teacher training and quality;

THEN we can expect higher-quality general education learning outcomes, improved standardized testing results, a better-equipped workforce, and more knowledgeable, active citizenry to emerge in the selected geographical areas.

The **Anticipated Results** of this activity are therefore the following:

Activity Goal 1. Improved student outcomes in critical thinking and STEM subjects

Activity Purpose 1.1. Increased teacher capacity to incorporate critical thinking and applied knowledge in STEM into classroom teaching.

Activity Sub purpose 1.1.1 Increased standards for pre-service teacher training adopted and implemented in select teaching faculties

Activity Sub Purpose 1.1.2 High quality in-service teacher training program integrated into the education systems in select cantons and entities

Activity Sub Purpose 1.1.3 Improved learning environments that allow for applied learning in STEM

Activity Sub Purpose 1.1.4 BiH increases education reform dialogue in response to PISA 2018 results.

The Log Frame is attached to RFA.

4. STATEMENT OF WORK

The Activity has four main sub-purposes:

- 1. Pre-service teacher training (in select teaching faculties);
- 2. In-service teacher training (continuing education and professional development for current teachers);
- 3. Improving school learning environments; and
- 4. Stimulating discussion on education reform.

The Mission has identified three geographic to take part in this activity. They are Republika Srpska (with the University of Banja Luka teaching faculty and the corresponding RS pedagogical institute), Sarajevo Canton (with the University of Sarajevo teaching faculty and one pedagogical institute), and Herzegovina-

Neretva Canton (with the University of Mostar teaching faculty and two pedagogical institutes). Over the life of this activity, there is the potential for rolling out interventions to additional geographic areas if success in the first three is possible.

This activity will include the following sub-purposes (components):

1. Pre-Service Teacher Training

Quality teachers are a precondition for quality education. No reforms of pre-service teaching programs were conducted in the last decade. The primary problems in pre-service teacher training include outdated, content-based curricula and insufficient hours dedicated to the common core curriculum standards developed by APOSO, leaving young teachers unprepared for work. There is no systematic approach to teachers' professional development and there are no quality assurance (QA) or accreditation mechanisms for in-service teacher training. Professional development programs organized by ministries and/or pedagogical institutes are not continuous or tailor-made. Although interventions from the international community often involve teacher training for the specific subjects for which they are tailored, no entity has undertaken the arduous task of helping to create high-quality, broad-based teacher training.

This TABLA activity will support comprehensive reform of select teaching faculties that correspond to the various successful reforms and modernization in basic education. The reform should be focused on the development of study programs based on learning outcomes, key competencies, common core curricula, and critical thinking skills. The Pedagogy, Psychology, Didactics and Teaching Methods (PPDM) module that was authored under USAID/BiH ENABLE project offers a glimpse into what a reformed PPDM course could look like; however, the limitation under the current ENABLE approach is that it was not incorporated formally and adopted as the official PPDM curriculum. Rather, teachers in the faculty could choose to implement it on a voluntary basis. This component aims to go further and change the current system at three university faculties, in order to create modernized pre-service teacher training for future teachers.

Illustrative Activities may include the following; however, they are intended to provide guidance to applicants and do not intend to be a suggestion to copy verbatim into the application, or limit applicants from proposing a varied mix of direct technical assistance activities:

- 1. Reform teaching faculty programs by synchronizing university curricula with basic education based on Common Core Curriculum and learning outcomes.
- 2. Adopt updated curriculum for the PPDM course so that all future teachers, either in teaching faculties or non-teaching faculties (which is where the majority of secondary education teachers get their university educations) receive updated approaches to education.
- 3. Teaching faculties incorporate required lessons in teaching STEM subjects as a joint approach.
- 4. Increase the professional development opportunities available to and required of university professors, particularly those in teacher training programs.
- 5. Standards of Occupations (OS) and Standards of Qualification (QS) for pre-service teacher training have been developed by all relevant stakeholders in BiH, with technical assistance of international and domestic experts. Based on OS and QF for pre-service teacher training new, modular study programs based on learning outcomes and key competencies for pre-school, primary (for both classroom and subject teaching) and secondary school teachers should be developed in cooperation between relevant domestic stakeholders (teaching faculties, teachers from pre-school, primary and secondary education, pedagogical institutes and ministries of education, domestic experts etc.) and international experts.
- 6. Integrate critical thinking and applied knowledge skills training in any pre-employment internship or mentorship programs.

2. Professional Development / In-Service Teacher Training

Cantons and the RS have different approaches to in-service teacher training programs. As the nature of the system is decentralized, professional development programs are controlled and managed by the cantonal or RS ministries of education and their respective pedagogical institutes. While formally the Common Core Curriculum was adopted and teacher should be planning against student learning outcomes rather than content-based curricula, in reality, many do not know what that even means.

ENABLE has worked on developing teacher guidelines for teaching the STEM subjects according to the student learning outcomes as defined in the CCC. The response to those materials has been good, but again, one of the limitations is that it is requiring the teachers to undertake this on a voluntary basis as part of the pilot schools. This has not been incorporated into the required professional development system and there is no additional remuneration or reward for undertaking the extra work, which limits the sustainability.

In addition, studies have shown a lack of focus on developing critical thinking skills in the BiH education system and teachers have to change the approach by which they convey material, challenge students' assumptions, and highlight different points of view. The STEM teaching approach does incorporate such an approach of building critical thinking skills; however, this does not only have to be limited to teachers of STEM subjects.

Therefore, USAID's TABLA Activity will work towards improving and institutionalizing the training that current teachers receive by working to reform the current system in the select locations listed above and incorporating understanding of teaching according to student learning outcomes, incorporating STEM education into schools, and building critical thinking in classrooms.

The activity will work with the requisite ministries of education, pedagogical institutes and faculties to focus on integrating reform into the current system rather than additive, voluntary activities that do not affect core processes. As an example, improved STEM and critical thinking training should not nearly be offered by the activity but rather it should become a formal part of continuing teacher education for which teachers receive credit. Work with the education government institutions can include help with strategic planning, budgeting, change management and streamlining rules and procedures with the goal of making the education system more efficient and accountable.

Illustrative Activities may include the following; however, they are intended to provide guidance to applicants and do not intend to be a suggestion to copy verbatim into the application, or limit applicants from proposing a varied mix of direct technical assistance activities:

- 1. Provide STEM education training for teachers and develop a STEM licensing system that is officially adopted in each locale for teachers (in the STEM subjects), which must be renewed periodically by engaging with and successfully completing professional development activities as offered by the program.
- 2. Incorporate new professional development subjects into the required teacher training programs to include CCC training, critical thinking, and PPDM.
- 3. Allow for a variety of trainings, including giving the teachers a choice as to which trainings they will receive.
- 4. Develop a system of incentives for professional development, including necessary revisions to the respective book of rules for teacher advancement that directly ties teacher participation in the development of critical thinking, applied knowledge, STEM, and PPDM teaching skills to teacher advancement and participation.

5. Demand driven assistance to MoEs and other policy stakeholders on improving efficiency and accountability of education system.

3. Provision of Quality Learning Environments

In order to build on the teacher training that is undertaken in component 1 and 2, it is important that teachers have school environments that allow them to incorporate new methodologies and have the needed equipment to provide students with hands-on learning. For this reason, component 3 will focus on equipping approximately 100 select schools with STEM labs that improve the learning environment and provide incentives for schools to incorporate STEM to the maximum extent.

In addition to the STEM labs, as another incentive for educational policymakers and school management to institutionalize reforms, this Activity will explore options of working with other US government (USG) agencies that support infrastructure repairs to marry their projects with this one. School repairs are one of the most common activities requested by schools, municipalities, students and their parents; therefore, the ability to deliver some tangible benefits can increase the success of the other portions of the project. This should be done as a part of a larger strategic approach by the ministries of education. Assistance to ministries of education (referred to above in component 2) will ensure that this can eventually be brought to greater scale.

The selection of schools for renovation will be done in coordination with the other components and it will be an integral part of the overall project strategy. This means that only the schools that are involved in other components will be eligible to apply for renovation. As this component is to be completed by other USG entities, it should not form any part of the offeror's application but will be a part of the work plan phase.

4. Stimulating Discussion on Education Reform

Finally, the project will seek to stimulate greater demand for education reform from parents, students and educational policymakers. Students, parents, and local communities can and should become a major driving force in requesting changes in education that will ensure the future economic success of BiH and the welfare of its citizens. Schools and ministries should be held responsible for quality education that prepares youth for the future. The ability of local stakeholders to envision a different system beyond the current education model is difficult without discussion or infusion of new ideas. This program should provide both a platform for discussing new ideas but also substantive content and strategies to carry out those ideas. As the world is rapidly changing due to ever greater digitalization, education is also changing. More people could be introduced to changes in education systems around the world, or even in the region or in BiH that have shown promise. As just a few illustrative examples, the Swedish model of vouchers, innovative teaching practices that have been pioneered by local educators in BiH such as DigitCoin or Palcici.ba, online teaching modules, etc. should be openly discussed and considered by policymakers, administrators, practitioners, teachers, and parents. These innovative approaches should be properly assessed regarding feasibility and appropriateness for a wider application in BiH, and if feasible the project should allow flexibility for their implementation in line with the goals of other components of the project Illustrative Activities may include the following; however, they are intended to provide guidance to applicants and do not intend to be a suggestion to copy verbatim into the application, or limit applicants from proposing a varied mix of direct technical assistance activities:

- 1. Organization of town hall meetings with school principals, teachers, and parents.
- 2. Innovative mechanisms for the adoption of school-wide programs, competitions, or technologies.
- 3. Encouraging and developing community partnerships with schools, such as public-private sponsorships of specific trainings, programs, institutes, or other educational opportunities.

- 4. Coordinating with parent's associations to create seminars or forums for parents to better understand the kind of skills students should be trained in, upcoming teacher trainings, and assessments.
- 5. Public outreach, tailored to parents and other stakeholders, about the state of education in BiH and the necessity for this program.

5. SPECIAL CONSIDERATION

CROSS-CUTTING REQUIREMENTS

- A. <u>Sustainability:</u> Sustainability will be a priority for this activity. Key institutions, such as cantonal MoEs in Sarajevo and Herzegovina-Neretva Canton and the RS, still lack the technical capacity to drive reform. TABLA must transfer knowledge, skills, and public recognition of successful reform to partner organizations and beneficiaries to ensure that the legacy of TABLA is not the project, but the people and institutions it supported. Demand-driven assistance and fostering local ownership and accountability will enable them to become more involved in identifying outcomes they wish to achieve and outlining the steps and resources needed to achieve them. Requiring progressively higher financial and in-kind contributions from municipalities will encourage them to seek maximum return on their investment. This will result in a more strategic use of resources, increase accountability, and limit incentives for corruption.
- B. <u>Gender Analysis:</u> To the greatest extent possible, the *USAID's TABLA Activity* will promote gender equality as core development objectives throughout all components of this activity. The applicant is expected to integrate gender equality into all relevant aspects of programming, develop indicators that will measure specific gender equality goals, and report them back to USAID.
- C. <u>Youth:</u> *USAID's TABLA Activity* will have as its goal to ultimately improve the education context and the delivery of lessons and curricula for young people. Additionally, the activity will seek to engage young people students in shaping their education policies and teaching approaches that shape their learning ecosystems.



Annex 1: USAID activities that contribute to the education sector

- 1. USAID's **Enhancing and Advancing Basic Learning in BiH** (**ENABLE**) activity is a three year project that is focusing on increasing the quality of science, technology, engineering and mathematics (STEM) teaching in BiH. Through this project, USAID is helping to develop operational teaching curricula for common core STEM proficiencies and create a standardized approach to teacher training, based on best international practices. Interventions are coordinated and owned by relevant BiH institutions and designed to affect systemic change. Interventions are conducted in collaboration with all relevant local and international stakeholders, to promote ownership of and continued support for the educational reforms at all levels. The project is currently piloting the STEM operational teaching curriculum in 12 schools.
- 2. USAID's **School at the Heart of the Community: Preventing Violence through Critical Thinking and Values Based Education** activity is implemented by the non-governmental organization Step by Step. This three year program works to reduce the risk of violent extremism in schools and communities by strengthening the preventive role of education. It does this through values-based learning and critical thinking in the culture, policies, and practices of schools. The project works directly with 45 schools throughout BiH, with 315 school development team members and 900 teachers.