

Bosnia and Herzegovina
Ministry of Civil Affairs

**PROJECT FOR IMPROVING IT EDUCATION
AT MIXED SECONDARY SCHOOLS
WITH GYMNASIA COURSE
IN
BOSNIA AND HERZEGOVINA
PROJECT COMPLETION REPORT**

OCTOBER 2016

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

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I. Basic Information of the Project

1. Country

Bosnia and Herzegovina (BiH)

2. Title of the Project

Project for Improving IT Education at Mixed Secondary Schools with Gymnasia Course

3. Duration of the Project (Planned and Actual)

September 1, 2014 – August 31, 2016

4. Background (from Record of Discussions(R/D) signed on 26 June, 2014)

BiH education authorities shared the view that a disproportionate emphasis on theoretical teaching could be found in the existing IT curricula used in gymnasia throughout BiH. Technologically outdated curricula thus could not help improve informatics literacy of local students. Education authorities in BiH subsequently approached JICA with a request to assist them with localizing Japanese IT curricula and corresponding textbooks for use in local gymnasia. This collaboration was then forged into the Project on Informatics Curricula Modernization.

JICA implemented the Project on Informatics Curricula Modernization in Bosnia and Herzegovina, Phase II, together with the education authorities in BiH from August 2008 to August 2014. By the end of the project period, 54 self-standing gymnasia in BiH were covered. JICA modernized IT curricula were authorized and implemented in both BiH entities: Republika Srpska, the Federation of Bosnia and Herzegovina (in all ten cantons), and Brcko District.

Through technical assistance, these schools received missing IT equipment, their IT teachers received additional training and most importantly – relevant educational authorities approved JICA modernized IT curricula and corresponding textbooks in official languages in Bosnia and Herzegovina.

Even though the approvals were for all gymnasia courses including the ones at

the mixed secondary schools, the mixed secondary schools were out of the scope of the original project. To rectify this situation and thereby help improve the quality of IT lessons at the mixed secondary schools that teach gymnasia course, 59 such schools hoping to receive the same treatment as the Phase II self-standing gymnasia were identified.

In this context, the project aims at extending approved IT curricula from the Project on Informatics Curricula Modernization Phase II to the target mixed secondary schools with gymnasia course by equipping the target schools with necessary IT devices and textbooks, raising skills of the IT teachers, and establishing information exchange networks among stakeholders.

5. Overall Goal and Project Purpose (from Record of Discussions(R/D))

Overall Goal: The modernized IT curricula stay accepted in the gymnasia course in BiH.

Project Purpose: The modernized IT curricula are applied in the target mixed secondary schools.

6. Implementing Agency

Ministry of Education and Culture, Republika Srpska

Cantonal Ministries of Education, Science, Culture and Sports in the Federation of BiH

II. Results of the Project

1. Results of the Project

1-1 Inputs by the Japanese side (Planned and Actual)

Item	Planned	Actual
Dispatch of Experts	Assignment of local consultants	1 long-term chief local consultant has been assigned during the project period.
Counterpart (C/P) training in Japan	As necessary	7 persons related to the project participated in the training in Japan held in June – July in 2015.
Machinery and equipment	IT devices for IT teachers to conduct the lessons, such as PCs, projectors, printers and digital cameras	IT devices including PCs for laboratories as well as for teachers, projectors, printers and digital cameras were provided with all the 59 target schools. Total cost: JPY 106 million
Textbooks	Dissemination of IT textbooks Information A and B to students in the target schools	Both IT textbooks of Information A and B were delivered to all the 59 target schools.
Local cost	As necessary	Total cost: JPY 19 million

Note: The details of actual inputs provided are shown at ANNEX 1.

1-2 Inputs by the BiH side (Planned and Actual)

Item	Planned	Actual
Assignment of C/P	Assignment of C/P and IT teachers	Concerned persons of Ministry of Education and Culture, Republika Srpska, Cantonal Ministries of Education, Science, Culture and Sports in the Federation of BiH, and IT teachers of the target schools have been

Item	Planned	Actual
		assigned for the project.
Facilities and equipment	A room in each target mixed secondary school for IT lessons with a power supply and internet connection, computer peripherals, if necessary	A room for IT lessons was prepared in each target school before the installation of equipment procured.
Maintenance cost	Costs of maintaining PCs and computer peripherals in working order, including expenses associated with antitheft security measures	The maintenance cost for IT devices provided has been borne by either the target schools or their Ministries of Education.
Other undertakings	Facilitation of custom duties, internal taxes and any other charges in terms of procurement of equipment	The procurement of equipment was completed with the necessary facilitation by the BiH side.
Local cost	As necessary	Local costs necessary for the project have been borne by the respective Ministries of Education as well as the target schools.

1-3 Activities (Planned and Actual)

The project activities specified in the Project Design Matrix (PDM) and the Plan of Operation (PO) have been implemented almost as planned with slight changes of some activities, one of which is the activity on Output 2, holding the IT seminars/workshops twice a year and another of which is the activity on Output 3, holding discussions concerning IT education among educational authorities on a regular basis. While these activities have been actually implemented during the project period, the way of implementation was changed in accordance with the actual situations of project environment. Since the Agency for Preschool, Primary, and Secondary Education (hereinafter referred to as "APOSO") has been already engaged in producing the Common Core Curricula (hereinafter referred to as "CCC"), the Project offered its intention to help APOSO to produce CCC for IT.

2. Achievements of the Project

2-1 Outputs and indicators

(Target values and actual values achieved at completion)

Output 1: The infrastructural conditions are fulfilled for the modernized IT curricula in the target schools.

Indicator	Results
Necessary IT devices and textbooks are properly installed and ready for use.	IT devices necessary for IT lessons (PCs, projector, printer & scanner, digital camera and laser printer) were installed to all the 59 target schools; 30 schools in March 2015 and the remaining 29 schools in September 2015. IT textbooks of Information A and B as well as students manual were provided to all the 59 target schools.

Based on the above results, Output 1 has been achieved and the infrastructural environment for practicing the modernized IT curricula has been put in place in all the target schools.

Output 2: Necessary skills for the modernized IT curricula are acquired by the IT teachers in the target mixed secondary schools.

Indicator	Results
The IT teachers gain the certificate at the IT seminars/workshops held at least twice in each school year.	49 IT teachers participated in the IT seminars held in September and December 2014, and January 2016, and gained the certificate. All IT teachers of the target schools have already provided lessons based on the IT textbooks developed through the modernized IT curricula.

As shown on the above results of the indicator, the IT teachers in almost all the target schools participated in the IT seminars/workshops and gained the certificate. All IT teachers of the target schools have already understood the contents of IT textbooks based on the modernized IT curricula as well as actually provide lessons according to the textbooks. Therefore, they have acquired

necessary skills for practicing the modernized IT curricula. And it can be concluded that Output 2 has been achieved.

Output 3: Information exchange networks among stakeholders of IT education are established to maintain the common efforts.

Indicators	Results
The IT teachers make use of the networks within the formal procedure to improve the modernized IT lessons.	IT teachers have made use of the website which provides instructions on the teaching methods of conducting IT lessons based on the modernized IT curricula.
Discussions concerning the IT curriculum/ textbooks among the respective IT education authorities in BiH are held once a year.	The working group which consists of related officers of the respective Ministries of Education including Pedagogical Institutes and IT teachers was formed to develop the CCC for IT led by APOS0. The working group meetings were conducted with three-time seminars as well as three-time round tables during October 2015 – March 2016.

According to the above results of indicators, Output 3 is considered to be achieved. While the information exchange networks among stakeholders of IT education has not been newly established by the Project, the networks established in the past phases have been utilized among them.

2-2 Project Purpose and indicators

(Target values and actual values achieved at completion)

Project Purpose: The modernized IT curricula are applied in the target mixed secondary schools.

Indicators	Results
The target mixed secondary schools conduct IT lessons based on the modernized IT curriculum.	IT teachers of all the 59 target schools now provide IT lessons with use of IT textbooks and IT devices provided by the project. It means that these schools have conducted IT lessons based on the modernized IT curricula.

Based on the above results, the Project Purpose has been achieved because

the modernized IT curricula have been applied in all the 59 target schools.

3. History of PDM Modification

No modification made from PDM Version 1 (9 September 2015)

4. Others

4-1 Results of Environmental and Social Considerations

Not applicable for this project

4-2 Results of Considerations on Gender/Peace Building/Poverty Reduction

The Project has provided equal treatment to the students in all the mixed secondary schools throughout BiH.

III. Results of Joint Review

1. Results of Review based on DAC Evaluation Criteria

1-1 Relevance

The relevance of the Project is judged to be high.

The project is consistent with the development needs of the target group - the mixed secondary schools. Following to the previously obtained approvals from the respective education authorities in BiH, the modernized IT lessons were already in use across all standalone gymnasias in the country. On the other hand, due to their limited budgets, the mixed secondary schools with gymnasias course continued facing with the lack of quality IT textbooks and shortage of adequate IT equipment to effectively conduct IT lessons. The provision of providing IT textbooks and additional IT equipment to all standalone gymnasias in BiH had already been taken care of in the previous phases, hence the Project directly responded to the needs of target mixed secondary schools with gymnasias course and brought them up to the phase II gymnasias standards in terms of IT teaching quality.

The Project is also consistent with Japan's ODA policy towards BiH, the "Country Assistance Policy: Bosnia and Herzegovina" (April 2012).

1-2 Effectiveness

The effectiveness of the Project is judged to be high.

As referred to in "2. Achievements of the Project," Project Purpose was achieved by the project completion. It is concluded that the modernized IT curricula developed by the past phases were introduced to and applied in all the target mixed secondary schools with gymnasias course. This achievement was realized by the achievement of Output 1, 2 and 3.

In addition to the achievements of the Project based on PDM described above, according to the results of interviews to concerned people in the Terminal Evaluation, it is concluded that they recognize that the project has successfully produced tangible effects to the target schools and this achievement was mainly caused by the provision of IT devices, IT textbooks and IT seminars/workshops

to all the target schools. With the provision of tangible deliverables, the project actually provided a benefit to the respective target schools, for example, IT teachers are able to conduct more practical IT lessons with more group work by students.

1-3 Efficiency

The efficiency of the Project is judged to be high.

As referred to in “1. Results of the Project,” both the Japanese and BiH sides have provided their inputs as planned. The Project activities have been also implemented almost as planned. And the outputs have been also produced as planned with use of inputs provided.

It should be noted that the project was conducted efficiently since one long-term local consultant was assigned instead of dispatching Japanese experts, which helped to reduce some project costs such as traveling expenses. In addition, the utilization of IT textbooks developed by the past projects with some revision is another efficient factor of this project mainly in view of time saving.

The chief local consultant assigned for the project has been engaged for long time in the projects including the past phases so that he is very familiar with the Project as well as educational situations of BiH. His good coordination and direct communication with the respective Ministries of Education as well as the target schools have contributed to the smooth implementation of the Project.

1-4 Impact

The impact of the Project is judged to be high.

The Overall Goal is likely to be achieved near the future, to be described in “1. Prospects to achieve Overall Goal” of “IV. For the Achievement of Overall Goals after the Project Completion.” Since the CCC for IT which embraced the modernized IT curricula developed in the previous phases of the Project were officially announced at the BiH level, there is likelihood that the Ministry of Education of Republika Srpska, respective Cantonal Ministries of Education and the Department for Education of Brcko District continuously maintain the modernized IT curricula in the future. If it is realized, the project will greatly

contribute to the development of IT education in BiH.

In addition, with provision of IT textbooks and IT devices to all the mixed secondary schools as well as direct involvement of IT teachers, the Project successfully achieved positive responses from the target schools including directors, IT teachers and students. The project has highly contributed to letting the stakeholders of secondary schools recognize the Japan's support with a positive image as well as building a good relationship between both countries. The project can be noted as a good practice of Japan's international cooperation.

Other specific examples of project impact are as follows.

The project's IT textbooks were recommended as the preparatory materials for the entrance examination of the Faculty of IT at the University of Mostar "Džemal Bijedić".

The IT textbooks developed in the previous phases of the Project have been recognized as useful learning materials among the education authorities concerned with IT so that they are recommended as a requirement for students who hope to be enrolled in the Faculty of IT at the University of Mostar "Džemal Bijedić".

The IT devices provided by the Project enhanced the management, planning and evaluation of an education system of target schools

The IT devices provided by the Project have been effectively utilized for other subjects as well as vocational courses in the mixed secondary schools. In addition, according to the Ministry of Education, Science, Culture and Sports of Central Bosnia Canton, around in 2000s, all Ministries of Education in BiH were required to introduce the Educational Management Information System (EMIS) by an advice of IMF. They had difficulties with data collection and data entry procedures due to the shortage of adequate PCs at schools. The provision of PCs with all the secondary schools by the Projects including the previous phases facilitated the data collection and entry and contributed to having a functional EMIS system.

1-5 Sustainability

The sustainability of the Project is prospected to be medium.

Regarding organizational aspects, it is necessary that the IT advisors of Ministries of Education/Pedagogical Institutes are continuously involved in future revisions of the IT curricula led by the respective Ministries of Education.

Regarding financial aspects, while the respective Ministries of Education as well as target schools have limited budget resources at their disposal, they still managed to provide additional PCs to their jurisdictional schools and coped with maintenance costs for IT devices. While there is no urgent need to renew the IT devices and IT textbooks at present time, it is recommended that in the future, the respective Ministries prepare their equipment renewal plans to replace IT devices provided by the Project.

Regarding technical aspects, the respective IT teachers of target schools have necessary skills to conduct IT lessons based on the modernized IT curricula. Some of them have already introduced more advanced topics and contents to their IT lessons.

2. Key Factors Affecting Implementation and Outcomes

2-1 Factors promoted the realization of project's effects

Assignment of an experienced local consultant

The chief local consultant assigned to the Project has been engaged for long time in the projects including the previous phases so that he is very familiar with the Project as well as education-related circumstances in BiH. His good coordination and direct communication with the respective Ministries of Education as well as secondary schools have enabled the Project to flexibly respond to the change of situations and to adjust the project activities based on actual needs. For example, the Project has fully supported the development of CCC for IT. Thus, his assignment is one of the biggest factors of successful implementation of the Project.

Advantage of IT subject

The IT subject is one of the subjects where Japan has a comparative advantage of science and technology. In addition, IT is a subject where educational authorities felt urgent necessity to modernize curricula in order to keep up with rapid technical innovation. With this characteristic of IT, the modernized IT

curricula have been already successfully accepted by all Ministries of Education in BiH.

Continuous project implementation

The Project has been implemented through Phase 1 to 3 for 10 years. In general, education projects need long time to obtain outcomes. The continuous implementation of projects with three phases and gradual expansion of school coverage led to the achievement of outcomes.

Special focus on the provision of equipment

Many educational stakeholders consider that the provision of IT devices is also a major factor for the achievement of project outcomes. Since IT necessitates a lot of exercises, provision and utilization of IT devices are indispensable for effective learning. This project secured the provision of IT devices with all the target schools, which enabled the Project to achieve tangible effects with positive responses from schools.

2-2 Factors inhibited the realization of project's effects

Susceptibility to political administration

In several cantons, staff changed frequently due to frequent changes of governments, which slowed down the project implementation to some degree. Also, coordinating a vast number of project stakeholders, partners and beneficiaries sometimes posed a challenge in its own right.

3. Evaluation on the results of the Project Risk Management

The Project has flexibly responded to risks during the project period. The Project consists of a number of implementing agencies such as Ministries of Education and covers all the mixed secondary schools with gymnasias course throughout the country. Such various organizations and persons concerned could be one of the risks for the smooth implementation of the project activities. The Ministry of Civil Affairs has played a coordinating role among the education authorities, which contributed to making their communication easy.

4. Lessons Learned

(1) Necessity of a focal point for communication among stakeholders

The Project involves a number of Ministries of Education as implementing

agencies. Communication difficulty with a number of implementing agencies was easily anticipated at the beginning of the Project. Being a coordinating body, Ministry of Civil Affairs facilitates communication within the Project as a focal point. In the case where a number of stakeholders are large, it is crucial to have a focal point for communication among stakeholders.

IV. For the Achievement of Overall Goals after the Project Completion

1. Prospects to achieve Overall Goal

The Overall Goal and its current result of indicator are as follows.

Overall Goal: The modernized IT curricula stay accepted in the gymnasia course in BiH.

Indicators	Results
The modernized IT curricula become a backbone for the Common Core Curricula, based on the learning outcomes.	The Common Core Curricula for IT subject was prepared by the technical working group led by APOSO. And it was publicly announced at the official gazette Bosnia and Herzegovina on 5th April 2016.

The Overall Goal is likely to be achieved near the future based on the above result of indicator. Since the CCC for IT which embraced the modernized IT curricula developed by the previous project were officially announced at the BiH level, there is likelihood that the Ministry of Education of Republika Srpska, respective Cantonal Ministries of Education and the Department for Education of Brcko District continuously maintain the modernized IT curricula in the future.

2. Recommendations for the BiH side

Development of detailed curricula based on the CCC for IT at primary education JICA has fully supported APOSO in the creation of CCC for IT. It is expected that Ministries of Education follow the CCC for IT and implement at primary schools.

Maintaining a working group on CCC for future revision of CCC

The CCC for IT will be revised sometime in future, reflecting technological advancement. In order to actively monitor relevancy of the curricula, it is advised to maintain the working group on CCC through giving a task to the group or periodical meetings.

Community of Practice for IT teachers

In BiH, opportunities for in-service teacher trainings are limited, which is evident from interviews to IT teachers in this evaluation. In order to keep up with latest

technological trend as well as improve pedagogical skills, IT teachers are strongly encouraged to form communities of practice with neighboring schools to exchange their lessons and technology as a substitute mean of training. It is also an idea to join teacher groups informally formed in the previous phases of the Project.

ANNEX 1: Results of the Project

ANNEX 2: Project Design Matrix

Results of the Project

1. List of experts

Mr. Dejan Balić, Chief Local Consultant

2. IT devices provided

Provision in March 2015

No	School Entity/Canton	PCs	Laptop	Projector	Printer & Scanner	Digital camera	Laser printer
1	MSŠ Donji Vakuf Donji Vakuf Central Bosnia, FBiH	15	1	1	1	1	1
2	MSŠ Travnik Travnik Central Bosnia, FBiH	20	1	1	1	1	1
3	SŠ Novi Travnik N_Travnik Central Bosnia, FBiH	15	1	1	1	1	1
4	MSŠ Vitez Vitez_B Central Bosnia, FBiH	15	1	1	1	1	1
5	SŠ Vitez Vitez_H Central Bosnia, FBiH	15	1	1	1	1	0
6	SŠ Busovača Busovaca Central Bosnia, FBiH	15	1	1	1	1	1
7	SMŠ "Zijah Dizdarević" Fojnica Central Bosnia, FBiH	15	1	1	1	1	1
8	SŠ "Ivan Goran Kovačić" Kiseljak Central Bosnia, FBiH	20	1	1	1	1	1

No	School Entity/Canton	PCs	Laptop	Projector	Printer & Scanner	Digital camera	Laser printer
9	SŠ "Pere Zečevića" Odzak Posavina, FBiH	20	2	2	2	2	2
10	SŠC "Jovan Cvijić" Modriča RS	0	1	0	2	2	1
11	SŠ "Nikola Tesla" Šamac RS	20	1	1	1	1	1
12	SŠ "Mihajlo Petrović Alas" Ugljevik RS	20	2	2	2	2	2
13	SŠ "Vuk Karadžić" Lopare RS	15	0	0	1	1	0
14	SŠC "Petar Petrović Njegoš" Šekovići RS	20	1	1	1	1	1
15	SŠC "Milorad Vlačić" Vlasenica RS	15	1	0	1	1	0
16	SŠC "Milutin Milanković" Milići RS	10	2	2	2	2	2
17	SŠC Srebrenica Srebrenica RS	20	1	1	1	1	1
18	Gimnazija Kalinovik Kalinovik RS	15	1	1	1	1	1
19	SŠC Foča Foca RS	20	2	2	2	2	2

No	School Entity/Canton	PCs	Laptop	Projector	Printer & Scanner	Digital camera	Laser printer
20	SŠC "Petar Petrović Njegoš" Čajniče RS	5	1	0	1	1	1
21	SŠC Rudo Rudo RS	15	1	1	1	1	1
22	SŠ "Ivo Andrić" Višegrad RS	18	1	1	1	1	1
23	SŠC "27. januar" Rogatica RS	10	1	1	1	1	1
24	MSŠ "Musa Ćazim Ćatić" Kladanj Tuzla, FBiH	15	1	1	1	1	0
25	MSŠ Banovići Banovici Tuzla, FBiH	20	1	1	1	1	1
26	MSŠ Srebrenik Srebrenik Tuzla, FBiH	18	1	1	1	1	0
27	MSŠ Kalesija Kalesija Tuzla, FBiH	15	1	0	1	1	1
28	MSŠ Sapna Sapna Tuzla, FBiH	15	1	1	1	1	1
29	MSŠ "Musa Ćazim Ćatić" Olovo Zenica-Doboj, FBiH	19	1	1	1	1	1
30	MSŠ NORDBAT-2 Vareš Zenica-Doboj, FBiH	15	1	1	1	1	1

Provision in September 2015

No	School	Place	Entity/ Canton	PCs	Laptop	Projector	Printer & Scanner	Digital camera	Laser printer
1	SŠC "Aleksa Šantić"	Nevesinje	RS	20	1	1	1	1	1
2	SŠC "Pero Slijepčević"	Gacko	RS	20	1	1	1	1	1
3	SŠC "Golub Kureš"	Bileća	RS	20	1	1	1	1	1
4	SŠ "Svetozar Ćorović"	Ljubinje	RS	8	1	1	1	1	1
5	SŠ "dr. fra Slavka Barbarića"	Čitluk	Herzegovina-Neretva	0	1	0	1	1	0
6	SŠ "Čapljina"	Čapljina	Herzegovina-Neretva	20	1	1	1	1	1
7	SŠ "Stolac"	Stolac	Herzegovina-Neretva	20	1	1	1	1	1
8	SŠ "A. B. Šimić"	Grude	Western Herzegovina	15	1	1	1	1	1
9	SŠ "Prozor"	Prozor	Herzegovina-Neretva	15	1	1	1	1	1
10	SŠ "Kupres"	Kupres	Canton 10	5	1	1	1	1	1
11	SŠC "Hadžići"	Hadžići	Sarajevo	15	1	1	1	1	1
12	SŠ "Jablanica"	Jablanica	Herzegovina-Neretva	15	1	1	1	1	1
13	SŠ "Konjic"	Konjic	Herzegovina-Neretva	20	1	1	1	1	1
14	SMŠ "Žepče"	Žepče	Zenica-Doboj	20	1	1	1	1	1
15	SŠ "Stjepana Radića"	Usora	Zenica-Doboj	20	1	1	1	1	1

No	School	Place	Entity/ Canton	PCs	Laptop	Projector	Printer & Scanner	Digital camera	Laser printer
16	MSŠ "Doboj Istok"	Doboj Istok	Tuzla	15	1	1	1	1	1
17	SŠC "Ilijaš"	Ilijaš	Sarajevo	12	2	2	2	2	2
18	SŠC "Nikola Tesla"	Kotor Varoš	RS	20	1	1	1	1	1
19	SŠC "Petar Kočić"	Srbac	RS	15	1	1	2	2	1
20	SŠC "Nikola Tesla"	Brod	RS	20	1	1	1	1	1
21	SŠC "Nikola Tesla"	Kozarska Dubica	RS	20	1	1	1	1	1
22	MSŠ "Ključ"	Ključ	Una-Sana	20	1	2	1	2	1
23	SŠC "Lazar Đukić"	Ribnik	RS	20	1	1	1	1	1
24	SŠC "Šipovo"	Šipovo	RS	20	1	1	1	1	1
25	Peta gimnazija	Sarajevo _peta	Sarajevo	0	1	1	2	2	1
26	MSŠ "Bosanski Petrovac"	Bosanski Petrovac	Una-Sana	20	1	1	1	1	1
27	SŠ "Tin Ujević"	Glamoč	Canton 10	15	1	1	1	1	1
28	SŠ "Drvar"	Drvar	Canton 10	20	1	1	1	1	1
29	MSŠ "Bužim"	Bužim	Una-Sana	20	1	1	1	1	1

3. IT textbooks provided

Federation of Bosnia and Herzegovina

Mixed Secondary School		IT Textbook A		Student Manual		IT Textbook B	
		Bosnian	Croatian	Bosnian	Croatian	Bosnian	Croatian
1	MSS Donji Vakuf	70	0	30	0	60	0
2	MSS Travnik	120	0	60	0	120	0
3	SS Novi Travnik	0	50	0	30	0	20
4	MSS Vitez	25	0	10	0	25	0
5	SS Vitez	0	40	0	20	0	20
6	SS Busovača	0	20	0	20	0	20
7	SMŠ "Zijah Dizdarević", Fojnica	25	0	25	0	30	0
8	SS "Ivan Goran Kovačić", Kiseljak	0	60	0	30	0	20
9	SS "Pere Zečevića", Odžak	0	30	0	30	0	20
10	MSS "Musa Ćazim Ćatić", Kladanj	25	0	25	0	30	0
11	MSS Banovići	25	0	25	0	50	0
12	MSS Srebrenik	50	0	30	0	50	0
13	MSS Kalesija	25	0	25	0	30	0
14	MSS Sapna	25	0	25	0	30	0
15	MSS "Musa Ćazim Ćatić", Olovo	40	0	25	0	40	0
16	MSS NORDBAT-2, Vareš	25	0	25	0	30	0
17	SS "dr. fra Slavka Barbarića", Čitluk	0	80	0	30	0	20
18	SS "Čapljina", Čapljina	0	50	0	20	0	20
19	SS "Stolac", Stolac	15	40	15	40	30	20
20	SS "A. B. Šimić", Grude	0	70	0	30	0	30
21	SS "Kupres", Kupres	0	20	0	20	0	20
22	SS "Prozor", Prozor	0	50	0	30	0	20
23	SS "Jablanica", Jablanica	20	0	20	0	30	0
24	SS "Konjic", Konjic	45	0	20	0	80	0
25	SSC "Hadžići", Hadžići	50	0	30	0	30	0
26	SSC "Ilijaš", Ilijaš	45	0	20	0	30	0
27	SMŠ "Žepče", Žepče	25	0	25	0	25	20
28	SS "Stjepana Radića", Usora	0	20	0	20	0	20
29	MSS "Doboj Istok", Doboj Istok	25	0	25	0	20	0
30	MSS "Ključ", Ključ	60	0	35	0	60	0
31	SS "Tin Ujević", Glamoč	0	50	0	30	0	20
32	SS "Drvar", Drvar	0	50	0	30	0	20
33	MSS Bosnian Petrovac	40	0	20	0	30	0
34	MSS Bužim	40	0	20	0	50	0
35	Peta gimnazija Sarajevo	80	0	40	0	80	0
Sub-total		900	630	575	380	960	310
Total		1530		955		1270	

Republika Srpska

	Mixed Secondary School	IT Textbook A	Student Manual	IT Textbook B
1	SŠC "Aleksa Šantić", Nevesinje	50	30	80
2	SŠC "Pero Slijepčević", Gacko	75	45	60
3	SŠC "Golub Kureš", Bileća	55	25	70
4	SŠ "Svetozar Čorović", Ljubinje	20	20	30
5	SŠC "Nikola Tesla", Kotor Varoš	25	25	30
6	SŠC "Petar Kočić", Srbac	35	20	35
7	SŠC "Nikola Tesla", Brod	25	25	30
8	SŠC "Nikola Tesla", Kozarska Dubica	40	20	50
9	SŠC "Lazar Đukić", Ribnik	20	20	30
10	SŠC "Šipovo", Šipovo	45	20	60
11	SŠ "Drvar", Drvar			30
12	SŠC "Jovan Cvijić", Modriča	90	90	100
13	SŠ "Mihajlo Petrović Alas", Ugljevik	20	20	25
14	SŠ "Vuk Karadžić", Lopare	25	25	25
15	SŠC "Petar Petrović Njegoš", Šekovići	20	20	25
16	SŠC "Milorad Vlačić", Vlasenica	25	25	40
17	SŠC "Milutin Milanković", Milići	30	30	40
18	SŠC Srebrenica	20	20	25
19	Gimnazija Kalinovik	20	20	25
20	SŠC Foča	75	75	90
21	SŠC "Petar Petrović Njegoš", Čajniče	25	25	35
22	SŠC Rudo	25	25	35
23	SŠC "Ivo Andrić", Višegrad	50	50	60
24	SŠC "27. januar", Rogatica	50	50	60
25	SŠ "Nikola Tesla", Šamac	25	25	25
	Sub-total	890	750	1115
	Total	2420	1705	2385

Project Design Matrix

Project Title: the Project for Improving IT Education at Mixed Secondary Schools with Gymnasia Course in Bosnia and Herzegovina
Implementing Agency: Ministry of Education and Culture in the Republika Srpska and the Cantonal Ministries of Education in the Federation of Bosnia and Herzegovina

Version 1.0

Dated 9 September 2015

Target Group: Responsible education authorities, IT teachers and students in BiH

Period of Project: From 1st September 2014 to 31st August 2016

Project Site: The mixed secondary schools with gymnasia course in BiH

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Important Assumption	Achievement	Remarks
Overall Goal The modernized IT curricula stay accepted in the gymnasia course in BiH.	The modernized IT Curricula become a backbone for the Common Core Curricula, based on the learning outcomes.	Official documents of the respective Ministries of Education and the Agency for Preschool, Primary and Secondary Education.			
Project Purpose The modernized IT curricula are applied in the target mixed secondary schools.	The target mixed secondary schools conduct IT lessons based on the modernized IT Curriculum.	Monitoring by the Project	Education reform is not hampered or derailed by unpredictable circumstances.		
Outputs 1. The infrastructural conditions are fulfilled for the modernized IT Curricula in the target schools. 2. Necessary skills for the modernized IT curricula are acquired by the IT teachers in the target mixed secondary schools. 3. Information exchange networks among stakeholders of IT education are established to maintain the common efforts.	1. Necessary IT devices and textbooks are properly installed and ready for use. 2. The IT teachers gain the certificate at the IT seminars/workshops held at least twice in each school year. 3-1.The IT teachers make use of the networks within the formal procedure to improve the modernized IT lessons. 3-2.Discussions concerning the IT curriculum/textbooks among the respective IT education authorities in BiH are held once a year.	1. Delivery Sheets of the equipment, and letters of the consent from the schools on terms 2. Record of the seminars/workshops 3-1. Monitoring by the project 3-2. Interview with MoEs and Pedagogical Institutes in BiH, and record of the seminars/workshops	IT modernization processes is not hampered or derailed by unpredictable circumstances.		

Activities	Inputs		Pre-Conditions
	The Japanese Side	The BiH Side	
<p>1. Activities for Output 1 1-1. The project assists the target schools to meet the requirements to be equipped with the textbooks. 1-2. The project assists the target schools to meet the requirements to be equipped with the IT devices.</p> <p>2. Activities for Output2 2-1. The project prepares the seminars/ workshops for IT teachers of the target mixed secondary schools in cooperation with relevant IT educational authorities in BiH. 2-2. The project implements the seminars/ workshops for IT teachers of the target mixed secondary schools in cooperation with relevant IT educational authorities in BiH.</p> <p>3. Activities for Output 3 3-1. The IT teachers make use of online information exchange media to establish an information exchange network. 3-2. Each of the IT educational authorities in BiH hold discussions concerning IT education on a regular</p>	<p>(1) Assignment of JICA local consultants</p> <p>(2) Textbooks - Dissemination of IT textbooks Information A and B to students in the target schools.</p> <p>(3) Machinery and equipment - IT devices for IT teachers to conduct the lessons, such as PCs, projectors, printers and digital cameras.</p> <p>(4) Counterpart trainings in Japan</p> <p>(5) Seminar Cost Transportation and accommodation costs for IT seminar attendants, including lecturer fees.</p> <p>(6) Local cost</p>	<p>(1) Counterparts and IT teachers</p> <p>(2) Facilities and Equipment - A room in each target mixed secondary school for IT lessons with a power supply and internet connection. - computer peripherals, if necessary.</p> <p>(3) Maintenance cost Costs of maintaining PCs and computer peripherals in working order, including expences associated with antitheft security measures.</p> <p>(4) Facilitation of Custom duties, internal taxes and any other charges in terms of procurement of equipment.</p> <p>(5) Local cost</p>	<p>1. The relevant organizations/ institutions agree with their involvements in the Project activities.</p> <p>2. Sufficient budget and personnel are allocated for the Project implementation by implementing agencies.</p>
			

