Environmental Management in the Middle East (EMME):
Spatial Approaches

Co-funded by the
Erasmus+ Programme
of the European Union

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Welcome by Ali

Equipment

- UT: 50% of the equipment is purchased. But UT refused to receive the second payment of the project, due to internal reasons. So, UT could not purchase 50% of the equipment.

- BASU: 100% of equipment has been purchased. The final documents will be ready in 2-3 days to be submitted to Irma.

- IKIU: 100% of equipment has been purchased. The final documents will be ready in 7 days to be submitted to Irma.

- TU: 100% equipment has been purchased and all documents and photos of the labs have been sent to Irma.

- SU: 95% equipment has been purchased (except radiometer) and all documents and photos of the labs have been sent to Irma.

- All equipment has been purchased 4 months before the end of the project. So, according to EU regulations.

Moodle

- SU: Installed, but needs update. It will be fixed within 15 days.

- TU: Installed, but needs update. It will be fixed within 15 days.

- UT: Server has not been purchased, because the university refused to receive the second payment.

- BASU: Moodle is installed and courses are restored, up and running.

- IKIU: Moodle is installed and courses are restored, up and running.

emGeo

- emGeo is available on the project website to be downloaded and used by all Yemeni and Iranian Universities. It is also available to be used for free by other universities in the Middle East.

- It is being used by the Yemeni partners for the education purposes, even in other MSc and BSc programs.

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Financial Reports

- SU: 28 140 Euros Equipment has been reported. 432 days in the budget. Only 220 days (teacher and manager) have been reported.

- TU: 49 948 Euros Equipment has been reported. 15 days are missing. Corrections will be given to Irma today.

- UT: Equipment documents have been submitted. Time sheets have been corrected and submitted. Everything is clear.

- BASU: 18 700 Euros has been submitted. The rest (49 915) will be submitted by Friday. All timesheets have been submitted to Irma.

- IKUI: 18 660 Euros has been reported. The rest will be reported to Irma on Friday. 279 days in the budget but only 153 days.

- UL/IST: 1 timesheet needs correction. Alex is collecting signatures of the rector.

- VGTU: Few corrections are needed. They will be sent to Irma as soon as possible. 40 days have to be reported.

- ENSG: Employment certificates need to be provided to Irma. Time sheets are OK.

- NTUA: All days are reported. 2 timesheets need a stamp and signature. Maria is taking care of it.

Final Report

- LU will finalize and submit the report by Nov 15.

- All financial reports must be submitted to the EU by January. All documents have to be submitted to Irma by the end of Nov.

- Marcellin will check that the project website has all project information including dissemination meetings, ToTs, minutes of the meetings, and the latest version of emGeo.

Sustainability

Number of students

- GIS and RS are new field of science in Yemen, so students are interested in the topic. However, male students are occupied with other things (e.g. working, fight as a soldier, etc.). Female students are more available to study.

Quality of students

- Students are good and keen to learn.

Job/labour market in Iran and Yemen

- Job market is increasing in Yemen and Iran. SDI-T is needed for environment management. So there is a high chance for students to find jobs after their studies. The demand for GIS is more than the demand for RS. The developed courses in EMME fit both.

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Number of teachers

- There are enough teachers to teach geography/geomatics in Yemen and Iran.

Quality of teachers

- The teachers are skilful and knowledgeable, qualified for teaching GIS/RS at the BSc and MSc programs.

Language

- Currently, in normal education, in Yemen and Iran, the references are in English, but the courses are taught in Arabic/Farsi. That the courses are in English is not a challenge. For the future sustainability, the plan is to translate all courses into Arabic and Farsi.

- Students need to know English, because software/hardware instructions for lab works, data collection, etc. are in English. So, it is important for the students to be familiar with the technical terms used in the software/hardware instructions and how they are linked to the literature.

Finances

- Economic situation is unstable in Yemen and Iran, due to political challenges and civil war (in Yemen).

- Students do not have access to computers. Some do not have their own laptops. Lab computers are less than the number of students.

- Private companies and NGOs can support the universities. Specially, for GIS/RS, which is developing, there are higher chances to get more support.

- Vocational training to receive financial input to the universities.

Politics/civil wars

- There is war at different levels, and between different political parties, in Yemen. Civil war is ongoing and hence it is a major threat for higher education in Yemen.

- Yemenis try to adapt and work in the civil war situation. The government cannot pay salaries in certain areas of Yemen. There is a problem with electricity.

- The only way forward is to adjust and adapt to the situation. In EMME, Yemeni partners of the project are a group of experienced teachers who have learned how to adapt to the situation and support the development of higher education in Yemen.

- Iran does not have civil war, but politics is influencing the higher education environment. However, higher education is stable and is developing in the country.

- The consortium concludes that higher education is the way to get out of poverty and conflicts in the long run.

External support needed?

- Poverty influences priorities on how the limited financial resources should be used. For example, food security has a higher priority than education. Yemen manages without external support to

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run higher education. However, for better development of higher education, external support can help a lot.

- The consortium hopes and thinks that the external funding organizations will continue supporting Iran and Yemen, and the consortium members are willing to continue their work not least because the results have been successful.

- Before, Yemeni's universities had many international cooperation and support from outside. But a majority of them have been stopped because of the civil war. A few projects related to water resources are ongoing with Europe, due to the sensitivity of water resources. GIS and RS techniques are being used to evaluate the quality and quantity of water infrastructures.

- There are no embassies in Yemen that makes the communication with outside, even more difficult. For visa application, academic staff have to stay in e.g Cairo for a few weeks.

Tech challenges (servers, software, el, Internet etc.)

- Electricity is unstable in Yemen. Universities are trying to set up solar panels to solve the issue. However, it cannot be used to run Air Conditions, while AC is needed to keep the servers cool.

- To import equipment, the difficulties vary depending on the type of the equipment. For example, it is difficult to import GPS, because they have military use as well, but importing computers is easier.

- Yemen needs technical support and can be provided even after the project, because of the good relation which has been created between the Yemeni and European partners within the project.

- Cost of software is often a problem, because it is high. The consortium is looking for alternative solutions, e.g. open source or low cost, and sharing them with the Yemeni partners. EMME has currently developed course materials and exercises based on open source software and tools to make it usable in Yemen and Iran, without applying extra cost to the universities.

- Internet connection is very weak in Yemen and sometimes in Iran that makes access to online resources very difficult. It influences the quality of online education, and the quality of interaction in general.

Specific challenges and solutions in Iran and Yemen

- The challenges discussed above, including economic challenges, are side effects of civil war. Traveling out of Yemen is very difficult. Only the airport at Adan is available. Expensive to travel from e.g. Sana'a to Adan and many checkpoints that make the journey very slow and exhaustive. Travel cost is also very expensive because of the limited flights available from Yemen and high demands.

Courses as part of a master program

- Courses have been recognized by the Yemeni and Iranian Universities. Course materials are already being used in existing courses.

- A GIS Centre has been established at Sana'a University which is a contact point for different faculties and programs. All course materials, developed in EMME, are being used in the GIS Centre. GIS Centre can teach the courses for the students in other programs in the university. The courses will also be developed and adapted based on the demands of different disciplines, e.g. health, water resource, geology, agriculture, food security, urban planning, etc.

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Internal supports of the universities

- All universities feel that they have support from their universities' administration and leadership as well the municipalities and the government. However, the funds are lacking.

Accreditation of courses

- Courses have been accredited by the Yemeni and Iranian universities. So, they have been recognized by the partner universities.

Quality of courses

- All courses have been evaluated and all students are satisfied with the content and the quality of courses and teachers.