

Periodical Report
24 Months of project
implementation

New and Innovative Courses for Precision Agriculture



TURKMEN AGRICULTURAL INSTITUTE

Mr. Babageldi Kurbanov - Head of the
Department of Agricultural land reclamation

Joint Project: Capacity Building in the Field
of Higher Education ERASMUS+ 2018

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



PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



Table 1.1. ACTIVITIES IMPLEMENTED

№	Activities	References	Clarification notes
1.	a) Institute examines and adopts the received materials from European HEI and develops on this basis their own courses, curricula, modules; b) Institute should develop digital versions-drafts (.doc files) of their OWN manuals/text books/methodological recommendations for students and teachers for each of the curricula/course/module.	2.1	a) A draft curriculum was prepared with a description of the new core curricula. b) Work continues on the development of manuals/textbooks/methodological recommendations for students for each course/module
2.	a) Accreditation of developed subjects/courses/programmes in accordance with valid Institute rules; b) Accreditation at the national level.	2.1	Specialists were appointed to develop curricula at the institute, as well as teachers to develop and implement new / updated disciplines, courses and curricula. a) New / updated disciplines have been accredited at the institutional level (July, 2020) b) Appropriate work is being carried out to accredit new/updated disciplines at the national level

PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



№	Activities	References	Clarification notes
3.	a) Prepare a set of documentation for PAL and VCR in institute; b) Purchase the equipment incl. software; install the equipment.	2.2	a) The classroom layout for PAL and VCR was made (<i>March 6, 2020</i>) b) The purchase and delivery of equipment has not yet been completed
4.	c) Retrain academic teachers in new curricula using innovative teaching/ learning facilities and agreed instructional strategies.	2.3	3 trainings for teachers are planned for EU universities. One took place in August 2019. The next ones have not yet passed
5.	<ul style="list-style-type: none"> - Update existing curricula, make a report on updating; - Develop a curricula description of each updated curriculum in English and national languages including the ECTS points in accordance with the Bologna recommendations; - Accredit the updated disciplines in accordance with valid Institute rules/national law 	2.4	The existing curricula were updated. And also accreditation of curricula at the national level (<i>August 26, 2019</i>)

PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



№	Activities	References	Clarification notes
6.	a) Starting performance of demonstration master classes (MC) for new subjects/modules; b) pilot operation of PAL and VCR.	2.5	For January 2021 it is planned to hold demonstration master classes for teachers
7.	Pilot teaching/operation of PAL and VCR	2.6	Pilot training / operation for some projects was not carried out due to non-purchase and delivery of equipment
8.	a) Development of quality assurance plan in institute b) Periodical survey of students (should prepare a questionnaire) in order to assess quality of master classes; lectures during the pilot teaching.	3.1	a) Based on the project's quality assurance plan, develop a quality assurance plan for the institute; b) Template/guidelines for the questionnaire were provided by P5. Consortium has identified an external expert

PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



№	Activities	References	Clarification notes
9.	a) Develop a plan for dissemination and sustainability of the project in institute, including activities on involving new participants in the project; b) Operation starting of the first version of the WEB platform.	4.1 4.2	A “blogger” was appointed by the institute. The project has drawn up a publication plan at the institute. Information about the participation of the institute in the project is posted on the website of the institute. The project participants regularly appear on television.
10.	Organize dissemination of leaflets about the project amongst students and teachers.	4.1 4.2	Organized periodically.
11.	a) Develop and approve a package of organizational documents for the creation of PASO in Institute; b) Institute should purchase and install equipment.	4.3	The purchase and delivery of equipment has not yet been completed

PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



№	Activities	References	Clarification notes
12.	a) Conduct training for employees of PASO and start of functioning PASO; b) Start pilot operation of PASO.	4.4	a) P2 we P4 is responsible for organizing and delivering training
13.	Refresh training courses for graduates in PASO.	4.5	For January 2021 it is planned to hold demonstration master classes for teachers
14.	Organization of International BA/MSc Summer Schools.	4.6	Until the international summer schools BA/MSc passed
15.	Management of the project including project management online, daily project administration and coordination.	5.1	The preparation of the documentation of the activities and the project management plan, incl. preparation of protocols by the local coordinator

PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



№	Activities	References	Clarification notes
16.	Coordination meetings.	5.2	Coordination meetings are held quarterly
17.	Monitoring and controlling of project activities: development of questionnaires for partner universities regarding project implementation.	5.1	In September-October 2020, monitoring was carried out by the NEO of Turkmenistan
18.	Ensure using SKYPE to held meetings of the project consortium team.	5.1	The project consortium team meets on a quarterly basis

PROJECT ACTIVITIES FROM 16.05.2020 till 15.11.2020



Table 1.1. ACTIVITIES IMPLEMENTED

#	Question	Answer
2.	Describe positive changes/benefits in your university as the result of each of the implemented activities of the project	<ul style="list-style-type: none">– Studying materials received from European universities and developing on their basis their courses, curricula, modules– Experience in curriculum development, including ECTS scores, in accordance with the Bologna Recommendations– Experience in conducting demonstration master classes– Experience in questioning students, teachers, employers– Experience of participation in international projects, including ERASMUS +

CURRICULA (5 year system)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 1	Geodesy	204	24	20%, Introduced the chapter "Geodesy and navigation systems", "Possibilities for the development of geodesy"	Teachers teaching this course post their teaching aids in the library of the institute	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).
Course 2	Agro-meteorology	90	117	15%, Introduced the chapters "Remote sensing of soil moisture, salinity, vegetation cover"	Teachers teaching this course post their teaching aids in the library of the institute	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

CURRICULA (5 year system)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 3	Climatology	64	40	15%, Introduced chapter "Climate monitoring via satellites"	Teachers teaching this course post their teaching aids in the library of the institute	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).
Course 4	Hydrology and hydrometry	134	40	20%, Introduced the chapter "Remote monitoring of hydrological and hydrometric observations"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

CURRICULA (5 year system)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 5	Soil science	152	117	20%, Topics introduced "Modern methods of remote sensing of soil density in precision agriculture", "Modern methods of remote sensing of physical and mechanical properties of soil in precision agriculture", "Modern methods for determining the amount of water in soil in precision agriculture", "Modern methods of remote sensing of the level of groundwater in precision agriculture", "Modern methods of remote sensing soil nutrients in precision agriculture"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodical Working Group of the Faculty of Agronomy at the meeting of 18 July 2020 (Protocol No. 13).

CURRICULA (5 year system)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 6	Mechanization of technological work in animal husbandry	136	48	20%, Introduced the chapters "Precision livestock", "Smart farm", "Telematic transport management"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).
Course 7	Operation of the machine and tractor fleet	120	128	20%, Introduced the chapters "Automation of machine and tractor fleet management", "Differentiated technologies of precision agriculture", "Sensors for determining the state of plants", "Yield mapping systems"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

CURRICULA (5 year system)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 8	Fruit growing and viticulture	120	60	15%, Introduced the chapter "Opportunities and prospects for the use of precision agricultural technologies in the cultivation of fruits and grapes"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodical Working Group of the Faculty of Agronomy at the meeting of 18 July 2020 (Protocol No. 13).
Course 9	Agricultural economics	64	282	20%, Introduced the chapters "Economic efficiency of precision farming in the agro-industrial complex", "Use of labor resources in precision farming", "Economics of precision farming", "Economics of production of vegetables and potatoes in precision farming"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodical Working Group of the Faculty of Veterinary Medicine at the meeting of 18 July 2020 (Protocol No. 15).

CURRICULA (5 year system)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 10	Organization and management of agricultural production	84	80	20%, Introduced the chapters “Organizing precision farming” and “Organizing precision livestock”	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodical Working Group of the Faculty of Veterinary Medicine at the meeting of 18 July 2020 (Protocol No. 15).

CURRICULA (Bachelor)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 9	Economics of agriculture (training is conducted in English)	4	20	20%, Introduced the chapters "Economic efficiency of precision farming in the agro-industrial complex", "Use of labor resources in precision farming", "Economics of precision farming", "Economics of production of vegetables and potatoes in precision farming"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodical Working Group of the Faculty of Veterinary Medicine at the meeting of 18 July 2020 (Protocol No. 15).

CURRICULA (Bachelor)



Table 2.1.1. UPDATED COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS, hours for TM in case no ECTS)	Number of students participating in the course	Name new elements in the course and estimate the percentage they represent in relation to the preexisting course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 9	Economics of agriculture	4	20	20%, Introduced the chapters "Economic efficiency of precision farming in the agro-industrial complex", "Use of labor resources in precision farming", "Economics of precision farming", "Economics of production of vegetables and potatoes in precision farming"	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodical Working Group of the Faculty of Veterinary Medicine at the meeting of 18 July 2020 (Protocol No. 15).

$\Sigma(\text{Total number of updated courses}) = \underline{9}$

$\Sigma(\text{Total number of ECTS}) = \underline{8}$

CURRICULA (5 year system)



Table 2.2.2.NEW COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS hours for TM in case no ECTS)	Number of students participating in the course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 1	Geographic information system	70	193	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

CURRICULA (5 year system)



Table 2.2.2.NEW COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS hours for TM in case no ECTS)	Number of students participating in the course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 2	Photogrammetry and remote sensing	112	24	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).
Course 3	Precision Agriculture	70	64	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

CURRICULA (Bachelor)



Table 2.2.2.NEW COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS hours for TM in case no ECTS)	Number of students participating in the course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 1	Geoinformation Systems (training is conducted in English)	3	20	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).
Course 3	Precision Agriculture (training is conducted in English)	3	20	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

CURRICULA (Bachelor)



Table 2.2.2.NEW COURSES

Course №	Title of the course and in which program it is taught (Bachelor, Master, 5 years system for TM)	Its volume (in ECTS hours for TM in case no ECTS)	Number of students participating in the course	Link to the course on the university page	Accreditation and recognition: Specify the date when the course was accredited in the curriculum and when the pilot teaching started
Course 3	Precision Agriculture	3	20	Teachers teaching this course post their teaching aids in the library of the institute.	The curriculum was discussed and approved by the Educational and Methodological Working Group of the Faculty of Hydromelioration and Agricultural Mechanization at a meeting on July 21, 2020 (Protocol No. 11).

$\Sigma(\text{Total number of new courses}) = \underline{3}$

$\Sigma(\text{Total number of ECTS}) = \underline{9}$

QUALITY ASSURANCE



To assess the quality of the developed curricula for the disciplines, reviewers from other organizations were involved. In particular:

1. A.Ibadullayev – Chairman of the Land Resources Department of Dashoguz Province;
2. M. Babajanov – Head of the Water Use Department of the “Dashoguzsuvhojalyk” Production Association;
3. T. Baymuradov – Head of the Production and Technical Department of the Dashoguz Province Agricultural Production Association;
4. G. Atamedov – Chairman of the Membership Department of the Nature Protection Society of Dashoguz Province;
5. B. Kultakov – Head of the Computer and Digital Technology Department of the Main Finance and Economy Department of Dashoguz Province;
6. F. Yuldashov – Chief Accountant of the N. Andalyp Farmers' Association of Gurbansoltan Eje District, Dashoguz Province.

LABORATORIES AND EQUIPMENT



The PAL (Precision Agricultural Laboratory) laboratory is located in the 252 audience of the institute. Students of the institute will study in the PAL laboratory on the following topics:

#	Item name	Topic name	Specialty	Faculty
			student	
1.	Agrometeorology	<ol style="list-style-type: none">1. Measurement of solar radiation2. Measurement of soil temperature3. Measurement of air temperature4. Measurement of evapotranspiration5. Measurement of air humidity6. Study of the duration and intensity of precipitation7. Measurement of soil moisture8. Building a wind rose	<ol style="list-style-type: none">1. Agronomy2. Agro chemistry and Soil Science3. Agroecology4. Breeding and seed crops5. Greenhouse	Agronomy

LABORATORIES AND EQUIPMENT



The PAL (Precision Agricultural Laboratory) laboratory is located in the 252 audience of the institute. Students of the institute will study in the PAL laboratory on the following topics:

#	Item name	Topic name	Specialty	Faculty
			student	
2.	Climatology	<ol style="list-style-type: none">1. Measurement of solar radiation2. Measurement of soil temperature3. Measurement of air temperature4. Measurement of evapotranspiration5. Measurement of air humidity6. Study of the duration and intensity of precipitation7. Measurement of soil moisture8. Building a wind rose	<ol style="list-style-type: none">1. Hydro melioration2. Operation of irrigation and drainage systems	Hydro melioration and mechanization of agriculture

LABORATORIES AND EQUIPMENT



The PAL (Precision Agricultural Laboratory) laboratory is located in the 252 audience of the institute. Students of the institute will study in the PAL laboratory on the following topics:

#	Item name	Topic name	Specialty	Faculty
			student	
3.	Soil science	<ol style="list-style-type: none">1. Measurement of soil moisture2. Compilation of electronic spectral soil maps	<ol style="list-style-type: none">1. Agronomy2. Agro chemistry and Soil Science3. Agroecology4. Breeding and seed crops5. Greenhouse	Agronomy

LABORATORIES AND EQUIPMENT



The VCR laboratory (Virtual classroom) is located in 259 audience of the institute. Students of the institute will study in the PAL laboratory on the following topics:

#	Item name	Topic name	Specialty	Faculty
			student	
1.	Geographic information systems	<ol style="list-style-type: none"> 1. Using the QuickMapServices module 2. Connections in QGIS 3. Working with raster data 4. Creating vector layers 5. Visualization of relief using the TIN method 6. Creation of a digital elevation model 7. Creating a profile of the surface of the earth 8. Working with raster calculator 9. Determination of areas, measurement of distances 10. Creation of digital topographic map 	<ol style="list-style-type: none"> 1. Land management and cadastre 2. Agricultural mechanization 3. Organization and technology of technical service 4. Hydro melioration 5. Operation of irrigation and drainage systems 6. Information Systems in Agriculture 	<p>Hydro melioration and mechanization of agriculture</p> <p>Veterinary medicine</p>

LABORATORIES AND EQUIPMENT



The VCR laboratory (Virtual classroom) is located in 259 audience of the institute. Students of the institute will study in the PAL laboratory on the following topics:

#	Item name	Topic name	Specialty	Faculty
			student	
2.	Photogrammetry and remote sensing	<ol style="list-style-type: none">1. Creating a vegetation index map2. Determination of the vegetation index3. Preparing the NDVI card	Land management and cadastre	Hydro melioration and mechanization of agriculture

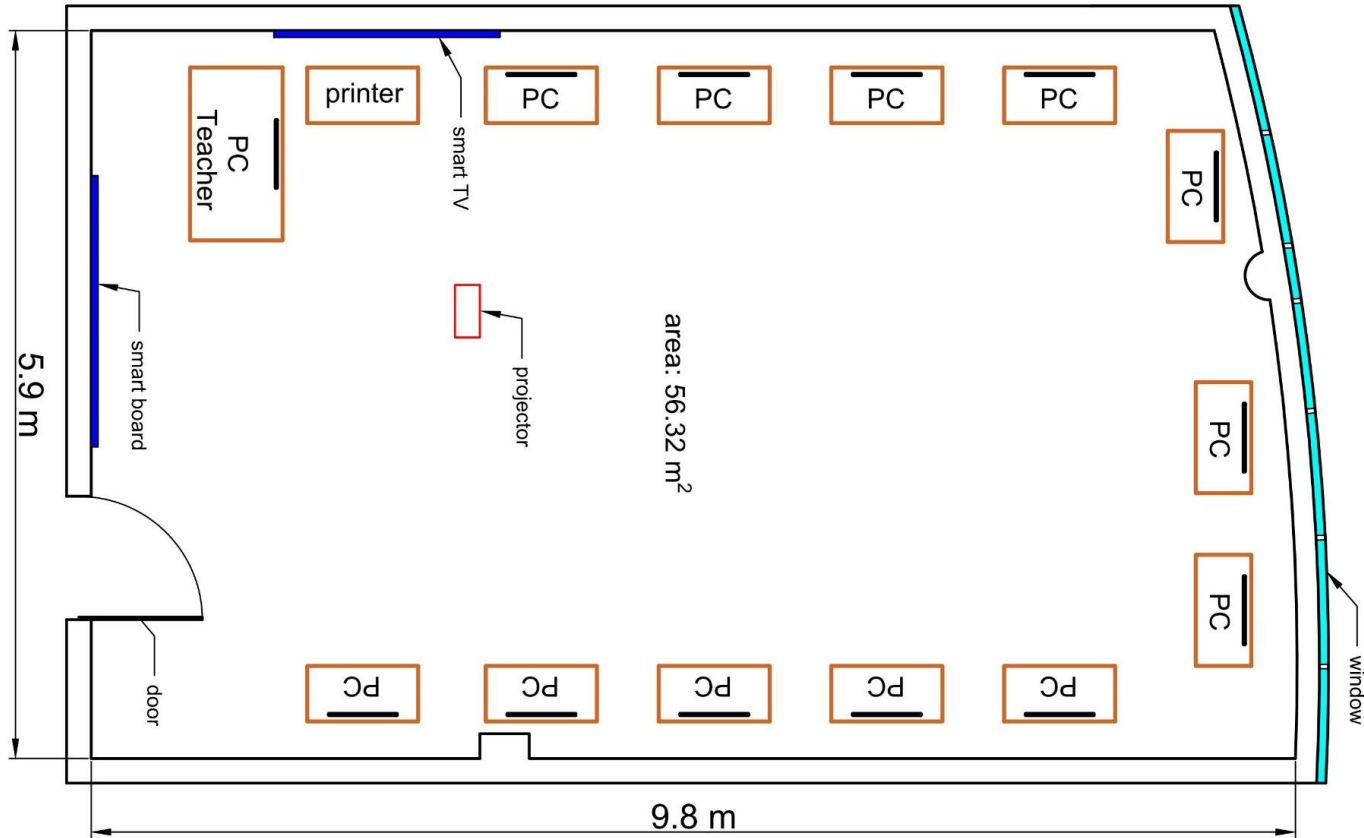
LABORATORIES AND EQUIPMENT



The VCR laboratory (Virtual classroom) is located in 259 audience of the institute. Students of the institute will study in the PAL laboratory on the following topics:

#	Item name	Topic name	Specialty	Faculty
			student	
3.	Precision Agriculture	<ol style="list-style-type: none"> 1. Features of the QGIS program 2. Field mapping 3. Systems for mapping and monitoring yield 4. Precision farming systems in CLAAS technology 5. Mapping the agrochemical composition of soil 6. Sensors for determining and measuring the properties of soil and plants 7. Sensors for mapping and monitoring crops on a computer 8. Differentiated use of liquid fertilizers in offline mode 9. Differentiated use of fertilizers online mode 	<ol style="list-style-type: none"> 1. Agricultural mechanization 2. Hydro melioration 3. Operation of irrigation and drainage systems 4. Automation and control (in agriculture) 5. Information Systems in Agriculture 	<p>Hydro melioration and mechanization of agriculture</p> <p>Veterinary medicine</p>

LABORATORIES AND EQUIPMENT



**VCR
laboratory,
room 259**

DISSEMINATION AND SUSTAINABILITY



Table 5.1.1 DISSEMINATION

	Question	Answer
1.	<p>How many and which of dissemination materials were produced (leaflets, brochures, flyers, publications etc). Please, provide designs (scans) in the presentation.</p>	<p>The members of the working group took part in the seminar "Implementation of the course on integrated water resources management in the educational process" of the GEF/UNDP/MAEPT project "Support climate resilient livelihoods in agricultural communities in drought-prone areas of Turkmenistan". During the seminar, 50 booklets about the NICOPA project were distributed.</p> <p>50 booklets on the project were distributed at a scientific-practical conference on the occasion of Science Day at the Turkmen Agricultural Institute.</p> <p>In the competition of projects among students, 2 students took part under the guidance of teacher D. Durdyev and a specially prepared stand from the NICOPA project was demonstrated and 50 booklets about the NICOPA project were distributed.</p> <p>50 booklets about the project at the Turkmen Agricultural Institute were distributed at a scientific-practical conference dedicated to the Day of Knowledge and Student Youth.</p>

DISSEMINATION AND SUSTAINABILITY



Table 5.1.1 DISSEMINATION

	Question	Answer
2.	Provide a link to the Internet sources where publications about the project/dissemination materials were posted	Link to the project page on the institute website: http://tohi.edu.tm/nicopa.phd
3.	How many non-consortium organizations (for example, universities/teachers, students, administrative staff of universities) have been informed about the project?	Teachers – 150 Students – 620 Administrative staff – 18

DISSEMINATION AND SUSTAINABILITY



Table 5.1.2. DISSEMINATION EVENTS

No	Date	Title	Target Audience	Number of participants	Is there a press-release of the event (YES/NO). If YES, provide it.
1.	30.09.2020	Familiarization of the lecturers of the Department of Technology of irrigation and drainage works with the work of the project "New and innovative courses for precision agriculture (NICOPA)" of the ERASMUS + program	Teaching staff of the department	10	Yes
2.	26.10.2020	Familiarization of the lecturers of the Department of Operation and repair of agricultural techniques with the work of the project "New and innovative courses for precision agriculture (NICOPA)" of the ERASMUS + program	Teaching staff of the department	7	Yes

DISSEMINATION AND SUSTAINABILITY



Table 5.1.2. DISSEMINATION EVENTS

No	Date	Title	Target Audience	Number of participants	Is there a press-release of the event (YES/NO). If YES, provide it.
3.	03.11.2020	Meeting with representatives of the production association "Dashoguzsuvkhodjalyk"	Representatives of the "Dashoguzsuv-khodjalyk" Production Association	27	Yes
4.	14.11.2020	Familiarization of lecturers of the Department of Agro chemistry and Soil Science with the work of the project "New and innovative courses for precision agriculture (NICOPA)" of the ERASMUS + program	Teaching staff of the department	11	Yes

DISSEMINATION AND SUSTAINABILITY



Table 5.1.2. DISSEMINATION EVENTS

No	Date	Title	Target Audience	Number of participants	Is there a press-release of the event (YES/NO). If YES, provide it.
5.	28.11.2020	Familiarization of lecturers of the Department of Computer Technology with the work of the project "New and innovative courses for precision agriculture (NICOPA)" of the ERASMUS + program	Teaching staff of the department	12	Yes
6.	18.12.2020	Meeting with representatives of the GEF/UNDP/MAEPT project "Support climate resilient livelihoods in agricultural communities in drought-prone areas of Turkmenistan"	Representatives of the GEF/UNDP/MAEPT project "Support climate resilient livelihoods in agricultural communities in drought-prone areas of Turkmenistan"	4	Yes

DISSEMINATION AND SUSTAINABILITY



5.2. Regional Cooperation

- **Within the last 6 months of the project, were any employment events/fairs conducted and how many?**

On November 2, 2020, a scientific and practical conference and exhibition with the participation of teachers and students on the occasion of the Harvest Festival was held at the Institute. A specially prepared stand from the NICOPA project was shown at the exhibition and booklets were distributed.

On December 6, 2020, a conference was held at the Institute and an exhibition of achievements in the field of science and education was held within its framework. A specially prepared stand from the NICOPA project was shown at the exhibition and booklets were distributed.

DISSEMINATION AND SUSTAINABILITY



5.2. Regional Cooperation

- **How many agreements with non-academic stakeholders/other members of the consortium/ other non-consortium members have been signed so far or are planned to be signed in the future to maintain and develop the project results?**

2 agreements were signed with non-academic stakeholders.

DISSEMINATION AND SUSTAINABILITY



5.2. Regional Cooperation

Table 5.2. INDUSTRIAL PARTNERS

Please, provide a list of new industrial partners, with which you maintain communication within the last 6 project months, and which could be interested in hiring your graduates

List of industrial partners:

1. “Dashoguzsuvhojalyk” Production Association
2. Dashoguz Province Agricultural Production Association
3. Dashoguz Province Grain Production Company
4. Dashoguzpagta Production Association

DISSEMINATION AND SUSTAINABILITY



5.3. Sustainability of PASO Offices

Table 2.4. PASO Service Office

№	Question	Answer
1.	Name of the person(s) responsible for PASO operation in your university	Babageldi Kurbanov
2.	Provide scan of PASO regulations approved at institutional level	
3.	Provide scan of PASO work plan/business plan approved at institutional level	

DISSEMINATION AND SUSTAINABILITY



5.3. Sustainability of PASO Offices

Table 2.4. PASO Service Office

No	Question	Answer
4.	Indicate activities, that was already been implemented according to PASO work plan (title of activity, date, link to agenda, number of persons involved)	The PASO work plan cannot be executed due to lack of equipment.
5.	Provide link to the PASO web page at the university website / FB page or any other digital source of PASO	
6.	How many NICOPA+ agreements were signed so far?	2 (two)

SOCIAL AND GENDER INCLUSION



Table 4.1. SOCIAL INCLUSION

No	Question	Answer
2.	Please report on the gender balance in % of the students involved in the curricula developed in the framework of the NICOPA project	Girls – 13 % (7 people) Boys – 87 % (47 people)

COMMUNICATION PROCESS, ADDITIONAL INFORMATION



Table 5.1. COMMUNICATION PROCESS, ADDITIONAL INFORMATION

№	Question	Answer
1.	Please, report on the communication process between your University and other PC Universities, EU partners, the Coordinator, and other project participants	<p>➔ Inform us which means of communication you use to communicate with other PC Universities, EU partners, the Coordinator and other project participants: <i>ZOOM, email</i></p> <p>Do you communicate via Skype, email, telephone, etc.? What are the advantages/disadvantages of the means of communication that you use? <i>No Skype chat. The interviews are conducted by email and telephone. These types of communication are fast data exchange.</i></p> <p>➔ Are there problems with the communication process? If yes, inform us about them in detail. <i>There were no stoppage in communication</i></p>



Thank you for you attention!



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

Babageldi Kurbanov - Head of the
Department of Agricultural land reclamation

Tel.: +993 65941740

E-mail: baba.kur@gmail.com