



## **Creation of the Cluster of Innovations and Scientific Research on IWRM on the basis of the Department of Reclamation of the Tajik Agrarian University named after Sh. Shotemur**

**EXPERIENCE TO IMPROVE THE ENVIRONMENT**

## *Implemented:*

- Memorandum of Understanding was signed (**CAREC, MEWR RT, TAU named after Sh. Shotemur**)
- Cluster Concept developed
- Action plan drawn up (**roadmap**)
- Object estimate calculation developed

## Memorandum of Understanding between CAREC, MEWR RT, TAU named after Sh. Shotemur

6.5. Настоящий Меморандум вступает в силу с даты подписания Сторонами и действует в течение 5 лет.

6.6. Меморандум составлен на русском языке в трёх экземплярах.

Меморандум подписан в г. Душанбе 5 марта 2019 года.

От имени  
Регионального  
экологического  
центра Центральной  
Азии



Абдуллаев Искандар  
Хикматович  
Исполнительный директор

От имени  
Министерства  
энергетики и водных  
ресурсов Республики  
Таджикистан



Рахимзода Султон  
Нурмахмадпур  
Первый заместитель  
Министра

От имени  
Таджикского аграрного  
университета  
имени Ш.Шотемура



Салимзода Амонулло  
Файзулло  
Ректор

# Central Asia Regional Economic Cooperation

## Cluster objectives:

- Improving the quality of knowledge and the potential of faculty, doctoral students, graduate students, PhD doctors, masters and bachelors through the use of innovative technologies;
- Training of highly qualified specialists in the field of IWRM;
- Attracting students, masters and researchers from foreign countries for cooperation in the field of education and science.



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## Cluster Tasks:

The goal has determined the need to solve the following tasks:

- Further training, retraining of engineering, technical and pedagogical personnel, training and retraining of workers in professions directly related to the use of natural resources;
- Development of distance learning with access to informational-educational and methodological resources of university centers of Central Asian countries.
- 2 • Organization of various conferences, seminars and round tables for the exchange of experience in continuous water-energy and environmental education and upbringing;
- 3 • Improving the strategic skills of young specialists in planning various projects, initiatives, mobilizing resources and financial sources, improving business correspondence and negotiation skills, and working with donors.
- Conducting research using innovative technologies.



## Site Selection

State Unitary Enterprise  
Tajik Scientific Research  
Institute NIIGiM under the  
Ministry of Ecology and  
Natural Resources of the  
Republic of Tajikistan

- ✓ Location
- ✓ Infrastructure
- ✓ Scientific base,  
composition, potential  
...,

Tajik Agrarian  
University named after  
Sh. Shotemur

- ✓ Location
- ✓ Infrastructure
- ✓ Scientific base,  
composition,  
potential ...,

# Laboratory building-Department of irrigation and drainage, Tajik Agrarian University

**1- TRAY WITH VARIABLE  
SLOPE**

**2 - TRAY WITH CONSTANT  
SLOPE**



**3 - TRAY – FAST  
SLOPE**

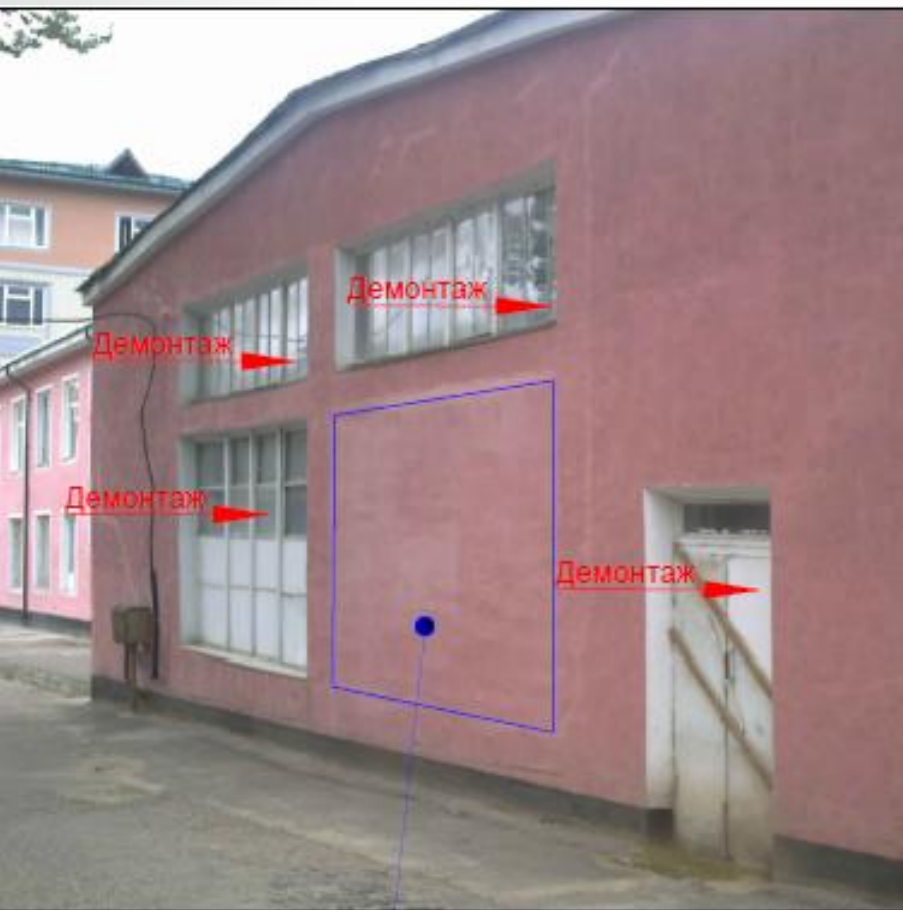
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## TASKS SOLVED IN THE HYDRAULIC LABORATORY

- Development and improvement of effective technologies and methods of land irrigation;
- Model studies of the dynamics of water absorption during furrow irrigation from the canal;
- Methods for calculating the design parameters of horizontal drainage;
- Calculation of the filtration characteristics of the soil bridge (dam);
- Calculation of hydraulic parameters of large channels;
- Studying the rational use of water resources and protecting the soil;
- Study of the effect of the amount of suspended sediment of small diameter;
- Studying the dynamics of channel flows of open and pressure channels;
- Further training for graduate students, trainees, researchers, masters, students in the use of computers to solve the problems of hydraulic engineering, irrigation and drainage and water supply both during study and at work.



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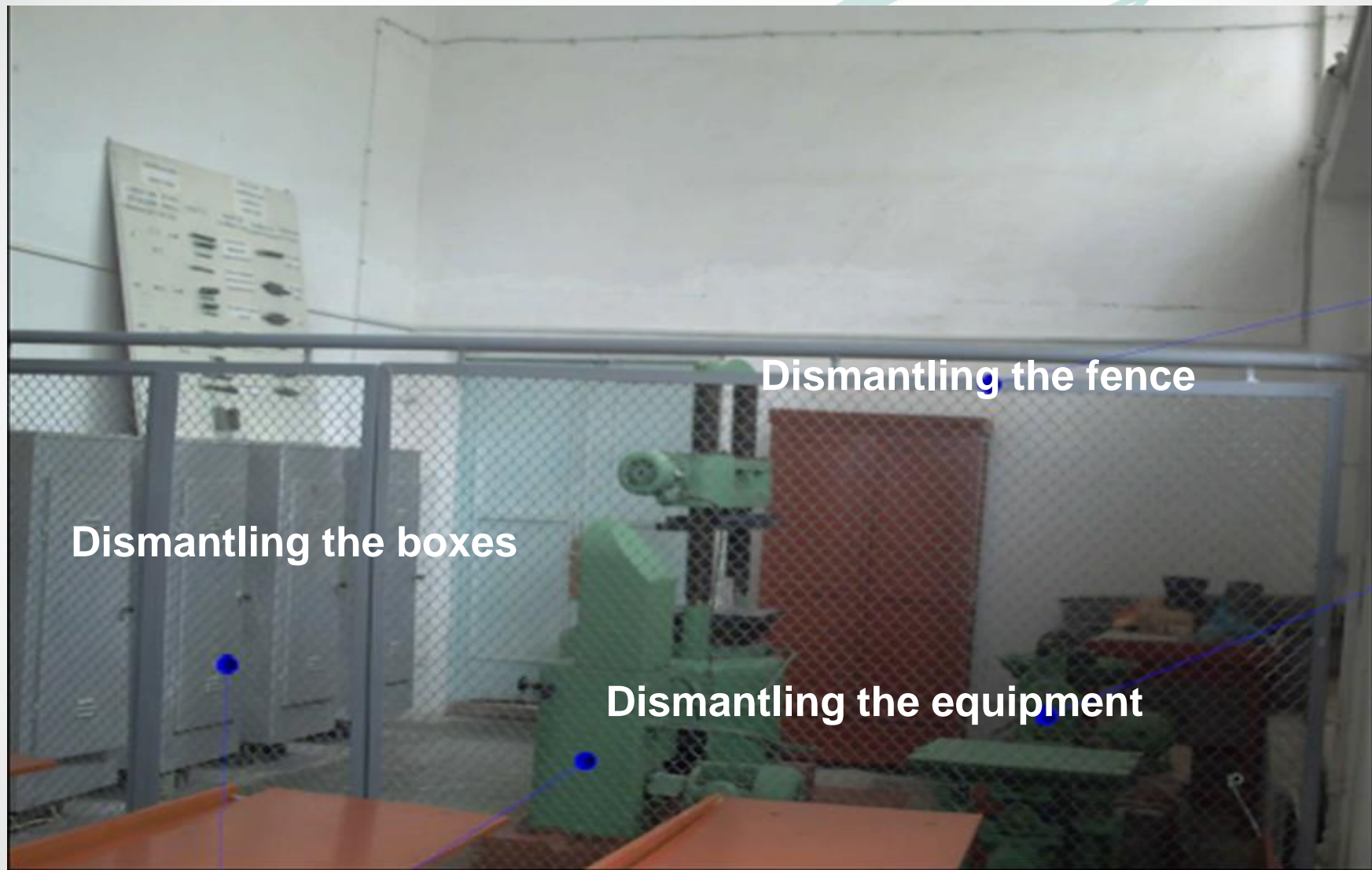


Демонтаж ограждения  
из кирпича(проём витража)

						Pam



# Central Asia Regional Economic Cooperation



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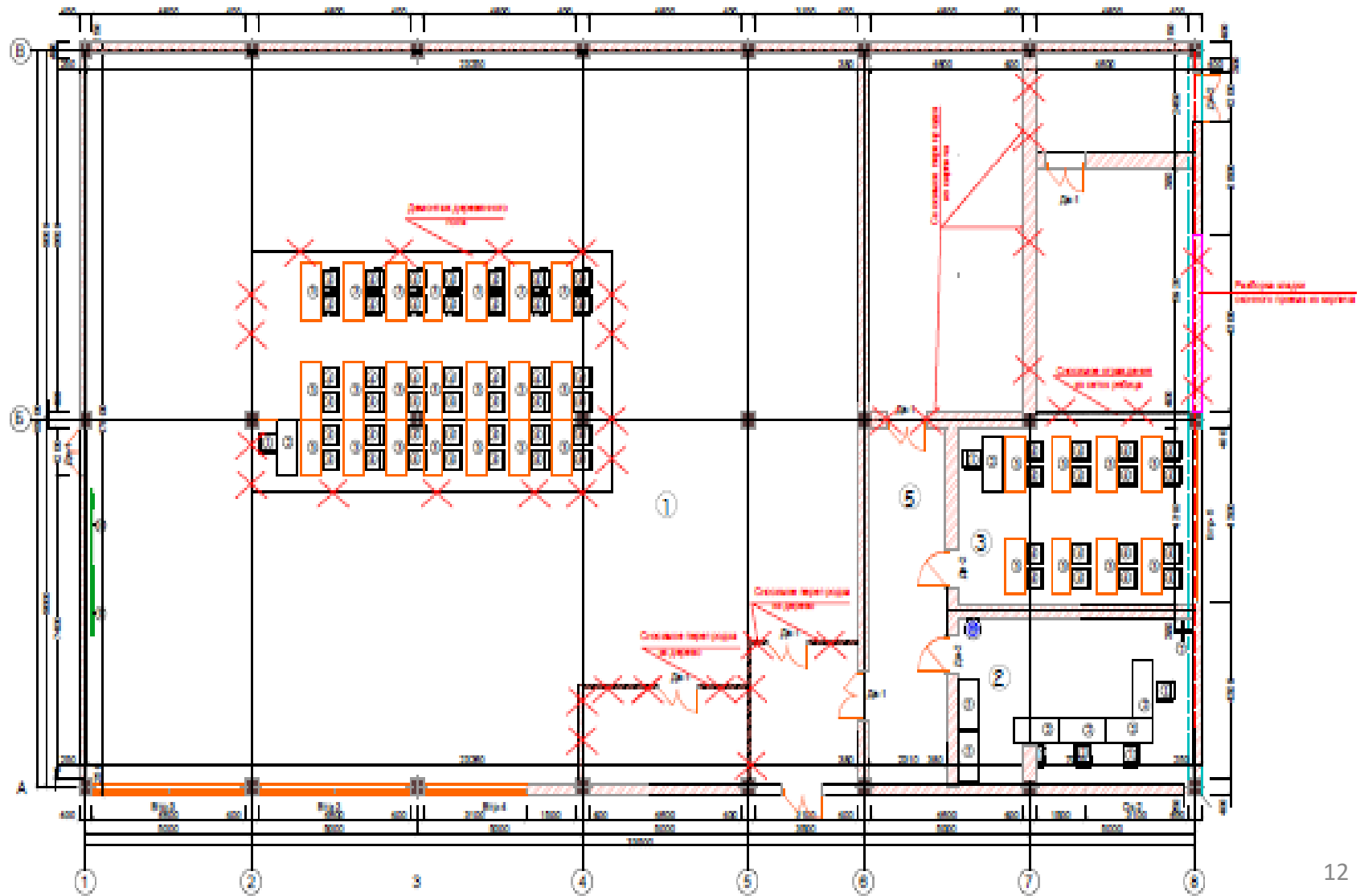
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*Демонтаж оградения  
из кирпича(проём витража)*



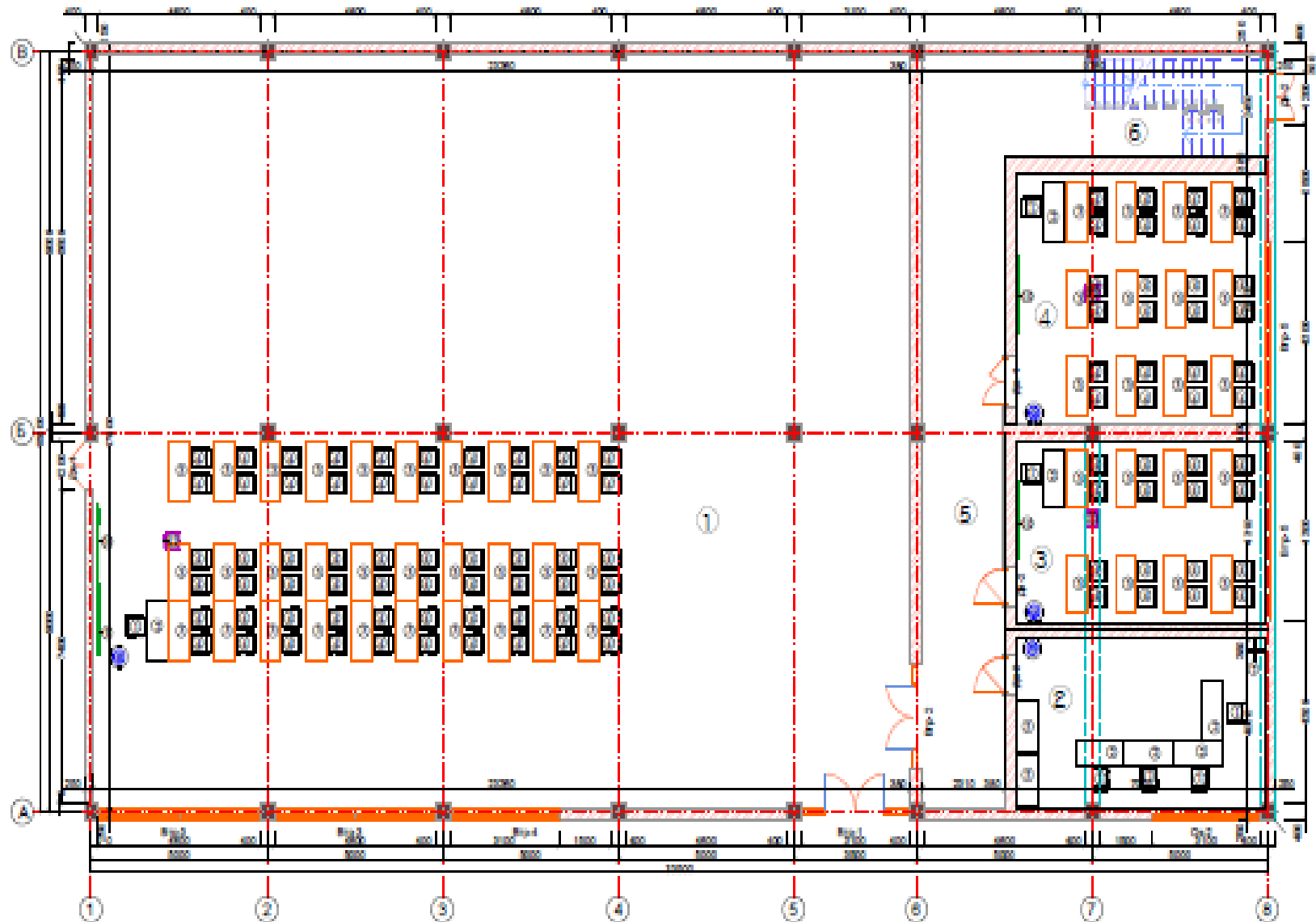
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## Cutting plan 2nd floor before reconstruction



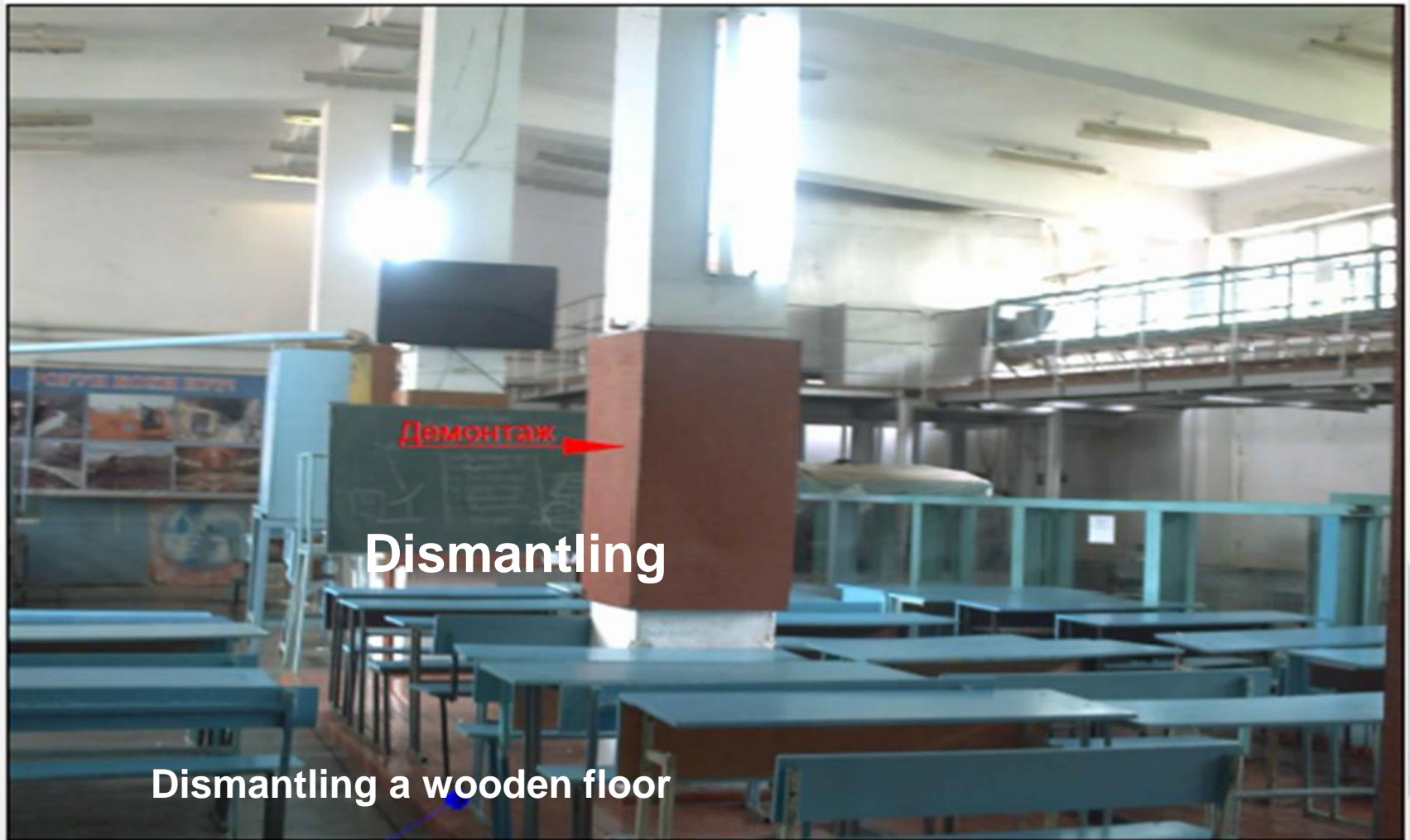
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## Cutting plan 1st floor after reconstruction





# Central Asia Regional Economic Cooperation



# Central Asia Regional Economic Cooperation



# Central Asia Regional Economic Cooperation

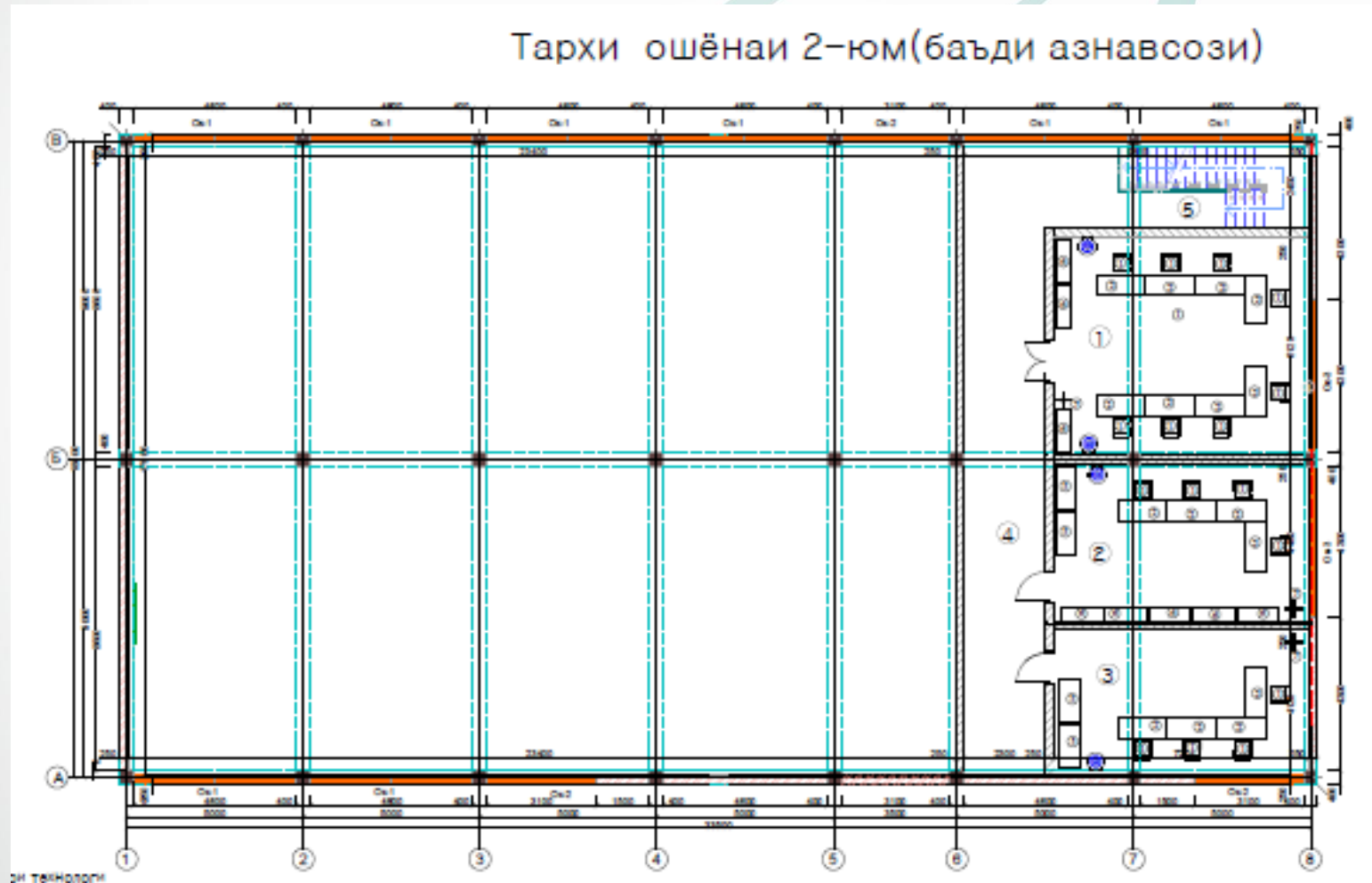




# Central Asia Regional Economic Cooperation



## Cutting plan 2nd floor after reconstruction





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## ОБЪЕКТНЫЙ СМЕТНЫЙ РАСЧЕТ

(объектная смета)

на Общестроительные работы

(наименование объекта)

Сметная стоимость **1011,07** тыс.сомони

Средства на оплату труда **88,69** тыс.сомони.

Расчетный измеритель единичной стоимости

Составлен(а) в ценах по состоянию на 1 квартал 2019 год.

№ пп	Номера сметных расчетов (смет)	Наименование работ и затрат	Сметная стоимость					Средства на оплату труда, тыс. сомони	Показатели единичной стоимости
			строительных работ	монтажных работ	оборудовани я, мебели, инвентаря	прочих	всего		
	2	3	4	5	6	7	8	9	10
1	Смета № 1-1	Демонтажные работы	56193				56193		
2	Смета № 2-1	Архитектура	545077				545077		
3	Смета № 2-2	Отопление и вентиляция	99900				99900		
4	Смета № 2-3	Внутреннее электроснабжение	41238				41238		
5	Смета № 2-4	Водоснабжение и канализация	26692				26692		
6	Смета № 2-5	Пожарная сигнализация	11325				11325		
		<b>ИТОГО:</b>	<b>780425</b>				<b>780425</b>		
		Авторский надзор 0,3%	2341				2341		
		Составление ПСД 3%	23413				23413		
		Непредвиденные расходы 2%	15609				15609		
		<b>ИТОГО:</b>	<b>41363</b>				<b>41363</b>		
	Нал.Код. РТ	НДС -18%	147922				147922		
		<b>Всего по смете</b>	<b>1011072</b>				<b>1011072</b>		

106992\$

## Projected (estimated) financial costs

- Estimated (estimated) cost of the object - \$ 106,992
- Purchase of office equipment - \$ 80,000
- Total - \$ 186,992
- Expected sources of funding:
  - CAREC - ?!
  - SDC - Expected Support - \$ 20,000 - \$ 50,000
  - EU (Office in Dushanbe) - promised to consider
  - Finnish Water Institute - ready to support.

**Thank you for  
understanding,  
support, and  
attention.**