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Integrating education with consumer behaviour relevant to energy efficiency and climate change at the Universities of Russia, Sri Lanka and Bangladesh (BECK)

Partner report on current state of higher education and its relationship with consumers' behaviour on energy efficiency and climate change

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1 INTRODUCTION

The purpose of this series of country reports is to obtain general philosophical, pedagogical and practical understanding on the status of higher education and its impact on consumer behaviour relevant to energy efficiency and climate change in BECK partner and European partner countries. It will also provide a basis for understanding and evaluating the capabilities of partner institutions on integrated education for energy efficiency and climate change. The results of these reports will inform a capacity building framework, which will form the basis for development of modules on energy efficiency and climate change during the BECK project.

The reporting approach is based on the Capacity Needs Assessment Methodology (CAPNAM) proposed by the United Nations (2013).

The report includes chapters on the following:

- Methodology. This section describes the methodological approach used to collect and analyse the data that informs the findings presented in this report.
- Context. Provides an overview of the regulatory, socio-political, and cultural factors that shape policy on the consumer behaviour relevant to energy efficiency and climate change in the country in general, and education in particular.
- Scope and coverage of education policies on consumer behaviour relevant to energy efficiency and climate change by the Higher Education Institution (HEI). Examines the illustrative policy and planning issues relevant to integrated education on consumer behaviour relevant to energy efficiency and climate change.
- Description of capacity types. Evaluates the existing state of capacities of HEI in the field of integrated education on consumer behaviour relevant to energy efficiency and climate change. As defined by the CAPNAM analytical framework, the four types of categories are institutional, organisational, individual, and the knowledge base.

2 Methodology

Please describe the methodological approach used to collect and analyse the data that informs the findings presented in this report. For example, this may include focus groups, interviews, document reviews and literature reviews.

This report is based on the results of the research conducted by the Faculty of Economics. The sources of data collected included series of expert interview with university management team and representatives of the Ministry of Higher Education and Science of the Russian Federation. Desk-research was based on the regulatory documentation including the Law on the Higher Education, Federal Standards of Higher Education, Strategy for Energy Saving in Russian Federation, National Project Program "Ecology" and UN Development Goals.

3 CONTEXT

This section provides an overview of the regulatory, socio-political, and cultural factors that shape policy on the consumer behaviour relevant to energy efficiency and climate change in the country in general, and the education in particular. Please answer following questions.

3.1 Socio-political and cultural context

What are the socio-political and cultural contexts providing the framework for educational policy planning in the field of consumer behaviour relevant to energy efficiency and climate change in the country? Are there any regulations, plans, etc.?

The educational policy in the sphere of higher education in Russia is regulated by Federal Law of Education and Federal Educational Standards. There's a special Educational Standard designed for each of the subject area of Higher Education, qualifications and levels. For this report we analyzed Federal standards for Bachelor level program. It is important that the principles of consumer behavior relevant to energy efficiency and climate change were introduced on bachelor level to make sure that most part of the students were covered as not all of them would continue education on Master level.

The policy in Higher education in Russia provides framework for designing educational programs and curriculum using competence based approach. Each of the educational standard requires that program covers 3 groups of competences which should be developed during the education: generic competences, subject specific and program specific competences. The group of generic competence is the same for all specializations. However, they do not include competences, which are relevant to consumer behaviour relevant to energy efficiency and climate change.

At the same time if we will take a look at the UN Development Goals which Russia committed to achieve, we may see the Goal # 13 – 'Take urgent action to combat climate change and its impacts – which includes eight indicators to evaluate the achievement of this goal. Unfortunately, Rosstat (The Agency on Statistics in Russian Federation) does not develop these indicators for Russian Federation and the data is not collected. Therefore, we can state that there's insufficient attention given from the Government.

The third document which partly covers the consumer behaviour relevant to energy efficiency and climate change is a Strategy of Energy Saving of Russia until 2035 This Strategy includes blocs on education, however it is more focused on professional education in the Energy sector and mainly on the corporate education.

3.2 Status of education

What is the current state in education on consumer behaviour relevant to energy efficiency and climate change? Is it important at your country? Please specify.

This education is included into professional competences and is form only for subject areas of education in engineering and construction. At the same time, it is not represented in humanitarian and social sciences. We can state that the role of such education is underestimated.

3.3 Funding

Is funding sufficient for integrated education on consumer behaviour relevant to energy efficiency and climate change at your country? Please specify.

There's no special financing for education. However, there are money for National Project "Ecology" But this is insufficient.

3.4 Educational needs

What are the needs in integrated education on consumer behaviour relevant to energy efficiency and climate change (please list up to 5 major needs at country level):

1. The broader coverage of students by the education on consumer behaviour relevant to energy efficiency and climate change requires to introduce a Generic competence in this sphere.
2. Teaching staff training would be important
3. Integration of relevant courses into curriculums
4. Institutional support on universities management level is required
5. Institutional support on Ministry of Higher Education level is required

3.5 Educational gaps

What are the gaps in integrated education on consumer behaviour relevant to energy efficiency and climate change (please list up to 5 major gaps at country level):

1. Lack of institutional framework for introducing such education (no generic competence)
2. Lack of teaching staff
3. Lack of funds
4. Lack of courses for non related areas
5. Lack of knowledge in climate change among students

4 POLICIES RELEVENT TO HIGHER EDUCATION, AND THEIR RELATIONSHIP WITH CONSUMER BEHAVIOUR ON ENERGY EFFICIENCY AND CLIMATE CHANGE

This section examines the illustrative policy and planning issues relevant to integrated education on consumer behaviour relevant to energy efficiency and climate change. Please answer following questions.

4.1 Policy and planning

Please describe policy and planning issues currently being addressed by the HEI in the field of integrated education on consumer behaviour relevant to energy efficiency and climate change.

Ministry of Higher education and Science does not prioritize integrated education in the field of climate change, except for the specialized programs.

4.2 Gaps in policy and planning

Please describe other, if any, policy issues that are not currently being handled by the HEI but should be considered.

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N.B. The responses to these questions do NOT require describing each policy and planning issue but only the identification of the type of issues being addressed and those not being addressed. The questions are only meant to understand the scope of coverage of important issues by the HEI.

5 CAPACITY TYPES

This section aims at assessment of the existing state of capacities in the HEI for integrated education on consumer behaviour relevant to energy efficiency and climate change. As defined by the CAPNAM analytical framework, the four types of categories are institutional, organizational, individual, and the knowledge base.

5.1 Institutional capacities

This part describes the institutional capacities at HEI level. Please answer following questions.

1. Please provide brief presentation of the HEI.

Moscow State University was established in 1755. More than 40 000 students (graduate and postgraduate) and about 7 000 undergraduates study at the university, and over 5 000 specialists do the training courses here. More than 6 000 professors and lecturers, and about 5 000 researchers work for the faculties and research institutes.

Every year Moscow University enrolls about 4 000 international students and postgraduates from all over the world.

Moscow University campus is an extremely complex system, with its 1 000 000 m2 floor area in 1 000 buildings and structures, with its 8 dormitories housing over 12 000 students and 300 km of utility lines.

MSU library system is one of the largest in Russia, with its 9,000,000 books, 2,000,000 of them in foreign languages, and the average number of readers 55,000, using 5,500,000 books a year.

The Faculty of Economics was founded in 1941. The Faculty offers bachelor programs in 2 subject areas: Economics and Management; 10 Master programs in three subject areas: Economics, Management, Finance; and 6 PhD programs. Faculty's staff is actively involved in research activity. Please describe general model of studies according to different levels (bachelor, master, PhD).

3. Please provide key facts and figures about the HEI (MSU/Faculty of Economics):

3.1. Number of students: 38150/2560

3.2. Number of academic staff: 9390/293

3.3. Student/Academic staff ratio: 4,06/8,7

3.4. Number of Faculties (please specify): 40 Faculties in all areas of Science

3.5. Number of graduates: 7800/694

3.6. Number of study programmes: 18 (programs of the Faculty of Economics)

3.7. Number of international academic partners: 215/41

3.8. International rankings of the HEI (if any): QS 90 – by reputation

4. Please describe main education and research areas of the HEI.

Economics, Management, Finance

5. Is there any strategic priorities given to integrated education on consumer behaviour relevant to energy efficiency and climate change at HEI level? Please specify.

No special priorities

6. What are the needs at HEI in integrated education on consumer behaviour relevant to energy efficiency and climate change (please list up to five major needs):

Generic competence
Teaching staff training
Integration into curriculums
Institutional support on universities management level
Institutional support on Ministry of Higher Education level

7. What are the gaps at HEI in integrated education on consumer behaviour relevant to energy efficiency and climate change (please list up to five major gaps):

1. Lack of institutional framework for introducing such education (no generic competence)
2. Lack of teaching staff
3. Lack of funds
4. Lack of courses for non related areas
5. Lack of knowledge in climate change among students

5.2 Organisational capacities

This part describes the organisational capacities pertinent to integrated education on consumer behaviour relevant to energy efficiency and climate change at HEI. Please answer following questions.

1. Is integrated education on consumer behaviour relevant to energy efficiency and climate change sufficiently included in the curricula of HEI? Please specify according to different levels (bachelor, master, PhD):

1.1. Study programme level (Please list relevant study programmes): Bachelor programs, Master programs, PhD

1.2. Study subject level (Please list relevant study subjects/modules): Environmental Economics, Public Policy and Human Development

1.3. Study topic level (Please list relevant study topics): Climate Change Mitigation, Sustainable Development

2. Is funding sufficient for integrated education on consumer behaviour relevant to energy efficiency and climate change at HEI? Please specify.

No specific funding

3. What are the needs at HEI in integrated education on consumer behaviour relevant to energy efficiency and climate change related to organisation of study process (please list up to five major needs):

Generic competence
Teaching staff training
Integration into curriculums
Institutional support on universities management level
Institutional support on Ministry of Higher Education level

6. Please list up to five major gaps in integrated education on consumer behaviour relevant to energy efficiency and climate change related to organisation of study process:

1. Lack of institutional framework for introducing such education (no generic competence)
2. Lack of teaching staff
3. Lack of funds
4. Lack of courses for non related areas
5. Lack of knowledge in climate change among students

5.3 Individual capacities: Staff skills

This part describes the individual staff capacities pertinent to integrated education on consumer behaviour relevant to energy efficiency and climate change at HEI. Please answer following questions.

1. How many academic staff works at your unit? (which implements the project):

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2. Is there sufficient number of teachers who specialise in integrated education on consumer behaviour relevant to energy efficiency and climate change? How many?

2.1. At university level: 20

2.2. At your unit/department: 8

3. Is there sufficient number of researchers who specialise in consumer behaviour relevant to energy efficiency and climate change? How many?

3.1. At university level: 14

3.2. At your unit/department: 5

4. Please describe the current state of the staff training in HEI. Is it sufficient?

Each staff member participate in the training every 3 years

5. Please describe the current state of the staff training on consumer behaviour relevant to energy efficiency and climate change. Is it sufficient?

Is not sufficient (not applicable)

6. Does the academic staff have flexibility in designing its own skill development plans or does it have to follow a centrally determined package?

Academic staff has a flexibility in choosing training programs.

7. Is there staff stability, or does it suffer from high turnover among such professionals?

Low staff turnover

8. What staff skills are required for integrated education on consumer behaviour relevant to energy efficiency and climate change (please list up to five major needs):

Interdisciplinary up to date knowledge

Presentation skills

Innovative teaching methods (case studies)

Skills in digital economy (big data, AI, machined learning)

9. Please list up to five major gaps in integrated education on consumer behaviour relevant to energy efficiency and climate change related to staff skills:

Interdisciplinary up to date knowledge

Presentation skills

Innovative teaching methods (case studies)

Skills in digital economy (big data, AI, machined learning)

5.4 Access to Information, Knowledge and Technology

Access to information, knowledge and technology is becoming increasingly critical for sustaining long-term growth and development of education. It relates to the capacity to enable academic staff and students to mobilize, access and use information and knowledge, including access to and effective use of internet. Please answer following questions.

1. Do students and teachers have access to the novel educational resources on consumer behaviour relevant to energy efficiency and climate change? Please specify:

1.1. Printed learning materials in national language: not enough

1.2. Printed learning materials in English or other languages: not enough

1.3. Online learning materials (open-source videos, simulators (calculators and software), case studies, text material) in national language: subscription to bases

1.4. Online learning materials (open-source videos, simulators (calculators and software), case studies, text material) in English or other language: not enough

2. Does HEI use MOODLE for educational purposes? Yes

3. Does HEI use computer-based intelligent systems, MOOCs, computer learning systems, big data mining for educational purposes? Please specify: No

4. Does HEI use software for integrated education on consumer behaviour relevant to energy efficiency and climate change? Please specify: No

5. What Information/Knowledge/Technology is required for integrated education on consumer behaviour relevant to energy efficiency and climate change (please list up to five major needs):

Subscription to case studies and simulators, Big Data mining

6. Please list up to five major gaps in access to information, knowledge and technology pertinent to integrated education on consumer behaviour relevant to energy efficiency and climate change:

Subscription to case studies and simulators, Big Data mining