

The value of the top-ranked programmes is the highest in St. Petersburg. The Central Federal District has the lowest value. The results of the project are open to public and all the stakeholders. The reference books are disseminated among all the accreditation agencies, prospective students, parents and employers. The reference book is published in two languages – Russian and English to expand global outreach.

The educational programmes, included in the reference book *Best Educational Programmes of Innovative Russia* recognized by professional, academic and scientific community are apt for professional accreditation. This involves external review carried out by authoritative experts, representatives of professional, academic and student communities specialized in a certain field. The external review of a programme (or a cluster of programmes) is conducted by an external review panel. Accreditation agencies in cooperation with European and Asian Quality Assurance agencies nominate experts for the procedure of the external review. The status of public accreditation means that an educational programme was highly appreciated and recognized by the professional and academic community.

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## **THE USE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT TOOLKIT TO ENHANCE QUALITY OF TEACHING AND LEARNING**

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### **Abstract**

*Countries continue to invest in policies and practices to strengthen the capacities of Education for Sustainable Development (ESD) characteristics at local and regional level, giving recognition to international and cross border education for the advancement of the sustainable development of higher education. Quality assurance on the other hand boosts its regional developments and drives the forces of economic, social development and quality of higher education. This paper briefly reviews how internal quality assurance of HEIs can enhance and complement the reorientation of the curriculum using ESD characteristics to make the programmes more sustainable. Engaging all levels of education requires changing the direction of education systems and structures as much as maintaining the quality of teaching and learning. The ESD is mandated not to just add on existing curriculum or educational practices to improve the quality of teaching and learning but encourage “transformation of education” that would contribute effectively to the future of society. Both concepts aim at the same baseline of implementation and ideas that is to produce quality graduates who are knowledgeable, skilled, can think critically, and adapt values and attributes. The similarities of these characteristics can result in comprehensive practices and continuous improvements of HEIs.*

## **Introduction**

The Education for Sustainable Development (ESD) was implemented by the United Nations for a period of nine years (2005-2014). It integrates practices and principles of sustainable development characteristics and features to enhance education and learning. However, the history of ESD and reorientation of curriculum strongly linked to the UN Conference on Environment and Development (UNCED) in 1992, where the framework for action as per Agenda 21 – chapter 36 stated; “recognizing education, training and public awareness were critical tools for the transition towards sustainable development”. However after this period, ESD prepares to plan, find solution and coping with the mechanisms to the issues that threaten one’s sustainability and further aimed to inspire a learner’s knowledge, values and attributes with a vision of enabling a more sustainable society for all (UNESCO, United Nations Decade of Education for Sustainable Development (2005-2014), 2005a) p. 7)). The report further states that many countries across member states, education sector, private and public sectors and civil society work in partnership to change the direction of education systems by preparing their citizens to address the future global sustainability challenges. The ESD implementation involves a number of stakeholders including staff, faculty, funding bodies, students, industries and communities and these goals may not be achieved without the cooperation between the stakeholders (Van Weenen, 2000).

According to the (UNESCO, *Shaping the Future We Want. UN Decade of Education for Sustainable Development (2005-2014)* , 2014), monitoring and evaluation for the ESD shows a growing number of higher education institutions (HEIs) tend to relate their research and teaching with the sustainability aspects based on their local communities and knowledge in order to provide quality graduates. Member countries continue to invest in the policy and practices to strengthen the capacities by committing to advance ESD at the local and national level, thus giving recognition to international and cross border education for the advancement of the sustainable development. Wright (2002) stated that one of the critical roles is to adopt the bottom up approach in order to raise awareness and encourage interactions between HEIs and various stakeholders including students. There are two complementary approaches to advocacy used in the ESD (1) support community in its role in the education transition to sustainable development and (2) support stakeholders by incorporating sustainability education into their work; whilst the two approaches focus on four main areas reaching out to both education and sustainable development, policy support to realign their education systems, enhancing the network and interaction between stakeholders and finally developing approaches for the assessment on the progress of ESD. Therefore, this paper briefly reviews how internal quality assurance of HEIs can enhance and complement the reorientation of the curriculum using ESD characteristics to make the programmes more sustainable for the society.

Engaging all levels and aspects of education requires changing the direction of education systems and structures as much as maintaining the quality of teaching and learning. The ESD is mandated not to just add on to existing curriculum or educational practices to improve the quality of teaching and learning but to encourage the transformation of education that would contribute effectively to the development of the society. According to more recent studies (Yuan, 2012), student’s awareness and opinions of sustainable development (SD) were investigated, and the study conducted by (Turner, 2008), established that university students are fairly aware of the definition of SD and that 75% gave priority to sustainable development projects. It also notes that the integration of the key SD issues to enhance the teaching and learning are biodiversity, climate change, disaster risk reduction, poverty reduction, sustainable livelihoods, production and sustainable consumptions. The teaching and learning methodology according to the ESD intends to consider characteristics of learners such as being able to imagine future scenarios and think systematically, critically and be able to make decisions in a more collaborative way and empower learners to take action towards sustainable development.

Quality assurance on the other hand boosts regional developments and drives the forces of regional economic, social development and quality of higher education (Huashan, 2016). The scales and multidimensional process of internationalization of the HEIs stand at integrating to an international dimension curved on purpose, goals, functions and delivery of higher education (Knight,

1999). Given the diversity of governing environment, one of the biggest challenges of cross-border education has been balancing quality and accessibility (Ibid). According to (Knight, J., 2008), such issues as the potential increase in poor quality providers and the lack of recognition of foreign qualifications create tension among domestic employers or HEIs. Based on the values of fairness, acceptance, justice, responsibility and adequacy, ESD promotes social cohesion, gender equality and poverty reduction.

Other principles underpinning ESD are environmental protection, sustainable use, natural resource conservation and peaceful societies (UNESCO, Bonn Declaration., 2009b). The richer and much more diverse understanding of the process of ESD in all sectors expects to be accomplished in years to come through implementation and consideration of new forms of teaching and learning (UNESCO, Shaping the Education of Tomorrow: 2012 Full Length Report on the UN Decade of Education for Sustainable Development, 2012a.). According to (Jones, P., Trier, C., & Richards, J. , 2008), the approach to teaching and learning that supports the pillars of education is based on the transdisciplinary argument and in terms of ESD, sustainability is considered to be a holistic concept of deeper learning credited with quality. However, the authors further state that the challenge for HEIs creation of active and transformative and quality learning allows values to be lived out than to only teach concrete facts about the environment. The current and future for HEIs to critically self-assess using their internal quality assurance and align their approach to fully engage the ESD strategies remains a challenge. In exploring the educational trends, the two basic components of education are theories and practices in teaching and learning which are well balanced or in a way complement each other. Teaching theories and learning through practices using national qualifications is more industry focused, thus it becomes a competency based assessment for learners.

#### **How the Internal Quality Assurance (IQA) compliments the Implementation of ESD to Enhance Teaching and Learning.**

In order to encourage the two concepts to work together, firstly the role of IQA and self-assessment should be understood within the HEIs. A new dimension of quality assurance components is to establish a base by recognition, registration of HEIs, accreditation of national and provider qualifications within the national guidelines. Therefore, this shows a greater emphasis on self-evaluation and review to focus on *educational outcomes and continuously improve the quality*.

The IQA requires quality dimension of input, process and output whereby the input segments include students, teachers, curriculum, facilities, and the process includes the emphasis on teaching and learning interactions, research, student support and evaluation, staff development and administrative practices (Nair, 2016). Therefore the expected output is the *quality graduates, research outputs and service to the community*. The HEIs using the above processes can self-assess themselves for continuous improvement. A couple of good strategies together with this system enhance the overall quality assurance operations and as such the characteristics of ESD should complement and complete this process.

The intended outcomes of the process is for the HEIs self-realization, performance improvement, mobilization of national human resources and transformation making the institute more competitive and sustainable gaining more recognition nationally and internationally. Almost similarly the international implementation scheme (IIS) framed by UNESCO promoted the efforts of the ESD which constructs on four major thrusts of ESD and seven strategies as per the figure below.

Quality Assurance ensures that quality is maintained and enhanced at all times with more than one approach such as policies, attitudes and procedures. It limits in a sense that it indicates the set minimum standards and accountability to its stakeholders (**Woodhouse, 1999**).

According to (Dubois, 1998) and his research based on European Community including some eleven HEIs concluded that evaluation for the quality assurance can cause improvement in HEIs performance and convinced these conditions:

- The presentation, its nature of evaluations and its results
- Intellectual learning, identity, cultural and legitimating the effects during the evaluation
- Taking ownership of the evaluation results by the members and institutions
- Permanent mechanisms for the internal evaluation

Table 1: Four Major Thrusts of ESD and Seven Strategies for ESD. Source: (UNESCO, United Nations Decade of Education for Sustainable Development (2005-2014), 2005a)

Four Major Thrusts of ESD	Seven Strategies for ESD
1. Improving access and retention in <i>quality basic education</i>	1. Consultation and ownership
2. <i>Reorienting</i> existing educational programmes to <i>address sustainability</i>	2. Vision building and advocacy
3. Increasing <i>public understanding</i> and awareness of sustainability	3. Partnership and networks
4. Providing <i>training to advance sustainability</i> across all the sectors	4. Research and Innovation
	5. Capacity building and training
	6. Use of Information and Communication Technology (ICT)
	7. Monitoring and evaluation

The self-assessment in quality assurance process is a critical evaluation consisting of variety of aspects of the international scopes of the HEIs. It is noted that the more importance given to self-assessment, the more meaning it will give to the training and will assist HEIs in taking ownership and responsibility for their own quality improvement making them more sustainable in producing quality graduates.

It produces information and opportunity to conduct analysis of the extent and quality initiatives internationally thus, making it easier or complementing the process or adaptation of the ESD characteristics (Woodhouse, 1999).

Table 2 Strategies of Internal Quality Assurance System

Basic Internal Quality Assurance Strategies	Curriculum aspects
	Teaching, Learning and Evaluation
	Research and Consultancy
	Learning Resources and Infrastructure
	Student Support
	Governance, Leadership and Management
	Best Practices and Innovations

Through the awareness and influential policies, ESD has laid a firm foundation by generating the significant amount of good practices in the areas of education and learning. Thus, there ten key findings that emerged in the 10 years of work under the Decade of ESD and trends guides the ESD for the future.

Figure 1 Ten Key Findings - Source: UNESCO (2005)

ESD, an enabler for sustainable development	ESD is galvanizing pedagogical innovation
1. Education systems are addressing sustainability issues	6. Whole institution approaches help practice ESD
2. Sustainable development agendas and education agendas are converging	7. ESD facilitates interactive, learner driven pedagogies
Importance of stakeholder engagement for ESD	ESD has spread across all levels and areas of education
3. Political leadership has proven instrumental	8. ESD is being integrated into formal education
4. Multi-stakeholders partnerships are particularly effective	9. Non-formal and informal ESD is increasing
5. Local commitments are growing	10. Technical and vocational education and training advances sustainable development

### Analysis of the Concepts

The recent trend worldwide for higher education accountability and quality of HEIs gives assurance through regular accreditation system. Facing global challenges of socio and economic development, higher education tends to be an important stimulator of the national economic growth. The European Union established European Network of Quality Assurance (ENQA) ensuring the qualities of higher education in Europe by recognizing higher education quality assurance agencies

together with the Asian continents aiming at Asia and the Asia Pacific Quality Network (APQN) extends its greater network towards Asia and the Pacific.

The vision of the ESD has developed and continuously enhanced the needs for fundamental human development through quality education. It is commonly implicit that quality is not all about accessibility or to inspire competencies but it covers the purpose, methodology, is outcome-based, which supports the learners in adaptation to lifelong values and proves relevancy underpinning sustainability.

Regardless of the many achievements and successes during the Decade of ESD, Member States and other stakeholders have indicated significant challenges remain in comprehending the full potential of ESD. These challenges are the future alignment of education and sustainable development sectors, institutionalizing ESD on a systematic level to ensure strong political support and the need for more research, innovation, monitoring and evaluation to further develop and prove the effectiveness of ESDs good practices (UNESCO, *Shaping the Education of Tomorrow: 2012 Full Length Report on the UN Decade of Education for Sustainable Development, 2012a.*). Ensuring quality is all about continuous improvement and the two (IQA and ESD characteristics) can both enhance and complement each other to advance the philosophy through complete integration of ESD and quality into education systems. These possibly can be succeeded through ensuring quality teaching and learning from side to side with mutual understanding that incorporates political, cultural, academic and development aid goals and gives stronger emphasizes on staffing (Knight, J., 2008).

With the necessity to assure the quality of activities in higher education, Organization for Economic Cooperation and Development (OECD) and The United Nations Educational, Scientific and Cultural Organization (UNESCO) has developed international guidelines on Quality Provision in CBHE, to strengthen quality assurance, accreditation and recognition of qualifications at both national and international levels (Yung-ch, A. H, Chen, K., Chan, Y., Tsai, S., Wang, W., & Hung, S. L. V., 2016). According to the guidelines, the leading quality assurance and accreditation agencies are expected to intensify their international cooperation among other agencies and develop strategies to cover national schemes with clear guidelines that student/learners must be protected from the risk of misinformation, low-quality provision and limited validity of qualifications (UNESCO, *Guidelines and Recommendations for Reorienting Teacher Education to Address Sustainability.* , 2005b). This strengthens HEIs to attract more students, inspire teachers, develop proper assessments and establish a basis of transfer system improving the performance of students. The “*quality education for sustainable development*” instills what learners learn with relevance to the current global challenges and how this complements the development of their skills, knowledge and attitudes to respond to such challenges of now and future.

### **Conclusion**

One must understand that the quality assurance of higher education and implementation of ESD characteristics is being addressed in a number of ways for its purposes and may not be consistent in all HEIs due to different country needs and the development goals. However, the two concepts aim at the same baseline of implementation and ideas, that is to produce quality graduates who are knowledgeable and skilled. The similarities of the characteristics and structures can result in comprehensive practices and continuous improvements if policy makers find ways to syndicate these initiatives. While some countries relate to their environmental, cultural, economic, political and social considerations, others may base on technical aspects of quality assurance mechanisms for sustainability.

All HEIs worldwide should aim at quality graduates marketable both nationally, regionally and internationally, thus verifying the ability and transparency of constructive and effective programmes. Each learner and graduate must develop the maximum educational outcomes, be skillful and ready for the marketability and employability.

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