Transforming Higher Education for a Sustainable Tomorrow

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This truly team-effort represents a submission on behalf of Universiti Sains Malaysia (USM) to the Ministry of Higher Education for consideration to be emplaced as an APEX university, i.e., an institution to be accelerated for excellence and to be nurtured for world-class standing.

This submission is most timely because of several reasons. As Malaysia celebrates its 50 years of nationhood, and the accomplishments of an independent sovereign nation, likewise, USM looks forward to its impending 40th anniversary in 2009 as an autonomous university given its wide-ranging accomplishments since its establishment in 1969. Its coming of age was decisive when USM was recognised as Malaysia’s premier research university, along with it being the only five-star institution of higher learning to date. Its most recent internationally acclaimed status as ASEAN’s only Regional Centre of Expertise on Education for Sustainable Development accorded by the United Nations University in 2005, to coincide with the launching of UN Decade of Education for Sustainable Development, signals that USM is set to reinvent itself as a valued global institution, collaborating with the best in moving forward in the global arena.

Through this collective effort we seek to outline how USM has strategised as a potential APEX university to enmesh itself in the challenges to solve global issues with the hope to make a lasting difference at all levels. In this regard, USM has chosen sustainability as a platform to create a new future. The term denotes an over-arching concept of meeting “the needs of the present without compromising the ability of future generations to meet their needs”.

Sustainability, broadly defined thus, applies to many disciplines, including economic development, environmental and natural resources management, food production, energy, and socio-cultural dimensions and lifestyles engaged in a transdisciplinary mode. It is within this framework that USM focuses its vision of a sustainable tomorrow while keenly promoting values such as equity, accessibility, availability, affordability and quality as the universally accepted optimal endpoints. Concomitantly, USM will embrace the protection of the multiple ecosystems, the conservation and restoration of resources as well as the development of human and intellectual capitals for this purpose. USM will position itself to facilitate the meeting of existing (e.g., Millennium Development Goals) and other future global and universal aspirations towards the upliftment of the billions trapped at the bottom of the socio-economic pyramid.

To realise this ambition, several transformational and strategic plans have been laid out for the
university to accomplish within the foreseeable future. In the area of teaching and learning, for example, the university will provide and offer various programmes relating to a deeper understanding of “sustainability” so that the learning accrued by students and staff will compel them to be more involved, committed and dedicated for the sustainable wellness of the institution, community, and global environment. Though many attempts have been successfully carried out in the past, some are still on-going to engage and instil values which will further help to nurture ethically-responsible, and morally-sound adolescents of the school-going age. Their involvement in tertiary education and campus life will not only prepare them as employees with good corporate responsibility but also to be responsible global citizens with strong national-local commitments.

Since 2000, USM has taken various proactive and productive steps to transform itself as a reputable research-intensive university dedicated to the promotion of wellness and well-being of the human ecosystem. This will be further enhanced under the APEX programme based on plans to carve innovative inroads into diverse but cutting-edge transdisciplinary fields that will bring about a better and sustainable Malaysia, if not the world. Teams of committed researchers will be empowered to venture beyond the Ivory Tower and immerse themselves with cross-sectoral partners be they public agencies, the industries and members of civil societies across the nation and beyond. The highlight of this effort will be the successful launch and implementation of USM’s Science and Arts Innovation Space or SAINS@USM as the unique nursery to sow the seed for a sustainable tomorrow.

Hence, this submission for the APEX university status aptly entitled “Transforming Higher Education for a Sustainable Tomorrow” summarily represents our collective views of what and who we are, and why as well as how we have nurtured ourselves to remain distinctively different from others, at least in the Malaysian context. In the true spirit of USM’s motto “Kami Memimpin” (We Lead), it is now time that the same distinction be further accelerated to the next level as a truly Malaysian icon in the world of higher education and beyond.

Hereby, we humbly submit.

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30 April 2008
The Ministry of Higher Education (MoHE) has requested all local institutions of higher learning to submit their proposal for consideration to be selected as an APEX university. The Accelerated Programme for Excellence (APEX) is a fast track development programme for institutions of higher education to achieve and to be recognised as world-class institutions.

Universiti Sains Malaysia believes that it should be considered and selected to be an APEX university for several reasons. Since its establishment in June 1969, USM has registered such remarkable accomplishments in teaching and learning as well as research and innovation activities as to merit the institution with such a status. Furthermore, the university is in the best position to attain world-class status as it has built the basic infrastructure to become more competitive at the global level as well as being able to attract quality staff and students locally and from abroad. In 2007, the university was appointed as one of four research universities by MoHE through a rigorous evaluation process elevating its status to the top of more than 100 public and private universities and colleges in Malaysia. In the same year too, USM was rated as the only “excellent” (or 5-Star) university in the Academic Reputation Survey conducted by the Malaysian Qualification Agency (MQA).

Based on the above accomplishments, the university has set forth its mission to become a sustainability-led institution of higher education. Following the recommendations of OECD (2007), USM believes that it can play a role and contribute to sustainable development vis-à-vis the generation of human capital, acting as a source of expertise through research and consultancy, by bringing together talents and elements for sustainability, adopting best practices through on-campus management and development activities to undertake strategic planning, building design, waste control and water and energy efficiency practices. In a similar vein, the university will also be prudent in its acquisition programmes and pursue good citizen-type initiatives like a “green campus” concept as well as offering recognition and reward incentives for staff to be involved in sustainable development leadership in the regional community.

The starting point is to integrate sustainable development into the educational system so that future generations can be nurtured and imbued with the need to embrace ecological protection, conservation of resources and human development based on the virtues of equity, accessibility, availability, affordability and quality. Following the compelling practices adopted by the European universities, USM is strategising itself to be more autonomous, accountable, and will provide incentives for partnership and business, the right mix of skills for the labour market and the community. The university will aim at reducing the funding gap and make funding work more effectively as well as enhance interdisciplinary and transdisciplinary learning and knowledge accumulation, facilitate interaction of knowledge and society and reward and recognise excellence.

Another strategy which USM will follow to realise this sustainability-led growth is the “Blue
Ocean Strategy” which is proposed by Kim and Mauborgne (2005) as entities to propel itself toward unknown market space (hence the blue ocean) which is untainted by competition. “Blue ocean” is analogised as the deeper potential of market space that is yet to be explored and this requires institutions to expand their existing boundaries and change the rules of the game which, in turn, will render competition irrelevant. By choosing sustainability-led growth as its destination, USM will embark on numerous transformational journeys, including revamping most of its activities pertaining to nurturing and learning, research and innovation, services, students and alumni and the management of the university as a whole. The university will take steps to improve the three core pillars of its strengths, i.e., concentration of talent, resources and acculturation of supportive governance.

In the area of nurturing and learning, the university will enhance student-centred and sustainable development curricula, market relevance, technology learning, skills competency and linkage between research and learning. The university will also re-examine its entry requirements to include non-traditional entry modes, democratise knowledge education through the use of OpenCourseWare (OCW) and accelerate open learning. For research and innovation, efforts will be made to increase the presence of foreign students and staff, including towering personalities who can lend support to navigate USM’s research towards the blue ocean. In line with the theme of sustainable development and being a sustainability-led university, more research programmes will be realigned in the areas of health biotechnology and molecular medicine, fundamental research, biodiversity and environment and engineering research. To help support the intensification of research during the APEX university period, USM will use its latest endeavour, that is, the establishment of Science and Arts Innovation Space (SAINS @ USM) that combines the talents of USM’s faculty members from all centres and schools to create an environmentally-friendly innovation space.

The transformation plan also includes the revamping of other activities and programmes of the university including postgraduate studies, students’ and self-development services, and alumni initiatives. By the same token, many changes will be made to other elements of the university, such as the concentration of talent, resources and supportive governance to act as catalyst for the accomplishment of the transformation of nurturing and learning, research and innovation and services.

Eventually, the key performance indicators (KPIs) for USM in this APEX programme will be articulated and manifested in the sustainability-relevant issues for those at the bottom of the pyramid, in particular.