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Rats in the labyrinth

David Wilmoth



Establishing a campus in Ho Chi Minh City in Vietnam is high risk and hard, but David Wilmoth tells the tale with relish. He explains how ideas of sustainability and the triple bottom line were used from the outset to design, develop and evaluate what and how things might be done. Environmental issues are especially important because part of the university is to be built in a fragile place and energy use and other resources are to be efficient and inexpensive. Social and cultural issues are important because RMIT aims to work with local people, be fair to communities, and be relevant to students.

And of course the institution itself must be educationally and economic viable. These are core to the challenges of sustainability.

Origins of the new university

RMIT has for years been committed to internationalising the experience of students whether in Australia or offshore. Education and training are key to sustainable development in Vietnam, and this story is about the creation of a new university in that country. It was my job to help get the venture started, so it is my story, too. I worked closely with David Beanland, Nguyen Xuan Thu and many others.

At about the same time, in the mid-1990s, RMIT committed itself to sustainable development, adopting a strategy and signing the Talloires Declaration with other universities around the world.¹

Sustainable development is defined in the Brundtland report as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’.²

The RMIT strategy aims to: minimise consumption of water, energy, paper, and other natural resources; recycle and reuse goods and materials; dispose of wastes as safely and efficiently as possible; design and manage buildings to maximise natural sources of lighting and heating; promote the use of materials for maximum durability and minimum environmental impact; preserve the heritage value of building; plant indigenous species of vegetation; and develop transportation options to reduce greenhouse emissions.³

Vietnam was a priority country for RMIT because of Australia’s links – war, resettlement of refugees, aid, family connections and the many people of Vietnamese origin in Australia. We were surprised to find that more than 1100 Australian students at RMIT were born in Vietnam. Staff and students sent a container-load of books and some mini-computers, ran an international conference on higher education and training in Vietnam, made a plan for an English Language College – and even funded a new building, International Cooperation House, at the Vietnam National University, Hanoi. Funds for these activities came mainly from RMIT’s international students studying in Melbourne. The work began without a profit motive, out of a desire to help Vietnam, to learn about it, and to position RMIT for the future. Goodwill and trust developed; the Government of Vietnam asked RMIT what a modern technological university in Vietnam would look like and invited us to build a fully foreign-owed international university as a demonstration project. It was a difficult decision and it took more than a year to get the necessary approvals, but we decided to go ahead.

Talloires Agreement

The principles of the Talloires Declaration are to

- increase awareness of environmentally sustainable development
- create an institutional culture of sustainability in education, research, policy formation, and information exchange
- educate for environmentally responsible citizenship
- foster environmental literacy for all through developing university faculty capability to teach environmental literacy to all students
- practise institutional ecology in resource conservation, recycling, waste reduction, and environmentally sound operations
- encourage involvement of government, foundations, and industry in supporting interdisciplinary research, education, policy formation, and information exchange in environmentally sustainable development
- collaborate with environmental practitioners to develop interdisciplinary approaches to curricula, research initiatives, operations, and outreach activities that support an environmentally sustainable future
- enhance capacity of primary and secondary schools;
- work with national and international organisations to promote a worldwide university effort toward a sustainable future
- maintain the movement in carrying out this declaration.⁴

Project development for sustainability

When objectives for RMIT International University Vietnam (RMIT Vietnam) were discussed, sustainable development was a key part of the mission to provide services appropriate to Vietnam's economic and social development and its environmental sustainability.

How was this to be put into practice?

We wanted to be an example of best practice in social, economic and environmental management, contributing knowledge and experience and learning from Vietnam.

Programs were to cover environmental studies, environmental engineering, urban planning, architecture and infrastructure.

The project was to embody self-reflective learning, through:

- thoughtful feedback
- students contributing to environmental and planning analysis
- engagement with local communities
- employers and research partners being active on campus
- environmental effects being monitored
- staff taking degrees while they worked.

This was not only for RMIT to ‘walk the talk’ – have practice consistent with intentions – but also to guarantee continuous improvement.

Reports to the board of management and to the community were to be in accord with the triple bottom line along with good governance practices (later characterised as the ‘triple bottom line plus one’²⁵). This meant always thinking and acting in four dimensions: environmental, social and cultural, economic and financial, and governance.

Project planning: putting it in place

When the feasibility studies were done some of the best people available in Vietnam were asked to join the team as independent experts for urban planning and environmental analysis. Researchers from VESDEC (the Vietnam Environmental and Sustainable Development Centre) in Ho Chi Minh City led by Dr Le Trinh prepared the technical work on environmental assessment to meet the requirements of the World Bank and the Asian Development Bank, who funded the project. Well-intentioned international development projects are sometimes poorly planned in terms of social and environmental aspects and later resented by local people, so we had to set a good example.

The business plans included detailed treatments of economic, social and environmental effects. Building materials, emissions and waste, the detailed needs and aspirations of local people – these were not well known at the beginning.

The Government of Vietnam issued a licence for RMIT to operate there. This needed new legislation to allow foreign universities to provide education directly to students in Vietnam, a bold move for a country governed by a communist party and proud of its independence and long traditions in education. But so many qualified talented people miss out on tertiary education that the government was prepared to take the risk. Vietnam has not been given real

credit for opening its education to direct foreign investment. It is still unusual. RMIT felt the full weight of this responsibility as the first international university in Vietnam, and this strengthened our commitment.

Originally we were to build a new campus in Ho Chi Minh City. We leased a site and restored a French villa near downtown, complete with pool, tennis court, and an overgrown garden. Students soon filled the campus with excitement, enrolling in English language, university preparation, computer science, multimedia, and engineering. We used the best technology even though it was expensive. Before long the staff began to feel at home, inviting young disadvantaged people who were not students to learn to swim in the villa's pool, and beginning to help in the community as volunteers. It became clear that the project would require financing for scholarships for poorer students and to undertake research into some of Vietnam's urgent needs.

Project financing for sustainability

Sustainable development is key to financial success and investment in the future. To raise money for any international development project these days you need a business plan with strong demonstration of sustainability. Private and multilateral banks like the Asian Development Bank and the World Bank demand it. These two banks reviewed the project, and the proposal was made available to the public for comment in Ho Chi Minh City, Melbourne, Manila and Washington DC.

The original proposal required the resettlement of some 50 households so it was graded category 'A', requiring the highest level of scrutiny. These banks require that there be support and compensation for affected people. This meant the expectations of the local population for generous compensation became very high. Most were poor, itinerant rural workers. We had mixed feelings about displacing them. Some said it was the opportunity of a lifetime to be able to afford to own a house somewhere else, or to retrain for an urban occupation; but for others it meant loss of their land and their livelihood.

As it turned out, the costs of meeting these demands were so high the project would not have been financially viable. The site requirements for the campus were reviewed and the site was reduced from 62 hectares to 12.8 hectares. There were no affected people on this land. Years before some people had moved from the site for nearby road construction, so after



Figure 1. The Ho Chi Minh City city campus before renovation (top) and once opened (bottom).

reviewing the records we agreed to reimburse the government for their previous compensation costs.

As a result the revised environmental assessment was category 'B', which means that 'a limited number of specific social and environmental impacts may result that can be avoided or mitigated by adhering to generally recognised performance standards, guidelines or design criteria'.⁶

We obtained financial commitments up to US\$34.5 million from the Asian Development Bank; the International Finance Corporation – the private arm of the World Bank Group; the Atlantic Philanthropies, who provided a generous gift; and RMIT.

Economic sustainability

The project aim is to make a significant economic contribution to Vietnam in line with the challenges identified by the Government of Vietnam and the World Bank.⁷ Some of the ways we saw this happening were to:

- provide training, education and research geared to community needs, the government and private industry, with a particular emphasis on technology
- produce graduates, improve skills and competencies, develop trainees and support human resources development
- operate as a good model in technological education, using new teaching and learning methods, know-how and management
- take part in the development of the greater Mekong region, especially the southern delta region of Vietnam
- strengthen the links between Vietnam and other Australian communities and organisations
- provide employment for Vietnamese people and promote cooperation among international and Vietnamese staff and students
- develop campuses that are examples of international best practice environmentally and socially.

Social sustainability

We hope to create an open institution serving many communities, with active campuses and balanced student life. In the long term there will be a mix of Vietnamese students and trainees with international students from south-east Asia, Australia and other countries, as well as staff, researchers

and visitors. Already international students from a number of countries have enrolled.

Social life will be encouraged by common academic, sporting and recreational facilities, and through the support of student activities and associations. Sporting and recreation activities and facilities will be open selectively to the public and possibly to national training teams, with an effort made to encourage social and cultural integration with the communities surrounding the university's campuses and beyond.

As the economic outcomes of the plan may not directly address questions of social equity or the roots of poverty in Vietnam, the university has had to demonstrate its commitment to the alleviation of poverty and disadvantage. RMIT Vietnam had to be positioned to be more affordable to students from poorer, remote, indigenous or otherwise disadvantaged backgrounds. Part of income was to be recycled as scholarships for able, needy students early in the process. Later, donor scholarship support of over US\$2.6 million was added. An innovative student loan scheme has been implemented. Students are able to explore issues of equity, anti-discrimination, legal rights and other principles. Student leaders from RMIT Australia have met and exchanged ideas with the leaders of student organisations in Vietnam. Further exchanges are encouraged. Standards of ethical behaviour are made important to graduates and staff, professionally and personally.

Literacy and participation rates in tertiary education are lower for women than for men. RMIT Vietnam is following and adapting the gender and race anti-discrimination policies and procedures RMIT has for staff and students, to begin to address this.

RMIT Vietnam is working to enhance partnerships with donor groups, non-governmental organisations and other universities in Vietnam through a network of learning resource centres in other regions. Voluntary contributions to local assistance programs are strong. The Loreto Vietnam Australia Program is building up to train the teachers of intellectually disabled children with RMIT's Department of Social and Community Services. Scholarship programs like English for Health Workers are also intended to build relationships with non-governmental organisations including student volunteer movements.

Environmentally sustainable campuses

RMIT Vietnam has three campuses, which have to demonstrate their own sustainability, in downtown Ho Chi Minh City, suburban Saigon South and

Hanoi. An environmental management system based on the ISO (International Organisation for Standardisation) 14001 series (Environmental Management Systems) has been announced. In the meantime activities are to be consistent with RMIT's environmental policies and procedures.

RMIT Vietnam is also assisting with the development of four learning resource centres at regional universities.⁸ A challenge for these centres has been to ensure that they are truly sustainable: that trained staff can pass on their skills and that host universities can afford to keep them operating. Electronic library subscriptions and computer upgrades are expensive. Buildings that last, and that maximise natural ventilation and lighting and also minimise air conditioning, can reduce maintenance and energy bills significantly and contribute to an improved environment. But what works in Australia may not work in Vietnam. For example, for Hue University's learning resource centre a team of Vietnamese and Australian architects planning the air circulation system included a labyrinth, a maze through which the fresh air would come in. We found to our cost that in Vietnam this would attract rats and other vermin, so the design had to be modified. Designing and building the learning resource centres, buying the books and computers and training the people involved became a learning exercise for everyone.

Learning-as-you-go and continuous improvement carries over into the refurbished campuses in downtown Ho Chi Minh City and in Hanoi, on existing sites, and into the new campuses. The Saigon South campus will require land development, building and fit-out, so there are greater opportunities there. This will be a purpose-built campus, exemplifying how a delta-based new development can retain values worth keeping and pass along improved environmental conditions to future generations. A number of initiatives are already in train to mitigate the initial environmental effects.⁹

Construction nuisance

During construction, negative impacts will be minimised and there will be no permanent impact on agricultural practices surrounding the site. Companies contracted will need to have acceptable-quality environmental and health-and-safety management systems and plans. The construction of deep piles into the soft soil to support the buildings will minimise noise. Dust and exhaust emissions will be managed and additional traffic generated during construction controlled.



Figure 2. The Saigon South site; note how wet the land is.

Stormwater

Stormwater will be discharged to the naturally occurring wetlands and the canal system. The proposed levels of fill will exceed known site flooding levels, and floodways, levees, spillways and detention basins will be used to protect the site and lessen the likelihood of the project contributing to flooding of downstream sites during peak rainfall events.

Canals and waterways

While development of the campus will involve some loss of wetlands, we are retaining all natural canals, mains, tributaries, and minor waterways. The buildings have been designed around them. They will act as natural runoffs for the site, with bridges where necessary. To reduce impact on the wetland areas, connected elevated walkways will be constructed.¹⁰ Their edges and banks will remain resources for natural fish breeding and mangrove growth.

Liquid effluent treatment and disposal

A central sewage treatment plant on the campus will produce effluent of much better quality than required by Vietnamese standards and will be

designed to allow expansion as the student body increases. Grey water will be treated in the same plant. The landscaped and conservation areas of the site will be spray irrigated with effluent during the dry season and this additional treatment will assist with odour control and limit nutrient build-up in the canals to prevent algal growth. During the wet season, effluent will be disposed of directly to the stormwater drainage system. This effluent produced will meet World Bank Group standards for discharge to surface waters. Sludge from settling tanks will be composted and used as topsoil or fertiliser on campus.

Solid and hazardous waste disposal

Solid waste will be collected daily and transported to appropriate landfill. The nature and quantity of hazardous waste will be assessed and procedures implemented to ensure safe separate storage and collection. The recycling and reuse of goods and materials used by and within the campus will be encouraged, with clean, readily identifiable receptacles for recycling. The material will be collected by recycling contractors on a regular basis.

Dredge material supply

Material for the landfill will be obtained from a range of sources including sand from the Saigon River. Dredging practices will be in accordance with government regulations and the material will be tested for suitability as landfill prior to transportation to the site.

Air emissions

The service infrastructure will not include boilers. The generators operate only in periods of electricity failure and will have emission controls fitted in accordance with world's best practice. To further reduce emissions, catalytic converters can be fitted. The air conditioning systems to be installed will not include CFC refrigerants.

Air quality monitoring

Monitoring of air quality will be undertaken during pre-construction, construction and operational phases. Ambient air quality measures will include measuring and monitoring: temperature, humidity, wind velocity, dust, sulphur dioxide, nitrogen dioxide, carbon monoxide and lead, and motor



Figure 3. Landfilling near the Saigon South campus

vehicle emissions of carbon dioxide, nitrous oxide, hydrocarbons, lead, benzene, particulates and carbon monoxide.

Fire protection and life safety

The site infrastructure will include a reticulated external fire hydrant system with street hydrants located in accordance with Australian standards. Within the campus buildings, hose reels, fire sprinklers, fire detectors, smoke detectors, emergency warning systems and emergency/ exit lighting will also be installed according to Australian codes and regulations (where higher than Vietnamese equivalents)

Disposal of sulphate-rich soils

Acid sulphate soils as they occur on the site may cause problems, so there is likely to be minimal excavation, and disturbance of the soils is to be minimised. Pile cap foundations will be placed on the surface of the fill and excavation will not be necessary, except for the lift pit and possibly for the

swimming pool. Water tanks and sewage treatment will be constructed above ground. Where excavation is necessary, the soils will be deposited in local designated sites.

Natural environments and species

The natural environment and indigenous species were investigated; a number of species of zooplankton, zoobenthos and phytoplankton were found on the site, as well as 29 plant species.

Programs and planning

RMIT plans to provide degree programs in environmental science, environmental engineering, architecture and urban planning. These will be placed in an education model of reflective practice in the planning and delivery of RMIT Vietnam. Campus planners Norman Day and Associates will lead a Masters by project program in architecture to build local capacity and to encourage debate about design and environmental issues. Each part of RMIT's development in Saigon South and other campuses will incorporate these kinds of projects.

In Vietnam there are detailed urban plans but poor compliance – over 70 per cent of houses in Ho Chi Minh City are built without permission. For the environmental values of a campus to be safe there would need to be assurances about neighbouring land uses and water quality. The Saigon South plans were originally encouraging – urban plans for two million people were prepared by Skidmore Owings and Merrill, a well-known San Francisco firm, and won a worldwide award. Development is occurring more slowly than planned. The campus site was designated 'university' in those plans and still fits the present-day urban plans well.

To ensure that surrounding land uses were compatible, RMIT attempted to make one of its 'conditions precedent' that a district plan be prepared; i.e. the project would not proceed unless these conditions were met. However, the foreign investment licence and approvals granted by the Government of Vietnam did not mention such requirements. The Ho Chi Minh City People's Committee (equivalent to the metropolitan government) created a special-purpose authority, the Management Authority for Saigon South Development, and there is a reasonably good chance – but no guarantees – that the environmental integrity of the site can be kept, and improved, in its district setting.

Two student teams helped with environmental scoping, half from Vietnam, half from Australia. Their fieldwork contributed to the development and to their education as well. This was as much about learning from each other's cultures and each other as it was about scientific and academic content. These projects won an RMIT award for teaching and learning. The potential to expand such project-based learning is enormous and exciting.

Vietnam faces particular difficulties with planning and managing its urban regions. The World Bank asked RMIT Vietnam to make a proposal about how urban planners might be trained better to deal with infrastructure and environmental management issues rather than continue to produce master plans for urban development that are not well related to implementation. This would support the planned Masters degree program in urban and environmental management.¹¹

The challenge of sustainability

RMIT now requires reporting from its subsidiary companies in 'triple bottom line plus one' format: that is, reporting on financial, social/cultural, environment and governance issues. RMIT Vietnam has reported this way from the beginning. Each year business plans and performance indicators are agreed. They are monitored quarterly. They have included such indicators as cooperative projects with other universities, training institutions and non-governmental organisations; number of scholarships provided; contribution to community and citizenship; contribution to equity and access; and contribution to sustainable development.

This sustainability story is about a beginning. There are now 900 students and 100 staff of RMIT Vietnam – an energetic group strongly committed to making a difference to Vietnam's development and to contributing to RMIT back in Australia. Putting RMIT Vietnam on a sustainable footing, and helping build the skills and capacity for others to do so, are the key challenges for the future.

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Notes to Chapter 11

- 1 For information about the Talloires Declaration, see Association of University Leaders for a Sustainable Future, 2001, viewed 25 May 2004, <http://www.ulsf.org/programs_talloires.html> and Association of University Leaders for a Sustainable Future, *Talloires Declaration Resource Kit: A Guide To Promoting and Signing the Talloires Declaration*, ULSF, Washington DC, 2002.
- 2 World Commission on Environment and Development 1987, *Our common future* (the Brundtland report), Oxford University Press, Oxford, 1987, p. 43.
- 3 For the policy approved by Council in August 1994, see RMIT, 2004, viewed 4 June 2004, <<http://www.rmit.edu.au/browse?SIMID=ndo4tu4n0ar3z>>. For an analysis, see Association of University Leaders for a Sustainable Future, 'Institutionalizing a conservation culture at RMIT', *The Declaration*, 1(3) 1996, viewed 4 June 2004, <http://ulsf.org/pub_declaration_opsvol13.html>.
- 4 Abbreviated from the Talloires Declaration. For the full text, see Association of University Leaders for a Sustainable Future, 2001, viewed 25 May 2004, <http://www.ulsf.org/programs_talloires_td.html>.
- 5 For the triple bottom line plus one, see RMIT's Global Sustainability Institute web site at <<http://www.global.rmit.edu.au/>>.
- 6 The environmental documents consisted of an Environment Impact Assessment (March 2000), a Public Consultation and Disclosure Plan (5 April 2001), an Environmental Assessment Summary (5 April 2001), a Resettlement Action Plan (5 April 2001), and a Summary of Initial Environmental Examination (8 February 2001). For project descriptions see <<http://ifcln1.ific.org/ifcext/spiwebsite1.nsf/0/c8f10856599988385256a2400527c39?OpenDocument>> and <<http://www.adb.org/Documents/News/2001/nr2001048.asp>>, and for the documents themselves <<http://ifcln1.ific.org/ifcext/spiwebsite1.nsf/2bc34f011b50ff6e85256a550073ff1c/7ac884c364db9c4b85256a2a00734c65?OpenDocument>>.

- 7 World Bank, *Constructing knowledge societies: new challenges for tertiary education*, The World Bank, Washington DC, 2002. For more details on RMIT Vietnam's contribution to Vietnam's development see D Wilmoth, 'RMIT Vietnam and Vietnam's development: risk and responsibility' *Journal of Studies in International Education*, 8, 2, 2004.
- 8 For more details see D Wilmoth, 'Learning resource centres in Vietnamese cities and regions', paper presented to OECD Conference on Learning Cities and Regions, Melbourne, 14–15 October 2002.
- 9 The following points are paraphrased or directly quoted from the documents on exhibition; see the IFC website <<http://ifcln001.worldbank.org/IFCExt/spiwebsite1.nsf/0/3976821736d23a0385256de80066641b?OpenDocument>>.
- 10 Norman Day's contribution to this section is acknowledged.
- 11 D Wilmoth, 'Strengthening urban planning in Vietnam', paper presented to the 7th International Congress of the Asian Planning Schools Association, Hanoi Architectural University, Vietnam, 12–14 September 2003.