Project Information Document/
Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 10-Dec-2018 | Report No: PIDISDSC25377
BASIC INFORMATION

A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
<th>Project Name</th>
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<tbody>
<tr>
<td>Vietnam</td>
<td>P166656</td>
<td></td>
<td>Vietnam National University Development Project (P166656)</td>
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<thead>
<tr>
<th>Region</th>
<th>Estimated Appraisal Date</th>
<th>Estimated Board Date</th>
<th>Practice Area (Lead)</th>
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<tr>
<td>EAST ASIA AND PACIFIC</td>
<td>Jun 03, 2019</td>
<td>Oct 17, 2019</td>
<td>Education</td>
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<table>
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<tr>
<th>Financing Instrument</th>
<th>Borrower(s)</th>
<th>Implementing Agency</th>
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<tr>
<td>Investment Project Financing</td>
<td>Socialist Republic of Vietnam</td>
<td>Vietnam National University, HCMC, The University of Danang, Vietnam National University, Hanoi</td>
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Proposed Development Objective(s)

To improve the relevance and quality of the graduates and research products of Vietnam National University-Hanoi, Vietnam National University-Ho Chi Minh City and the University of Da Nang (UD) and to improve their governance and financing mechanisms.

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Total Project Cost</td>
<td>355.00</td>
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<tr>
<td>Total Financing</td>
<td>355.00</td>
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<tr>
<td>of which IBRD/IDA</td>
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<tr>
<td>Financing Gap</td>
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DETAILS

World Bank Group Financing

| International Bank for Reconstruction and Development (IBRD) | 311.00    |

Non-World Bank Group Financing

| Counterpart Funding | 44.00     |
B. Introduction and Context

Country Context

1. With its 95 million people and US$2,343 per capita GDP (2017), Vietnam is globally recognized for its transformational socio-economic progress since the introduction of the Doi Moi reforms in the late 1980s. It has been one of the fastest-growing economies in the world in the last 25 years. Between 1990 and 2017 Vietnam’s per capita GDP grew at an average annual rate of 5.5 percent. The proportion of the population living below the national poverty line fell below 10 percent in 2016, down from close to 60 percent in 1993. In terms of shared prosperity, the growth in per capita consumption for the bottom 40 percent of the population was 5.6 percent annually, compared to 4.2 percent for the total population during the 2010-2016 period. On human development, Vietnam has experienced substantial improvements in key health, nutrition and education outcomes: today’s population is far healthier and better educated than 30 years ago.

2. Yet, Vietnam faces a number of challenges as it aspires to become an upper middle-income country by 2035. The 2016-2020 Socio-Economic Development Plan flags “slow improvement in education and training, science and technology, culture, social issues, health care and job creation” as one of the main obstacles. The Vietnam 2035 report points to a downward trend in labor-productivity growth since the late 1990s, from nearly 7 percent in 1995 to 3.5 percent in 2013. Vietnam’s path toward prosperity by 2035 requires continuous increases in productivity, which require greater use of higher quality human capital. Vietnam’s economic development is roughly where Korea was three decades ago. As Korea did in those 30 years, Vietnam needs to increase the quantity and quality of tertiary education and research institutions. Global trends such as the industrial revolution 4.0 and national trends such as labor force shifts to more productive sectors and rapidly aging population imply that Vietnam must focus on 21st century skills, knowledge-based innovation and the creation of technology-based jobs. The Government of Vietnam (GoV) is looking to reorient and transform its higher education sector to achieve its 2035 goals.

Sectoral and Institutional Context

3. Vietnam has not fully capitalized on the significant achievements in expanding coverage and improving quality in general education. The country has achieved universal preschool education for five-year-old children and universal primary education, and it is looking to universalize lower secondary education. PISA scores from 2015 show that Vietnam’s 15-year-olds have knowledge and skills that are at the same level or above OECD countries. However, Vietnam has yet to capitalize on this potential since these highly-capable high school graduates generally have few high quality, relevant tertiary education options available to them in the country. At the same time, higher education graduates earn the highest premium in terms of their salaries. Several studies have shown that returns to higher education are significantly higher
that the regional average, on par with China, and among the highest in the world, justifying further public and private investments in the expansion of the higher education sector.

4. In spite of the rapid expansion, access to the Vietnamese higher education system is one of the lowest compared to peer nations and stretch target countries in the region. Student enrolments in higher education increased dramatically from 0.13 million in 1987 to 1.77 million in 2017. Yet, Vietnam’s tertiary education gross enrolment rate of 28 percent (2016) is still one of the lowest in the East Asia region (Figure 1). The higher education sector is predominantly provided by the public sector (85 percent of total enrollment). As of 2017, there were 235 universities (170 public and 65 non-public).

5. The higher education system is also facing serious gender equity issues. Various studies have identified major gender gaps in academic research, resulting from traditional expectations about women’s household roles and caring responsibilities, and gender stereotypes in various forms. Although women account for 40 percent of the country’s scientists, there exists a considerable gap in the proportion of male and female scientists who take charge of ministerial and national research pieces (20 percent and 80 percent, respectively). The proportion was even lower (12 percent) in STEM disciplines. The share of female student enrolment in STEM subjects is also low.

6. Vietnam’s higher education system does not perform well in terms of quality and relevance of its graduates and research products. First, there is a large disconnect between the profile of Vietnam’s higher education graduates and the skills demanded by the labor market. The system does not supply the technical, digital and generic skills (problem-solving, communication, team work) required for the growth of knowledge-intensive exports, the service industry, and automation. Universities produce too little research, and what is produced is mostly not of sufficient quality and relevance for the economy’s needs. The country ranks 60th on the research H-index (that measures the degree of research excellence) and is much lower than its regional peers - Malaysia, Philippines, Indonesia and Thailand. According to the Global Competitiveness Report 2017-18, Vietnam ranked 84 out of 137 countries on the quality of its higher education system and 79 out of 137 on its capacity for innovation. No Vietnamese university appears in the top 500 in the Shanghai ranking, compared to more than 50 Chinese Universities, including 3 in the top 100. Low quality of research is associated with fragmented administration of Research & Development (R&D) programs, research funds allocated mostly to separate

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1 A 2015 survey of Vietnamese firms finds that more than 20 percent of firms believe that “education level” of the labor force is an obstacle to their firm’s operations, more than three times as much of a problem as comparator countries in the region (Source: Vietnam Jobs Report, WB 2017).
research institutes as opposed to universities, and inadequate incentives for individual researchers. The main challenge is that public universities are hampered by a lack of autonomy and inadequate financing, which together impede the renovation of curricula and pedagogical methods, nurturing of high-quality faculty, and internationalization of their academic and research programs.

7. Vietnam’s public investments in higher education are inadequate and inefficient. In 2015, it allocated only 5 percent of total government spending on education to higher education – equivalent to only 0.25 percent of GDP and 0.8 percent of total government spending. This is one of the lowest among comparable countries and certainly very low for a country with the goal of becoming a knowledge-based economy in the near future. Furthermore, Vietnam’s public universities rely heavily on tuition fees (Table 1) - recent data show that tuition fees account for 57 percent of public university spending on average. This high level of cost-sharing is a challenge for the many students who cannot afford it since scholarships and loan schemes are not sufficiently developed. In addition, Vietnam still follows historically-negotiated recurrent budget allocation rather than the more objective and transparent formula-based funding or performance-based funding mechanisms that are increasingly used globally.

Table 1 – Vietnam’s Funding Approach in a Global Perspective

<table>
<thead>
<tr>
<th>Tuition Fees as share of unit cost in public universities (%)</th>
<th>Public Funding as a share of GDP (%)</th>
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<tbody>
<tr>
<td>&lt;20</td>
<td>Peru</td>
</tr>
<tr>
<td>20-40</td>
<td>South Korea, Thailand</td>
</tr>
<tr>
<td>&gt;40</td>
<td>Vietnam</td>
</tr>
<tr>
<td>&gt;1</td>
<td>China, Indonesia, Malaysia</td>
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8. In line with the global push towards university autonomy with accountability, Vietnam has initiated autonomy reforms, albeit at a limited scale. Historically, Vietnamese universities were subject to tight central control of their academics, hiring, budget, enrollment, and tuition fees. In 1996, two National Universities in Hanoi and Ho Chi Minh City were the first institutions granted special autonomy rights. Over time, after 2005 and particularly since the approval of the first Law on Higher Education in 2012, Vietnam moved towards providing more autonomy to its public universities. To take a further step, the Government issued Resolution 77/NQ-CP dated 24 October 2014 to give more autonomy (on enrolment size, course programs, faculty compensation and some flexibility on tuition fees setting) to 15 pilot universities during the 2014 – 2017 period. However, universities do not have the same capacity to exercise autonomy (organizational, staffing, financial and academic autonomy). To date, only 23 out of the 235 universities (less than 7 percent of enrollment) have been granted autonomy. Recognizing the gaps between policy intent and implementation, Vietnam is currently amending the 2012 Higher Education Law to provide more clarity on the definition, criteria and consequences of attaining autonomy.

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2 Despite the four-fold increase from 20,000 to 73,000 in the number of academic staff between 1987 and 2017, this is still far below the thirteen-fold increase in number of students from 133,000 to 1.77 million during the same time period. Faculty with doctoral degrees accounts for only 15% of all academic staff (far below the target of 25% set by MOET for 2020).

3 This gap is largely due to: limited institutional capacity, contradictory policies and legal documents, and resistance to change.
9. **On accountability**, the Government has started pushing forward stronger requirements in terms of academic quality, management integrity, and financial responsibility. The 2012 Law on Higher Education requires Higher Education Institutions (HEIs) to be responsible for: (a) quality assurance (QA), specifically in the evaluation and accreditation of academic programs and entire institutions, and maintenance of basic QA conditions regarding academic and non-academic staffing, curricula, physical facilities, and financial resources, (b) information disclosure to the public on QA conditions, research and training outcomes, and accreditation status, and (c) disclosure of their financial practices and audit reports. The higher education quality assurance system includes internal quality assurance, external quality assurance and quality assurance agencies. To date, 75 percent of universities have set up internal quality assurance units. However, the targets for external evaluation and accreditation have not been met because of capacity issues and lack of compliance. Five accreditation centers have been established as of today. Only a few institutions and a small share of programs have completed the institutional and program accreditation processes. Some leading universities including Vietnam National Universities Hanoi and Ho Chi Minh City and the University of Danang have gone for international and regional accreditation of programs by the ASEAN QA Network and specialized accreditors such as Association to Advanced Collegiate Schools of Business (AACSB) and Accreditation Board for Engineering and Technology (ABET) in business administration and engineering, respectively.

10. The Government is addressing the above challenges in several ways: currently amending the Higher Education Law; preparing a long-term higher education strategy 2021-2030 (master plan); and implementing priority reforms on quality enhancement, research excellence, system-wide and institutional governance improvement and financial sustainability. One of those priorities is to develop a few universities to be centers of excellence. The Government has identified two national universities and one regional university to receive World Bank investment financing: (i) VNU Hanoi, (ii) VNU Ho Chi Minh City, and (iii) the University of Danang.

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**Vietnam National University - Ho Chi Minh City (VNU-HCM)**

11. VNU-HCM is a major, multi-disciplinary center for training, scientific research and technology in the south of Vietnam. VNU-HCM aims to become one of the top university systems in Asia and the hub of science, technology, culture and knowledge of Vietnam. The University has 7 member-universities, and 27 affiliated units. The number of academics involved in teaching, research and development is 2,677 people, of which 1,200 has a doctorate. Within the past years, VNU-HCM has painstakingly invested in new research groups. Up to now, there have been more than 80 internationally proclaimed research groups that could approach regional and world levels. The number of papers in the ISI list increases annually with an average growth rate of 14 percent. VNU-HCM currently enrolls more than 66,000 students of which 8,000 are in the graduate programs (Masters/PhDs).

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**Vietnam National University – Hanoi (VNU-HN)**

12. VNU-HN is a comprehensive multi-disciplinary academic and research center in the capital city. With 7 member-universities, 7 schools, 3 research centers, and 13 service units, VNU-HN plays an important role in the country’s industrialization and modernization. Apart from offering traditional majors, VNU-HN is the first university in Vietnam to build up new departments of interdisciplinary nature such as Math-Information Technology, Natural Resources Management, Chemical-Pharmacy, Materials and Nano Devices, Climate Change, Vietnamese Studies, Anthropology, etc. to enable students to earn double degrees or dual degrees. Currently, VNU is working in collaboration with 135 universities and educational organizations including the world’s leading ones such as Massachusetts Institute of Technology (MIT), Leeds University, Paris University of Technology, Tokyo University, Seoul National University, Beijing University, and National University of Singapore. Nurturing young talents, VNU-HN runs high school programs for gifted students in natural sciences and foreign languages. In 2017, four VNU’s academic programs were fully accredited by ASEAN University 4 Only a few HEIs carry out student engagement surveys, graduate tracer and employer surveys to assess the quality and relevance of teaching.
Network (AUN). To date, 22 VNU-HN’s academic programs have been evaluated and given a certificate by AUN-QA. VNU-HN currently enrolls more than 30,500 students of which 10,000 are at the graduate level (Masters/PhDs).

13. For largely historical reasons, these two VNUs hold a special position in Vietnam’s higher education system, reporting directly to the Prime Minister. They have a higher degree of autonomy (organizational and academic autonomy; management of research programs) and can work directly with ministries, ministerial level organizations, governmental bodies, people’s committees of central cities and provinces.

14. University of Danang (UD)

University of Danang (UD) is the key training and scientific research center in the Central area and Western highland of Vietnam. It has 6 member-universities, 12 affiliated units, 3 research institutes, 35 research and transfer centers, and 26 research teams. Its training programs are focused on economics, education, technology and state management. With its strategic role and location, UD is entrusted by the Government to be one of the three leading higher education centers in the whole country. In 2016, UD became the first regional university in the country to be externally accredited. In particular, the University of Science and Technology (one of its member universities), has been recognized by the Council for Evaluation of Research and Higher Education and two of its advanced programs accredited by AUN-QA. UD has had about 100 articles published in ISI / SCOPUS journals yearly in the past few years. In regard to internationalization, UD has implemented 6 joint programs and signed memoranda of understanding with 142 international universities in Japan, Korea, UK, the US, Iceland, Finland, etc., which allow credit transfer, staff exchange and collaborative research. UD enrolls a total of 51,000 students of which some 3,360 are in the Masters/PhD programs. It operates under MOET supervision.

15. The structural arrangement in all three universities, where an umbrella university oversees other member universities, is unique to Vietnam. However, in the current set-up, VNU-HN, VNU-HCM and UD are not able to fully take advantage of the existing talent, knowledge and capacities dispersed across a large number of separate institutions that are trying to preserve their independence. International experience shows that decentralized universities that operate as loose conglomerates of independent institutions find it challenging to transform themselves and improve their performance because each member institution has its own agenda and priorities, not necessarily aligned with the overall objectives of the umbrella university and national policy objectives. Integrating its member universities into a strong, unified university system could pave the path towards academic excellence and international recognition. Harmonized governance arrangements could bring significant benefits, such as state-of-the-art joint facilities, shared resources and collaborative endeavors that would allow the unified university to pursue its comparative advantages and build up scholarship in unprecedented ways.

Relationship to CPF

16. The proposed project fits with the overall objective of the recently approved WBG Country Partnership Framework (CPF, FY18-FY22) for Vietnam to provide integrated and holistic engagement through a mix of lending and analytical work and as the country transitions from IDA to IBRD status. Specifically, the proposed project is aligned with the CPF Focus Area 2: Invest in People and Knowledge and the CPF Objective 8: Strengthen the relevance and quality of tertiary education and labor market institutions. In particular, the project would support the Government’s goal to meet the demand for (a) an increased quantity and quality of skilled graduates (to serve the national socio-economic development needs); (b) enhanced quality and relevance of research (to serve national priority sectors and transfer knowledge and technology for the innovation-led economy); and (c) more connected community engagement (to serve

5 The only other countries in the world with a similar model of higher education “conglomerates” are the former Yugoslav republics and France, where groups of universities and “grandes écoles” (elite professional schools) have come together under a single university umbrella in recent years, as a result of the country’s excellence initiative aiming at creating world-class universities,
the regional socio-economic needs). The project is also consistent with the guiding principles of WBG engagement in the education sector: using WBG’s comparative advantage and building on lessons learnt from past/ongoing operations in Vietnam and the Region. For example, the proposed project will leverage the findings and recommendations coming out of the ongoing higher education advisory services and analytics (ASA) work that is supporting the Government in formulating its higher education strategy for 2021-2030.

17. The project is also well aligned with Vietnam’s 2011 – 2020 Socio-Economic Development Strategy (SEDS), especially the Breakthrough Area of “Promoting human resources/skills development (particularly skills for modern industry and innovation” through its focus on improving the quality of research, teaching and management in the three flagship universities.

18. Finally, the proposed project will build on the lessons learnt from the ongoing projects such as the recently initiated Support for Autonomous Higher Education Project (SAHEP), the New Model University Project (NMUP), the Fostering Innovation through Research, Science and Technology (FIRST) project, and the series of Higher Education Development Policy Operation (DPO) (2007-2012). The proposed VNUDP Project is expected to be a critical initiative in the context of the overall higher education platform in Vietnam (Annex 1 presents VNUDP’s relationship vis-à-vis the overall higher education system reform areas and the areas supported by other Bank-financed operations).

19. The proposed project incorporates the following filters: (a) improved gender equity as reflected in the project intervention that encourages increased share of females in STEM enrolments and in research authorships and leadership positions; (b) use of Disruptive Technology (DT) in enhancing teaching-learning environment through adaptive learning (using Artificial Technology (AI)) and flipped classrooms; (c) fostering Maximizing Finance for Development (MFD) through increased level and diversification of revenue generation (through cost-sharing/tuition fees, PPPs and other fund-raising activities) as part of university’s financial sustainability strategy; (d) increased climate co-benefits through the use of green technology in the construction of campus building and associated infrastructure; and (e) cross-sectoral collaboration with other GPs, in particular with Governance GP on project reforms on governance and financing.

C. Proposed Development Objective(s)

To improve the relevance and quality of the graduates and research products of Vietnam National University-Hanoi, Vietnam National University-Ho Chi Minh City and the University of Da Nang (UD) and to improve their governance and financing mechanisms.

Key Results (From PCN)

20. The proposed PDO indicators are as follows:

Quality and relevance of Research
1. Number of articles published in ISI and Scopus and ratio to full-time staff
2. Number of new patents / licensing agreements / startups

Quality of Teaching/Training
3. Proportion of graduates who are employed as professionals within 12 months of graduation

Effective Governance/Financing sustainability
4. Degree of institutional integration and autonomy
5. Level of non-state income and distribution of income by sources
(All indicators to be disaggregated by each beneficiary university)
D. Concept Description

21. **Beneficiaries:** The proposed project supports three universities – VNU-Hanoi, VNU-Ho Chi Minh City and University of Danang (UD) – through additional physical, technical, human and institutional resources so that they become centers of research and teaching excellence as well as role-models for good governance and appropriate financing mechanisms. To provide a favorable regulatory framework, it also supports the initial implementation of national Higher Education reforms to promote modern governance and financial sustainability. These will allow the Government to better design and implement policies and programs for more equitable access, improved quality and relevance, and greater research impact in the Vietnamese higher education system. The direct project beneficiaries are three University Systems that include some 30 plus member universities and institutes, catering to about 147,500 students (66,000 VNU-HCM, 30,500 VNU-HN and 51,000 UD), including more than 21,000 graduate students (Masters/PhDs). Indirectly, it will benefit the entire higher education system – some 235 universities and more than 1.7 million students.

Component 1: Research excellence in selected fields

22. To improve the quality, relevance and impact of research, the three universities will carry out the following activities:

(i) Recruit and nurture talented researchers to develop strong research groups. This will be achieved by bringing on board talented Vietnamese with international research experience through attractive remuneration packages, establishing a tenure track to reward the most talented researchers, and putting in place measures to reduce in-breeding. Measures will be put in place to encourage more female scientists to lead research groups.

(ii) Equip and/or upgrade labs for these research groups to establish leading edge facilities and use the scientific infrastructure in the most effective manner across the entire university. The three universities will use green technology for the new buildings and scientific labs.

1.1 **VNU HCM** plans to
a. establish 5-10 “strong” research groups in the fields of (i) IT, Data Science, Artificial Intelligence; (ii) Biotechnology; (iii) innovative materials science; and establish “relevant” research groups on (iv) economic policy and business innovation; (v) social policy for Southern Vietnam and Central Highlands; (vi) education policy and university governance;
b. construct smart buildings for STEM Center, Data Center, Economic Policy Research Center, Research Center for Social Sciences and Humanities, Center for Business Cooperation development; construct smart technical infrastructure (traffic network, communication and power systems, waste water management systems);
c. purchase/upgrade lab equipment, technology and data systems for the above research centers;
d. establish start-up/innovation center at the IT Park with linkages to industry; and
e. incentivize (i) high-quality, high-relevance research programs; (ii) interdisciplinary research (between and within various member universities of VNU-HCM), (iii) collaborative research with international researchers (universities or individuals) and with industry.

1.2 **VNU-HN** aims to

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6 Universities can foster female leadership in administrative and research domains through appropriate HR policies and research strategies.
a. Establish “excellent” research groups in the fields of (i) material science and application technologies; (ii) artificial intelligence technology, smart integrated systems; (iii) space and aeronautics technologies; (iv) science and technologies for high tech agriculture, bridges and roads, and other sectors; (v) Biotechnology and Chemistry technology; (vi) communication electronics, automation, robotics; (vii) energy technology, renewable energy; and (viii) fundamental natural science;

b. construct environment friendly, general infrastructure, smart buildings, and laboratories, research institutes, innovation and technology transfer centers, computer center and IT infrastructure at University of Engineering and Technology for fields (i) to (iv) (14,803m²); and research center building and related infrastructure at University of Sciences for fields (v) above (floor area: 31,850m², landscape outside building: 1,676m²);

c. build space and aeronautics institute (US$10 million, exploring Viettel funding);

d. purchase/upgrade lab equipment, technology and data systems for the above research centers (following SRIC model and equivalent with CDIO standard);

e. build and establish an innovation center at the science park with linkages to industry and local government (11,000m²); and

f. invest in (i) research exchange activities between VNU-HN labs and international labs through co-director model; (ii) FabLab system and start-up incubation; (iii) collaboration with businesses at national hi-tech parks on R&D and production processes; (iv) financial incentives for “excellent” researchers; (v) support system on innovations (products and processes) and IP (patents).

1.3 UD will

a. Establish 6-8 interdisciplinary research teams in the fields of (i) renewable energy (solar, bio fuel, cell, hydrogen energy); (ii) mechatronics technology, automation and automatic controls (for automatic production lines, industrial robots, intelligent control systems); (iii) medical and agriculture technology (biomedicine and pharmaceutical technology, high tech agriculture and aquaculture); and (iv) digital technology (Big Data, IoT, Cloud Computing and Micro-service Architecture, Information Security);

b. Construct Technopole Center and Innovation Quarter building(s) and general infrastructure (within 50 ha of not-yet clean land in Danang City);

c. purchase/upgrade lab equipment, technology and data systems at the four Technopole labs on renewable energy, mechatronics technology and automation, life science, and digital technology; and

d. provide funding for high-level R&D human resources, collaboration with other national international research centers/universities and enterprises; operating the Technopole Center and Innovation Quarter as an open innovation platform through: (i) support system on product development and commercialization using design thinking, (ii) collaboration with businesses at national hi-tech parks on training and R&D, (iii) Co-lab system, start-up incubation and SME support center.

Component 2: Enhanced quality of teaching and learning

23. To prepare well-qualified graduates, the three universities will seek to transform their curricular and pedagogical practices to make their programs more relevant and student-centered. When relevant, they will rely on technology tools that can disrupt traditional practices and enhance the educational experience of the students (E-learning, adaptive learning through AI, flipped classroom, etc.). They will provide professional development opportunities for the teaching staff and incorporate “good teaching” in the evaluation and promotion criteria on par with excellence in research. Attempts will be made to encourage more female students to enroll in STEM programs7. Finally, the three universities will strengthen their internal quality assurance system and seek to accredit all their programs nationally or internationally.

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7 The project design can use lessons learnt from initiatives to encourage female enrolments in STEM (through partial tuition fee waivers for university students and recruiting sessions at high schools) at Ho Chi Minh University of Technology and Education.
2.1 VNU HCM plans specifically to implement the following activities:
   a. Renovate the curricular and pedagogical approaches to adapt to the education 4.0 model, meaning that students will have the opportunity to acquire 21st century generic competencies, such as critical reasoning, problem solving, team work, and communication skills. The university will pilot innovative approaches in the engineering and technology fields first, before scaling up in other fields and other member universities;
   b. Invest in support resources needed, such as learning spaces, labs, equipment, to impart 21st century skills through project-based, research-based and other innovative teaching-learning methods using digital technology (e.g. adaptive learning using disruptive technology- AI, Big Data in partnership with Arizona State University, etc.);
   c. Build a center for producing and disseminating MOOCs and build a common training database;
   d. Implement financial and non-financial policies (including capacity building, training, research opportunities and extracurriculars) to attract and retain talented students and faculty; and
   e. Implement internal and external quality assurance system, consistent with the national HE reforms in QA.

This sub-component covers undergraduate and post-graduate programs.

2.2 VNU Hanoi plans specifically to implement the following activities:
   a. Implement policies, including professional development, to attract, promote and retain high-quality staff faculty and students (including females and ethnic minorities);
   b. Construct operation hall, lecture halls, teaching laboratories at the University of Engineering and Technology (22,000m²);
   c. Construct lecture halls and specialized labs at the Science Park (11,000m²);
   d. Construct VNU-HN Center area building (10,000m²), IT and library building (19,000m²) and internal infrastructure,
   e. Construct teaching laboratories, connected infrastructure (Road No. 8, waste water treatment station No.2,3 and local waste water treatment station for Dorm 5);
   f. Invest in IT infrastructure (hardware and software) to develop VNU-HN as a digital university;
   g. Establish more “marketable” academic programs with better linkages to labor market demands; and
   h. Carry out quality-enhancing activities such as improving internal QA system, internationalization and accreditation of academic programs, adoption of student centered curriculum and pedagogical approaches including using digital and/or disruptive technology.

2.3 UD plans specifically to implement the following activities:
   a. Renovate teaching and learning approaches using technology where appropriate. Examples include MOOCs for mass learning, and high-tech and high-touch adaptive learning for personalized learning. Can start with selected programs/courses;
   b. Upgrade internationalization of training programs (e.g. joint programs and exchange of lecturers, experts and students);
   c. Construct buildings for lecture halls (27,000 m² on clean land), 2 blocks of dorms (22,500m² on clean land), sport complex (1.4 ha on clean land), multi-purpose sport complex (2,900m² on clean land), associated technology, 12-storey smart building (25,000m² on the clean land);
   d. Purchase/upgrade equipment (including high-technology) for programs in the fields of renewable energy, mechatronics technology and automation, life science, and digital technology; and
   e. Develop innovative educational programs (future manufacturing, sustainable development, digital technology, personal and social wellbeing, entrepreneurship) to serve the demands of Industry 4.0.
Component 3: Effective governance and sustainable financing

24. To support the implementation of governance and financing reforms at the national system level and at the institutional level.

3.1 National system level reforms in higher education governance and financing will focus on governance, autonomy and accountability, and financial sustainability. (implemented by MOET with support from MOF and other agencies);
   a. Support implementation arrangements for national higher education reforms on governance (such as a single ministry/agency to supervise implementation of the HE reforms, an independent QA agency to implement new QA reforms, and a single funding agency to administer all HE funding allocations);
   b. Scale-up autonomy reforms across HE institutions, and initiate/scale-up accountability reforms (such as PSDU, financial audits, QA; HEMIS in conjunction with SAHEP);
   c. Implement financial sustainability reforms (such as performance-based formula funding, competitive research and capital funding, diversification of financing through equitable and efficient student loan schemes, and public private partnerships); and
   d. Establish a unit responsible for capacity building throughout the higher education system. The unit will be in charge of designing and delivering workshops and training programs for new university rectors and deans, as well as for university managers in specialized areas, such as student support, teaching and learning services, quality assurance, fund-raising, institutional research, etc.

3.2 Enhancement of university governance and financing at the institutional level through the three selected universities
   a. Develop a modern and effective university governance/management model in line with global and regional trends so as to optimize resources and create enabling conditions for the whole university system (not just member universities). This means in particular that VNU-HN, VNU-HCM and UD become fully integrated universities following the model of the leading universities in ASEAN countries. The design of this governance model would use lessons learnt from other countries that have implemented programs to develop world-class universities (WCU). All three universities will implement the following activities:
      • Putting in place a modern governance set up (structure and mechanisms) to organize member universities and affiliated units; moving towards a more integrated and leaner management structure for member universities. This would involve developing coordination mechanisms among all member units and putting in place standard human resources policies across the entire umbrella university. In this context, the three universities will design and implement policies / incentives to have more women as full professors and in leadership positions (rectors, vice-rectors, deans).
   b. Implement autonomy and accountability within each university, consistent with the amended HE Law and the new Higher Education Strategy 2021-2030. This will imply, for each university:
      • Giving higher levels of autonomy to member universities and units in terms of organization, budget, academic affairs, and staffing, in line with the capacity, conditions and efficiency of each member institution and unit;
      • Defining accountability mechanisms in a clear manner and outlining the relationship between autonomy and accountability.
   c. Implement sustainable financing reforms consistent with the amended HE Law and the new Higher Education Strategy 2021-2030, in order to enhance service delivery. This should translate, in each university, in the following way:
• Increased share of tuition fees and revenues from various sources of funding (use of public assets such as land or buildings, development of marketable programs, outside research and consulting projects, PPP mechanisms, training programs and continuing education, fund-raising, etc.);
• Improved efficiency of budget allocation and utilization; and
• Roadmap to make member universities more financially autonomous. For that purpose, the project will support the universities in diversifying their income by mobilizing resource from other development partners, private sector contributors, and philanthropists.

Component 4: Project management

25. All three universities – VNU-HCM, VNU-HN, UD - will be the project investment owners and will establish their own PMUs responsible for implementing their respective subcomponents under Component 1, 2, 3 and 4. The MOET will be responsible for the implementation of Component 3.1 on system-level national HE reforms. Each PMU will be headed by a project director, with the primary responsibilities (including technical activities, procurement, financial management, safeguards, and M&E) for the execution of their respective component. These PMUs will report implementation progress of their subcomponents to the World Bank and their universities. All universities will report to other relevant Government agencies (including the Office of the Government, the Ministry of Planning and Investment, the Ministry of Finance), as well as other stakeholders and entities involved with the project. They will also report the overall project progress to the World Bank.

26. While the proposed project will be the first large-scale World Bank financed project for each of the universities, all three have had experience in managing finances and procurement activities in large projects financed by the Government and several international financial institutions. The proposed project FM and procurement activities (civil works, goods, and consultancy) would comply with those of the relevant World Bank Guidelines and Vietnamese Laws.

Financing Instrument

27. An Investment Project Financing (IPF) instrument will be used for the proposed project with the World Bank IBRD/transitional IDA financing of US$311 million. The choice of the instrument is based on the following: (i) the project is focused on a specific set of activities and investments, especially significant infrastructure development activities; (ii) an IPF is appropriate for implementation support due to the strong financial independence of three participating universities over each other and over their line ministries and for capacity building of these institutions; and (iii) the investments supported under the Project are not covered comprehensively by a financially definable government program.

Co-Financing possibility

28. The proposed World Bank project will explore a potential partnership with the Korea World Bank Group Partnership Facility (KWPF) to achieve the project’s PDO. The KWPF financing would come from Window 2, which can support co-financing of lending operations and project preparation support. Co-financing grants (recipient-executed) can fund complementary project activities to maximize the development impact of project interventions. The KWPF Grant for Project co-financing under Window 2 could be up to US$5 million. Project preparation grant (Bank-executed) can support the task team in the appraisal process, including for detailed technical assessment of project design, economic and financial analysis, and risk assessments and mitigation measures. The proposed project preparation and co-financing grant is deemed eligible under the KWPF support because: (i) it builds on the successfully implemented ongoing KWPF grant under Window 3 that supports the Bank’s programmatic ASA on skills development and jobs at tertiary level and identification of a potential lending operation; (ii) the proposed higher education project focuses on improvement in
quality and relevance of graduates and research products of flagship universities; (iii) the proposed project responds to a strong demand from the Government and is aligned with the Vietnam CPF (one of the objectives is to improve the quality and relevance of tertiary education institutions); (iv) the task team and the government counterparts will collaborate with Korean partner organizations such as KDI which has already provided advisory services to the Government as part of the ongoing KWPF grant (window 3); and (v) the KWPF proposal submission (deadlines of October 3, 2018) will be done after the Bank’s internal PCN review and approval (September 26, 2018).

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project covers three universities, including VNU-HN, VNU-HCM and the University of Da Nang (UD). VNU-HN is located on the north-west of the Ha Noi Capital (Thach That district – 40 km from the Center of Ha Noi). The components proposed for the Bank financing include constructing smart buildings, laboratories at University of Engineering and Technology; Research Center; building and related infrastructure at University of Natural Sciences; and Space and Aeronautics Institute. All these components occupy about 39.3ha within the existing campus.

The UD is in the south-east of Da Nang city, 12km from Center of Da Nang city. The UD has proposed 4 infrastructure activities for the Bank financing, including constructing (i) Da Nang Technopole and Innovation Quarter building, (ii) Research Centers and Laboratories, (iii) UD executive building, lecture Halls and Dormitories, and (iv) Urban Campus Infrastructure with a total area of 50ha within an area of 300ha reserved for the UD’s campus.

VNU-HCM locates in the north-east of HCMC and belongs to Thu Duc district, 14 km from the Center of HCMC. The University has proposed components for the Bank financing, including constructing Smart Buildings for STEM Center, Data Center, Economic Policy Research Center, Research Center for Social Sciences and Humanities, Center for Business Cooperation development, and construct smart technical infrastructure with a total area of 2.5ha within the existing campus.

B. Borrower’s Institutional Capacity for Safeguard Policies

The project will be implemented by three Universities through dedicated project management units (PMUs) of the Universities. All three Universities have no experience in implementing safeguards for projects financed by the WB, IFC, ADB so that they are not familiar with the Bank safeguards policies. However, land acquisition is required for the UD only and will be implemented by Land Fund Development Center of Da Nang city which has experience in safeguards policy of the Bank. Nonetheless, capacity building by training on the Bank safeguard policies still need to be provided for the implementing agencies including UD- PMU during project preparation and implementation.

C. Environmental and Social Safeguards Specialists on the Team

Thang Duy Nguyen, Social Specialist
Thuy Cam Duong, Environmental Specialist

D. Policies that might apply
<table>
<thead>
<tr>
<th>Safeguard Policies</th>
<th>Triggered?</th>
<th>Explanation (Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Assessment OP/BP 4.01</td>
<td>Yes</td>
<td>The policy is triggered due to the potential environmental and social impacts associated with the project activities i.e. the construction works and research, teaching and learning soft interventions for VNU-Hanoi, VNU-Ho Chi Minh City and University of Danang.</td>
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<tr>
<td></td>
<td></td>
<td>The construction works in the three universities include: (i) construction of buildings, laboratories, lecture hall, library, block of dorm, sport complex for selected research; teaching and learning centers; (ii) construction of technical infrastructure for the university campus i.e. internal traffic networks, communication and electric system, waste water treatment system, landscape, data system; (iii) purchase/upgrade equipment for selected research and education laboratories.</td>
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<td></td>
<td></td>
<td>The project involves significant construction activities covering a large area, etc. including multiple buildings. It is informed that these multiple buildings are located within the planned areas of the universities. The buildings would have multiple-storeys. And the outer building area are for internal campus infrastructures including landscape, internal roads, water and wastewater, etc.</td>
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<td></td>
<td></td>
<td>The proposed civil works are located within the planning areas of the university campus, in the urban and peri-urban area, comprising of vacant and garden land (in the case VNU-Hanoi, VNU-Ho Chi Minh City); and of vacant, garden and residential land (in the case of Danang University). The vegetation cover in the project area includes bushes, fruit trees, industrial trees (cajaput tree), and grass. The physical and biological environment in the project areas are already heavily impacted due to human usage and activities. The preliminary screening found that the Danang University subproject may result in the relocation of some family churches, pagoda, shrine; and graves. It is also noted that the proposed investments would not be located within or adjacent any critical habitats, forests, archaeological or sensitive historical sites.</td>
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</table>
On the positive side, it is anticipated that the project will bring about positive environmental and social impacts. The project will help to improve the relevance and quality of the graduates and research products of three participated universities. In addition, the project also brings about friendly education environment via adoption of green technology for the new proposed building and scientific labs.

The soft investments include the interventions to enhance the quality of research, teaching and learning areas e.g. formation of research group, research exchange and collaboration activities, do not imply potentially adverse environmental and social impacts.

At the current stage, the detailed information on the concrete constructed area and investments have not yet been given by the Client. However, given the number and size of construction activities the project may have significant indirect, induced and cumulative impacts in each city with pressures on land use, services (water and wastewater), traffic patterns. As such, the project is categorized as a category A at this stage. During the project implementation, when detailed information on project investments is available, the team will follow up and seek guidance on the project and subproject category as appropriate.

As the project is expected to be classified as a category A, a full Environmental and Social Impact Assessment (ESIA) will be prepared for each of university subprojects; and one Executive Summary (ES) of all ESIA will be prepared for the whole project. A TOR for preparation of the ESIA will be prepared and submitted to the Regional Safeguard Secretariat (RSS) for review and clearance. The ESJA/ESMPs will comply with the WB’s safeguard policies and the national regulations. In addition, it will apply WBG’ Environmental Health and Safety (EHS) guidelines. The final draft ESIA and the ES will be disclosed on the Bank website and locally for public access prior to project appraisal. The ESIA and ES will be reviewed and cleared by the RSS.

| Performance Standards for Private Sector Activities OP/BP 4.03 | No | There is no Bank financing for private sector-led economic development project. |
| Natural Habitats OP/BP 4.04 | No | The projects will be implemented in the planning areas for the three Universities campus in Hanoi, Ho Chi Minh City and Danang urban and peri urban area. The project will not involve significant conversion or degradation of natural habitat. Therefore, the policy is not triggered. |
| Forests OP/BP 4.36 | No | The project is implemented in the urban/peri-urban areas and will not impact any forest. |
| Pest Management OP 4.09 | No | The project activities are not expected to use pesticides, nor lead to increased usage of pesticides. Manual clearing measures will be employed for civil works and included in the ESMPs. |
| Physical Cultural Resources OP/BP 4.11 | Yes | The policy is triggered as the project includes excavation activities under components 1 and 2, which may result in chance findings. In addition, the site screening revealed that the proposed investments under Danang University subproject may cause relocation of church/pagoda and graves, which are considered as PCRs. The assessment of PCR impacts and the mitigation measures to address the impacts, as well as chance-finds procedures will be included in the subproject ESMPs. |
| Indigenous Peoples OP/BP 4.10 | No | Screening of the proposed project areas showed that there are no ethnic minority communities living in or collective attachment to the project area that meet the criteria of OP 4.10, so OP/BP4.10 is not triggered. |
| Involuntary Resettlement OP/BP 4.12 | Yes | Result of project screening also showed that among 3 Universities, the VNU-HN and the VNU-HCM have no land acquisition for structure components because the proposed components will be constructed in the existing campus, while the University of Da Nang (UD) will involve land acquisition. For non-structure components, all proposed activities are focusing on upgrading labs and equipment and strengthening research capacity. Therefore, no land acquisition and safeguards issues are expected to occur in these components. The University of Da Nang, including universities, research centers/institutes and experimental lab area will be locate in an area of 300ha, in which 110ha belong to Da Nang city and 190ha is of Quang Nam province. Of 110ha in Da Nang, 40 ha was cleared for constructing the Viet-Han University of Information Technology and some functional buildings. The Remaining 70ha area needs to be cleared in which |
50ha is required for the Bank financed project. To clear 70ha, 468 households (HHs) would be affected and have to relocate. A resettlement site of 20ha also needs to be cleared for construction of infrastructure to relocate the 468HHs. Therefore, OP4.12 is triggered for the land clearance of 70ha and 20ha for construction of resettlement site.

These impacts will cause substantial social risks such as loss of income and livelihood, removal of houses, church/pagoda and graves due to land acquisition and relocation. However, all potential impacts and risks are predictable, mitigatable and manageable by applying standard mitigation measures including design alternatives, compensation at replacement cost, provision of land plots in resettlement sites constructed within subproject ward for relocated households, and provision of livelihood restoration measures for severely and vulnerably affected households.

According to OP4.12, a Resettlement Action Plan (RAP) is required for the UD subproject and needs to be prepared and submitted to the Bank for clearance before appraisal. All the potential social impacts and associated mitigation measures will be included in the RAP for implementation. The draft final RAP will be disclosed locally in the local language, and at the Bank’s internal and external websites prior to appraisal. A Resettlement Policy Framework (RPF) is not required for the project because all subprojects and their boundaries have been identified and screened for resettlement impacts at time of project preparation.

Besides, a due diligence review needs to be conducted for 40ha which have been cleared prior to 2014 by the city to ensure that there are no encumbrances on the land and that it does not affect the livelihood of PAPs or vulnerable people. In case there have been pending issues, a corrective action plan will be prepared and implemented with concurrence of the Bank.

An area of 300ha is reserved for establishing a village of universities for Da Nang, including a number of different universities and research institutes, by
relocating the existing universities and research institutes from different locations in Da Nang city, into the village and constructing some new Universities and research centers in this area (called village of UD). The Bank financed project will construct a Technopole Center, buildings with lecture halls (27,000 m² on cleared land), 2 blocks of dorms (22,500 m² on cleared land), sport complex (1.4 ha on cleared land), multi-purpose sport complex (2,900 m² on cleared land), a 12-storey smart building (25,000 m² on the cleared land), and infrastructure (within 50 ha of not-yet cleared land in Danang City).

Part of the Village of UD will occupy 190 ha in Quang Nam province, this area will be used to accommodate the relocation of a number of existing universities in Da Nang city. However, these universities will be relocated under other projects, with different objectives to this project. The presence or absence of these universities in the Village of UD does not affect achievement of the PDO of the Bank financed project. This is because the bank financed facilities can commence operation, and contribute to the achievement of the PDO, prior to work commencing on the other facilities within the UD Village. It is also expected that the non-bank financed facilities will be constructed at a later, still to-be-determined, date. Therefore, land acquisition and resettlement for those non-bank financed facilities, to be constructed in the future, is not linked to the Bank financed project.

### E. Safeguard Preparation Plan

<table>
<thead>
<tr>
<th>Safeguard</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety of Dams OP/BP 4.37</td>
<td>No</td>
</tr>
<tr>
<td>Projects on International Waterways OP/BP 7.50</td>
<td>No</td>
</tr>
<tr>
<td>Projects in Disputed Areas OP/BP 7.60</td>
<td>No</td>
</tr>
</tbody>
</table>

Tentative target date for preparing the Appraisal Stage PID/ISDS:

Mar 30, 2019
Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

All subproject ESMPs, and RAP will be completed and disclosed locally and at the Bank’s internal and external websites by May 2019 prior to appraisal.

CONTACT POINT

World Bank
Dilip Parajuli, Dung Kieu Vo
Senior Education Economist

Borrower/Client/Recipient
Socialist Republic of Vietnam

Implementing Agencies
Vietnam National University, HCMC
Huynh Thanh Dat
President
htdat@vnuhcm.edu.vn

The University of Danang
Nguyen Ngoc Vu
President
nnvu@ac.udn.vn

Vietnam National University, Hanoi
Nguyen Kim Son
President
sonnk@vnu.edu.vn