

SOCIALIST REPUBLIC OF VIETNAM

Enhancing Teacher Education Program

Technical Assessment

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THE WORLD BANK

ABBREVIATIONS

ADB	Asian Development Bank
BOET	Bureau of Education and Training
CPD	continuous professional development
CPS	Country Partnership Strategy
CTPA	Core Teachers and Principal Advisor
DLI	Disbursement-linked Indicator
DOET	Department of Education and Training
DTEM	Department of Teacher Education and Management
ECE	Early Childhood Education
ESSA	Environment and Social Systems Assessment
ETEP	Enhancing Teacher Education Project
FCER	Fundamental and Comprehensive Education Reform
FSA	Financial Systems Assessment
FSQL	Fundamental School Quality Level
GDP	Gross Domestic Products
GOV	Government of Vietnam
GPE	Global Partnership of Education
IBRD	International Bank for Reconstruction and Development
ICT	Information, Communication and Technology
IDA	International Development Association
IDEO	Intergenerational Deaf Education Outreach Project
ISM	Implementation Support Mission
IT	Information Technology
IVA	Independent Verification Agency
LMS	Learning Management System
LTTU	Lead Teacher Training University
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MOET	Ministry of Education and Training
MOF	Ministry of Finance
MOLISA	Ministry of Labor, Invalids and Social Affairs
MPI	Ministry of Planning and Investment
NPV	Net Present Value
NTEP	National Teacher Education Program
ODA	Official Development Assistance
ODL	Open Distance Learning
OECD	Organization for Economic Cooperation and Development

PA	Performance Agreement
PAD	Program Appraisal Document
PAP	Program Action Plan
PDO	Program Development Objective
PforR	Program for Results
PISA	Program for International Student Assessment
PMU	Program Management Unit
RGEP	Renovation of General Education Project
RTTI	Readiness to Teach Index
SEDP	Socio–Economic Development Plan
SEDS	Socio-Economic Development Strategy
SEQAP	School Education Quality Assurance Program
SRPP	School Readiness Promotion Project
TA	Technical Assistance
TEIDI	Teacher Education Institution Development Index
TEIP	Teacher Education Improvement Project
TEMIS	Teacher Education Management Information System
TGE	Total Government Expenditure
TPP	Trans-Pacific Partnership
TTI	Teacher Training Institution
TTU	Teacher Training University
UNESCO	United Nations Education Science and Culture Organization
US	United States
USD	United States Dollar
VHLSS	Vietnam Household Living Standard Survey
VND	Vietnamese Dong
VNEN	Vietnam Global Partnership for Education - <i>Escuela Nueva</i> Project

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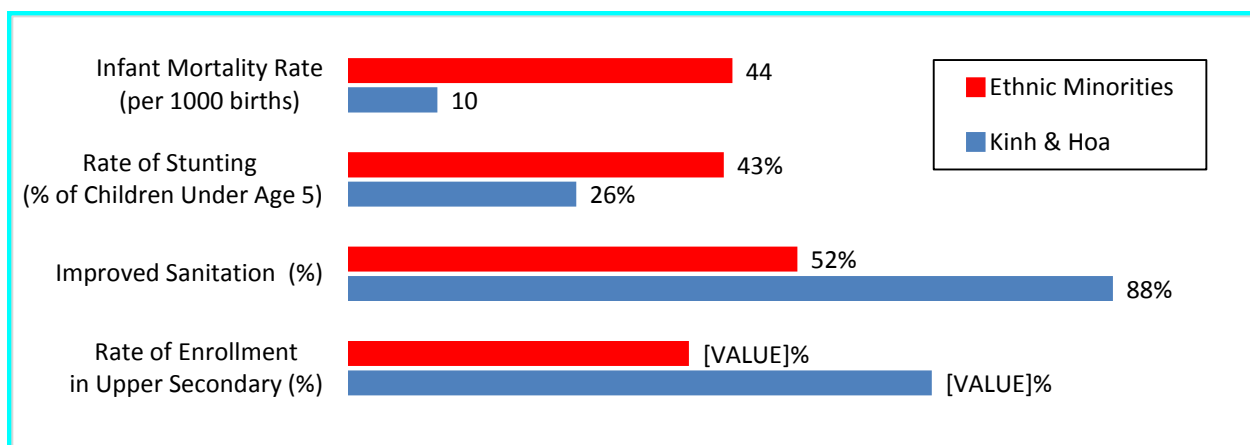
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I. COUNTRY CONTEXT

1. Vietnam has experienced rapid and inclusive economic growth since the early 1990s. Economic renovation (Doi Moi) reforms launched in 1986 have transformed it from one of the world's poorest countries to a lower-middle-income one—with per capita gross national income (GNI) of US\$1,980 in 2015. Growth has also been inclusive: incomes have risen across the income distribution, with only modest increases in inequality. The percentage of people living in extreme poverty dropped from 50 percent in the 1993 to less than three percent today. Key social indicators and access to basic infrastructure have also improved substantially.

2. Nonetheless, significant challenges remain. Although over the long term ethnic minorities have seen notable improvements in welfare, large gaps between ethnic minorities and the majority population remain. Remaining poverty is increasingly concentrated among ethnic minorities, who now constitute 14 percent of the population but 60 percent of the poor. In 2014 the poverty rate was 57.8 percent among ethnic minorities, compared to 6.3 percent among the Kinh and Hoa ethnic majority. The most recent data show worrying signs that progress on ethnic minority welfare has stalled.

Figure 1: Social Indicators for Disadvantaged Ethnic Minorities



Source: Vietnam 2035: Based on the VHLSS 2014 and the MICS 2010 and 2014

3. Vietnam has also achieved impressive outcomes on gender equality. Gender differences in school enrollment and attainment are minimal, and the gender wage gap is modest. But women remain outliers in private- and public sector leadership positions. There are sharp gender differences in business and particularly in government and political spheres, where the leadership is overwhelmingly male. In the last decade and a half, the share of women in the National Assembly has declined and is now at 24.4 percent. Few chairs of National Assembly

committees are female. The civil service has a large share of women, but their representation in leadership positions is low, mostly at lower levels.¹

4. These mentioned challenges are well understood by the Government, as reflected in the recent Vietnam 2035 report it jointly prepared with the World Bank Group.

5. ²Vietnam has also achieved impressive outcomes on gender equality. Gender differences in school enrollment and attainment are minimal, and the gender wage gap is modest. However, women remain outliers in private- and public-sector leadership positions. There are sharp gender differences in business and particularly in government and political spheres, the leadership is overwhelmingly male. In the last decade and a half, the share of women in the National Assembly has been declining and is now at 24.4 percent. Few chairs of National Assembly committees are female. The civil service has a large share of women, but their representation in leadership positions is low, mostly at lower levels.³

6. In sum, socio-economic achievement in Vietnam has led to growth that has benefited almost all Vietnamese. However, this phenomenon of “all boats rising” has not substantially narrowed socio-economic gaps or increased opportunities. Ethnic minorities continue to lag behind other groups and women cannot seem to break through the Vietnamese version of the “glass ceiling”. Considering these persisting differences between populations and the sexes, what policy changes should may better prepare Vietnam for an uncertain but promising future while ensure that all will benefit.

7. Environmental degradation coupled with the impact of global climate change threaten the long-term sustainability of the country’s development. In addition, despite major infrastructure spending needs, Vietnam faces shrinking financing options on account of growing fiscal pressures and insufficient private sector participation. Furthermore, the institutions of governance that were adequate to carry the country to its lower-middle-income level are now exposing gaps that need to be addressed with urgency and boldness, especially as pressures emerge from economic integration, urbanization, an aging population, and aspirations of a rising middle class.

II. SECTORAL AND INSTITUTIONAL CONTEXT

8. **Achievements and Challenges.** Vietnam has always emphasized education as a keystone of its development policy. As one sign of this commitment, it allocates nearly 20 percent of public expenditures to education, significantly above the Organization for Economic Co-

¹ For ethnic minorities in general, and for ethnic minority women in particular, access to leadership positions (and the civil service, for that matter), is significantly lower than for Kinh and Hoa women.

² Vietnam 2035: Toward Prosperity, Creativity, Equity, and Democracy. Overview Report. World Bank and the Ministry of Planning and Investment of Vietnam. February 2016

³ For ethnic minorities in general, and for ethnic minority women in particular, access to leadership positions (and the civil service, for that matter), is significantly lower than for Kinh and Hoa women.

operation and Development (OECD) average of 12.9 percent.⁴ A national network of schools, colleges and universities has expanded dramatically improving access to education at all levels.

9. The country has essentially achieved universal primary education. It is now moving towards universal preschool education for five-year-old children and universal lower secondary education. Between 2001 and 2010, net enrollment rates at lower secondary and high school levels increased from 70 percent to 85 percent and 33 percent to 50 percent respectively.⁵

10. Vietnam has also make considerable progress in creating better learning conditions in schools. The Ministry of Education and Training (MOET) has developed the “Fundamental School Quality Level (FSQL)” in 2006, which establishes minimum standards for physical facilities, school organization and management, teaching materials and teacher support, and school-parent linkages for primary students. Full-day schooling for primary and lower secondary education has gradually expanded to increase learning hours.

11. Vietnam has also attained higher levels of student learning achievement. Its performance on the 2012 Program for International Student Assessment (PISA)⁶ surpassed the OECD country average and many developed economies.⁷ In addition, variation around the mean scores was relatively small.

Box 1: Tomorrow’s Vietnamese must be able to:

- Master communication, computational and scientific competencies
- Work and learn in teams
- Apply knowledge and seek out information to solve problems
- Integrate formal and non-formal learning, declarative knowledge (or knowing that) and procedural knowledge (or know-how)
- Access, select and evaluate knowledge in an information-soaked world
- Develop and apply several forms of intelligence, beyond mastery of subject content.
- Create, transpose and transfer knowledge
- Cope with ambiguous situations, unpredictable problems and unforeseeable circumstances
- Cope with multiple careers, learning how to locate oneself in a job market, choose and fashion the relevant education in consequence

12. While achievements are impressive, Vietnamese authorities are concerned that their education system is not well positioned for the age of globalization and international competition because it does not provide the population with the skills and competencies needed for producing greater value in the future.⁸ Addressing these challenges is the next frontier of education development in Vietnam. Fully recognizing the importance of these issues, Vietnam’s 2011-2015 SEDP stated that the “quick development of...high quality human resources is essential for the country’s

⁴ Education at a Glance, OECD. 2011. Page 248.

⁵ United Nations Education Science and Culture Organization (UNESCO). 2015. Vietnam: Education for All 2015 National Review.

⁶ PISA (Program for International Student Assessment) is a worldwide study by OECD in member and non-member nations of 15-year-old school pupils’ scholastic performance on mathematics, science and reading. Vietnam scored 511 (17th place out of 65 tested countries) on math, 508 on reading (19th place), and 528 on science (8th place).

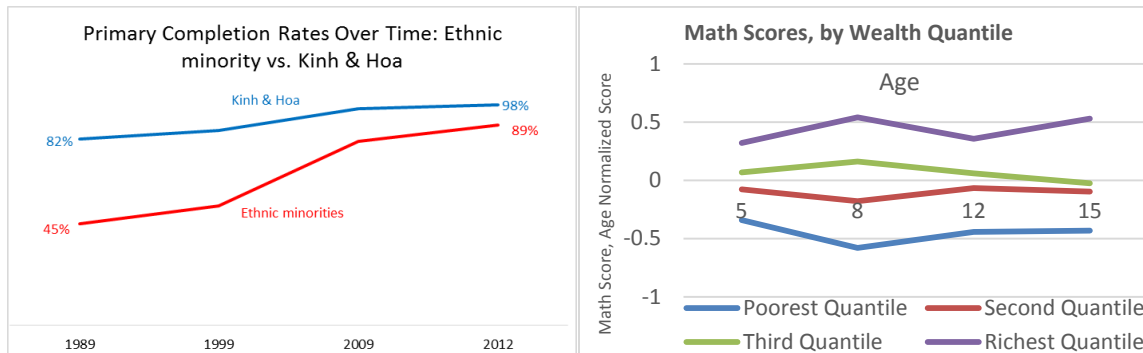
⁷ OECD. 2012. PISA 2012, Result in focus retrieved from www.oecd.org/pisa/.../pisa-2012-results-overview.pdf.

⁸ Skilling Up Vietnam: Preparing the Workforce for the Modern Market Economy, World Bank. November 2013

industrialization, modernization, and the development of a knowledge-based economy.”⁹ The 2015-2020 SEDP confirmed this finding.

13. There is also unfinished business. Gaps in education achievement and opportunity mirror many of the trends pointed out above. There has been considerable progress over the last two decades, with almost all ethnic minority children and girls enrolling and attending primary schools,¹⁰ and minor difference in enrollment rates for lower secondary education for ethnic minorities and none concerning gender.

Figure 2. Primary completion rates by ethnic groups and Math score by wealth quintile



1. In terms of learning, gaps between children from majority groups and those from disadvantaged ethnic minorities are narrowing. Over the last decade, ethnic minority children have registered impressive gains in mathematics, reading, and particularly Vietnamese language. However, gaps persist, in part because scores for all populations have been increasing over recent years.

2. However, the access profile for ethnic minorities changes dramatically starting with upper secondary school. From the age of 14 (the last year of lower secondary) a steep fall-off in ethnic minority enrollment begins and relatively few children from ethnic minorities make the jump to upper secondary. Whereas the lower secondary enrollment rate is 85 percent, it drops to 60 percent for upper secondary (with just a third of the poorest quintile of the student population succeeding in that transition). For the moment, this drop-off has remained steady over time. This constitutes a major brake in higher education enrollment.

14. Vietnam has largely achieved gender equality in general and higher education.¹¹ However, gender gaps continue, but in different forms. Whereas there are more women enrolled in higher education than men, they are less likely to study sciences, engineering and

⁹ Vietnamese Government. 2010. Socio-Economic Development Strategy for 2011-2015

¹⁰ The remaining primary and lower secondary enrollment gaps between disadvantaged ethnic minorities and other groups are expected to close soon. The overall enrollment rate for ethnic minority children is 89% (steadily rising by one percent per year) but then enrollment rate for 7-9 year olds is 100%. With nominal primary and lower secondary school dropout rates, we can expect.

¹¹ With the exception of ethnic minority girls.

other technology-oriented fields. In addition, and this is of particular import for this operation, women tend to be underrepresented in management positions. As is the case in many countries, there are many more female than male teachers, but far fewer female school directors, subject specialists, district/provincial/national administrators, or university faculty.

15. **Government response.** Addressing the combination of “new and old business” represents a considerable challenge for the Vietnamese education system, regardless of past successes. Teaching higher order skills in general education will mean defining new standards, developing new pedagogical approaches, setting up learning assessment and establishing and applying new incentives. These changes will particularly task schools that serve more disadvantaged populations that still struggle to meet first generation educational goals.

16. In 2013, the 11th Party Congress at its eighth meeting session recognized that Vietnam’s education system had performed admirably, but that overall education quality remains lower than expectations. To attend to this, Vietnam adopted the Fundamental and Comprehensive Education Reform (FCER),¹² which aims for education to meet “the requirements of industrialization and modernization in the socialist orientated market economy and international integration”. It constitutes a political and legislative umbrella for a broad sector-wide reform.

17. *New strategies to meet new objectives.* The FCER introduces changes at every level of education – from preschool to lifelong learning. To meet the objectives of the FCER and organize the implementation of its broad strategies, the Government identified over 20 programs areas and charged the Ministry of Education and Training to prepare specific action plans to implement over the five-year period of the reform. **Table 1** organizes the programs by education level: (i) System-wide; (ii) General education; (iii) Higher education; and (iv) Skills development.

¹² Resolution No 29/NQ-TW issued on 4th November 2013 of the 8th Conference of the 11th Session of the Central Executive Committee on Fundamental and Comprehensive Education Reform.

Table 1: FCER Action Plans

SYSTEM LEVEL	GENERAL EDUCATION ¹³	HIGHER EDUCATION	SKILLS DEVELOPMENT
<ul style="list-style-type: none"> • FCER communication campaign • Complete the structure of the education system • Mobilize domestic and international resources • Amendment of Education Law • Promote non-public education • Incentives on public institutions performance • Recruitment based on actual competencies • Development of ethnic minority human resources • IT to support teaching and research activities • Enhance efficiency of international cooperation • Inspectorate 	<ul style="list-style-type: none"> • Develop new curriculum and textbooks • Learning assessment • Preschool education development • High school graduation exam and university entrance exam • Reform teacher training network • Reform pre-service and in-service training • Teaching and researching science and technology • Career orientation • Infrastructure 	<ul style="list-style-type: none"> • Evaluation of science and technology activities efficiency • Budget allocation method and criteria • Development of higher education institutions 	<ul style="list-style-type: none"> • Reorganization of TVET centers • Renovation of vocational and professional education quality • National Qualification Framework • Information network on supply-demand of education and training • Cultural and sports centers

18. The FCER’s priority is general education (grades K-12), where learning approaches are to become less content-based and more competency- and quality-based. It intends for all Vietnamese students to obtain higher order cognitive and behavioral skills, such as the ability to think critically and creatively, apply knowledge from many subject areas to solve practical problems, work in teams, and convincingly communicate verbally and in writing.¹⁴ To that end, general education will introduce, *inter alia*, new curricula and methods of instruction, develop a comprehensive learning assessment system and reform teacher education.

19. The FCER retains at the center of Vietnam’s education development strategy the importance of equal opportunity. Thus, all students, regardless of ethnicity, income or gender must have an equal opportunity to master these new higher order skills and competencies.

20. Past successes in increasing access to education and higher learning achievement for disadvantaged groups were the product of a wide array of interventions sustained over a long

¹³ Many of these areas are already supported by the World Bank education program through the following projects: SEQAP, VNEN, and RGEP

¹⁴ Ibid.

period. The government developed and adopted both supply¹⁵ and demand¹⁶ side strategies. The FCER now aims for an 80 percent upper secondary enrollment rate, which is attainable only if enrollment of ethnic minorities increases rapidly. Although some of the same successful strategies might remain pertinent, secondary education is considerably more complex what with the variety of learning paths, the high stakes competition for tertiary education, and the introduction of new ways of teaching and learning. Thus, the new education sector reform may constitute a particular challenge for ethnic minority children because it raises the bar by introducing new skills and competencies – just when these same children have begun to become proficient at the existing learning goals.

21. However, the reform also represents an opportunity for ethnic minority children because the new pedagogy favors a tailored approach to learning and teaching that takes into consideration context, the specific characteristics of the learner and insists that all children can succeed. In consequence, the new teacher professional profile will be particularly apt, since teachers will need to tailor their teaching approaches to the specific challenges facing ethnic minority children.

22. It is difficult to predict whether the new skills and competencies will be more difficult to master for girls or boys, although the education system should develop the tools and mechanisms to detect any differences as they appear. However, as mentioned above, one of the key gender issues in the education system has to do with equal access of female personnel to leadership and management positions. The efforts to reinforce teacher education will also provide an opportunity to affect the gender balance in higher-level positions in general education.

23. Teachers are at the center of the reform process. The success of such a reform will depend almost exclusively on the preparedness of the teacher to master this new pedagogical paradigm. One of the underlying principles of the FCER is that teachers should be equipped to respond to different contexts that are themselves constantly changing. Essentially, the FCER will require teachers to become increasingly professional, i.e., to adapt methodologies and knowledge to real-time problems as they arise in his or her classroom and school. This is similar to the professional models of medical doctors, researchers, policy analysts and other knowledge-based fields. Training and supporting such teachers requires greater interaction between professionals, reciprocity, hands-on mentorship and coaching and on-time advice to solve identified problems.

24. In sum, for teachers to acquire this new type of professional profile, they will need school-based continuous professional development (CPD). Considering the nature of the expected changes to teaching methodology and professional responsibility, most research on the matter has indicated that school-based CPD (provided through face-to face and online

¹⁵ For example, school construction and improvement programs targeting selected regions and/or population groups; incentives to deploy teachers to remote areas and to attract ethnic minorities to the teaching profession; deployment of specialized teachers or teacher aides (e.g., language assistants); development of programs for children whose mother tongue is not Vietnamese.

¹⁶ For example, school fee exemptions, discounts, school lunches, scholarships and information campaigns

platforms) has the greatest influence on teacher competencies, classroom behavior, and effectiveness, particularly since it prepares teachers to respond to quickly changing situation and a wider array of differing demands.¹⁷ By “bringing training to the teacher”, school-based CPD can help teachers more effectively master these new methods and competencies.

25. Teacher education in Vietnam has many strengths, but it is not currently in a position to help teachers acquire this new professional profile, nor to ensure the highest quality and most responsive onsite continuous professional development. One of the biggest challenges is that teacher education actors do not function in a coordinated manner to meet teacher and principal new needs. In consequence, the Ministry of Education and Training (MOET) has prepared the National Teacher Education Program (NTEP) to enable the teacher education system to adapt more effectively to the changing needs of teachers to meet learning objectives.¹⁸ The NTEP focuses on one of the FCER Programs -- the *Reform of Preservice and Inservice Training* -- to produce a comprehensive strategy for realigning teacher education to the new requirements of general education.¹⁹

26. The NTEP is a comprehensive strategy that aims to realign teacher education to the new requirements of general education. The NTEP proposes several paths of intervention: pre-service training for new teachers, retraining for some teachers to obtain additional qualifications, in-service training programs that bring teachers to training centers for specific objectives and continuous professional development (CPD) that provide support and training to teachers within schools.

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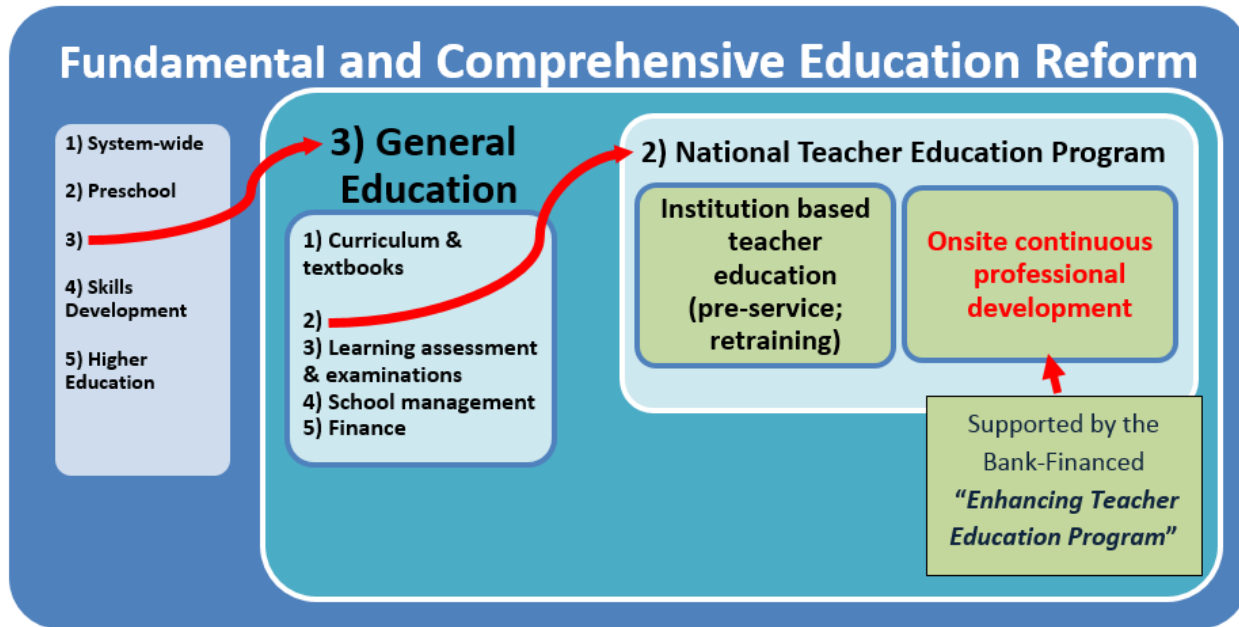
28. Of the different elements of the NTEP, the Government and the World Bank agreed that the Bank financed *Enhancing Teacher Education Program* (ETEP) would focus on school-based continuous professional development. The expected changes to teacher methodology, as well as the findings of much research on teacher professionalism, point to school-based CPD (provided face-to face and online platforms) as having the greatest influence on teacher competencies and behavior. By “bringing training to the teacher”, school-based CPD can help teachers more effectively adopt new methods and master new competencies. Furthermore, since there will be little need to recruit additional teachers because of demographic shifts and a current surplus of teachers, school based interventions constitute the principal lever for successfully achieving the FCER goals for general education.

¹⁷ Francesca Caena, 2011. *Quality in Teachers’ Continuing Professional Development*. Education and Training 2020: Thematic Working Group ‘Professional Development of Teachers’, European Commission, Directorate-General for Education and Culture.

¹⁸ The National Teacher Education Program has been approved by Government on April 29, 2016.

¹⁹ The MOET is currently developing a complementary program to reorganize and rationalize the network of TTIs. Once MOET finalizes and approves this program, it will take the lead in ensuring that it is closely coordinated with ETEP and NTEP. LTTUs can already collaborate with other TTIs and should be encouraged to include such partnerships in their Performance Agreement as appropriate.

Figure 3: National Teacher Education Program in context



29. Vietnam possesses a keen advantage as it enters a new generation of education sector development. It is building from the base of a well-functioning education system that has provided exceptional results. Despite “unfinished business”, the system has produced learned children distributed quite equitably across Vietnam. Many better-endowed countries would be envious of this result. However, the challenges of such an ambitious shift in educational expectations should not be underestimated and the National Teacher Education Program constitutes a promising strategy in that regard.

III. STRATEGIC RELEVANCE

30. Vietnam has impressive teachers and managers. This speaks to the robust and flexible teacher education system it established over the last two decades. To keep up with changing demands and challenges, MOET enacted several reforms over the last fifteen years to improve the effectiveness of general education teachers, such as new professional standards used to both evaluate teachers and determine their professional development needs. To help teacher meet these standards, MOET developed new teacher training approaches, as well as a menu of continuous professional development opportunities. Furthermore, MOET introduced several innovations, such as the collective development of lessons plans at the school level, peer support programs, and use of mentors for new teachers.

31. During the same period, MOET put in place a new regulatory framework for Teacher Training Institutions (TTI) to improve management of teacher education and introduced a new career structure. Consequently, TTI lecturers and managers, as well staff from Departments of

Education and Training (DOET) and Bureaus of Education and Training (BOETs)²⁰ tend to be well qualified reflecting the success of the existing incentive structure. Furthermore, a relatively equitable deployment of teachers speaks to good planning.

32. However, changes in learning objectives necessarily mean changes in what teachers need to know and do. Thus, it is time for the teacher education system to adapt once again to new circumstances, expectations and aspirations.

33. Teachers tend to rely on rote and “chalk and talk” methodologies.²¹ To date, this has apparently served most students well. However, much research and experience indicate that these approaches are often less effective when the objective is to meet complex learning goals. This plus the diverse character of different communities (often changing rapidly because of internal migration) and the range of learning challenges within a single classroom, requires teachers to take on a more sophisticated set of teaching methodologies.

Box 2: Today’s teachers will need to:

- Master new integrated subjects;
- Use facts as a starting point, not an end point for teaching;
- Encourage learning by doing;
- Make changes to lessons, activities or methodology on the spot when needed;
- Have high expectations of all their students;
- Continuously evaluate their own practice;
- Seek new evidence-based international and national knowledge to inform their teaching;
- Work collaboratively with other teachers - sharing knowledge, providing feedback and serving as mentors and coaches; and
- Form strong relationships with students, as well as their families and communities.

34. Essentially, the FCER will require teachers to become increasingly professional, i.e., to adapt methodologies and knowledge to real-time problems as they arise in his or her classroom and school. This is similar to the professional models of medical doctors, researchers, policy analysts and other knowledge-based fields. Training and supporting such teachers requires greater interaction between professionals, reciprocity, hands-on mentorship and coaching and on-time advice to solve identified problems. In sum, a key factor for helping teachers during this new phase is the quality of continuous professional development (CPD).

35. Continuous professional development in the best education systems often has three basic qualities.²²

- Training and support services are provided at the school level, without diluting the quality of that support;

²⁰ DOET are education authorities answerable to provincial governments and BOETs authorities to district governments.

²¹ Such as recitation, lecturing, and seat work, with a considerable focus on discipline.

²² Bill and Melinda Gates Foundation, 2014. *Teachers Know Best: Teachers’ views on professional development*. <http://collegeready.gatesfoundation.org/wp-content/uploads/2015/04/Gates-PDMarketResearch-Dec5.pdf>.

Department of Education and Training, Victoria, Australia, 2005. *Professional Learning in Effective Schools: The seven Principles of Highly Effective Professional Learning*.

<http://www.education.vic.gov.au/Documents/school/teachers/profdev/proflearningeffectivesch.pdf>.

- Knowledge about innovations and best practice needs to be more freely available to all teachers and in forms that can help teachers meet real-time challenges; and
- A more comprehensive assessment and feedback mechanism for training needs should be in place to drive the development of support and training for teacher in the school and classroom.

36. Teacher CPD in Vietnam has elements of the above features, but it is not organized along these lines. CPD is not systematic, although the potential is there. Teacher CPD has been of good quality and value. However, it should now ensure that CPD is evidence-based, demand-driven, and responsive to feedback. Below are some challenges education authorities will need to take into consideration as they develop the kind of CPD that would best respond to the challenges that teachers will face.

37. *Teacher training and support does not focus on the needs of teachers in the classroom, adapting to actual conditions, and providing real time advice and support.* Little teacher training and support in Vietnam is school-based. Rather, pre-service and in-service teacher training is done in lecture halls, classrooms or one-way electronic and paper communications (textbooks, videos).²³ Rather than providing teacher preparation in real classrooms, Vietnamese teacher trainees only spend 15 percent of their time in schools. Effective in situ training for sitting and new teachers requires considerable coordination, management, planning, supervision, and specialized technical support, which TTIs and regional educational authorities are not able to provide.

38. *Teachers do not have access to up to date and relevant knowledge to inform their practice:* The rapidly changing state of education sciences requires teachers and managers to be continuously connected to knowledge resources. This allows teachers to learn new approaches and obtain help on specific issues. Consequently, teachers and managers must have free and readily available access to knowledge provided in a responsive and customized manner. As importantly, teachers and managers should be able to contribute to the knowledge base, so that all teachers can learn from individual and group experiences. Vietnam does not have in place a comprehensive and interactive knowledge information system that can serve teachers and managers on an ongoing and just-in-time basis.

39. *Intermediary level education departments do not have the expertise to provide guidance for school-based training and support:* Intermediary level actors²⁴ are important because they are the nearest “port of call” for teachers, schools and communities. However, they presently serve as links to the education hierarchy (communicating information upward and orders downward), rather than vehicles for providing support to teachers at the classroom and school level. Schools are left to their own devices as to how to conduct peer-to-peer support,

²³ Most Teacher Training Institutions conduct practicums in schools located on or near their premises.

²⁴ The Vietnamese education system has both decentralized and centralized characteristics. The MOET sets norms, pay scales, and targets (in terms of access and quality) at the national level. DOETs control the education budgets and human resource deployment decisions and thus can set priorities and develop specific strategies for meeting targets. BOETs and local political organizations provide support to schools, mobilize community contribution, and monitor school and teacher compliance with policy, regulations and targets.

classroom observation, and collaborative teaching because DOETs and BOETs are ill equipped to provide this type of guidance.

40. *DOETs and BOETs do not have ability to evaluate training and support needs and cannot translate such assessments into appropriate interventions.* Most importantly, however, they do not have the capability or motivation to create and maintain conduits for knowledge transfer either horizontally (between teachers and schools within their catchment area) or vertically (with institutions providing teacher and school manager education).

41. *The teacher and management education system in Vietnam functions in a disjointed manner.* Teacher education institutions tend to work in isolation and have little or no contact with new or currently serving teachers in schools. DOETs and BOETs identify and select professional development programs with little oversight or follow up; and schools receive no external guidance that takes into consideration their specific needs. Furthermore, there is minimal strategic management of teacher education. Quality assurance systems of the content and implementation of training programs are non-existent. Furthermore, even the most prominent TTIs lack the human resources and facilities necessary to meet the new demands of the education system.

42. *Professional standards have ceased to serve as a benchmark for teacher effectiveness or as a vehicle to motivate teachers.* Over 98% of teachers meet all the teacher standards established in the mid-2000s for primary school teachers and in 2010 for secondary school teachers. The MOET intends to modify teacher standards to reflect the pedagogical skills required for competency-based teaching. However, the assessment process may be overly subjective. Teachers conduct a self-assessment that the school principal subsequently reviews and confirms. No external actor is involved in the process and principals receive no special training to conduct assessments.

43. *Systematic evaluation systems are not in place to identify challenges facing teachers.* Existing personnel information systems do not record teacher performance strengths and weaknesses, evaluate the impact of training on practice or ensure the quality and coherence of training programs. Such feedback mechanisms are increasingly important as Vietnam expects more from its teachers, as well as from the institutions that provide training and professional development.

44. *Surplus capacity presents an opportunity for teacher and manager professional development.* Vietnam has experienced a substantial fall in birth rates and now that there is universal basic education and a young teacher corps, the need for new teachers is dwindling. Of course, because of expanding secondary education and growing interest in teaching for specific needs (e.g., special education, foreign languages), there will still be need for additional teachers. However, there is an evident mismatch between the present capacity and future demand, particularly if TTIs remained focused on in house pre-service training. There are presently 132 teacher and educational manager training institutions that can graduate more than 50,000 teachers per year. However, more optimistic projections expect the education system to need no more than another 15,000. However, this surplus capacity constitutes an

opportunity, if these resources can be reoriented towards providing school-based support to new and serving teachers.

45. The network of **Teacher Training Institutions (TTI)** will soon be undergoing a significant reorganization. This because of the dwindling need for new teachers, the transformation of many into multi-disciplinary universities and colleges, and the government's decision to close others. In addition, the FCER has mandated this reorganization. However, this reorganization remains unspecified with no clear objectives or strategies. Any reorganization of the network of TTIs will need to take into consideration future coordination with the DOETs and the MOET.

Putting these elements in place will require fundamental changes in the way teacher education and support system are organized and delivered. This is essentially the objective of the NTEP,

Box 3: School-based teacher education shows results in Palestine:

The Teacher Education Improvement Project

An increasing amount of research shows that teacher quality is one of the most significant determinants of student learning.¹ This has been particularly exemplified by the West Bank and Gaza *Teacher Education Strategy*, which has been supported by the Bank-financed *Teacher Education Improvement Project*. TEIP comprises two components: (i) expanding *Practicums* for preservice teacher trainees; and (ii) providing in-service training to under-qualified teachers to help them transition from 'subject teachers' into 'class teachers'.

The World Bank and others have studied this experience intently, using both qualitative and quantitative approaches. Some of this research focused specifically on the TEIP, whereas other work examined similar initiatives addressing the education needs of Palestinian children. Here are some selected findings:

- Higher performing schools tend to have more teachers who had benefited from more professional development.
- Successful schools tend to have teachers who are confident, have high levels of job satisfaction, and benefit from on-going professional development and training.
- Beneficiaries of the in-service component adopted a more open and searching (i.e., professional) attitude, as evidenced by the establishment of '*communities of practice*' that used ICT chat room facilities to allow for discussions with peers and faculty/trainers.
- Student teachers who benefited from more *Practicums* tended to: (i) maintain a flexible, creative and motivating classroom environment; (ii) use ICT more regularly and (iii) employ different teaching strategies.
- Teachers receiving school-based in-service support tended to encourage students to engage in experimentation and collaborative work projects; and (ii) employed methods that met the needs of different types of students.

The experience of the Kufor Quod Girls' Secondary School is particularly telling. The director employed school-based teacher supervisors who assessed teacher performance and implemented customized training programs. They successfully served to transfer effective, adaptive and innovative teaching approaches.³

As a last point, TIEP supported the development of the *Readiness to Teach Index* (RTTI) comprising 21 competencies based on 21 professional standards. Participating institutions in WBG used the RTTI to evaluate student teachers and as a framework for developing teacher education programs.

The design of ETEP is significantly informed by programs such as TEIP. ETEP emphasizes hands-on school-based training and professional development. It intends to use ICT to connect teachers to each other and to the world of education research and practice. And it adopts rigorous measure of teacher professionalism to guide the development of teacher education that is more adapted and adaptable to the needs of teachers in the classroom. All proven methods to further professionalize teachers and improvement the

with the support of the ETEP, which focuses on CPD.

IV. RELATIONSHIP TO THE CPS AND RATIONALE FOR CHOICE OF INSTRUMENT

A. Relationship to the CPS

46. The World Bank Group Country Partnership Strategy for Vietnam (FY2012-2016) (Report 85986) consists of three pillars: (i) strengthening Vietnam's competitiveness in the regional and global economy; (ii) increasing the sustainability of its development; and (iii) broadening access to economic and social opportunity. Vietnam's Fundamental and Comprehensive Education Reform (FCER) shares the objectives of the first and third pillars of the CPS. The FCER aims to prepare Vietnam for greater integration into the global economy, by providing students with new and necessary skills and competencies that are increasingly driven and required by changes in the global economy. In addition, the FCER emphasizes that the opportunities to attain these higher order skills must be available to all; Government's National Teacher Education Program, which is a key part of the FCER, places the reform of the teacher education system at the heart of its reform strategy. The Bank-Financed ETEP supports a catalytic component of the NTEP – teacher continuous professional development provided onsite.

47. ***In consequence, by supporting a critical aspect of FCER, ETEP contributes to achieving the World Bank Group's Twin Goals to end extreme poverty and promote shared prosperity.*** Improving access to and quality of education has proven to have considerable impact on eliminating extreme poverty. In addition, high quality education that is made available in an equitable manner can increase economic growth and provide every citizen with a pathway to prosperity.²⁵ However, this can only be achieved if the education system functions effectively. Teacher effectiveness is at the heart of that challenge. ETEP helps the Government develop new mechanisms to equip teachers on an ongoing basis with new skills and pedagogical approaches that are tailored to the changing economic and social requirements of Vietnam and the specific learning conditions facing students. In this manner, ETEP directly and sustainably contributes to achieving the Twin Goals.

48. ***Gender equality and access to quality education among ethnic minorities will be mainstreamed in the proposed Program, thus furthering its contributions to the CPS.*** Concrete measures have been identified to ensure that both male and female staff and teachers have equal access to continuous professional development opportunities and that timely and adequate gender-specific support to teachers is provided. Likewise, specific interventions are designed so that continuous professional development is tailored to the needs and culture of ethnic minority teachers. Beyond that, all teachers working with ethnic minority students will be provided with relevant knowledge and skills through the Program.

²⁵ UNICEF, 2013. Sustainable development starts with safe, healthy and well-educated children.

49. ***The Bank's education engagement in Vietnam has increasingly focused on higher order skills and competencies, while privileging the needs of disadvantaged students.*** The current portfolio of K-12 education operations consists of:

- (i) **The School Readiness Promotion Project (SRPP - P117393)** seeks to improve early childhood education by promoting school readiness for disadvantaged children through Vietnam's existing Early Childhood Education (ECE) program. In addition to strengthening the ECE program, the SRPP expands full-day preschool enrollment, improves preschool quality assurance mechanisms, and develops preschool teachers' and education managers' professional expertise.
- (ii) **The Intergenerational Deaf Education Outreach Project (IDEO – P125581)** pilots, on a small scale, three simple innovations that global experience suggests would make deaf preschoolers better prepared for the formal education system: (i) the use of sign language as the primary mode of communication; (ii) the involvement of the whole family in the learning experience of the deaf child; and (iii) "family support teams" that provide the deaf child and his/her family with early and intensive support from a trained young deaf adult and a trained sign-language interpreter.
- (iii) **The School Education Quality Assurance Project (SEQAP - P091747)** supports the Vietnam's full-day schooling reform program by upgrading educational infrastructure and facilities, developing human resources, and reinforcing policy frameworks. It has aimed to improve educational outcomes and completion rates for disadvantaged primary education students.
- (iv) **The Vietnam Global Partnership for Education - Escuela Nueva Project (VNEN - P120867)** introduces new teaching and learning practices that promote active learning and de-emphasize rote memorization. The VNEN is especially notable for inaugurating and advancing this new pedagogical approach and providing high quality and innovative school-based teacher support.
- (v) **The Reform of General Education (RGE – P150058)** will facilitate the curriculum revision and expanded national assessment system to measure results. It is the first project that is designed on the basis of the FCER.

50. All of these projects are designed with teacher training as an integral part and important component to ensure delivery of results, which again emphasizes the importance of the role of teachers in any reforms and/or change efforts. However, teacher training has never been the primary focus of a Bank-financed operation. The fact that teacher training is always embedded in different operations and serves as an ad-hoc solution rather than systemic support for teachers has made it difficult to track results and evaluate impact. A systemic teacher education system to support teachers more effectively is therefore needed--to garner successful lessons, ensure a systemic and comprehensive approach is put in place, and to bring benefits to all teachers (and hence students).

B. Rationale for choice of instrument

51. This ETEP is a PforR that will support NTEP with an International Development Association (IDA) credit in the amount of US\$95 million (equivalent). Specifically, ETEP will support implementation of the government's teacher continuous professional development strategy (one dimension of the NTEP).

52. **Why a PforR?** Vietnam has implemented ten World Bank-funded education operations since the 1990s, most of which have supported government strategies to improve equitable access to and quality of general education. These operations have accompanied the Government's major education reform programs and have made a clear contribution to their achievements. However, as sector objectives have become more complex, reviews have found that individual investment projects focus too narrowly on particular aspects of education systems, without keeping the overall government strategy in view from a sector-wide perspective. This has led to operations implemented in silos and thus with insufficient coordination and synergy.

53. The team considers PforR the most appropriate financial lending instrument for ETEP. First, a PforR focusses on specific results that are catalytic and can leverage an entire reform process, such as the FCER. This encourages government authorities to focus on results rather than inputs.

54. Second, Vietnam's systems of implementing its own programs provide an acceptable level of controls and assurances. The implementation of past education operations has increased the ability of education sector authorities to deliver large programs. The overlay of additional controls to existing country systems has become less necessary over time.

55. Third, in addition to providing strategic financing for key sector results, a PforR instrument will bolster the capacity of MOET to implement and manage the entire education reform through its own systems and procedures. Assessments have concluded that country systems used by the education sector are acceptable for the implementation of ETEP but that Vietnamese authorities can further improve them. The PforR approach can support these improvements to ensure that relevant government offices can internalize and sustain them well beyond the Program.

56. By privileging country systems, a PforR simplifies disbursement, financial management and procurement. Consequently, less energy, resources and time need to be mobilized to ensure proper due diligence. This has the additional advantage of allowing the education sector to benefit more fully from World Bank expertise.

57. Lastly, the Vietnam Office of Government (OOG), Ministry of Planning and Investment (MPI), and the Ministry of Finance (MOF) have indicated that the PforR approach is a preferred financing instrument for Programs supported by the Bank. From the point of view of these agencies, a PforR obliges technical agencies to justify the effectiveness of overseas development assistance based on unified and coherent programmatic frameworks. Furthermore, because PforR Operations use country systems, they tend to have lower transaction costs, more regular and timely disbursements, and fewer implementation issues overall. These characteristics are particularly salient as Vietnam graduates to IBRD. There is also prior and current experience in Vietnam with World Bank-financed PforR operations.

V. PROGRAM DESCRIPTION

A. Program Scope

58. The **National Teacher Education Program** (NTEP) establishes a new framework for the provision of training, retraining and continuous professional development to schoolteachers and principals so that they may build and maintain the professional profile necessary to meet the requirements of the FCER. The Government will implement NTEP from 2016 to 2022. The NTEP aims to achieve the following objectives by that date:

- *For general education and continuing education teachers and management staff:*
 - 100 percent of teachers and principals meet qualification requirements pursuant to Amended Law on Education in 2009 and Higher Education Law 2012,
 - 100 percent of teachers and principals are trained and capable of implementing the new curriculum and using the new textbooks;
 - Over 70 percent of teachers and principals achieve higher levels of the professional standards;
 - Over 80 percent of principals are trained and awarded certificates in education management;
- *For teacher training institutions:*
 - 100 percent of teacher training institutions update their training programs and curricula, build the capacity of their human resources, improve physical conditions, and restructure to provide high quality training and CPD services;
 - 100 percent of teacher training institutions work closely together and with other actors in teacher education, and contribute to shared resources to meet the need for teacher education of all provinces.
- *For education management at all levels:*
 - 100 percent of education management authorities at all levels have enhanced planning and management capacity to implement, monitor and evaluate the implementation of teacher education policies; and
 - 100 percent of policy and legal documents in teacher training are amended and updated to respond to the new context of general education.
- *For schools:*
 - 100 percent of schools have enhanced capacity to effectively implement and manage CPD at the school level.

59. NTEP is structured around six “solutions areas”.²⁶ Each presents a set of strategies grouped either by functional category or by type of teacher education:

²⁶ Some of these actions will follow the finalization and approval of the program to reorganize and rationalize the network of TTIs. However, it is expected that LTTUs will establish relationships with other TTIs as part of their Performance Agreements.

- Strengthen teacher education management and planning by i) updating and further developing the regulatory framework and related policies in support of teacher education; ii) enhancing the capacity of national and local teacher education departments; and iii) establishing a ICT based teacher education information management system;
- Renovate pre-service teacher education by (i) helping teacher training institutions prepare new curricula, training content, delivery mechanisms, support systems for student teachers; (ii) establishing outcome standards for all training programs, (iii) developing assessment tool kits for student-teachers, and (iv) implementing relevant research projects;
- Establish and deliver Continuous Professional Development programs for teachers and school managers by: (i) developing new types of e-learning programs for the delivery of CPD, (ii) training national general education experts who can support efforts to improve CPD, (iii) establishing a cadre of Core Teachers and Principal Advisors at local levels, (iv) providing support programs for Core Teachers and Principal Advisors once deployed to schools; (v) developing materials and support tools for Core Teachers and Principal Advisors to implement CPD at the school level; and (vi) developing more systematic mechanisms to assess the quality and impact of CPD programs;
- Build capacity of key lecturers and managerial staff of teacher training institutions by: (i) providing relevant training programs and courses, (ii) holding national and international conferences and/or workshops; (iii) engaging in scholar and academic exchanges, and (iv) reviewing and renovating regulations on recruitment, work position and other human resource related procedures;
- Enhance physical environment and facilities/equipment of teacher training institutions: (i) upgrading and conducting minor rehabilitation of classrooms, IT centers, teaching practice centers, laboratories, and IT facilities for distance and e-learning at the eight LTTUs, (ii) supporting the development of e-libraries for the eight LTTUs and (ii) enhancing the physical conditions of other teacher training institutions;
- Promote socialization and international cooperation in teacher education by means of workshops, conferences, exchanges and fora.

60. Of the above solution areas, ETEP will focus primarily on efforts to improve continuous professional development (CPD) provided to teachers and principals in schools. In essence, the enhanced CPD system will provide more training and support that is of high quality, relevant, and timely -- directly to teachers and principals at the school level. Internationally, this is considered best practice for teacher training and support.²⁷

61. The National Teacher Education Program aims to reinforce the provision of CPD through two main vehicles: (i) Core Teachers and Principal Advisors, who will be assigned to schools and school clusters to provide face-to-face training and support and (ii) an online platform that can provide needs-based, interactive training and support directly to teachers and principals. A rigorous training and support needs assessment system, based on professional standards and

²⁷ Francesca Caena, 2011. *Quality in Teachers' Continuing Professional Development*. Education and Training 2020: Thematic Working Group 'Professional Development of Teachers', European Commission, Directorate-General for Education and culture.

context-specific needs define by teachers and principals, will inform the development of tailored training programs and applications. To ensure the dynamism and quality of the enhanced CPD system, eight Lead Teacher Training Universities (LTTUs) in respective catchment areas (corresponding approximately to regions) will train and provide support to Core Teachers and Principal Advisors; develop the online services and applications; and help develop the needs assessment systems. These LTTUs will provide technical leadership and guidance for this school-based CPD system.

62. The ETEP emphasizes four key interrelated strategies for the improvement of CPD. First, it introduces a professional cadre of Core Teachers who education authorities deploy in every school to provide school-based training, coaching, mentoring, and just-in-time support to individual teachers and teams of teachers at the school level. It also develops Principal Advisors to support pedagogic managers from a cluster of schools.

63. Second, it establishes a multi-purpose and integrated online platform for CPD that provide access to e-learning, individualized e-support, knowledge, and interactions with peers and experts. Thus, training and support are brought to the teacher through on-site expertise and through expertise provided at a distance, but customized to the needs of the teachers.

64. Third, the program reinforces assessment systems for teacher performance so that training and support can target teacher needs and ensure greater accountability for the quality of training. MOET intends to modify teacher professional standards to align them with the new curriculum and teaching methodology. The standards, feedback from Core Teachers, and self-assessment will be the basis of teacher training plans. A Learning Management System (LMS), which will be located on the online platform, will record these will serve to help teachers and others track the implementation of annual CPD plans, provide training institutions and authorities with a basis for developing training programs, and enable training programs to be assessed.²⁸

65. Finally, the program intends for a select group of teacher training universities to provide the necessary technical support for improved teacher education. They will train the Core Teachers and Principal Advisors and provide them continuous professional support after they return to their schools; provide content, innovative approaches and interactive support to teachers deployed in schools through the online platform. They will also conduct research and evaluations to improve the effectiveness and quality of training. They will be the principal user of the improved assessment systems.

66. These different strategies do not constitute hermetically sealed packages. For example, the training and support provided by Core Teachers and Principal Advisors, as well as through the online platform will to be complementary. Core Teachers will help other staff use the online platform more effectively. They will also use the online platform themselves to access

²⁸The education authorities will not use the online platform to assess teacher performance or training needs directly. Rather, it provides a database for recording training needs and the quality of training. In addition, teachers, trainers, and other key stakeholders will be able to use the database to conduct analyses for the purposes of accountability and to improve the quality of services provided.

knowledge, interact with other Core Teachers and stay linked to LTTUs. In addition, Core Teachers will serve as mentors for teacher interns. Core Teachers will use training needs assessment system to help shape CPD programs. The online platform will serve multiple purposes for all aspects of teacher education.

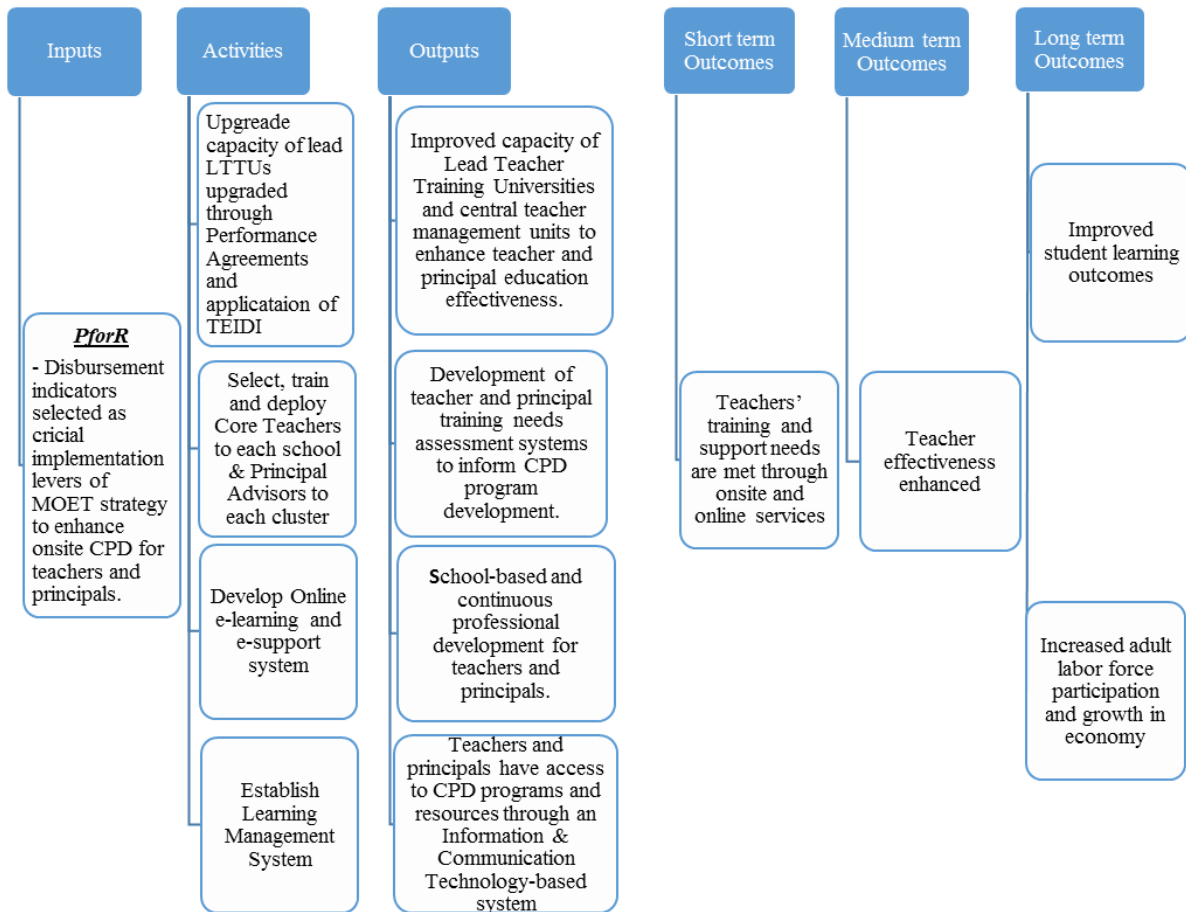
B. Program for Results

67. The ETEP will support the Government's proposed NTEP with an IDA credit in the amount of US\$95 million to support implementation of the Government's teacher continuous professional development strategy (one dimension of the NTEP) The PforR will disburse against results that support the enhancements of teacher continuous professional development.

68. This PforR consists of two parts. The first part is defined by four results areas, which are part of the NTEP, that together contribute to meeting the overall goals of ETEP over the period between 2016-2021. These four results areas constitute the principal strategies for establishing an effective and well-functioning CPD system that can provide school-based support and training to teachers and principals. These strategies or results areas consist of (i) improving capacity of Lead Teacher Training Universities and central teacher management units to enhance teacher and principal education effectiveness; (ii) developing a teacher and principal training needs assessment system to inform CPD program development; (iii) providing school-based and continuous professional development for teachers and principals; and (iv) ensuring that teachers and principals have access to CPD programs and resources through an Information and Communication Technologies-based system.

69. The second part will mobilize world-class expertise to help develop and operationalize the strategies for improving school-based CPD for teachers and principals. This technical assistance (TA) will allow MOET and LTTUs to: (i) elaborate and operationalize policies and directives, (ii) inform and improve the technical quality of the expected results and (iii) reinforce the implementation capacity, including monitoring and evaluation, of the Program. Figure 4 below presents the results chain for the overall PforR.

Figure 4: Results chain for the Enhancing Teacher Education Program



Part I: Results Areas

70. **Result Area 1: Improved capacity of Lead Teacher Training Universities and central teacher management units to enhance teacher education effectiveness.** MOET has selected eight Lead Teacher Training Universities (LTTUs)²⁹ to provide technical guidance for the development and the implementation of the enhanced CPD for teachers and principals. The LTTUs will train and support Core Teachers, (one selected from each of 28,000 schools countrywide), and Principal Advisors (one selected per seven school principals) who will subsequently return to their respective schools and school clusters to provide CPD to fellow teachers and principals. Second, the LTTUs will help develop instruments that measure the CPD needs of teacher and principals. Third, the LTTUs will develop content for CPD programs that address global teacher and principal needs (e.g., preparing for the rollout of the new curriculum), teacher and principal professional needs (e.g., programs to help meet new professional standards); and programs that address specific issues or needs identified by teachers and principals. For example, for regions where there is a significant population of

²⁹ Hanoi National University of Education, Hanoi Pedagogical University 2, Thai Nguyen University of Education, Department of Teacher Education – Vinh University, Hue University of Education, University of Education – Da Nang University, Ho Chi Minh Pedagogical University, and the National Institute of Education Management

ethnic minorities, a LTTU could design programs and delivery methods that target the specific needs of Ethnic Minority teachers who may have less access to the internet or who may be less receptive to peer support.

71. The LTTUs do not currently have the qualities necessary to play their role as technical leaders of the school-based CPD system. Consequently, each will prepare a Performance Agreement (PA) to develop their institutional capacity and take on actions that will contribute to meeting DLIs. Each LTTU will conduct a survey to determine Teacher Education Institutional Development Index (TEIDI) scores, which essentially measures the institutional capacity of such establishments (see Box 1). The performance agreement (PA) is a contract signed between the LTTUs, MOET and the Ministry of Finance (MOF) where the universities commit to particular results in order to receive the resources necessary to implement the PAs. Signing and implementing the PA and reporting progress on the TEIDI scores of individual LTTUs are DLIs for the PforR.

72. The Bank-financed Bihar Enhancing Teacher Effectiveness Operation³⁰ in India currently uses the TEIDI. TEIDI is a tool to assess the readiness of teacher education institutions to deliver quality teacher education programs and monitor their accountability. The TEIDI will have a quantified and weighted checklist of indicators to measure institutional performance. The TEIDI aims to inform planning for effective decision-making at the national and provincial institutional levels. MOET will adapt the TEIDI to the Vietnam context.

³⁰ The Bihar project was approved in May 2015 and is the first PforR in the education sector. It aims to improve the effectiveness of primary school teachers. Teacher training colleges will play a central role in providing support to teachers and thus their capacity is critical. So far, TEIDI has proven to be easy to use and baseline scores were easily established during the first year of the project. The straightforward and relatively “low tech” data collection and analysis systems have contributed to its relatively easy implementation.

Box 4: Framework for Teacher Education Institution Development Index (TEIDI)

TEIDI is a tool to measure TTU's efficiency and effectiveness in providing high quality teacher training and professional development.

The tool includes indexes used to assess the quality and institutional effectiveness teacher training institutions comprehensively. Each index comprises of relevant indicators and once the data is collected, the TEIDI can be calculated on their basis.

- **Pedagogy in preservice training programs:** Ensure teachers be trained in organizing learner-centered, activity based and participatory learning experiences;
- **Professional development programs:** Ensure teachers be trained in organizing learner-centered, activity based and participatory learning experiences;
- **Academic staff:** Ensure profile of TTU faculty developed;
- **Activities and direct support with schools:** Ensure TTU practices are not isolated from the classroom practice;
- **ICT preparedness:** Ensure TTUs maximize the use of ICT in providing regular school-based training and support for teachers;
- **Governance, Partnership and Performance:** Ensure institutional organization and governance strengthened.

ETEP will adapt the Teacher Education Institutional Development Index (TEIDI), used in the Bihar project to assess the efficiency and effectiveness of teacher education institutions, for the LTTUs. TEIDI uses a comprehensive approach for the planning, management and governance of teacher education institutions and diagnosing institutional strengths and weaknesses. The index (derived from an aggregation of institutional functioning scores based on some key pre-identified parameters) would help in mapping the progress of each institution through regular flow of information. It will help identify the needs for teacher education provisioning, institutional requirements, pedagogical readiness levels, efficient service delivery mechanism, including sensitivity to the needs of the disadvantaged and minority groups so as to provide CPD and improve teacher performance.

73. **Results Area 2: Development of teachers' training needs assessment systems to inform CPD program development.** Teacher Education Management Information System (TEMIS) is part of the online platform dedicated to teacher education. Teachers and principals will record their learning and support needs and their evaluations of online CPD interventions into the TEMIS. It will also house data on the new Teacher Professional Standards that MOET is developing to be better align with the requirements of the FCER.³¹ Teachers and other teacher education actors can use the professional standards and their own self-assessments (and those of other actors, such as the Core Teachers) to identify and prioritize teacher CPD needs. In consequence, the TEMIS would provide an important input for teachers to develop training plans to meet the new professional standards. Furthermore, the TEMIS can easily compile results in different ways to help LTTUs and others prepare specific interventions. The TEMIS will constitute a key resource for CPD decision-making, program development, and determining the responsiveness and impact of programs. The PforR tracks the development and deployment of the TEMIS to monitor and meet teacher and principal CPD needs as DLIs. The PforR also rewards the practice of sharing data generated from the TEMIS to different stakeholders through annual DLIs.

³¹ MOET established teacher professional standards in the 2000s, corresponding to the reform program introduced at that time.

74. **Result Areas 3: School-based and continuous professional development for teachers and principals.** Core Teachers are senior or well-regarded teachers who will provide face-to-face CPD in the schools where they are deployed (e.g., classroom observation, organization of peer-to-peer training; and individual coaching and mentoring). They will receive special training from the LTTUs and then return to their schools of origin to implement an annual work plan of support and training for other teachers. Similarly, Principal Advisors support principals of a cluster of six or seven schools. The Core Teachers and Principal Advisors will receive support from LTTUs throughout the year. The Core Teachers and Principal Advisors will develop annual plans detailing the training and support services they will carry out over the school year. The training and support provided to the Core Teachers and Principal Advisors by the LTTUs and the implementation of the Core Teachers and Principal Advisors annual plans constitute DLIs.

75. Core Teachers and Principal Advisors will not be new categories of civil servants. They retain their status as regular teachers and principals who are given modified work program with the same compensation, benefits, work conditions and responsibilities as before. Cascade trainers have played similar roles (teachers selected to be trainers for a limited period), but in an *ad hoc* manner.

76. Teachers often see their assignment as cascade trainers to be a sign of status. Becoming a Core Teacher and Principal Advisor should also be considered as an appealing opportunity. In addition, Core Teachers and Principal Advisors should have few teaching hours, receive specialized training and CPD programs. It will be nevertheless be necessary to establish a set of regulations for selection, deployment, training requirements, etc. DLI 1 for the first period will be met when MOET puts in place the regulatory framework for Core Teachers and Principal Advisors.

77. **Results Areas 4: Teachers and principals have access to CPD programs and resources through an Information & Communication Technology-based system.** The MOET aims to put in place a comprehensive Learning Management System that can make available four basic CPD services to teachers and principals: (i) on-demand, interactive e-learning courses for an assortment of continuous professional development needs; (ii) tailored knowledge (e.g., digitized and customizable lesson plans, videos of best practice) personalized support (e.g., help desks); and (iii) opportunities to collaborate with peers and experts online (e.g., A social media platform with mobile interface uniquely designed for teachers) and (iv) mechanisms to allow beneficiaries to evaluate CPD services received.

78. Teachers and principals are familiar with using ICT for training and other purposes. The MOET has an incipient Learning Management System that will provide the basis for further development. Teachers already have access to e-learning courses through the LMS. In addition, the MOET's Connecting Schools Initiative has been in place for two years and provides e-learning to secondary schools. Both the VNEN and SEQAP projects are planning to use this as a platform for the transfer of their training programs. VNEN has recently launched a video competition that produced several thousand videos made by teachers on their teaching

practice. Once curated, these can eventually be made available to a wider audience through the LMS.

79. Measures are included throughout the Results Areas to encourage the teacher education system to equip teachers and principals, particularly those who are ethnic minority and female, with the skills, competencies and support necessary to ensure the academic success of ethnic minority children. Some examples of possible initiatives are as follows:

- **Results Area 1:** As part of their institutional capacity building initiatives, LTTUs will acquire the expertise to develop CPD programs, content, delivery methods and assessment systems that help all teachers and principals teach ethnic minority children more effectively. In addition, the LTTUs will conduct research projects, invest in capacity building for educational specialists in ethnic minority issues and prioritize ethnic minority and woman lecturers in their human resource development plans.
- **Results Area 2:** New teacher and principal professional standards will include the mastery of methods and approaches to address culturally sensitive issues, especially those related to teaching ethnic minority children and girls. CPD needs assessment tools and systems will take into consideration the capacity of teachers and principals to work with ethnic minority students and girls. Special care will be taken to evaluate the CPD needs of ethnic minority teachers and principals to inform the development of programs that effectively respond to their professional needs.
- **Results Area 3:** The training and support programs for Core Teachers and Principal Advisors will bolster their capacity to provide CPD to teachers and principals (particularly those who are ethnic minority) that specifically responds to the needs of ethnic minority and female students. The DOETs will be strongly encouraged to select ethnic minority and female teachers and principals to become Core Teachers and Principal Advisors.
- **Results Area 4:** A specific support mechanism will be designed throughout program implementation to ensure that ethnic minority teachers are equipped with adequate computer skills before the commencement of e-learning courses and that they will continued to receive IT supports in not only access to devices but also technical problems during and after e-learning courses.

Part II: Technical Assistance

80. ETEP includes technical assistance in the following areas:

- **Program management capacity and relevant country systems.** These include financial management and environmental management.
- **Expertise in specific technical areas to ensure satisfactory achievement of expected results.** These will include, *inter alia*, developing and implementing effective school-based CPD; IT infrastructure and architecture for the online platform that will host the LMS (Learning and Management System) and TEMIS (Teacher Education Management Information System); professional profile of Core Teachers and Principal Advisors and relevant regulations and selection and appointment procedures, teacher professional

standards, training needs assessment methods, and training programs in selected subject areas.

- **Institutional reinforcement of training institutions.** TEIDI will measure the effectiveness of LTTUs to provide quality and relevant services in a timely manner. Similar measures exist in certain OECD countries, but few developing countries. Consequently, the MOET will need to mobilize expertise in this area as well.
- **Third party validation.** The MOET will need to identify an independent entity to undertake performance audits and confirm DLI achievement. Third party studies will provide external validation for key performance data and implementation activities. The MOET may wish to hire a firm or institution with strong educational expertise and country system understanding to provide this service.

C. Program Financing

81. The estimated funding envelop for the NTEP is US\$255 million over a period of five years (2017 – 2022). **Table 2** shows that this includes a commitment from the Government of Vietnam of US\$160 million (63 percent of the total cost) and the ODA source of US\$95 million (or 37 percent of the total cost). The ETEP contributes US\$95 million.

82. There will be a separate account for ETEP funding to monitor the implementation of ETEP – funded activities. Government recurrent and capital expenditures to implement the NTEP will be within the corresponding recurrent and capital envelopes that are approved by the government and allocated by MOF.

Table 2: Program Costs and Financing

Source	Amount (US\$ m)	% of Total
GOV	160	63
Enhancing Teacher Education Program	95	37
Total Program Financing	255	100.0

D. Program Development Objective

83. The Program Development Objective of ETEP is: to strengthen teacher education institutions to enhance teacher effectiveness through improved continuous professional development.

E. Program Beneficiaries

84. The direct beneficiaries of ETEP will include: (i) more than 600,000 teachers and principals, which account for nearly 80 percent of the total number of general education teachers and principals; (ii) 28,000 core teachers and 4,000 principal advisors; (iii) 3,200

lecturers, researchers and staff from the LTTUs; and (iv) MOET staff. Indirect beneficiaries of ETEP will be general education students; pre-service teachers; and Departments of Education and Training (DOETs) and Bureaus of Education and Training (BOETs) staff.

F. Program Key Results and Disbursement Linked Indicators

Program Developments Indicators are:

- **PDO Indicator 1:** Improved performance of the eight Lead Teacher Training Universities to provide CPD, as measured by the Teacher Education Institutional Development Index.
- **PDO Indicator 2:** Number of teachers and principals satisfied with school-based continuous professional development.

Intermediate Level Indicators are:

- **Intermediate Indicator 1:** Number of LTTUs that sign Performance Agreements with MOET and MOF (cumulative).
- **Intermediate Indicator 2:** Number of TEMIS-generated annual reports on CPD needs by DOET
- **Intermediate Indicator 3:** Number of deployed Core Teachers and/or Principal Advisors having completed six or more priority training modules.
- **Intermediate Indicator 4:** Number of teachers completing all mandatory modules of the CPD program through the Learning Management System.

Disbursement Linked Indicators

85. The ETEP DLIs will disburse against achievement of outputs and outcomes derived from the results chain (see above) and Results Framework. The disbursement model proposes five DLIs, linked to the four results areas. There will be five annual disbursement periods. The DLIs are outlined in **Table 3**, with details presented in Annex 3. DLIs have been prioritized from the indicators described above, based upon their importance for successful implementation and the need to incentivize outputs necessary for the program's success.

Table 3: Results, Disbursement-Linked Indicators and PDO Indicators

Results Area	Disbursement-Linked Indicators	PDO indicators
Results Area 1: Improved capacity of Lead Teacher Training Universities and central teacher management units to enhance teacher education effectiveness.	DLI 1: Institutional capacity of LTTUs to support the new Continuous Professional Development system for teachers and principals enhanced	PDO 1: Improved performance of the eight Lead Teacher Training Universities (LTTUs) to provide CPD as measured by the Teacher Education Institutional Development Index (TEIDI)
Results Area 2: Development of teachers' training needs assessment systems to inform CPD program development.	DLI 2: Systems are in place to: (i) measure whether teachers and principals meet new professional standards; (ii) track and record evaluations of CPD programs; and (iii) record assessments CPD needs of teachers and principals.	
Results Area 3: School-based and continuous professional development for teachers and principals.	DLI 3: Number of Core Teachers and Principals Advisors selected and trained to provide face-to-face school-based continuous professional development to teachers and principals.	
	DLI 4: Core Teachers and Principal Advisors provide school-based continuous professional development to teachers and principals.	
Results Area 4: Teachers and principals have access to CPD programs and resources through an Information & Communication Technology-based system.	DLI 5: Up to 480,000 teachers and principals are satisfied with ICT-based interactive CPD services.	PDO 2: Number of teachers and principals satisfied with the new school-based continuous professional development.

86. **Verification Protocols:** Achievement of these DLIs will be verified annually and verification results will be used as basis for disbursement. For scalable DLIs, payment will be made in proportion to the achieved results for each period after they have been verified. For non-scalable DLIs, the whole target must be achieved for each period to trigger the corresponding payment. Verification protocols are briefly described below:

- **Data source/agency:** The Program Management Unit (PMU) will be the main data provider. All data about achievement of results for each DLI in each period should be collected by MOET before verification of results. Implementing agencies (LTTUs and MOET departments) are responsible for submitting reports to MOET regarding their implementation results against DLIs. MOET will then aggregate information for results verification.

- **Capacity building for LTTUs** in the areas of CPD program development and pedagogy including ICT preparedness and institutional governance in order to ensure high quality and relevant school-based CPD for teachers. A related action is included in the Program Action Plan and its results will be measured by TEIDI.
- **Verification Entity:** An Independent Verification Agency (IVA) will be selected to verify certain results, for example, the number of core teachers and principal advisors receiving face-to-face training from Lead TTUs.
- **Verification Procedures:** In order to validate disbursement requests submitted by MOET, the IVA will verify all DLIs. The results reported by MOET as achieved under the Operation will be verified through a paper audit and physical inspection that tests the accuracy and quality of results claimed. In accordance with good audit practice, physical verification will take place against a sampling framework and frequency. On the basis of this, the IVA will prepare a results verification report which will be shared with MOET and the World Bank. A key use of the Results Verification Report will be to determine the amount of the eligible disbursement to be made on the results achieved. If the Bank finds that the disbursement request meets the terms of the credit, the Bank will disburse the corresponding funds to the MOF. Further details on the verification process for each DLI are included in Annex 3.
- **Scalable vs. Non-scalable DLIs:** In the first year/period of ETEP, most DLIs will be non-scalable because preparation steps must be taken before further results can be achieved for the following periods. For example, rules regarding the selection and deployment of Core Teachers and Principal Advisors need to be developed before they are trained; or an ICT-based system needs to be built before e-courses can be delivered to teachers and principals. From the second year onward, most DLIs will become scalable, i.e. payments will be made in proportion to achievement of DLIs. This will allow implementing agencies to have both incentives and flexibility in planning for and achieving results. Definitions and description of DLI achievement are specified in Annex 3 of the Program Appraisal Document.

G. Institutional and Implementation Arrangement

87. The **MOET** is responsible for the strategic management of the ETEP and, by extension, the improvement school-based teacher continuous professional development. This includes: (i) issuing and enforcing relevant teacher professional development policies and regulations; (ii) establishing and monitoring new teacher professional standards; (iii) identifying teacher- and school-level demand for school-based CPD; (iv) assessing the effectiveness of CPD interventions; and (v) using assessments and evaluations to shape CPD programs and initiatives. Through its Program Management Unit, MOET will also track and report on ETEP DLIs and transmit requests for disbursements to the World Bank. In addition, the MOET will operate the monitoring and evaluation (M&E) system that will enable the government to report on progress toward achieving the development objective indicators and intermediate indicators of the results framework. MOET will also manage the implementation of the LTTU Performance Agreements.

88. The **DOETs** are the provincial authorities for general education. They are responsible for managing teacher deployment and service within their respective catchment areas, including in-service teacher training and CPD. DOET will coordinate efforts to improve CPD. This will include administrative oversight of Core Teacher and Principal Advisors and ensuring all CPD stakeholders at local level implement the CPD policies. The DOET will also track training needs assessments through the TEMIS, as well as training programs taken by teachers and principals, oversee evaluations of teacher standards, and undertake quality control of the CPD apparatus and process taking a province-wide perspective.

89. The **LTTUs** are responsible for facilitating the improvements to CPD envisaged by the NTEP through training, research, online services, and support to Core Teachers and Principal Advisors, as well other interventions. Successfully accomplishing this mandate will help the MOET meet DLIs. However, the ETEP technical assessment concluded that the LTTUs will need to build their capacity to undertake many of these new responsibilities. Each LTTU will prepare a Performance Agreement to be sign with MOET and MOF. The Performance Agreements will specify the needed institutional, human and technical resources to improve their capacity. The performance agreements will indicate how any given input will help the LTTU meet its new mandate. LTTU-specific TEIDI targets will inform the development of the performance agreement.

90. The LTTUs will: (i) create innovative training content and delivery mechanisms, maximizing the use of ICT solutions; (ii) provide training and support for Core Teachers and Principal Advisors; (iii) coordinate with DOETs in the in assessing teacher training and support needs; and (iv) develop and manage demand-driven knowledge management tools.

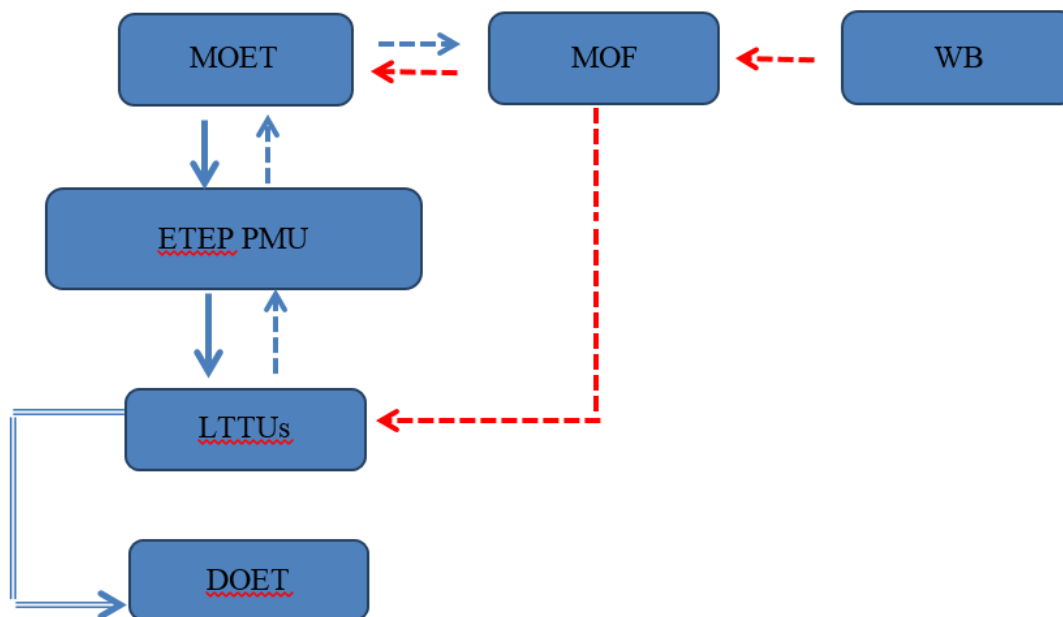
91. The network of **Teacher Training Institutions (TTI)** will soon undergo a major reorganization and rationalization. This Program constitutes a response to the dwindling need for new teachers, the transformation of many into multi-disciplinary universities and colleges, and the government's decision to close others. The reorganization is also mandated by the FCER and is currently under development. It will take the ETEP and the NTEP as points of departure. Until its finalization and approval, the MOET prefers not to consider them as key actors in the ETEP, although individual LTTUs may decide to collaborate with other TTIs and include relevant actions in their Performance Agreements. The government may use some of the Technical Assistance to support analytical work (policy analysis, strategy development), technical support (planning, feasibility studies) and other technical inputs necessary for developing or implementing a TTI reorganization plan. However, LTTUs should already partner with other TTIs either through the Program Agreements or other mechanisms. Any reorganization of the network of TTIs would need to be closely coordination with the DOETs and the MOET.

92. The **MOF**, through the **State Bank of Vietnam (SBV)**, will receive the funds disbursed by the World Bank as per the terms of the IDA credit financing agreement. It will be responsible for making the appropriate resources available to the relevant institutions (e.g., the MOET and the

LTTUs through their Performance Agreements) so that LTTUs can undertake key interventions necessary for meeting the DLIs in a timely, efficient and effective manner.

93. **Independent Verification Agency**³² will provide independent confirmations of the results reported by LTTUs and the MOET. The MOET will select an IVA within six months of Program effectiveness as indicated in the Program Action Plan.

Figure 5: ETEP Institutional Implementation Arrangement³³



LTTU	Lead Teacher Training Universities
	Fund flows
	Budget estimates
	State management
	Coordination relationship

³² The government has not yet selected an agency to verify ETEP results.

³³ The network of Teacher Training Colleges have not been included in the ETEP implementation arrangements because of the government’s choice to conduct a reorganization of the network beforehand. However, it is expected that the LTTUs will involve other TTIs in actions listed in their Program Agreements.

H. Results Monitoring and Evaluation

94. ETEP will use government's own systems to do monitoring and evaluation of indicators. The TEMIS will generate reports regarding teacher management and performance standards. Evaluation of LTTUs will be undertaken using the TEIDI system.

95. **Implementation Support Missions (ISMs):** Two joint support missions will be carried out each year consisting of representatives of the Bank and the government. The joint ISMs will assess ETEP implementation, the achievement of key performance indicators and progress on DLIs. These reviews will aim to provide early identification of potential problems in the achievement of DLIs and propose solutions. There will also be a midterm review of the Program. Progress reviews of the Program are expected to be produced every calendar year.

96. Because of the potential risks associated with using country systems for technical assistance, it was agreed with the Recipient that the Operations Manual would include instructions for IDA to provide systematic guidance for the execution of technical assistance. This would consist of prior agreements with IDA on key milestones in the execution of Technical Assistance such as terms of reference, selection of experts, and reception of interim and final outputs. Such measures would ensure that TA can be mobilized in a timely and effective manner with minor disruptions to the implementation of the proposed Program. The ISM is expected to monitor the implementation of these arrangements.

97. A Program Action Plan (PAP) will cover key actions Government will undertake to ensure due diligence (e.g., fiduciary and social and environmental safeguards).

VI. PROGRAM TECHNICAL SOUNDNESS

98. The technical assessment finds that the NTEP in general, and the CPD program supported by ETEP in particular, to be well-designed and technically sound with a high probability of delivering quality and sustained training and support to general education teachers. Technical experts and key Vietnam stakeholders consulted during the assessment agreed that achieving the objectives of the FCER would require modifications to the existing teacher education system. The technical assessment also concludes that the NTEP's strategies for improving CPD for general education teachers and principals are appropriate for achieving this objective.

99. However, the assessment team warns that the proposed changes to teacher education might represent too radical modification. Implementing teacher education reform is rarely an easy exercise because it can challenge well-ingrained cultures of teacher practice. However, ETEP builds on existing characteristics of the teacher education system that have proven to be successful and will introduce changes in an incremental manner. For example, schools and education authorities regularly assign mentoring, training and oversight roles to seasoned teachers recognized for their expertise. The development of a cadre of Core Teachers and Principal Advisors builds on this experience. Vietnam already provides e-learning to teachers. MOET has used standards (which they have regularly updated) for several decades to measure teacher performance and to design training programs. Finally, teacher-training institutions

already develop materials for teacher self-study, in-service teacher training programs and e-learning programs.

100. Furthermore, several programs exist throughout Vietnam that provide similar types of teacher support. For example, the Vietnam *Escuela Nueva* Project, with financial support from the Global Partnership of Education (GPE), includes teacher networks in local clusters that are supported by trainers from teacher training institutes. The program also introduced innovations such as prior delivery of training materials so that teachers arrive at training events ready to discuss material they have already read. Several programs have piloted interactive online teacher training. The School Education Quality Assurance Program (SEQAP) has conducted systematic evaluations of training and training needs. SEQAP has benefited from financial support from the World Bank, Belgium and the United Kingdom.

101. However, the teacher education system conducts most of these initiatives in an ad hoc manner, without a strategic and integrated vision to ensure long-term effectiveness or sustainability. With the efforts support by ETEP, the teacher education system will be able to delivers continuous professional development in a systematic and sustainable fashion and tailored to the specific needs of teachers.

102. Finally, the evident quality of Vietnam general education and the existing levels of teacher professionalism should facilitate the implementation of FCER overall and the NTEP more specifically. Building on a successful education system has some advantages.

A. Evaluation of Technical Risks

103. Each result area supported by ETEP constitutes one facet of the overall strategy to enhance teacher continuous professional development. CTs and PAs, with online interactive training are complementary; a rigorous assessment system allows training providers to take into account local context and priorities; and using LTTUs as the leaders of continuous professional development can link teachers in classrooms to the world of education innovation.

LTTUs as drivers for change

104. The MOET has selected eight national Teacher Training Universities³⁴ to facilitate an enhanced teacher continuous professional development provided face-to-face and online. As such, these LTTUs will provide the necessary technical and institutional guidance to ensure that teachers receive continuous professional development aligned with both their specific needs and FCER requirements. They will train Core Teachers and Principal Advisors to ensure that “cascade training” does not dilute once it arrives at the school level. Supporting Core Teachers will allow for greater interaction between teachers within the same school; the teacher education online platform will promote interaction nationwide. The online platform should also facilitate knowledge transfer, access to innovative training programs, and evidence-based

³⁴Approximately 110 institutions nation-wide provide pre-service and in-service teacher training: National Teacher Training Universities, education departments within other universities, regional teacher training colleges, education departments within colleges and specialized training institutes for education managers.

program development. The LTTUs will be the primary clients of the improved assessment systems.

105. The government has chosen these eight institutions for three reasons. First, the MOET only choose amongst National Teacher Training Universities (of which there are fourteen) because these have considerably more technical, logistical, academic and institutional capacity than the other 110 teacher training institutions in Vietnam.³⁵ Furthermore, MOET decided that working with all fourteen National LTTUs from the start of the Program would be unwieldy. Finally, MOET selected these TTUs because of their geographic location. These eight institutions are located such as to serve the seven regions of Vietnam in an equitable manner.³⁶

106. One concern raised by the technical assessment team was that the Teacher Training Universities might be reluctant to change their mandate. Most have focused on pre-service training of secondary school teachers and teacher retraining. MOET and several DOETs have contracted individual faculty members to design or provide training, but rarely at an institutional level. The MOET responds to this concern in two ways. First, the Performance Agreements signed with the LTTUs will leverage these institutions to focus on the meeting the results defined by ETEP. The Performance Agreements stipulate that the institutional improvement plans prepared and implemented by the LTTUs must meet certain criteria if the institutions are to receive funding.

107. Second, the MOET intends to establish a TEIDI that measures the capacity of these institutions to perform certain key functions. Progress along this index will represent one of the Disbursement-linked Indicators of ETEP, and a determining aspect of the Performance Agreement. These elements constitute satisfactory responses to this risk.

Core Teachers as change agents at school level³⁷

108. The notion of Core Teachers is not new to Vietnam. Typically, DOETs identify senior teachers with proven records of accomplishment to receive training that MOET or they organize. These teachers then become trainers in their own right. The selection tends to be *ad hoc* (although projects financed by development partners may require them to meet particularly standards) and there is no guarantee that they would be chosen to perform the function again. Under the model that will be supported by ETEP, the CTs will take on a more formal and permanent role and will be responsible for coordinating, organizing and delivering school-based professional development activities at schools. They will also help teachers do their training needs assessments. Being a Core Teachers will be a long-term assignment.

³⁵ These aspects of the NTEP are addressing the future role and development of other teacher training institutions.

³⁶ The eighth institution, the National Institute of Education Managers trains, supports and undertakes research on school principals and other education system administrators. It will be responsible for training and supporting Principal Advisors.

³⁷ Principal Advisors do not work at the school level but rather support principals from six or seven schools (usually a school cluster). They play a slightly different role, as they are not part of a school team. However, they are available to assigned principals as a coach, trainer and conduit to services and knowledge.

109. Essentially, the Core Teachers and Principal Advisors will constitute the “glue” of the enhanced CPD system, providing a bridge between teacher training universities, regional authorities, and teachers and principals. The LTTUs will provide them with training and – more importantly - ongoing support after they return to their schools. School and DOET authorities will be responsible for selecting and managing the Core Teachers (DOETs more generally and school authorities on a daily basis). In addition, Core Teachers can help innovations, training, and support services developed by LTTUs, other TTIs, the MOET/DTEM, DOETs, and other partners to have the greatest impact.³⁸

110. The technical assessment team expressed concern as to whether the selection and management of the CTs and PAs would be transparent and merit based. During discussions, most stakeholders indicated that teachers selected to be trainers or specialists were usually respected, apt and accountable. Education authorities will select CTs and PAs on a set of criteria developed by MOET in coordination with provincial DOETs and LTTUs. Education authorities will carry out the selection process in such a manner to ensure that EM teachers will not face any discrimination concerning their nomination as CTs and PAs.

111. The technical assessment team questioned with whether there were sufficient incentives for a teacher or principal to want to become a Core Teacher or Principal Advisor. CTs and PAs will not constitute new categories of civil servants. Considering they retain their status as regular teachers and principals with the same compensation, benefits, work conditions and responsibilities as before, why would they want to become Core Teachers or Principal Advisors? Cascade trainers, however, have provided these services on top of their other teaching responsibilities. Teachers and principals tended to consider this role as a sign of status. Similarly, teachers and principals should also consider the role of Core Teachers or Principal Advisors as appealing opportunities. They will likely have few teaching hours, have access to specialized training and CPD programs, and benefit from priority access to online services. It will be nevertheless be necessary to put in place a special set of regulations for selection, deployment, training requirements, etc. Putting in place the regulatory framework for Core Teachers and Principal Advisors constitutes a DLI for the first year.

ICT-based support for teaching and learning

112. For MOET, the development of an online platform to support teacher education is a high priority. Authorities point to other countries that leverage technology to address teachers’ need for more collaborative and customized learning opportunities. In Vietnam, there have also been efforts to apply ICT solutions to improve professional development at scale. Some LTTUs have started to provide e-learning training programs. However, design and quality of e-learning programs/modules need substantial improvements.

113. ETEP will support the development of an online platform dedicated to teacher education that can provide the basis for several tools and applications to the benefit of teachers and principals. A TEMIS will track teachers’ profiles as defined by new teacher performance. The

³⁸ With the reorganization of all TTIs, it will be important for the MOET to consider how the Core Teachers and the Principal Advisors can also constitute a bridge with these teacher education actors as well.

online platform will house just-in-time help desks; applications that help prepare lesson plans, innovative and easily accessible classroom materials, data analysis tools and other resources. A LMS will enable teachers to develop training plans and provide access to self-paced and guided e-learning courses. Video capabilities will allow for interactive learning and classroom observation. Social Network applications will facilitate teacher exchange, sharing, and peer networking.³⁹

114. The technical assessment team warned that ICT is not a panacea. MOET recognizes this, which is why education authorities conceptualize the online platform to enhance the teacher education system, not replace any particular component. The Core Teachers and Principal Advisors, the LTTUs, and school management will be able to augment their capabilities by harnessing ICT applications. However, more importantly, local CPD actors can help teachers get the most out of online applications. Providing two complementary types of school-based support can be attractive: teachers and principals will be get help through the online platform and through Core Teachers and Principal Advisors (both supported by the LTTUs). Furthermore, the online system will also serve as a resource for Core Teachers and Principal Advisors who will have a challenging job to do.

115. Teachers and principals are familiar with using ICT for training and other purposes. The MOET has an incipient Learning Management System that will provide the basis for further development. Teachers already have access to e-learning courses through the LMS. In addition, the MOET's Connecting Schools Initiative has been in place for two years and provides e-learning to secondary schools. Both the VNEN and SEQAP projects are planning to use this as a platform for the transfer of their training programs

Assessment of teachers' professional development needs

116. MOET hopes to improve considerably the training needs assessment system for CPD. The strategy is to develop a system that both helps teachers mobilize the support necessary to meet new professional standards, as well as to respond to more individual needs, priorities and the specific school context.

117. The assessment team expressed concerns that the government's program will rely too much on the online platform to conduct teacher needs assessment. However, the purpose of the online platform is not to determine training needs, but is rather an instrument to help track training needs and provide access to information that could help teachers better articulate their training needs. Teachers will develop their annual CPD plans with the help and support of the Core Teachers, the school principals and their peers (those in the school and those they "meet" online). Subsequently, the school principal will approve the plans and record them in the LMS.

118. The team was impressed by the quality of the initial set of new professional standards that have developed by the MOET (see **Box 4: New Teacher Professional Standards to enhance**

³⁹ One barrier to effective professional learning is teachers' lack of time to participate in and/or finish a course because they are already too busy with teaching. Summer vacation is the only time when they can put teaching aside and spend time on professional learning. A mobile application that allows teachers to follow a course at anytime and anywhere would significantly address this barrier.

professional effectiveness of Vietnamese School Teachers and improve learning outcomesBox 4), but they remarked that their application could pose three challenges. First, the MOET will need to develop objective criteria for measuring whether (and to what degree) a teacher meets any particular standard. Second, the use of teacher professional standards should not be the only tool used to capture teachers' CPD needs – the use of the TEMIS should allow for multiple sources of information to establish training and support needs (including, self-assessment). Finally, previous performance evaluations based on standards have proven to be of limited use because assessment processes were not rigorous. The technical assessment team advised that the most important factor will be the means by which standards are measured – and how this information will be used -- not the standards *per se*.

Box 5: New Teacher Professional Standards to enhance professional effectiveness of Vietnamese School Teachers and improve learning outcomes

- **Personal Value Development Competencies**
 1. Develop qualities and ethics of a teacher by complying with teachers' regulations
 2. Develop and implement self-learning and professional development plan, share knowledge and inspire life-long learning
 3. Use language and other media for effective communication in teaching and social relations with students, parents, colleagues and communities
 4. Identify problems and actively find solutions in teaching and in schools
- **Teaching and Educational Competencies**
 5. Collect and analyze information to develop student profiles for improvement of learning environment
 6. Collect and analyze information on school resources and local socio-economic contexts to improve learning environment
 7. Make teaching plans relevant to education fields, student characteristics and education environment and conduct necessary assessment and adjustments
 8. Select relevant contents, methods and assessment to encourage students' interest and engagement in learning and educational activities
 9. Use educational assessment techniques and tools for improvement of teaching and education
- **Social relations Competencies**
 10. Establish social relations with students and parents to support student's learning and education
 11. Develop friendly relationships with colleagues, helping and sharing knowledge for effective teaching
 12. Participate actively in socio-political activities for school development, learning society and community development

Ministry of Education and Training, Vietnam

B. Evaluation of institutional and managerial risks

119. The teacher education system consists of four principal actors: teacher-training institutions, the Ministry of Education and Training, the Departments of Education and Training and the schools. Whereas the roles and responsibilities of the general education schools will not change significantly, those of these other actors will.

120. MOET will be responsible for the strategic management of enhanced continuous professional development. This includes issuing and enforcing relevant teacher professional

development policies and regulations; establishing and monitoring new teacher professional standards; identifying teacher-level demand for CPD; tracking the effectiveness of CPD interventions; using assessments and evaluations to shape CPD programs and initiatives; and piloting the NTEP, including the enhancements to CPD system. The DOETs will continue to manage and provide CPD at the district and provincial level, but with increasing emphasis on oversight, coordination and quality assurance.

121. The technical team observed that the national Teacher Training Universities have typically not had much interaction with the other actors of the teacher education system. This has contributed to the “disconnect” many teachers feel when participating in training and CPD. In response, MOET will use the Performance Agreements as a basic motivating instrument (criteria will include activities that require collaboration with the DOETs).

122. The NTEP is an ambitious program with many pieces that should function in a coordinated manner. The technical assessment team expressed concerns regarding the capability of the MOET, the LTTUs and other actors to implement in this regard.

123. Recognizing institutional and managerial shortcomings, the MOET has emphasized the importance of sequencing program implementation. The first year will be devoted to putting in place the regulatory and institutional frameworks necessary for key parts of the program to function (e.g., Core Teachers and Principals, role of LTTUs, new professional standards, formats for LTTU Performance Agreements, and the TEIDI). MOET will elaborate many of the details for rolling out the innovations described above during the first year. MOET intends to do with international technical support.

124. In addition, the program will start with simple targets and focus on priority areas. For instance, supporting the roll out of the new curriculum will likely constitute the defining objective of the NTEP during the first years. Core Teachers and Principal Advisors will focus on helping teachers and principals adopt the new curriculum. In addition, MOET intends to develop the new standards in phases, with the first defined by the new curriculum. At first, the online platform will focus more on helping teachers master the curriculum and new teaching methodologies through help desks and interactive learning.

125. Finally, the key to the success of the NTEP will be the technical and institutional capacity of all actors to take on their new responsibilities, particularly the LTTUs who must guarantee the quality and relevance of CPD materials and approaches. Although the LTTUs represent the best of teacher education in Vietnam, their organizational, technical, and managerial capacity will need significant reinforcement. MOET will also require considerable support as it assumes its role as the strategic managers of teacher education reform. Here is a summary of the principal institutional and managerial constraints:

- ***Weak management capacity of the Direction of Teachers and Education Managers:*** DTEM’s mandate has been to manage the teaching force of Vietnam and ensure that they are provided with sufficient professional support. As part of its mandate, DTEM has been coordinating a number of teacher training programs and activities to keep them up-to-date. However, these programs are mostly ad-hoc in nature and thus not effective

enough to generate a visible change in quality of the teaching staff although certain efforts did produce encouraging results.

- **Structural limitations of the LTTUs:** Presently, most LTTUs are organized based on subject areas (Maths, Literature, Biology, Chemistry, Geography, etc.). The FCER now requires that subjects be more integrated at lower levels of general education. LTTUs will need to undergo a reorganization to response to this new requirement. In addition, their lecturers will also have to be equipped with new capabilities to deliver new teacher education programs.
- **Low ICT preparedness and inadequate ICT infrastructure:** Although some LTTUs have had experience in delivering online training programs, their design has not been attractive and facilitative to teachers, especially those who have low computer skills. This would be a big challenge in this Program in that online professional development courses/modules will have to be attractive and user-friendly enough to motivate teachers' professional learning. At the same time, the capabilities of current ICT infrastructure at LTTUs and MOET level is too modest to meet the demand of the Program design

126. To address these constraints, ETEP combines considerable design support during preparation, results-based disbursements to incentivize performance, and high quality technical assistance during implementation. The results of the assessments necessary to prepare a Program for Results operation have identified the most important institutional constraints. The proposed actions will enhance the capacity of the LTTUs and national and provincial departments responsible for teacher education to take on their new responsibilities.

127. The following activities have been jointly identified with the Government for capacity building and system strengthening:

- **Modernized teacher education management** through the development and use of: (i) a Teacher Education Management Information System for effective teacher education planning and management; (ii) a Teacher Education Institution Development Index to measure teacher education institutional effectiveness; and (iii) teacher professional standards to assess teacher CPD needs.
- **Capacity building for LTTUs** in the areas of program development and pedagogy including ICT preparedness, institutional governance and school engagement to ensure its high quality and relevant CPD support for teachers. An action is included in the Program Action Plan and its results will be measured by TEIDI.
- **An online platform for teacher education:** The platform will serve several purposes, including the provision of interactive eLearning and support services; a LMS for tracking teacher training and support needs, completion of training programs; and evaluation of services, etc.
- **Teacher professional standards:** The MOET has revised and updated secondary education teacher professional standards with support from the ADB. However, a set of professional standards for general education teachers including those at primary education

level and strengthened assessment techniques and external review should be developed to ensure greater integrity and accuracy.

- *E-learning and online teacher support services for teachers and Core Teachers* (e.g., program design, multi-media content development, contact program structuring, and assessment techniques for effective curriculum supplementation).
- *Implementing agency capabilities for result-based monitoring, fiduciary, environmental, and social management (particularly concerning the needs of ethnic groups).*
- *Coordination between LTTUs, other TTIs and teacher education management departments at national and provincial levels and schools.* The network of Teacher Training Institutions will soon be undergoing a significant reorganization because of the dwindling need for new teachers, the transformation of many into multi-disciplinary universities and colleges, and the government's decision to close others. The reorganization of the network of Teacher Training Institutions is also mandated by the FCER. Any reorganization of the network of TTIs would also need to take into consideration future coordination with the DOETs and the MOET. LTTUs should enter into partnerships with TTIs as part of their Performance Agreements, as appropriate.

VII. PROGRAM EXPENDITURE FRAMEWORK

A. Budget Structure for Teacher Training

128. The budget for teacher continuous professional development comes from two sources: (i) Ministry of Education and Training (MOET) via projects directly managed by the Ministry and (ii) provincial Departments of Finance in accordance with budget allocation plan proposed by provincial Departments of Education and Training (DOET). Regular professional meetings at schools and self-learning activities are at the cost of schools and teachers. Meanwhile MOET and DOETs cover budget for the organization of training courses for cascade teacher trainers.⁴⁰ The costs of usually co-shared by MOET and provinces. Specifically, MOET will pay for the organization of training events, while provinces will cover travel and accommodation expenditures of participants and costs for replication training at their provinces. In certain circumstances, MOET only provides the training materials or instruction, while provinces will organize all training activities. Training budget under MOET management mainly comes from various ODA projects. The training cost norms of these projects tend to be higher than those set forth by Ministry of Finance (MOF). Their contents and targeted trainees may also vary.

129. CPD allocations are integrated into the provincial budgets for socio – economic development plans. Every year, schools, BOETs and DOETs prepare their CPD budget estimates and submit to DOETs who consolidate and send on to Departments of Finance (DOF) for budget preparation. In general, the majority of provincial training budget will be kept at DOET to organize provincial - level training events for cascade teacher trainers who will then provide training to other teachers at their localities.

⁴⁰ Cascade teacher trainers are teachers selected at the school level because of their expertise or seniority to attend three-to-five day workshops or seminars and return to their school to then train their peers.

130. The ETEP preparation team prepared a study on the costs of cascade teacher training in ten regionally-representative provinces. On average, three teachers per primary school, 13 teachers per lower secondary schools and 45 teachers per upper secondary school were sent for training to become cascade teacher trainers. While DOET covers the training organization costs, schools have to pay for the participation of their teachers, including per diem, travel and accommodation expenses. The table below summarizes the results. Total CPD cost at provinces in 2014 is estimated at VN\$ 510 billion (or US\$23.7 million).

Table 4: Estimated Budget for Training of Cascade Teacher Trainers

	2012-2013	2013-2014	2014-2015
Number of primary and secondary teachers	847,752	855,478	856,730
Number of primary and secondary schools	28,076	28,031	27,530
Estimated number of cascade teacher trainers trained at provinces	288,978	287,961	273,134
Proportion of cascade teacher trainers/total number of teachers (%)	34.1	33.7	31.8
Estimated budget for training organization for cascade teacher trainers at provinces (VND million)	121,024	120,598	114,389
Estimated budget for participation of cascade teacher trainers (per diem, travel, accommodation) (VN\$ million)	419,018	417,543	396,044
Estimated total cost for training of cascade teacher trainers at provinces (VN\$ million)	540,042	538,142	510,433
Estimated budget for training organization for cascade teacher trainers at provinces (US\$ million)	5.6	5.6	5.3

B. Program Budget Structure

131. The NTEP is financed by the Government budget and ETEP PforR. The total Program value is US\$255 million to be disbursed over five years (2017 – 2021). The ETEP will support the government’s proposed NTEP with an IDA credit for US\$95 million (equivalent). The PforR will disburse against results that support the enhancements of teacher continuous professional development. (see Table 5).

Table 5: Program Costs and Financing by Program Area and Funding Source (million US\$)*

	Program budget	Recurrent	Incremental	% of program budget
Pre-service teacher training, retraining and related curriculum	112	110	2	43.8

	Program budget	Recurrent	Incremental	% of program budget
development				
In-service teacher training and related curriculum development	48	8	40	18.9
Infrastructure development for teacher training institutions	83	-	83	32.6
Other	12	3	9	4.7
Total	255	120	135	100
% total	100%	47%	53%	
Of which:				
Government of Vietnam	160	120	40	63
Enhancing Teacher Education Program	95	-	95	37
Total program budget	255			100%

* The table regroups expenditures of the six NTEP Solution Areas into four categories to simplify analysis.

132. Two-thirds of the Government contribution to NTEP is for recurrent expenditures. This is approximately equal to the annual non-salary allocations for teacher continuous professional development and in-service teacher training made by the DOETs and the MOET.⁴¹ The sixty-three provincial governments allocate resource to their respective DOETs. MOET considers that all teacher training and support is part of the NTEP, and thus includes these recurrent expenditures as part of the program.

133. ETEP essentially supports part of the LTTUs and MOET incremental expenditures necessary to implement the NTEP and to meet the DLIs. For example, ETEP supports increasing the capacity of LTTUs to: (i) train and support the Core Teachers and Principal Advisors and (ii) develop and use the online teacher CPD platform. These in turn will require faculty training, the development of CPD programs, new CPD delivery mechanism, software applications, and minor civil works.

134. There will be a separate account for ETEP funds to monitor the implementation of ETEP – financed activities. Government recurrent and capital expenditures to implementation NTEP will be within the corresponding recurrent and capital envelopes that the Government approves and MOF allocates. However, sub-budget lines will record actual expenditures for the implementation of NTEP.

⁴¹ The MOF channels the budgets of the National Teacher Training Universities through MOET.

C. Financial sustainability

135. The technical assessment considers that the changes to the teacher education system introduced by NTEP to be sustainable, particularly if the Government continues to allocate at least 20 percent of public resources to the education sector⁴² (see **Table 6**).

136. The technical assessment concludes that improvements to CPD that result from the implementation of the ETEP will have a minimal impact on overall government expenditures. The TEMIS will modernize and render more efficient the collection and analysis of CPD data; the LMS will do the same for online CDP services. This increased efficiency is expected to offset any need for additional resource allocations to finance, for example, maintenance and repairs or specialized technical staff). Almost all activities that LTTUs and MOET will undertake for the

Table 1: Public expenditure on education has rapidly increased over the past decade, VND trillion

		2000	2002	2009	2010	2011	2012
GDP	Current	476.6	579.8	1,809.1	2,157.8	2,779.9	3,245.4
	2000 prices	476.6	538.1	849.1	903.6	960.0	1,010.4
TGE	Current	103.2	133.4	508.0	586.3	706.4	913.6
	2000 prices	103.2	123.8	238.4	245.5	244.0	284.4
Education	Current	15.6	22.6	93.0	118.5	143.5	192.1
	2000 prices	15.6	21.2	62.7	72.4	71.2	80.8
<i>as % of GDP</i>		3.3	3.9	5.1	5.5	5.2	5.9
<i>as % of TGE</i>		15.1	16.9	18.3	20.2	20.3	21.0

Sources: MOF for 2009-12; Vietnam & the World Bank (2005) for 2000 and 2002.

Note: GDP figures were updated from the 2004 PER for 2000 and 2002, resulting in a slight change in the education expenditure as a percentage of GDP for 2000 and 2002.

purposes of improving CPD will be one-off interventions.

137. The MOET and DOETs will select Core Teachers and Principal Advisors from the current cohort of teachers and principals. Thus, the government will not need to recruit any new personnel for this initiative. Furthermore, the government does not intend to create a new category of civil servant, with an additional set of benefits, for teachers or principals who serve this function. The Core Teachers and the Principal Advisors will retain their status with the same rights, duties and accountabilities. Education personnel will likely consider these positions to be

⁴²As required by the Circular No 127/2009/TT-BTC dated June 19, 2009. To achieve the overall education budget target at 20 percent of the total state budget, central government requires provinces to allocate at least 20 percent of their respective budgets for education. It also requires provinces to allocate at a minimum the amount determined by the formula and other budget lines, as discussed below, to education. In this sense, the centrally defined education budget is earmarked.

prestigious and sought-after positions. However, MOET and the DOETs may need to consider other incentives, such as reduced workloads and special training opportunities. The decline in primary education enrollments has led to a surplus of teachers have a relatively low number of teaching hours compared to other countries.⁴³

138. Furthermore, because there will be little demand to recruit new teachers for many years to come, Teacher Training Institutions that have essentially provided preservice training may need to consider reallocating their resources to other ends.⁴⁴ Some TTIs now provide programs for teachers to attain higher credentials (and thus opportunities for promotions and higher salaries (for a fee). Others have converted some of their facilities for teaching in other disciplines altogether. Savings could also be used to support new CPD programs or conducting relevant research.

D. Financial predictability

139. The technical assessment concluded that the government has put in place budget and expenditure management systems and practices that will allow ETEP to reach its expected results. However, there are two sources of difficulty. The first the budget cycle is often inconsistent resulting in very late budget decisions and fund transfers, which are disruptive to investment programs. Second, the government develops medium term plans and annual plans against notional resource availability, an important part of which is outside of central government control. Thus, the key issue is to address delays in budget approval, and better linking annual budgeting and planning process to multi-year plans.

VIII. ECONOMIC AND FINANCIAL ANALYSIS

140. This economic analysis follows ETEP's value chain wherein more effective teacher continuous professional development leads to higher quality teaching and learning. Those who benefit from this better quality instruction will in turn be able to earn a higher level of income.

141. The MOET intends to enhance the quality and quantity of both face-to-face and online teacher CPD, reflecting similar trends worldwide to bring training closer to teachers. In this analysis, we label these improvements "Enhanced CPD". The economic analysis will calculate the net present values of the Program investments for two scenarios: with and without the enhanced CPD. This will help assess the cost – benefit ratios of these two options and the feasibility of a continuation of the program using the government's own budget in the future.

⁴³ According to the Public Expenditure Review (currently being finalized), Vietnamese teachers spend many fewer hours in the classroom than their peers in other countries. Ironically, academic results are significantly higher than found in countries where the number of official hours is significantly higher.

⁴⁴ This is one reason why the government plans to reorganize and rationalize the network of TTIs.

A. Overall economic benefit estimation

142. The main benefit stream arising from the program is attributable to the improvement in the wages that students can expect to earn after completing their formal schooling. The great majority of children entering primary school today (at age six) will join the work force twelve years from now (age 18). Most will work until the age of 65 and therefore, reap any benefits from enhanced CPD for approximately 47 years. The modeling adopted here use conservative and empirically based estimates to the extent possible.

143. The Program should contribute to higher student completion rates at primary, lower secondary and upper secondary levels. Better-trained teachers should also help improve the quality of learning, and thus students will be more likely to complete the level in which they are enrolled. With higher levels of education, these students will have more opportunities to find jobs with better pay. This is the key reasoning used for this economic analysis.

144. A Mincer regression based on the Vietnam Household Living Standard Survey (VHLSS) 2012 data helped determine income levels for different levels of formal schooling. Accordingly the income of primary school completers is expected to increase by US\$ 0.8 per annum (over those who have not completed primary schooling), the income of lower secondary school completers is expected to increase by US\$ 0.9 per annum and the income of upper secondary school completers is expected to increase by US\$ 1.4 per annum.

145. In order to identify the number of Program beneficiaries, differences in completion rates were calculated for before and after the Program. These were calculated as the difference of the projected completion rate without the Program and the decrease in dropout rate thanks to the Program intervention. As the teachers will receive CPD over three consecutive years, the change in completion rate is assumed to start in the third year of the Program, i.e. 2019.

146. The change in dropout rate is calculated as the multiplication of change in score due to teacher training by the correlation between learning outcome and dropout rate. In this case, the PISA scores are used for calculation, because it a comprehensive and reliable source of information.

147. The improvement in scores due to teacher training is calculated as below:

$A = B * C * D * E$, whereby

A: Improvement in scores due to teacher training

B: Impact of teacher training on quality of education. According to Douglas N. Harris and Tim R. Sass (2008)⁴⁵, in-service learning hours are expected to impact learning outcomes by

⁴⁵ Douglas N. Harris and Tim R. Sass (2008), “Teacher Training, Teacher Quality, and Student Achievement”. This paper uses data of the State of Florida (US). The team decides to choose this data because it is difficult to identify

factor weight of 0.0034 times the standard deviation of learning outcomes (2.33)=0.007922. Since the Program only covers the training for about 600,000 teachers out of the total of 855,000 teachers nationwide, it is estimated that the impact ratio is about 70%.

C: Number of years of teacher training. Teachers are expected to obtain about 5 days face-to-face training and certain number of days for online training every year. To make the estimation conservative, only the face-to-face training time is counted. Hence, the number of years is estimated as 0.02.

D: Standard deviation of PISA score, estimated at 16.4 percent.

B. Overall economic cost estimation

148. The economic cost estimates of enhancing CPD uses the following assumptions:

- a) Costs include total program expenditures as well as estimated future costs estimated by year.
- b) After the completion of ETEP, the government budgets will continue to finance teacher CPD. The future costs after ETEP closes include maintenance of assets created during program implementation, as well as any recurrent expenditures

C. Combining cost and benefit calculation

149. The model indicates a conservative estimate of program value of benefits minus costs being US\$ 409 million using the lower scenario. The combined use of face-to-face and online CPD may lower some operational costs and raise maintenance costs. The benefit-to-cost ratio of this scenario is 3.4.

150. To calculate the NPV of ETEP, the team estimated the stream of benefits and costs over the period of 2017 – 2036. Below are the parameters used:

- a) The impact of the program on the increase in completion rate only starts from year three.
- b) All financial stream forecasts have been made after duly accounting for and adjusting for the expected rate of inflation; long-term inflation is calculated to be roughly 5.35 percent based on historical data.
- c) Using data from the 2015 Labor Force and Employment Survey, the assessment team estimates the future unemployment rate to be 2.42 percent for school completers. The calculations undertaken factor out the unemployment rate from the economic benefits before computing net cash flow.
- d) The analysis assumes that work force participation rate for school completers to be 90.5 percent in accordance with the 2011 Labor Force and Employment Survey. The

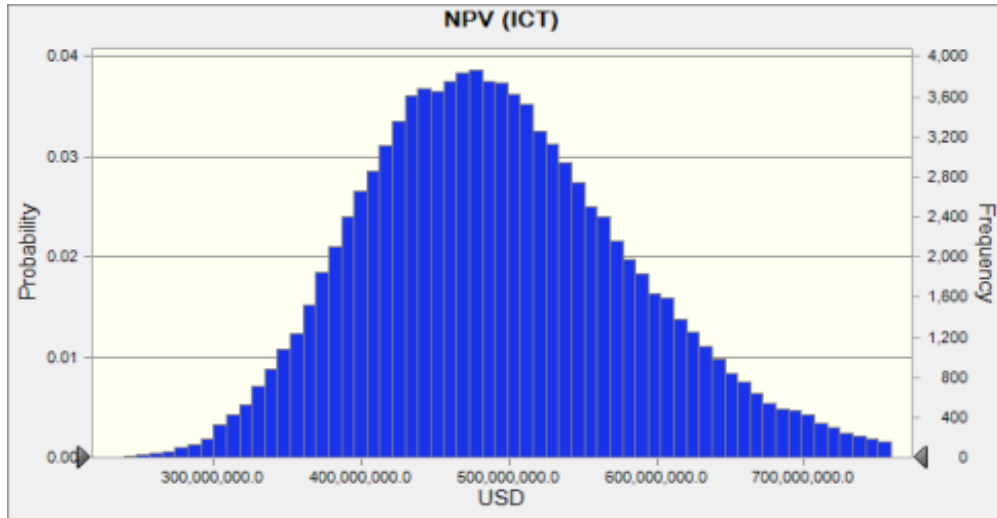
similar studies of countries with similar level of education achievement to Vietnam. This paper is based on a good data source and the PISA scores of the US are quite similar to Vietnam.

team has factored in the anticipated participation rate has to adjust the economic benefits before computing net cash flow.

e) The discount rate used for this analysis is 12 percent.

151. Three key parameters are modeled with a Monte Carlo simulation with 100,000 runs to allow a range of possible values: the earnings premium at different levels of education; the responsiveness of earnings to improvements in school quality and the discount rate. Running the estimates with these parameters generates mean value of US\$494,819,330.

Figure 6: NPV Forecast

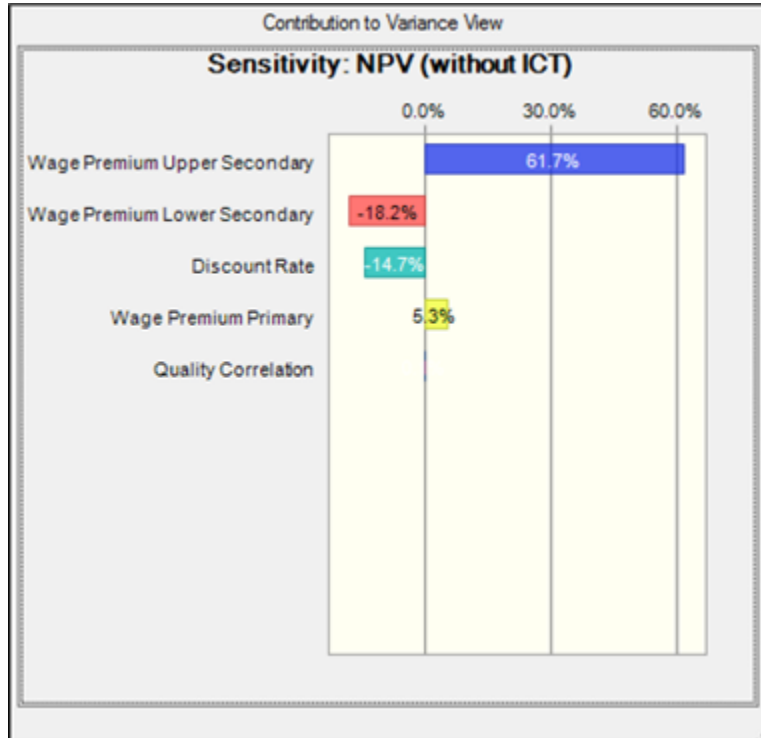


Statistics:	Forecast values
Trials	100,000
Base Case	359,463,214.1
Mean	494,819,330.2
Standard Deviation	4,172,843.5

The ICT scenario forecasts a mean NPV of US\$494,819,330.2; negative NPV's are in the 0 percentile.

152. The sensitivity of the NPV calculations in the Monte Carlo simulation shows that the uncertainty regarding program benefits comes from the wage premium for upper secondary education, as shown in the figure below. The program intervention affects mainly the quality correlation and the sensitivity analysis shows that the variability in the quality correlation would not influence the benefit calculation. This is an important finding because it indicates the economic value of the program even under lower than expected outcomes regarding the magnitude of program impact.

Figure 7: NPV Sensitivity Calculations



153. In summary, enhanced CPD that introduced by the ETEP will have a positive benefit/cost ratio and thus makes the investment worthy.