

# Ex post evaluation – Vietnam

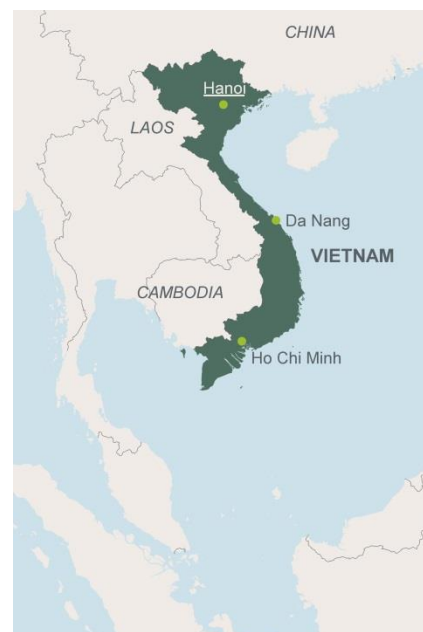
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**Sector:** Medical services / 12191  
**Project:** Viet Duc Hospital Hanoi, BMZ No. 2006 65 224  
**Implementing agency:** Viet Duc Hospital

## Ex post evaluation report: 2016

		Project (Planned)	Project (Actual)
Investment costs (total)	EUR million	7.500	7.496
Counterpart contribution	EUR million	2.500	2.500
Funding	EUR million	5.000	4.996

\*) Project in the 2016 random sample



**Summary:** The project comprised the procurement and installation of medical equipment for the Viet Duc public hospital in Hanoi (Vietnam). An expansion of the hospital's training activities to be financed from its own funds was also planned. The hospital is the only specialised tertiary hospital for accident victims in northern Vietnam and supports many provincial hospitals. The project was implemented from 2010 to 2014.

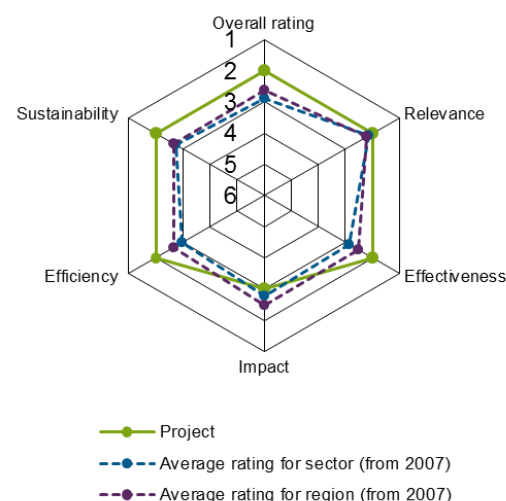
**Objectives:** The project objective was to improve the provision of services by the public hospital at the highest level of care (maximum care provider) in the emergency department and diagnostics in terms of quality and efficiency, to improve the capacity of Viet Duc as a national training center, and to strengthen the referral system in order to contribute to improving the health situation of the population in northern Vietnam (development objective).

**Target group:** The target group was the approximately 20 million inhabitants of the six northern provinces of Vietnam. On the one hand, the hospital's main focus is on trauma medicine, on the other it functions as a training hospital and thus has a significance that extends beyond the region that is its direct catchment area. The aim was for the poorer population to benefit from the FC measures as well.

## Overall rating: 2

**Rationale:** Accidents and trauma surgery are a bottleneck within tertiary care (good relevance). The technology is well utilised and fully integrated, the prerequisites for long-term use are in place, but the management could be strengthened (good sustainability). The development impact is plausible, but cannot be empirically proven (satisfactory). The effectiveness meets expectations and even surpasses them in parts.

**Highlights:** National health insurance was introduced in Vietnam parallel to the project and has broadened access to health services significantly, particularly for poor people. Thus poor people also benefit from the high standard of services offered by the maximum-care hospital. Viet Duc proves that a public hospital can be economically efficient without losing its referral function and poverty orientation. The FC measure helps to strengthen this function.



## Rating according to DAC criteria

### Overall rating: 2

#### Relevance

Viet Duc Hospital is the leading maximum-care hospital (tertiary level) in the areas of organ transplantation, cardiac and brain surgery in (northern) Vietnam. Above all, however, Viet Duc is the referral centre for accident and trauma surgery. The majority of severe (road) accidents with open and/or infected fractures is referred to this hospital. In this function, it serves the entire northern Vietnam (Red River Delta, the north-eastern and north-western regions), including the capital, Hanoi. Demand for health services at this level has risen considerably in recent years due to an influx of new residents, the birth rate, more traffic and improved treatment options (e.g. surgical techniques). This trend will persist.

Traffic accidents often have serious consequences in particular for the poor since, unlike the rich, they do not travel by car, but by moped, bicycle or on foot. Vietnam has improved road safety by making the wearing of helmets compulsory (since 2007). This does not result in fewer accidents, but reduces severe injuries (traumatic brain injuries). The Health Environment Management Agency has calculated that in 2011 there were 44.73 deaths due to accidents per 100,000 inhabitants at national level, while the equivalent figure in the Red River Delta stood at 38.85 and in the north west and north east at 64.70. Thus the accident rate in the target regions of Viet Duc was almost 50 % higher than the Vietnamese average. Traffic accidents accounted for just under half of all fatal accidents and were therefore responsible for more deaths than any other type of accidents. The morbidity and mortality rates of accidents are nearly as high as those of infectious diseases.

The project was based on the assumption that quality and quantity of health services at the Viet Duc imposed a relevant constraint on effective and efficient health care provision in northern Vietnam, implying that better facilities would result in better outcomes and ultimately in improved public health. This is recognised as a strategic objective both by the Vietnamese government and international development policy. At the same time, Viet Duc is a teaching hospital for the University of Hanoi, so it is reasonable to assume that its training function helps improve the doctor-to-population ratio, and therefore the health situation throughout Vietnam and in the northern provinces in particular.

Over the past few years, evidence has grown that the assumptions made in the project planning were correct. A healthy population is more productive. However, this requires a properly functioning health system that is reliable, affordable and accessible not only for non-emergency patients, but also for accident victims. The main barriers are the patient's inability to pay (financial barrier), poor (quality, human resources and facility) management, structural deficiencies (number and qualifications of staff, equipment and buildings) and inadequate process quality (standardisation, documentation, ...). From perspective of the health system, the dysfunctional referral system is also a barrier to a healthy population.

The project focused (non-exclusive, but definite) on the poor part of the population in the catchment area of Viet Duc, who cannot afford high-quality health care of private providers from their own income or savings. Under decree 139 ("Health Care Fund for the Poor"), the poor and the indigenous people have a right to free treatment. The hospitals get their costs re-funded by the social insurance system when the patient has been officially referred to them. Furthermore, accident victims are treated at the Viet Duc hospital irrespective of their ability to pay. In these cases the hospital shoulders the costs itself, at least for treatment within the package of Vietnam Social Security (VSS) regulations. Consequently, the hospital is an important source of health care for poor people too.

Viet Duc is the largest and best emergency hospital in northern Vietnam. For average cases, there is indeed private and public competition (e.g. military hospital), but Viet Duc is in a unique position to handle the most serious cases. Traffic accidents are a leading and increasing cause of morbidity and mortality in Vietnam. Modern facilities and methods are needed to treat severe accidents and can only be held available in a few centres. The hospital provides this high-end technology and deploys it appropriately. Economic and demographic trends, in particular in the Red River Delta, indicate that demand for maximum-level healthcare services, and especially trauma surgery, will rise significantly. The possibility to refer seri-

ous cases to Viet Duc and to provide professional trauma surgery also to people from the provinces boosts confidence in the health system and in the referral system in particular.

In summary, we can state that the project addressed the right issues at project appraisal. Meanwhile, the following developments took place:

- Transition: Vietnam is going through a rapid demographic and epidemiological transition. This manifests itself not only in lower morbidity and mortality rates of infectious diseases and a simultaneous increase in chronic-degenerative diseases, but also specifically in increased morbidity and mortality due to accidents. Chronic-degenerative diseases and accidents demand a sharper focus on quality, provision of longer-term care and a strengthening of tertiary care. The procurement, installation and maintenance of appropriate equipment for Viet Duc match the objective of adapting the health system to deal with the transition to chronic-degenerative illnesses and accidents.
- Social health insurance: in principle, social health insurance was introduced in Vietnam back in 1992, but it took a relatively long time for it to become fully relevant to the poor in all provinces. User fees are no longer a barrier to access for the indigenous population and the poor. Major problems remain the quality of service, especially at the provincial and district levels, and the coverage of the so-called "near-poor" in the informal sector, some of whom have no social health insurance.

Medical care for the most seriously injured in accidents remains a bottleneck in this emerging country. Apart from clinical care, an adequate rescue service is missing in total; it should provide first aid and ensure transport to an appropriate hospital not just for accident victims, but also for other emergencies. At project planning an increase in the number of cases and their seriousness was expected, however, no further investment was envisaged for hospital hygiene (sterile supply and disposal cycle, waste management, risk management and quality management). There is a danger that inadequate hygiene will thwart the project's achievements.

In summary, we conclude that the project addressed relevant health problems, derived a consistent results chain and adopted suitable measures. The positive developments in Vietnam's health system (e.g. universal insurance cover for the poor and the indigenous peoples), have made quality and quantity of services even more relevant for effective and efficient health care. The specific support for tertiary care is justified as the referral system at the provincial and district levels is supported by other FC projects and other donors and Viet Duc provides training to them and in addition the demographic and epidemiological transition in Vietnam requires adjustments in services provided. The project is aligned with the Vietnamese government objectives of improving quality of health services as well as those of BMZ (Federal Ministry for Economic Cooperation and Development), which aim to contribute to effective and efficient needs-based health care accessible to all population groups.

## Relevance rating:2

### Effectiveness

The project objective was to improve the provision of services by the public hospital at the highest level of care in the emergency department and diagnostics in terms of quality and efficiency, to improve the training capacity of Viet Duc and to strengthen the referral system in order to improve the health status of the population in northern Vietnam (development objective). The target group was defined as the "population in the catchment area of the Viet Duc hospital and the supported provinces". The target group comprised specifically the six (not further specified) northern provinces with a total of approx. 20 million inhabitants. The project objectives were to be measured using the following indicators:

Indicator	Objective	Status 2010	Status 2014	Status 2015
(1) Proportion of nosocomial infections (infections acquired in the hospital)	3%	6.5%	6.3%	4%
(2) Number of doctors from provincial	5% increase/year	33	394	175

hospitals trained in specific diagnostic and therapeutic methods (number/year)	(reference number in 2010)			
(3) Number of new diagnostic and therapeutic methods introduced at the Viet Duc hospital (number/year)	10 per year beginning 2011	10	29	31
(4) Number of new diagnostic and therapeutic methods introduced at selected provincial hospitals (number/year)	5 per year, beginning 2011	6	25	4

As shown by the table, the target value of the first indicator was not achieved during the project phase. Indicators (1) and (4) were not achieved in 2015. The results surpassed target values for all other indicators.

The nosocomial infection rate (indicator 1) has declined in recent years despite a rise in the number of cases and, probably, increasing severity of those cases. At least, the indicators that suggest greater severity (e.g. proportion of major operations, laboratory tests and imaging per case, case costs) rose significantly. Increased severity level and process density result in more overlaps of clinical pathways and it has been proven that these two factors lead to a higher rate of nosocomial infections. At the same time, the higher quality of outcomes makes it possible to treat patients who could not be treated before leading - though without empirical evidence for Viet Duc- to a significantly higher proportion of patients with infections (e.g. after bone fractures). This also implies a higher risk of infection for all other patients. As regards indicator (4), it can be stated that this indicator was constantly far surpassed, i.e. a lot of and even more than expected new treatment and diagnosis methods were introduced in selected hospitals. Without doubt, there is a limitation to what is feasible at the district and provincial level, i.e. it is unreasonable to expect the indicator to be sustained in future. It is also difficult to measure whether this structural quality actually produces better results.

Viet Duc is highly relevant for the provincial and district hospitals as a training platform and referral centre. The hospital is innovative and adopts new technologies quickly. Within and outside Vietnam, it has gained the reputation of being a technology hub. The important point here is that it should pass these innovations on to the districts and provinces promptly. Future developments (telemedicine in particular) will probably further improve the situation. It should be noted here that telemedicine was already implemented in Vietnam some years ago (in part with German support), but remains limited to teleconsultations. Viet Duc has the potential to be a pioneer in this field.

The following implementation agreement was concluded at the project appraisal: "The executing agency will ensure that the existing training measures and the other support functions in the referral system are maintained or expanded. Furthermore, provinces captured by a potential new project of German DC and that are in the responsibility of the executing agency are to be included in the Satellite and Twinning programmes. Hai Duong, Phu Yen, Thanh Hoa and Yen Bai are candidates". We can state that the hospital has fulfilled this agreement. For many provinces, it is essential to be a core partner in the Satellite programmes as well as for training and telemedicine.

Viet Duc is an important pillar of the Vietnamese government's Satellite programme. Roughly every two months, two to four physicians and between three and six nurses visit the partner institutions in rural areas to teach theory and practice. Viet Duc thus participates in the Satellite programme set up by the government in 2004. Thirteen provinces are supported as satellites at present. The provinces addressed in the agreement are not involved in the Satellite or Twinning programmes. However, Viet Duc has explicitly chosen very remote provinces as satellites, which probably makes more sense.

Previously, Viet Duc regularly seconded specialists to three peripheral regions for up to three months, where they supported the health care establishments (twinning). While Satellite is a government programme and receives at any rate most of its funding from the government, Twinning was Viet Duc's own initiative and receives no central funding. It has meanwhile been abandoned.

Given the training activity, we expect that the improved training of doctors, in particular at the provincial hospitals, will allow them to correctly identify patients in urgent need of referral to Viet Duc for maximum care, and meanwhile less patients will be transferred whose needs can be dealt with at the lower level. The basis for this is not so much the technology than the trust placed in the hospital over many years as a result of training and advice given in consultations and within twinning and satellite programmes. It can therefore be stated that investment in the quality of outcomes and in training has long-term effects on the relationships between hospitals and the referral system as a whole. It is regrettable that this statement was not underpinned by an indicator. The original indicators at project appraisal included "the number of patients transferred from the provinces". This indicator was removed as a large number of referrals cannot automatically be regarded as positive. Referrals may also be unnecessary and indicate a lack of functionality at the lower levels. However, the combination of indicators for case severity and referral numbers clearly suggests that the referral system was strengthened. For example, the number of major operations has risen significantly, while the number of minor operations has fallen.

This positive development is enabled by the following factors:

- Staff: Viet Duc is relatively well supplied with doctors and nurses. An especially important factor here is the low level of staff turnover, i.e. training in the operation and maintenance of the equipment procured is paying off. The management has also remained stable for a number of years.
- Social insurance: a large part of Vietnam's population has social insurance, i.e. the financial barrier is no longer a problem for them. The increase in the number of cases ("Viet Duc is bursting at the seams") can also be attributed to this.
- Autonomy: financially, Viet Duc is financially independent of the government. Operational management also enjoys a large degree of independence from the Ministry of Health. This is also reflected in the great self-confidence displayed by the hospital's managers, who take decisions regarding processes and investments in a professional manner.

In summary, it can be concluded that the project was successful. For a maximum care provider of trauma surgery, the indicator relating to nosocomial infections, which was not achieved at any point during the project term, or has yet to be achieved, must be set against the increasing severity and number of cases.

### Effectiveness rating: 2

### Efficiency

Efficiency compares input and results of a project and queries whether the resources could have been invested in a more productive way. Technical efficiency has several dimensions. First, it should be noted that the project took longer than planned. The project appraisal was conducted in October 2006, but the agreement was not signed until December 2010. This is partly because the passing on of a loan by the Ministry of Finance to an autonomous hospital was an innovation for Vietnam, administrative preconditions had to be developed and implemented by both the Vietnamese and KfW. Afterwards, due to delays in completion of buildings the equipment purchased could not be installed. Even though the delays did not lead to additional costs, the processing was probably more complex than planned, i.e. administrative efficiency suffered as a result of the long implementation time.

Implementation itself went very smoothly thanks to the professionalism of Viet Duc's management. The senior management of the hospital proved to be competent, reliable and consistent, which also favored successful implementation. Finally, a procurement consultant with a great deal of experience and knowledge of the country was selected. It turned out that Viet Duc was perfectly able to implement the project without further support in large part as equipment procured is one of a hospital's core competencies (medical equipment). This does not necessarily mean that the same applies to other projects (e.g. IT systems, waste management, etc.).

The procured equipment is appropriate to a maximum care provider. Some of it is at a very high level in comparison to the equipment and possibilities of other hospitals in the region. However, this corresponds explicitly to the mandate of Viet Duc as a specialised maximum care provider. In Germany too, the equipment requirements of an emergency hospital (e.g. of the "Berufsgenossenschaft") with great service depth are normally higher than those of a general provider with the full range of services. Particularly in

the north, Vietnam is no longer a least developed country, where basic equipment is the main necessity. The availability of medical technology of international standard is important, especially for the training of doctors. The maintenance situation in Hanoi can be described as good, i.e. there are onsite technicians for core equipment.

In summary, we may draw the conclusion that the project addressed the correct issues and implemented the solutions efficiently. However, there are a few basic problems:

- Hygiene: as shown above, the number of nosocomial infections rose for several years and, although it has now decreased, the target level has not yet been achieved. An inspection revealed that only few disinfectant dispensers for hand disinfection were installed. The medical trolleys have such dispensers, but these are only accessible to the staff currently using the trolleys. Other staff, patients and relatives do not have the opportunity to use this method of hand disinfection. Sterilisation is split between several locations and the structure is less than optimal (same entry and exit point in the building for sterile and non-sterile goods). No hygiene process is defined.
- Equipment management: the maintenance of medical technology is conducted internally at a good level or it is outsourced. By contrast, the management of equipment should cover the entire equipment cycle. Changes are needed, especially in taking of inventories, and each item of equipment should be labelled with an inventory number and maintenance / calibration information.
- Hospital information system: the hospital does not have an integrated information system, only "home-grown" standalone solutions. If one considers that the hospital has grown considerably, the need for an IT system to support evidence-based decision-making becomes evident.

Allocative efficiency analyses whether results would have been better if resources has been invested differently. Based on the visits to other health care establishments (e.g. Thanh Hoa Provincial O&G Hospital, Cam Thuy Hospital, Ha Trung Hospital, Van Yen DH, Nghia Lo Regional Hospital, Van Chan District Hospital, St. Pauls Hospital and Trans Anh Hospital), we are able to conclude that Viet Duc clearly has the highest standard of all public and private health care providers in northern Vietnam. Within the framework of this ex post evaluation, it has not been possible to draw a comparison with military hospitals, which in Vietnam play a certain role in providing health care to the general population. Within the public health system, Viet Duc is a primary referral hospital for accident victims in northern Vietnam and an important training location for doctors of Hanoi Medical University. Provided social insurance continues to remove the financial barrier for the majority of the population, it is crucial for the rapidly growing health sector to have a centre of excellence as a beacon for patients and staff. From the perspective of the health system, we may conclude that the medical technology purchased was appropriate and that the investment was efficient for the entire health care system.

Allocative efficiency might have been increased if the investment had been made in accident prevention rather than in treating the accident victims. In particular, improved road safety and the establishment of a rescue service would have been urgently needed in a country without any preclinical care of accident victims. This general consideration may well be of relevance to future projects. On the other hand, at the time of the project appraisal the expansion of the rescue service was not a genuine alternative desired by Vietnam. More particularly, Viet Duc hospital would have had no influence. The most Viet Duc would have been able to do was to invest in rescue vehicles, as the existing ambulances are only vehicles for the transport of equipment and patients without any technical equipment. However, this too would not have solved the fundamental problem of a properly functioning rescue service. Consequently, investment in the tertiary hospital can be described as appropriate from the perspective of public health care. The allocation efficiency is at least acceptable.

We can sum up by stating that the efficiency can still be described as good.

## Efficiency rating: 2

## Impact

The development objective of the project was to "contribute to improving the health situation of the population in the catchment area of the Viet Duc hospital". No indicators were defined for this. It is evident that the achievement of the project objectives had a positive impact on the development objective, but the con-



tribution cannot be quantified. The following table provides some basic figures for Vietnam and for the target regions: the Red River Delta, the north-east and the north-west. The increased life expectancy and the, in some cases, huge reduction in infant, child and maternal mortality rates are significant.

Indicator	Vietnam		Red River Delta		North east & north west of		Hanoi	
	2006	Most recent data	2006	Most recent data	2006	Most recent data	2006	Most recent data
(1) Population in millions	83.3	91.8	18.62	20.88	11.52	11.89	3.19	7.3
(2) Life expectancy	74.8	75.8		74.5		70.7		
(3) Infant mortality rate (per 1,000 children)	22.0	17.8	11	11.8	23.7	22.4	7.5	10.2
(4) Child mortality rate (per 1,000 children)	27.7	22.38		17.7	36.0	33.9		

Source: KNOEMA (2016); World Bank (2015)

Data at provincial level is hard to obtain. The few available statistics indicate, however, that the health situation in Hanoi and in the Red River Delta is above average, whereas it is below average in the north east and north west of the country. In some provinces, the indigenous population in particular is still suffering from high child and maternal mortality, although the trend is also positive here.

Viet Duc has little influence on infant, child and maternal mortality rates due to its tertiary focus. At the same time, the impact of a single hospital with a real catchment area of 30 million people can scarcely be measured. The hospital's impact on the number of fatalities resulting from accidents would be more relevant, but almost no data is available.

Both the continuous training of doctors at the lower level within the framework of the Satellite programme and the general training function of Viet Duc as an academic teaching hospital ensure better care for the population, including outside the Viet Duc. The provincial and district hospitals benefit from the improved quality and standards of the healthcare professionals trained in the central hospital.

Consequently, it is conceivable that good service quality improves the health situation of the population in Northern provinces. However, the relationship cannot be demonstrated empirically, especially not for the comparatively small total investment of the project, in relation to the budget and population of the Viet Duc catchment area. In the opinion of the evaluator, it therefore makes no sense to define development objective indicators for this project. By contrast, the assumptions made at the project appraisal regarding the achievement of development objectives can be examined.

- The financial accessibility of services has improved for the urban and rural poor. As described above, the introduction of social insurance led to full cover for the poor and the indigenous people as well as

for a relatively large proportion of the near poor (estimated at 50%). The hospital, however, must make sure that the poor are not squeezed out. Viet Duc increasingly prioritises services which are not covered by social health insurance and therefore cannot be accessed by the poor, the indigenous population and the near poor.

- The other factors that influence the population's health status are at any rate constant. In general, this prerequisite can be regarded as fulfilled. However, the data provides no basis for making any statements about spatial disparities.

It can therefore be concluded that a positive developmental impact is plausible and likely. However, there is no robust evidence as to what this impact can be attributed to. What continues to remain important is the positive structural and multiplier effect of the Viet Duc's training activities on the referral system.

### Impact rating: 3

### Sustainability

It can be assumed that the investment is sustainable if the equipment supplied is fully functional, used sufficiently and maintained professionally. An inspection of randomly selected equipment (equipment spot check) was carried out. All the equipment on the list was still present and, according to the maintenance engineer, at the correct location. It was not possible to conduct an evaluation on the basis of the inventory as the inventory (in the form of an Excel file) could not be found. We did not find any equipment that had been delivered but not yet installed. It could be questioned whether the laser for plastic surgery fulfils the criteria of German Development Cooperation.

18% of the randomly selected and inspected equipment was inoperable and/or being repaired. Nonetheless, the medical technology appears to be maintained appropriately and is used in its full scope. All the equipment was within its expected life cycle and most of it will, if maintained adequately, be available for several more years. It is important to emphasise that, for a hospital in central Hanoi, technical maintenance is not so much a problem. There are suitable professional maintenance services in the city. It is an issue of funds and management. Between 0.88 % and 2.22 % of total expenditure was spent on maintenance in the last five years including repairs. The maintenance expenses are thus evidently below the 5.0% recommended by WHO. During evaluation, it became clear that financial resources and technically trained maintenance staff are available, but the budget is not growing correspondingly.

Rather, there appear to be problems with equipment and maintenance management. For example, there should be inventory numbers on all pieces of equipment and the maintenance and calibration dates should be recorded. Finally, facility management<sup>1</sup> would benefit considerably from switching to the use of facility management software (only Excel is used at present).

Maintenance contracts have expired, only two (MRT and angiography) were prolonged. Viet Duc's own technicians and engineers have taken over maintenance of the other equipment. One positive aspect is that there is hardly any staff turnover. Viet Duc's own repair workshop urgently needs more space and apparatus, otherwise the hospital's buildings and equipment give the impression of being well maintained and functional.

Medical and technical staff trained specifically on the equipment mainly continues to work at the same workplace. The fact that the operating instructions are only available in English or French could be a problem. However, this was not regarded as a problem by the staff at Viet Duc since, they argued, they had received instruction and no longer needed to look anything up.

Viet Duc has grown considerably and sustainability could be enhanced by developing a professional management approach, in particular with a comprehensive quality management (TQM), the development of clinical pathways, the implementation of an integrated hospital information service, and facility management, etc. At the same time, the position of non-medical member of the directorate (3 physicians, 1 businessman) should be strengthened so as to support the focus on efficiency and sustainability. However, this must be viewed in the context of Vietnamese management culture. It would be a major break with tradition to grant significant responsibility to managers from outside the medical profession.

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<sup>1</sup> Facility management covers not only buildings, but also equipment, maintenance, site cleaning, security etc.



The project was successful also without these measures. However, further investment in management is needed if success is to be maintained. This includes investing in quality management, process management, equipment management, staff management and IT management. Quality management tends to be defined as professional quality assurance. It is not developed as a system covering the whole hospital but focuses predominantly on the excellence of the chief physicians. Patient-friendliness is repeatedly given as an important reason why private hospitals are so popular. In this regard, Viet Duc has no system that covers the subjective quality of outcomes from the perspective of the patient. Under the national system, the hospital is accredited with the Ministry of Health. There is no independent accreditation in Vietnam.

By providing equipment and integrating it into cross-institutional processes, the project has contributed to improving standards and training in other hospitals. This progress can probably be maintained since the training is continuing to help make the situation in the provinces better.

Finally, Viet Duc is the referral hospital in northern Vietnam. 70 % of patients (2015) do not come from Hanoi. The hospitals we visited in Hanoi and in other provinces also stated clearly that Viet Duc is the hospital of choice for the referral of seriously injured patients. This position within the referral system is also based on the availability of medical technology and will likely persist in the medium term.

It was not demonstrated that the poor are being squeezed out by richer patients. Nevertheless, it is a matter of concern that 35 % of hospital revenues are direct user fees (33 % from the social insurance system). Viet Duc has to actively ensure that the poor continue to have access to the hospital.

As a public hospital, Viet Duc also enjoys a large degree of autonomy and its financial situation is robust. During the project term and since then, the hospital has invested independently in its development. New buildings have been constructed on the existing campus, for example, and bed capacity has been increased. At present, the hospital is planning a new facility outside the city and a new diagnostics building. The former is a challenge and an opportunity since Viet Duc is not easily accessible at its current location, nor can it be expanded. Moreover, the waste management is being improved with support from KfW and Viet Duc is pressing ahead with a hospital information system, including a telemedicine connection to the provincial hospitals.

In conclusion, we can describe the sustainability of the project, in comparison to other projects, as good.

**Sustainability rating: 2**

### Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance**, **effectiveness**, **efficiency** and **impact**. The ratings are also used to arrive at a **final assessment** of a project's developmental efficacy. The scale is as follows:

<b>Level 1</b>	Very good result that clearly exceeds expectations
<b>Level 2</b>	Good result, fully in line with expectations and without any significant shortcomings
<b>Level 3</b>	Satisfactory result – project falls short of expectations but the positive results dominate
<b>Level 4</b>	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
<b>Level 5</b>	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
<b>Level 6</b>	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

### Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The development effectiveness of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The development effectiveness of the project (positive to date) is very likely to decline only minimally but remain positive overall (this is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The development effectiveness of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive development effectiveness.

Sustainability level 4 (inadequate sustainability): The development effectiveness of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a “successful” project while rating levels 4-6 denote an “unsuccessful” project. It should be noted that a project can generally be considered developmentally “successful” only if the achievement of the project objective (“effectiveness”), the impact on the development objective (“impact”) **and** the sustainability are rated at least “satisfactory” (level 3).