

>>>> Ex-post evaluation Vocational Education and Training, Vietnam

Title	Project A: Programme for the Reform of Vocational Training in Vietnam, (LILAMA2) Project B: Vocational Training Programme 2011				
Sector and CRS code	Vocational training (CRS code: 114330)				
Project number	Project A: BMZ No. 2010 65 473; Project B: BMZ 2011 67 089, basic and advanced training measure 1930 05 261 (Project B)				
Commissioned by	Federal Ministry for Economic Cooperation and Development (BMZ)				
Recipient/Project-execut- ing agency	Ministry of Labour, Invalids and Social Affairs (MoLISA)/Department of Vocatio	nal Training (DEVT)		
Project volume/ Financing instrument	Project A: EUR 13.32 million; Project B: EUR 4.75 million				
Project duration	Project A: 2013-2017; Project B: 2016-2020				
Year of report	2023	Year of random sample	2020 (both)		

Objectives and project outline

The objective of both programmes at outcome level was the sustainable use of the expanded and improved capacities at the promoted vocational colleges for training that is oriented towards the labour market and internationally competitive. At impact level, this was intended to improve the supply of skilled workers in selected sectors with growth potential as well as the employment and income opportunities for graduates. In close cooperation with the private sector, four vocational schools were equipped and expanded into centres of excellence in parallel, also wih the support of German Technical Cooperation.

Key findings

Both programmes were achieved significant developmental impact and are rated as "successful" overall:

- The programmes adequately addressed the shortage of skilled workers for the growing Vietnamese economy in close cooperation with the surrounding industry and in accordance with the national development strategy for vocational training.
- The coherence in the DC programme as well as the FC and TC measures was very good. Externally, this involvement also complemented the contributions of other donors.
- The equipped vocational schools are used sustainably and offer labour marketoriented vocational training that facilitates a transition into employment.
- Graduates usually benefit from higher incomes, while the economy benefits from better availability of adequately trained people. The cooperation with the private sector has achieved a model character and the supported institutes also have a positive impact on surrounding schools in their function as centres of excellence.
- The equipment is in good condition and is serviced and maintained. Financial sustainability depends on the schools' autonomy and their ability to generate their own income; however, due to the economic importance of government allocations and support from the private sector, reinvestment can also be assumed.

Overall rating: successful



Conclusions

- The well-established and functional partnerships with the private sector should be highlighted.
- Training in adequately specified equipment in accordance with the respective needs and standards of the industry is decisive for the business community's willingness to cooperate and for employment prospects.
- A particular success factor was the complementarity of the FC and TC measures, which was achieved by designing them early and collaboratively.



Ex post evaluation – rating according to OECD-DAC criteria

	Project A	Project B
Relevance	2	2
Coherence	1	2
Effectiveness	2	2
Efficiency	2	2
Overarching developmental impact	2	2
Sustainability	2	2
Overall rating:	2	2

Overview of partial evaluations

General conditions and classification of the project

The two Financial Cooperation (FC) projects evaluated are part of the overarching German Development Cooperation programme for reforming vocational training in Vietnam. The Development Cooperation (DC) programme supported the Vietnamese vocational training policy of the Ministry of Labour, Invalids and Social Affairs (MoLISA) in cooperation with its Department for Vocational Education and Training (DVET) as the body implementing the project. As part of the Vietnamese reform strategy for the vocational training sector, a total of 16 centres of excellence were to be created by 2015 and 40 by 2020, to provide high quality training at international level - the projects evaluated addressed four of these centres of excellence. Both projects were financed via a budget loan, while the FC-financed basic and advanced training measures were financed via a grant. The FC programme for the promotion of vocational training reform in Vietnam now consists of four FC projects, with the present evaluation referring to two of these FC projects. In the case of Project A (Programme for Reform of Vocational Training in Vietnam, LILAMA2, BMZ no. 2010.65.473), the preparatory studies have already been carried out jointly by FC and Technical Cooperation (TC), and the implementation took place in close coordination. Project B (Vocational training programme 2011, BMZ no. 2011.67.089) also had overlaps and close coordination for individual supported vocational training offers. Project B was also supplemented by an FC training and further education measure (basic and advanced training measure). The FC projects considered as part of the evaluation are evaluated jointly, as the measures are designed very similarly and have analogous impact relationships.

The two projects were planned and implemented in the last two decades (1997–2017) against the backdrop of an **exceptionally fast-growing economy** in Vietnam. Growth rates of around 7% per year led to a steady upswing in the country. This development took place through the national reform and modernisation process ("Doi Moi") and increasing regional and global integration of the country. Industry and services were the main drivers of Vietnam's growth in 2011, accounting for 42% and 41% of gross domestic product (GDP) respectively. In view of the opening of the Southeast Asian labour market (ASEAN – Association of Southeast Asian Nations) in 2015 and the increased demands for high quality vocational training, the government sought to increase and improve the number of vocational training institutes.

The following qualitative deficits in vocational training were particularly pronounced:

- Insufficient practical orientation and cooperation between Technical and Vocation Education and Training (TVET) institutes and enterprises;
- Inadequate qualification of teaching staff, in particular lack of practical/industrial professional experience;
- Inflexible curricula that were also far from the needs at workplaces;
- Insufficient teaching materials and obsolete, non-maintained, low-tech machinery;
- Focus on quantity rather than quality of training through budget allocations focused on student numbers.



In 2010, the Vietnamese government formulated a strategy paper on the creation of centres of excellence to address these deficits. These centres of excellence were to offer high-quality vocational training in accordance with international standards and that also reach out to other institutes within the vocational training system.

Vietnam also sought to create a favourable investment climate for foreign companies to attract more foreign direct investment (FDI). The country improved from 98th to 78th place in the World Bank's "Doing Business Index" (2015). Foreign direct investment amounted to around USD 9 billion in 2015 and close to USD 20 billion in 2020, as the graph below shows. Market opening and the existing potential of available labour (52 million workers in 2011) should also be exploited with regard to labour migration to neighbouring countries¹.

Figure: Development of foreign direct investment



Source: AHK Vietnam, MPI Vietnam and GTAI (available only in German)

Brief description of the projects

In order to provide training that is oriented towards the labour market and internationally competitive, four vocational training institutes were supported as part of the two projects with financing for machines, equipment and teaching materials, supporting them in their development into high-quality institutes that reached out to other regional vocational training institutes. **Project A** provided support for LILAMA Technical and Technology College 2 (LILAMA2) near Ho Chi Minh City, which is sponsored by the Ministry of Construction (MoC). The FC project financed machines, equipment and teaching materials for the industrial mechanics, metalworking, mechatronics and industrial electronics training courses. The closely interlinked TC programme component included further training and advice for teachers and management, and advice a) on the structure of the training courses to be promoted and b) on the conceptual and structural orientation of the centre of excellence.

As part of **Project B**, training courses were provided by the Vietnamese – German Technical College in Ha Tinh, the College of Technology in Nha Trang and the College of Technology in Ho Chi Minh City (HCVT), all of which are sponsored by the Ministry of Labour (MoLISA). The FC financed the equipment for the training courses in automotive technology, wastewater technology, food processing, electrical engineering, IT and network technology, as well as metal technology. Teachers were also trained in the appropriate use of the purchased equipment

¹ "Vietnam moves", AHK Vietnam 2015



through an FC-financed basic and advanced training measure. The wastewater technology training course was relaunched and developed through a complementary TC project.

The **target group** for both projects was (i) male and female school leavers from upper and middle school, (ii) employees seeking high quality formal vocational or further education, (iii) teaching, training and management staff employed at the supported vocational schools, (iv) teaching and management staff from other vocational schools from the network of supported institutes as well as (v) unemployed and underemployed individuals.



Map - Vietnam with the supported vocational school locations





Breakdown of total costs

Project A – Vocational training reform programme in Vietnam (LILAMA2), BMZ no. 2010 65 473

	A: Inv. (planned)	A: Inv. (actual)	B: Inv. (planned)	B: Inv. (actual)	B: Training (planned)	B: Training (actual)
Investment costs (total) EUR million	16.90	18.69	6.5	6.2	0.35	0.33
Counterpart contribution EUR million	3.40	5.37	1.2	1.5	0	0
Debt financing EUR million	13.50	13.32	5.3	4.7	0.35	0.33
Of which budget funds EUR million	13.50	13.32	5.3	4.7	0.35	0.33

Project B – Vocational training programme 2011, BMZ no. 2011 67 089

Evaluation according to OECD-DAC criteria

Relevance

1. Policy and priority focus

At the time of the appraisal of the two projects (Project A: 2011; Project B: 2013), Vietnam was aiming to achieve the status of a middle-income country on the basis of its **high economic growth**. The industrial and services sectors contributed 42% and 38% to GDP², respectively. There was a strong shift from the primary to the second-ary and tertiary sectors, which was also reflected in the increasing labour demand in technology-intensive sectors. However, this employment potential could not be exploited due to the lack of skilled workers. In addition, Vietnam's accession to the Association of South East Asian Nations (ASEAN) was imminent in 2015. It was expected that this opening of the Vietnamese economy and labour market would also lead to increased competition with other export-oriented countries in the region, and that the availability of qualified specialists would become a decisive location advantage for foreign investment.

In 2011, **the Vietnamese labour market** had around 52 million employed persons (approx. 90 million inhabitants) and in 2019 around 55 million employed persons (approx. 97 million inhabitants). The labour force participation rate was stable between 2011 and 2019 at 77% and 76%³. Around half a million additional participants continued to enter the labour market each year (statistics from 2011 and 2019). The availability of labour also remains high in a regional⁴ comparison and the population is growing (2% in 2020). The rich pool of young (the average age in 2020 was 31), motivated and relatively well-educated workers, as well as the low labour costs, are considered to be major location advantages of Vietnam. Vietnam's wage levels in 2020 were significantly below those of many ASEAN countries⁵.

In 2011, **the number of vocational school graduates** was, with around 240,000, the highest, followed by around 180,000 university graduates and 130,000 technical university graduates. However, this ratio changed over the following years: there was a sharp increase in (technical) university graduates (cf. the following graph). The government had tripled the number of TVET institutes in previous years. At the end of 2011, there were close to 1,300 accredited vocational training institutes with around 1.9 million enrolled students. The enrolment rate increased by approx. 5% annually and the Vietnamese vocational training system was insufficiently able to meet the increased quantitative and qualitative demands. In 2019, enrolments in the vocational training sector

² Industry sector share of GDP 2011 and 2013: 42%. Services sector share of GDP 2011 and 2013: 38%.

³ Labour and social trends in Vietnam 2021, ILO

⁴ In addition to Indonesia, Vietnam has the youngest and largest population in Southeast Asia.

⁵ Average gross wages of an industrial worker in USD 2020: Singapore USD 1,924/month; Thailand USD 446/month, Indonesia USD 348/month, Vietnam USD 236/month, AHK Vietnam 2020



amounted to 2.3 million, an increase of 5.8% compared to 2018. According to a study by the Asian Development Bank, one-third of jobs in Vietnam do not require a vocational qualification, but with a vocational qualification, graduates in the other two-thirds receive a higher salary than workers without training. In turn, this salary is lower than that of university graduates⁶.



Figure: Number of graduates from universities, technical universities and vocational schools (2008-2013)

Source: AHK Vietnam 2015 (from left to right – graduates from universities, technical universities and vocational schools (in thousands))

Nevertheless, it is still necessary to take into account that in 2019, the vast majority of **employees** (42.1 million) did not have a vocational educational qualification, only 2.1 million had completed an apprenticeship (> three months), only a few more had received vocational training (two years) and of the employees with a vocational educational qualification, the proportion with a university degree was the highest at 6.1 million (see chart below). This demonstrates that companies are experiencing a lack of people with professionally accredited, career-appropriate vocational training.





Source: AHK Vietnam, 2020 (from top to bottom: without a vocational qualification, apprenticeship (>three months), vocational training, technical university and university. Left – men and right – women)

⁶ Monthly income without technical training (approx. EUR 165); with vocational training qualification (approx. EUR 228) and with a university degree (approx. EUR 287). Viet Nam Technical and Vocational Education and Training sector Assessment, January 2020 ADB



The two projects evaluated here were conceptually and during implementation based on the strategy paper on the creation of Centres of Excellence (CoE) presented by the Vietnamese government in 2010. This strategy was replaced in 2021 by a **strategy to develop "high quality" institutes**⁷. The strategies have largely overlapping and similar objectives. The following core elements are therefore still relevant for the DC programme:

- National division of TVET institutes into different levels of excellence, sizes and additional tasks. Division of institutes into different levels of excellence, depending on: a) the size of the institutes, b) the qualifications of the teachers, c) cooperation with industry in the context of training and the placement of graduates in suitable jobs, d) the qualifications of the school management and e) the qualification level of the graduates.
- Formation of regional networks between vocational training institutes with different tasks.
- Furthermore, the 2021 strategy aims to consolidate the sector through the promotion of high-performing institutes while simultaneously closing smaller institutes, including those with lower financial performance.

The revision of the Employment Act from 2019 continues to show Vietnam's stronger strategic focus on **cooperation with the economy in the vocational training sector.** As a result, companies are no longer limited to the training and education of their own employees. In addition, it is explicitly stated for the first time that cooperative training between vocational training institutes and companies is desired. Accordingly, companies are encouraged to engage in social partnerships with advisory boards at various levels. The new strategies and laws therefore follow the original CoE concept, the approach of building strong, high-performing institutes with additional functions for sectoral development and promoting close cooperation in the design of training together with management, which makes the evaluated projects' approach still highly relevant today. Regarding their orientation, the projects align with the policies and priorities applicable at the time of the appraisal as well as those adjusted over time, or have already taken aspects such as cooperation with companies into account before anchoring measures into policy.

The projects were in line with the objectives of the BMZ position paper "Vocational education in development cooperation" (8/2012), the BMZ education strategy and Agenda 21, which focused on improving the quality and demand orientation of vocational education. In March 2013, the strategic objectives of the Vietnamese-German development cooperation were further developed and the sector focus paper on vocational training with the title "Vocational training reform in Vietnam for sustainable development and competitiveness in the ASEAN region" was agreed. The focus paper was then incorporated into the BMZ country strategy for bilateral development cooperation in Vietnam, which focused on the supply of needs-based qualified labour in the vocational training sector.

2. Focus on needs and capacities of participants and stakeholders

For the target group, high-quality education was and is a fundamental prerequisite for a good income in a qualified job in order to participate in the country's economic development. Apprenticeships of a high quality and oriented towards the labour market were not sufficiently available (see above). The focus was placed on a broad target group consisting of middle and upper school graduates, employees and the unemployed as well as underemployed individuals. This support of a broad target group takes into account both the needs of companies that need employees with different skill levels and the target groups – especially ethnic minorities, apprentices from low-income families and girls – in part via scholarships from various sources of financing (especially the Vietnamese government, parents' associations), as well as particularly talented apprentices. One way in which the supported vocational schools took the prerequisites for the participation of women and girls into account was by providing their own accommodation options. The structural conditions (not financed by FC) only take into account the special needs of people with disabilities to a limited extent. However, there are no explicit strategies on the part of the government for the promotion of women and girls in technical professions and the selection of

⁷ Strategy for the development of vocational education and training of 2021–2030 period and vision to 2045 – 2239 Decision/QD-TTg 2021 on approval of the Vocational Education Development Strategy in the 2021–2030 period with the vision towards 2045 (luatvietnam.vn)



technical training courses, above all, based on the needs of the wider business community as part of the two projects had also not aimed for an equal distribution between women and men.

The complementary TC measure, as well as the FC-financed basic and advanced training measure as part of Project B, aimed to provide advanced and additional training for **teachers** and promote institutionalised exchanges between companies and vocational training institutes. The needs of the companies were already taken into account in the design of the training courses and practical training parts were to be implemented with other companies or together with other companies in all training courses from the outset. As a result, the secondary stakeholders were also adequately considered in terms of design.

3. Appropriateness of design

The core problem underlying the DC programme was that the need for adequately trained specialists for the Vietnamese economy could not be met in qualitative and quantitative terms. As part of the FC projects, high-quality vocational training in selected (mostly technical) training courses with growth potential was therefore set to be made possible by financing high-quality equipment for the selected vocational school institutes. At the time of the appraisal, the four schools supported by the FC projects were among the 40 vocational schools that were to be expanded into centres of excellence with international education standards by 2020 under the "Vocational Training Strategy 2011 - 2020" of the General Directorate of Vocational Training (GDVT) of MoLISA. They were also in line with the new strategy of 70 "High Quality Schools" adopted in 2021, whose revaluation would meet international (based on G20 standards) and regional (ASEAN) training standards in certain professions and at the same time assume additional functions for the surrounding vocational schools. By making sustainable use of the expanded and improved capacities at the supported vocational schools for training that is oriented towards the labour market and internationally competitive (target at outcome level), apprentices were to be better trained in accordance with the needs of the economy. At impact level, this was intended to improve the supply of skilled workers in selected sectors with growth potential as well as the employment and income opportunities for graduates. By aligning training courses with regional and international standards, graduates' opportunities on the regional and international labour market were also set to improve.

The **criteria for the selection of the four evaluated vocational schools** included their size and training courses offered, the quality and motivation of the management and teachers, the proximity to the wider industry, the accessibility for the target group, the legal status and the financial situation of the vocational training institutes. These criteria continue to seem appropriate. The selection was also made in accordance with Vietnamese strategies for the vocational training sector existing at the time and which continue to be in place today.

Project A was designed and implemented **in cooperation with the TC.** The TC was to develop labour marketoriented curricula for the training courses financed by the FC, train teaching and management staff in methodological, didactic issues and personnel and financial management, and promote close cooperation between the school and the wider business community. Most of the training courses for Project B already existed and no activities were planned for the supported schools as part of the TC project. For this reason, training of the teaching staff on the purchased devices was planned as part of a basic and advanced training measure. The new training course for Project B "Water/wastewater technology" was to be newly introduced and set up as part of the TC and complemented by the FC.

4. Response to changes/adaptability

There was no fundamental adjustment to the project design during the course of the projects. Support for the individual supported vocational schools is designed and structured in accordance with the needs of the wider economy. As their needs vary regionally and depending on the economic sector, and can change over time, vocational schools must also be able to adapt to changing framework conditions. With the introduction of different levels of ambition and the integration of practical elements in cooperation with the wider business community, the supported vocational schools demonstrate a relatively high degree of adaptability at the time of the ex-post evaluation. The increased digitalisation efforts of schools during the coronavirus pandemic also show their willingness to make adjustments. This was also confirmed by the respective management as part of the on-site evaluation.

Summary of the rating:

The identification of the core problem, the impact hypothesis based on it and the results chain additionally remain relevant and plausible today. Furthermore, the design of the two projects appears appropriate at the time of the



ex-post evaluation. The development of the supported vocational training institutes followed the specifications of the national development strategy for the vocational training sector with the involvement of the wider business community. It is classified as relevant from the perspective of both then and now.

Relevance: 2 (both projects)

Coherence

5. Internal coherence

The two FC projects were embedded in the **DC programme "Reform of Vocational Training in Vietnam"**, which still implements the priority area "Vocational Training" agreed with Vietnam today. The evaluated projects represented a further development of the content of the previous DC vocational training programme and an extension to additional schools.

The TC module "Vocational training reform programme in Vietnam" included three fields of action: 1) "Policy advice and system reform", 2) "Promotion of centres of excellence" and 3) "Training and education of professionals in the wastewater sector". The line of business 2) is closely linked to FC Project A. The complementary FC and TC measures supported the LILAMA2 vocational training institute in offering needs-based and practice-oriented vocational training and in performing additional tasks in the vocational training system as a centre of excellence. LILAMA2 as well as companies and professional associations developed professional standards and training programmes for the vocational training courses to be piloted in the professions of metalworker (construction technology), electronics technician (automation technology), cutting machine technician and mechatronics technician. Equivalence with the corresponding German training regulations and framework curricula was confirmed by German chambers of crafts. In order to ensure that there was qualified staff for the design and implementation of the training programmes and for the use of the workshops newly equipped by the FC, teachers were trained in a practical way. Management representatives were also able to improve their skills with monitoring and evaluation tools. In order to secure a sustainable approach, specialists and managers at LILAMA2 received in-depth advice on how companies and associations can be integrated in the design, implementation and appraisal of collaborative training. In order to position LILAMA2 as a location for professional, high-quality training and to promote vocational training as a career option, LILAMA2 was supported in the implementation of a marketing and communication strategy. The FC and TC measures were already considered together in the early planning phase and the equipment financed by the FC was procured and valued based on these plans. The projects have also been particularly useful and effective in their implementation.

Additionally, the conception and implementation of parts of FC Project B complemented the TC measure. As part of the FC project, equipment and machines were purchased at the HCVT for the new training programme "Sew-age Technology Specialist" developed by the TC. This training course, which is new for Vietnam, was developed as a pilot project as part of the TC project's field of action 3) as a collaborative training course equivalent to the German professional profile, and adapted to underlying conditions in Vietnam. In addition to the current vocational training authority DVET, the participating college HCVT, a leading German wastewater company, a German training centre and the Chamber of Commerce and Industry Dresden, the Vietnamese sector association and selected member companies were particularly involved in the development of the professional standard as well as in the development of the new training programme and the testing and certification system. This ensured that the training was based on needs. Teachers and company training staff received intensive professional and technical educational training and examiners (teachers and trainers) received basic and advanced training. They have been certified as in-house trainers and offer further training course for technical staff already working in wastewater companies. The FC-financed equipment of the training course was complementary, and was designed and introduced with the TC component.

In the other training courses of Project B, for which no complementary TC measure was planned, the training of teaching staff on FC-financed equipment was supported by **an FC-financed basic and advanced training measure.** The need for extensive accompanying TC measures varies depending on the training course and equipment purchased. Therefore, this conception also seems to remain appropriate today. Comprehensive, accompanying TC measures are particularly recommended for the FC equipment of newly established training programmes and for training courses to be established according to international standards. However, this complementary implementation requires joint planning from a very early stage. When equipping existing training courses and training courses that only have to meet the needs of the local economy, on the other hand, accompanying



training measures on the purchased equipment as part of a basic and advanced training measure seems sufficient.

6. External coherence

The DC programme and therefore the two FC projects are supported by the **Ministry of Labour (MoLISA)** and **the Vocational Training Department (DVET) there**⁸. DVET is responsible for the majority of vocational training providers in Vietnam and also has an overarching function in terms of content for the institutes that are under the sponsorship of other ministries. DVET is also responsible for coordination and management with other donor projects. The French development agency Agence Francaise de Developpement (AFD), which was already active in the planning phase of LILAMA 2, provided complementary support for construction measures and equipment for the welding technology and telecommunications training courses. The Japan International Cooperation Agency (JICA) and German TC coordinated the synergetic support of HCVT in the fields of mechanics and electrical/electronic engineering. Sectoral coordination measures were also taken with the Asian Development Bank (ADB) (e.g. joint use of the Criteria Catalogue for Competence Centres) to ensure conceptual complementarity. The contribution of the other donors was separate from the DC measures in terms of both geography and content.

In the two FC projects evaluated, the German experience of co-operative training was effectively transferred through the continuous integration of the wider business community into the design and implementation of the training. This supported the Vietnamese government's ambition to better align vocational training with the needs of the economy.

On the other hand, the **standards of vocational education** are not consistently harmonised across training courses and vocational schools. These are taken over from different countries depending on the sector and needs of the wider business community. Different standards were also applied in the FC-financed training courses:

- (a) Training courses according to "national standard" are intended to provide qualifications that meet the requirements of local small and medium-sized enterprises that normally operate for the local/regional market and have no export activities and no international business relationships.
- (b) The "ASEAN standards" correspond to those of the neighbouring "Tiger" countries. The Malaysian system explicitly serves as a blueprint. Qualifications and skills are intended to meet the requirements of Vietnamese companies with business relations with ASEAN countries and ASEAN companies investing in Vietnam. At this level, it is also specifically about Vietnam's competitiveness in the open ASEAN labour market.
- (c) The "international standard" meets the highest standard; it is intended to be based on the qualification systems of developed countries such as Germany, the United Kingdom and Australia. The level of qualifications and skills shall meet the requirements of Vietnamese companies with international export activities and international companies operating in Vietnam.

However, these standards sometimes look very different in implementation, e.g. when introducing international standards according to the German, UK or Australian examples. While these differing standards may meet the needs of individual companies, they may also lead to inefficiencies and challenges in cooperation with the business community. In principle, however, a certain flexibility in the design of cooperative training seems appropriate and advisable for implementing practical portions, depending on the needs of the respective industry as well as the size and opportunities of the companies involved in the training. Therefore, the advantages of this individual design appear to outweigh the disadvantages of possible inefficiencies.

⁸ Until 07/2017 General Directorate of Vocational Training (GDVT)



Summary of the rating:

The internal coherence of the various FC and TC measures is exceptionally high, especially in Project A, as the measures were jointly designed at a very early stage, the temporal process flows were largely harmonised and strong school management was able to facilitate coordination.

The content management function of the vocational training department of the Ministry of Labour, including for vocational training institutes supported by other ministries, ensures coherence with the country's policies and strategies as well as the coordination of various donor activities. There was coherence in the participation of other donors, in particular with AFD, which also supported LILAMA 2, due to clear demarcations of the intervention areas and the training courses supported.

Coherence: Project A - 1; Project B - 2

Effectiveness

7. Achievement of (intended) targets

The outcome-level objective adjusted as part of the EPE and harmonised for both projects was the sustainable use of the expanded and improved capacities at the promoted vocational schools for training oriented towards the labour market. The achievement of the objective at outcome level is measured for the ex-post evaluation on the basis of the following indicators, which are identical for both projects:

Indicator	Status during PA	Target value	Actual value at EPE
(1 NEW) From the start of the 2nd training course, at least 90% of the training places are occupied	-	90%	Fulfilled for both projects. The enrolment figures show up to 100% capacity uti- lisation as planned for all FC-financed training courses under Projects A and B.
(2 NEW) The financed equipment is used for training purposes in accordance with the practical part of the training courses and in an appropriate proportion.	-	Yes / no	Fulfilled for both projects
(3) At least 80% of enrolled trainees pass their final exam		80%	Achieved for projects A and B: 95% each.

Outcome-level target achievement table:

Data on dropout rates is not available; vocational schools reported very few cases.

8. Contribution to achieving targets

The equipment for the school workshops was procured, delivered and installed in accordance with the project design. In Project A, for example, four workshops were equipped with industry-focused equipment and the planned 640 workshop places were created, where 856 trainees can learn at the same time. In Project B, the planned 19 workshops and laboratories were equipped (one workshop has approx. 20 – 25 training places). The teachers were trained either in cooperation with TC or as part of the FC-financed basic and advanced training



measure⁹ in the operation of the systems and the integration into teaching, and are still working as teachers at the schools for the most part. According to the school managers, the training courses supported by the projects have recorded an **increase in enrolments** in recent years and the supported training courses are fully occupied with few exceptions. Disaggregated figures according to training courses were not submitted as part of the evaluation. The schools reported that the supported training courses were more popular among trainees due to the more modern equipment and had higher enrolment rates than non-supported training courses. Interviews at the control school visited as part of the evaluation (not DC-funded) also confirmed that the attractiveness of the training courses for apprentices and the opportunities for cooperation with the industry largely depend on the modernity of the equipment.

The apprenticeships at the evaluated vocational schools have a comparatively **high focus on practical training** on the purchased equipment. The equipment is mainly used for training purposes for short term and long term training courses. At the same time, the equipment in Project A is partly used for contract work to generate income for the wider business community (e.g. metal production with the CNC milling machine). Where appropriate and possible, this will be implemented as part of the training. In other cases, it will be implemented as an income-generating measure, outside of lesson time. The contract work enables trainees to be introduced to quality assurance and the timely processing of work orders from private companies, and is therefore rated as positive. In the vocational schools of Project B, income-generating measures are only possible to a very limited extent due to legal requirements.

Access for women, people with disabilities and ethnic minorities remains generally limited in Vietnam due to infrastructure, financial and social barriers. Only 25.5% of apprentices in the VET system are women and in the technical professions, this share is below 5%¹⁰. The proportion of female apprentices in the supported vocational schools varies greatly. It depends above all on the training courses offered. Among the FC-funded training courses, only the food processing, kitchen and confectionery training courses offered at the Nha Trang College of Technology have a significant proportion of women of around 30%. According to the supported vocational schools, the low proportion of females enrolled in technical training courses in the past could not be increased by special scholarships for female trainees either. A significant increase in female participation could probably have been achieved by selecting fewer technical training courses. Scholarships for talented students and vulnerable groups (people with disabilities, women and ethnic minorities) were awarded at the evaluated project locations as planned; the proportion of scholarship recipients was reportedly around 10% of the total number of apprentices (this information could not, however, be verified during the evaluation). According to the sponsored scholarship recipients, they would have been interested in the chosen vocational training even without a scholarship, but did not have the financial means to complete the training. In addition to the scholarships, the schools (e.g. in LILAMA 2 and Nha Trang) organised events to raise awareness of sexual harassment and "Girls Days" to present vocational training programmes. Boarding rooms for girls were also made available (see also overarching developmental impact).

In the 2013 intergovernmental negotiations, the German and Vietnamese governments agreed to subject the German DC's future participation in the Vietnamese vocational training sector to a "**greening**" in order to meet the challenges of resource scarcity and energy-intensive production processes with a rethink towards resourceefficient and cleaner production. Vocational training played and still plays a crucial role in the implementation of the Vietnamese Green Growth Strategy. This had already been taken into account in advance during the appraisal of Project B in 2011 and a "greening" of vocational training has already been implemented in individual training areas (e.g. water and wastewater treatment).

9. Quality of implementation

Implementation was carried out by executing agencies and vocational schools as part of a coordinated collaboration between FC and TC as well as with the support of the implementation consultants without major challenges.

The facilities financed by FC were all in a very good condition and broadly operate on an almost daily basis. The ratio of theoretical to practical lessons is balanced for most of the curricula, as confirmed by company surveys.

⁹ A total of 188 teachers and management staff were trained as part of the FC-financed basic and advanced training measure.

¹⁰ "Inclusion in TVET", "Reform of TVET in Vietnam 2022" programme, GIZ



Employers also confirmed that the skills acquired by the graduates comply with the state of the art. In interviews as part of the evaluation, the apprentices surveyed were generally satisfied with the equipment in and quality of the lessons. Most of them are already able to make contacts with relevant companies during their training period or work with them during their dual training, as part of internships or shorter assignments. This enables them to be well prepared for the world of work and the specific requirements of companies, and facilitates their later transition into employment. The curricula do not include soft skills, the absence of which was criticised in part by the interviewed apprentices themselves, but also by companies (see also overarching developmental impact)

10. Unintended consequences (positive or negative)

No unintended positive or negative impacts were identified during the ex-post evaluation.

Summary of the rating:

The objective at outcome level of the two projects of sustainable use of high-quality vocational training oriented towards the labour market was achieved and the fact that a large proportion of graduates were able to make contacts with companies during the course of their training facilitates their transition to employment. The effective-ness of the projects is therefore assessed as successful.

Effectiveness: 2 (both projects)

Efficiency

11. Production efficiency

The total investment costs (see breakdown of total costs) for both FC projects were lower than planned (Project A by 10% and Project B by ¹¹5%). The Vietnamese government also contributed more to both projects than originally planned (Project A approx. EUR 2 million and Project B EUR 0.3 million). The own contribution was made for the construction of the school buildings, renovation costs and coordination costs as well as tax and customs exemptions. In terms of design, the division of labour with the TC was clearly defined and separated from the measures of other donors, and the construction measures were clearly agreed with the Vietnamese government. The equipment was specified together with TC experts, the institutes and the FC consultant. The infrastructure was implemented with a high level of ownership by the management of the institutes, which enabled the FC funds to be used efficiently with a focus on equipment. The finalisation of the construction measures before the delivery of the equipment allowed for timely implementation.

However, the implementation time for **Project A** was extended by five months due to the delay in the provision of budget by the Vietnamese government and therefore non-payment of services provided by the implementation consultant, which led to a demobilisation of the consultant. As a result, the consultant was unable to provide full support for the final installation and acceptance of the equipment. The risk of faulty installation was reduced by TC measures (development assistants in LILAMA2) and by training agreements with suppliers for system training (operation, maintenance and repair) and further training measures by TC. Customer services were agreed in the supply and service contracts with the suppliers, which the institutes could still access at the time of the evaluation. The equipment is being used as intended and no machine failures have occurred so far. The training courses on the new equipment were able to start as planned and without delay, and more in-depth teacher training was provided by CIM experts. During the evaluation, no evidence was found that the final acceptance without an FC consultant has endangered sustainable operation.

In **Project B**, the equipment was implemented in most training courses without a complementary TC measure. However, a basic and advanced training measure allowed for the technical and pedagogical integration of the newly procured equipment into the training operation at the supported institutes and ensured that the installation and acceptance as well as introductory training were implemented appropriately by suppliers.

¹¹ The residual funds were reduced in both projects.



The **consulting services** for Project A amounted to 4.2% and for Project B to 14.8% of the respective total costs. The comparatively higher costs for Project B are appropriate, as no TC support was provided for the training measures on FC-financed equipment in accordance with instruction by the supplier. At the time of the evaluation, the plants were used sustainably.

There was no indication that procurements were inefficient. The production efficiency is evaluated as good overall for both projects.

12. Allocation efficiency

The politically controlled location selection of the institutes by DVET was underpinned by a TC implementation concept for centres of excellence and additional functions – mainly teacher training for surrounding vocational schools and targeted collaboration formats with surrounding companies – were defined for these centres. In the two projects, vocational schools were largely fully utilised as planned and enjoy a very good reputation in the Vietnamese economy. The training courses defined during the project appraisal were based on the forecast requirements of the wider business community. The selection of training courses is also to be assessed as suitable for the needs of companies today. Two of the FC-supported vocational training institutes (LILAMA2 and HCVT) are located in the economically strong, export-oriented Dong Nai province in southern Vietnam and offer training courses (industrial mechanics, metalworking, mechatronics, industrial electronics/electrical engineering, automotive technology, treatment of industrial wastewater) that are in high demand from the economy. The proximity to industry in Dong Nai province also allows increased efficiency through the use of equipment for teaching purposes as well as for income-generating measures for the wider private sector.

In principle, the selection of locations and training courses was very successful, especially in southern Vietnam. Therefore, the allocation efficiency of both projects is rated as good, not least in view of the high impact and good coherence.

Summary of the rating:

Due to the increased own contribution of the Vietnamese government and the cost shortfall in implementation, the high utilisation of the plants, the partially increased efficiency through the use of the plants for teaching purposes and income-generating measures, the high satisfaction of the companies and very good employment opportunities after training, both the production and allocation efficiency in Project B are rated as good. For Project A, the assessment of allocation efficiency is even better, as the income-generating measures and the very successful and established cooperation with the private sector are even more pronounced here.

Efficiency rating: 2 (both projects)

Impact

13. Overarching developmental changes (intended)

The impact-level objective adjusted for both projects as part of the ex-post evaluation was to improve the supply of a need-based qualified workforce in selected sectors with growth potential as well as employment and income opportunities for graduates.

The objective at impact level was achieved by the economy's demand for the need-based qualified workforce and their high employment rate, as illustrated by the following indicator specified for the EPE. All supported vocational training institutes have an employment rate of over 80% – the two institutes in the economically strong south (LILAMA2 and Nha Trang) have even reached an employment rate of 100%.



Table Impact-level target achievement:

Indicator	Appraisal status	Target value	Actual value at EPE
(1) At least 80% of graduates (six months after their graduation) find either em- ployed or self-employed work according to their qualifications.	-	at least 80%	Fulfilled for both projects (2019) ¹² Project A: 100% LILAMA 2: 100% Project B: 89% HCVT II: 84.5% Nha Trang College: 100% Ha Tinh College: 82.3%

As part of the project implementation, TC conducted a tracer study with ten DC-supported vocational schools in 2021. Of the ten vocational schools, five were jointly supported (TC and FC) and the remaining five were only supported by TC. The study showed that graduates are employed in the sectors for which FC-supported training courses are offered (Projects A and B).





The high employment rates are due, among other things, to **institutionalised cooperation with the local econ-omy** within the framework of *Industry Advisory Boards*. The companies are networked with the vocational schools from the outset and develop a joint implementation plan for collaborative activities each year, which includes adaptations of curricula to the needs of the private sector, implementation of in-house further training, development of teaching and learning materials, placement of interns and subsequent recruitment, as well as sitting of the final exam. The non-representative interviews conducted as part of the evaluation showed that companies are consciously investing in the relationship with the institutes to ensure that future employees bring with them the expertise needed in the company. As a result, companies hope to be able to reduce training costs for future employees, but this is not fully confirmed in all training courses¹⁴.

¹² Source: Results of Tracer Study 2019, GIZ

¹³ Final Report, Implementation of tracer studies, graduate trainee and enterprise surveys 2021

¹⁴ According to the retention study from 2021, graduates from the industrial electronics/electrical engineering and automotive engineering training courses must undergo further training. Out of a total of 19 companies, five companies (all in the industrial electronics/electrical engineering and automotive engineering sectors) expressed a need for further training.



The modern equipment is particularly important from the perspective of the companies and makes graduates attractive, as they bring important practical experience with the equipment relevant for the companies. The state-ofthe-art infrastructure increases attractiveness, which is also reflected in high enrolment rates. The TC retention study¹⁵ from 2021 found particularly **high satisfaction among companies** with mechatronics graduates. For all other training courses, companies were at least more satisfied with graduates from DC-supported vocational schools than with graduates from other vocational schools. Another independent survey¹⁶ of companies in 2020



also confirmed a high level of satisfaction with the level of competence of graduates among companies¹⁷, in particular in the training courses in LILAMA2 (mechatronics (4.7) and industrial electronics/electrical engineering (4.7)). The studies and surveys described above from 2019, 2020 and 2021 all show a generally high level of satisfaction among companies with graduates from the supported institutes and their level of expertise. Satisfaction is highest in the mechatronics training course.

Figure: Proportion of companies that are satisfied with graduates

Graduates from DC-supported vocational schools "Drainage and wastewater treatment engineering" was newly introduced by TC in the Vietnamese vocational training sector and the equipment at the HCVT was supported by FC. The comparison of company satisfaction is therefore misleading.

The less technical training courses supported under **Project B** in Nha Trang province are also based on the needs of **the local (tourism) industry.** However, this has suffered greatly from **the effects of the coronavirus pandemic.** The effects achieved (high employment rates, company satisfaction and successful completion) could have been increased through an adjustment or broader selection of training courses at Nha Trang College in order to limit the migration of skilled workers during the pandemic, but the migration trend has declined three years after the pandemic restrictions and the demand for skilled workers in the hotel industry is growing again. As a result, an adjustment of training courses no longer appears necessary.

Despite the high level of company satisfaction with graduates from DC-supported institutes, in interviews conducted on site as part of the evaluation, these companies highlighted inadequate language skills and a **lack of soft skills** such as analytical thinking as well as communication and organisational skills, in addition to skills in handling criticism and conflict management. The graduates themselves also cited inadequate soft skills as the biggest obstacle to finding a job and wanted these skills to be more firmly anchored in the curricula.

¹⁵ Final Report, Implementation of tracer studies, graduate trainee and enterprise surveys 2021

¹⁶ Enterprise survey results summary, GIZ, 25/06/2020

¹⁷ Scale from 1 to 5 (1= barely practice-oriented, 5= practice-oriented)



Interviews suggested a **higher income** among graduates from FC-supported institutes compared to non-FC-supported institutes, but this information could not be substantiated by data. However, a 2020¹⁸ study by ADB showed that VET graduates in Vietnam were able to earn a higher income in 2016 than workers without technical training. It can therefore be assumed that vocational training has led to higher incomes for graduates. The same study showed that in 2016 there were salary differences between men and women with equal training and qualifications amounting to 18.5%.

Since the **DC programme objective** (impact) only took into account the supply of skilled workers, the impact objective was supplemented by the perspective of the graduates as a direct target group – their employment and income opportunities – for the evaluation. For the discussion of objectives, see also Annex 1. The improvement of employment and income opportunities is addressed by financing state-of-the-art equipment for the supported vocational training institutes. In turn, the support enables vocational schools to offer needs-based and practical training courses. The project therefore makes a contribution to achieving the DC programme objective.

The target groups for both projects were mainly (i) male and female school leavers from upper and middle school, (ii) employees seeking formal vocational or continuing education of higher quality (iii) teachers, training and management staff employed at the supported vocational schools and (iv) teaching and management staff from other vocational schools from the network of supported institutes, as well as (v) unemployed and underemployed individuals.

The project had not explicitly defined **vulnerable groups** in the target group. Nevertheless, beneficiaries of the project belong to vulnerable groups (especially women, apprentices from poor households and ethnic minorities in the regions where the vocational schools are located). They can benefit from scholarships from different sources of funding (see Effectiveness). In principle, separate housing units and sanitary facilities created the conditions for women to participate. In some cases, gender-specific marketing was also implemented. Systematically disaggregated information on vulnerable sections of the target group is not available. As part of the ex-post evaluation, surveys were conducted with various parts of the target group (trainees, teaching staff, employers, management staff). Overall, the participants expressed a positive opinion on the impact of the financed equipment on increasing their technical capacity (helping to increase their employment potential). Based on these findings, it is assumed that the project has also contributed to positive overarching changes for vulnerable sections of the target group. However, the evaluated projects did not address the needs of people with disabilities in particular in a targeted manner.

14. Contribution to overarching developmental changes (intended)

In principle, it can be stated that **vocational school graduates** enter into employment quickly (four to six months after their final exam), not least due to the shortage of skilled workers against the backdrop of Vietnam's positive economic development and rapid industrialization. The effects of vocational training on graduate income can only be derived anecdotally, as a measurement was not anchored from the outset and data on this area was not collected via retention studies.

At the level of the financed **vocational schools**, the project had impacts that were also noticeable at a higher level, even though a clear and uniform concept for the role of vocational schools as centres of excellence was not evident during the evaluation. The vocational schools, which have modern equipment and high quality training courses, serve as role models for other vocational schools and can have a direct impact on nearby vocational schools via teacher training courses offered. In addition, the promoted vocational schools also act as competence centres for nearby companies, which have their employees trained and further educated there. The exemplary cooperation mechanisms with the wider business sector has a clear model character for vocational training in Vietnam.

Without the projects, the institutes would not have been able to expand to the same extent and exploit their potential in practical orientation, quality improvement and cooperation with the private sector. By expanding the range and access as well as the flagship function as centres of excellence, the project has significantly **made its already broad impact even wider**.

¹⁸ https://www.adb.org/sites/default/files/institutional-document/551001/viet-nam-tvet-sector-assessment.pdf



It is plausible that the project contributed to overarching developmental changes with regard to both the intended beneficiaries and the vulnerable sections of the target group. However, this contribution could have been better addressed by more explicitly including vulnerable people in the target group and could have been measured provided that corresponding disaggregated data was collected. As part of the FC measures focused on equipment, for example, no infrastructure adjustments were planned for people with disabilities and were not taken into account structurally as part of the own contribution.

15. Contribution to (unintended) overarching developmental changes

No overarching unintended positive or negative developmental changes or impacts at social, economic or environmental level were identified during the ex-post evaluation.

Summary of the rating:

Vocational training is well established in Vietnam, but in direct competition with technical universities, which continue to enjoy a better reputation in society. However, the good qualifications and high employment opportunities after training at FC-supported vocational schools show positive developments: in most cases, the training enables fast entry into a qualified employment and, in most cases, a higher income. Over the past 20 years, German DC has made a visible, structure-building contribution to the public vocational training system in Vietnam by supporting 11 vocational schools, all of which have a good reputation.

Impact: 2 (both projects)

Sustainability

16. Capacities of participants and stakeholders

The management and teachers of the institutes supported by the two projects all show a great deal of ownership. Staff turnover rates among teachers were moderate, and the teachers surveyed during the evaluation expressed a high level of loyalty to their vocational school and a high level of intrinsic motivation in teaching. The cooperation with the business community and the further education and training offered were also mentioned as motivating. The limited financial opportunities of vocational schools pose a risk in the long term. Salaries are generally reported to be well below average for the economy. The teachers surveyed during the evaluation indicated some internal dilemmas due to the lower salaries and, on the other hand, high loyalty to the profession and institute through other motivating factors.

At graduate level, the projects also strengthened the sustainable opportunities for high quality income generation. Their certified degrees are not only recognised in the local economy, but also in particular in ASEAN and international standards (cf. Relevance). After successfully completing their training, they are therefore also able to find a suitable job in other regions in the event of changes in the local economic situation and thereby improve their employment and income situation.

17. Contribution to supporting sustainable capacities

In addition to infrastructural effects, the two evaluated projects also had a positive impact on the sustainable competence of the management of vocational schools and the motivation of teachers by improving the working environment. The improved equipment has increased opportunities for cooperation with the local business community. As a result, the opportunities for income generation have been expanded at least for LILAMA2. The experiences and successes gained in the implementation of the newly introduced training courses and teacher training for surrounding vocational schools lead to an improvement of standards and a deepening of ongoing cooperation with the private sector at local and central level.

18. Durability of impacts over time

The structural substance of all buildings and facilities visited was of a consistently high quality. The workshops were very tidy, tools were tidied up and locked away at the end of the lessons, workplaces were cleaned and solid waste was disposed of. So far, the purchased equipment and machines have proved to be of high quality and therefore low-maintenance. So far, no expensive replacement parts have had to be procured. Detailed



maintenance plans are available for Project A, which accurately specify the maintenance intervals and responsibilities. For the schools supported as part of Project B, maintenance plans could only be viewed in Vietnamese in the evaluation. Verbal information was provided on regular maintenance intervals and responsibilities, which were primarily anchored with teaching staff. Due to the very good condition of the equipment, it can be assumed that these plans will be implemented.

The central and provincial governments' increasingly restrictive budget planning for the financing of vocational training could certainly restrict the long-term plannability of vocational schools and further intensify the already fierce competition for good teachers. In addition, equipment and training must adapt to the changing needs of companies in the long term. How the corresponding investments are financed is not conclusively clarified and external support is considered necessary by the vocational schools.

In the long term, the question will arise as to whether reinvestments can be made from the vocational school budget. The different vocational schools of the two FC projects evaluated have different **degrees of autonomy**, **which are decisive for the income situation.** The degree of autonomy depends, among other things, on the financial situation of the regions and is reflected on the one hand in varying levels of financial support from the provincial government, but also influence freedom of decision-making and the possibility of implementing income-generating measures.

The LILAMA2 vocational school (**Project A**) has the **highest degree of autonomy**, is financially independent and is authorised to manage the available budget independently. LILAMA2 is also allowed to offer services and products to the surrounding industry in order to generate additional income¹⁹. The nature of these partnerships with industry and companies is very individually tailored to the respective needs and opportunities, and the manufacture of the products is partly carried out during the training period. However, the school pays attention to the fact that the utilisation of FC-financed machinery and equipment for training purposes takes precedence. However, the main source of income for running costs of LILAMA2 is training fees. LILAMA2 will therefore have to make reinvestments from its own resources (income-generating measures) or in cooperation with the local economy.

The vocational schools in **Project B** have **lower degrees of autonomy.** This means limited opportunities to generate their own income on the one hand, but higher budget allocations from local governments on the other. However, the Vietnamese government is also aiming for higher levels of financial autonomy for these schools, which could be problematic in some cases, as the opportunities to offer products and services to the wider business community depend heavily on the sectoral orientation of the training courses and the wider business community. More precise information on the cost assumption situation of the supported vocational schools could not be obtained as part of the evaluation. Since training fees are capped, which is important from the target group's perspective for access to vocational training, these fees cannot be expected to cover more than the operating costs. The strategic goal of the Vietnamese government is for vocational schools to be able to cover reinvestment costs by opening up other sources of financing. So far, this has not been possible and, given the economic importance of vocational schools, it can be assumed that the regional budget allocations cover the basic needs.

For those apprentices who have found a job after graduating from vocational school, it is assumed that they continue the positive sustainable development of their skills and contribute to economic development. These successful examples certainly also make a positive contribution to the reputation of vocational training in Vietnamese society and its recognition by the private sector.

Summary of the rating:

Project A: Due to the very good condition of the facilities and equipment, the functioning maintenance and servicing as well as the school's ability to cooperate with the business community and generate income, we rate sustainability as good.

Project B: The financed equipment at the schools visited was in good condition, and good maintenance and repairs were also demonstrated here. Schools only have limited opportunities to generate their own income, but

¹⁹ However, LILAMA 2 is not completely independent of the state and receives teacher salaries from the central government.



this potential is set to expand in the future. Due to the economic significance, government allocations for reinvestments can also be assumed. Sustainability is therefore still well assessed for Project B.

Sustainability: 2 (both projects)

Overall rating: Project A – 2; Project B – 2

From an overall economic perspective, the projects were able to contribute to a qualitative and quantitative improvement in vocational training at selected vocational schools. The training courses are practical, while cooperation with the private sector has been expanded and is well established. Due to the increasing number of graduates, the supply of skilled workers for companies is also increasing. A successful transition of graduates from the target group into employment in accordance with their qualifications has long term positive income effects for them. Overall, both projects are successful.

Contributions to the 2030 Agenda

The objectives of the programme are consistent in particular with SDG 4 (quality education) and SDG 8 (decent work and economic growth). The government's scholarships for female students and ethnic minorities also contribute to SDG 10 (reduced inequality) in conjunction with the projects.

The two projects were designed and implemented under the supervision of the DVET and are integrated into the national development framework for vocational training. They were coordinated in terms of content with other donors (cf. external coherence).

The extensive economic development of Vietnam in recent years is accompanied by high energy and resource consumption as well as increasing emissions, and jeopardises Vietnam's environmental sustainability. In 2011, the Vietnamese government therefore adopted a green growth strategy that envisages the restructuring of the economy towards clean production, more sustainable use of resources and the reduction of greenhouse gas emissions. In the economically dynamic industrial and service sectors in particular, there is a high need for competent specialists who are prepared for the new requirements. The action plan of the Vietnamese Green Growth strategy therefore explicitly anchored the development of the workforce for a green economy. From the action plan of the Green Growth strategy, 14 learning objectives were derived for vocational training that meet the requirements of a green economy. During the implementation period of the two FC projects, work began to integrate these cross-professional and specific learning objectives into the professional standards and training programmes of the five professional fields of waste water, metal technology, mechanics and electrical engineer-ing/electronics as part of the TC module. In addition, some of the learning objectives are integrated into the three further training courses for technical employees of the companies in the wastewater sector. These are offered based on the Vietnam Water and Sewerage Association (VWSA) pilot training modules.

As described under Effectiveness and Impact, the project did not provide for explicit inclusion at target group level under the "leave-no-one-behind" aspect and therefore produced minor indirect effects at outcome and impact level in this regard. However, there is evidence that an impact was made primarily through government grants, including at the level of disadvantaged groups. Nevertheless, disaggregated data could not be viewed as part of the evaluation.



Project-specific strengths and weaknesses as well as cross-project conclusions and lessons learned

The projects had the following strengths in particular:

- High level of ownership, especially among school management and teachers
- Excellent cooperation with the private sector
- Creative use of financial leeway by vocational schools, depending on legal requirements and possibilities
- Very good reputation of vocational schools among apprentices and companies
- High post-training employment rate
- Successful cooperation between TC and FC, particularly in Project A

The weaknesses of the two projects include in particular:

• Uncertainty in the financing of schools (especially reinvestments) that depend on central budget allocations or external financing (possibly also companies)

Conclusions and lessons learned:

- The initiative, capacities and ownership of the management are decisive for success and can be crucial to the success or failure of a vocational training project, provided other framework conditions remain the same.
- The success factor for vocational training is close cooperation with the business community in the design and implementation of training courses, which requires a certain degree of industrialisation.
- Training in suitably specified equipment in accordance with the respective needs and standards of the industry is decisive for the willingness of the economy to cooperate and subsequent employment prospects.
- Cooperation between TC and FC can be important in vocational training projects, but in graduated intensity levels, depending on the training course and level of ambition. Cooperation must be coordinated at an early stage of project preparation.
- In order to better include women and girls, they must be considered from the outset when designing the
 programme. Explicit support must be provided in order to include women and young girls in technical
 (male-dominated) professions, for example through scholarships as well as career orientation and marketing measures. However, even these measures often show only limited success if training courses are
 not selected in sectors with a traditionally high proportion of women.



Evaluation approach and methods

Methodology of the ex post evaluation

The ex post evaluation follows the methodology of a rapid appraisal, which is a data-supported qualitative <u>contribution analysis</u> and constitutes an expert judgement. This approach ascribes impacts to the project through plausibility considerations which are based on a careful analysis of documents, data, facts and impressions. The reasons for any contradicting information are investigated and attempts are made to clarify such issues and base the evaluation on statements that can be confirmed by several sources of information wherever possible (triangulation).

Documents:

Internal project documents, retention studies, secondary specialist literature, political strategy papers of the partner government, public reports of the German Chamber of Commerce in Vietnam, comparable evaluations.

Data sources and analysis tools:

On-site data collection, semi-structured questionnaires and interviews (not representative).

Interview partners:

Central government project-executing agency DVET, vocational schools (management and teachers), target group (students and graduates), other donors (AFD, ADB), entrepreneurs working with the vocational schools.

The analysis of impacts is based on assumed causal relationships, documented in the results matrix developed during the project appraisal and, if necessary, updated during the ex post evaluation. The evaluation report sets out arguments as to why the influencing factors in question were identified for the experienced effects and why the project under investigation was likely to make the contribution that it did (contribution analysis). The context of the development measure and its influence on results is taken into account. The conclusions are reported in relation to the availability and quality of the data. An <u>evaluation concept</u> is the frame of reference for the evaluation.

On average, the methods offer a balanced cost-benefit ratio for project evaluations that maintains a balance between the knowledge gained and the evaluation costs, and allows for systematic evaluation of the effectiveness of the FC projects across all project evaluations. The individual ex post evaluation therefore does not meet the requirements of a scientific assessment in line with a clear causal analysis.

The following aspects limit the evaluation:

Inadequate internal documentation, inadequate data on some of the impact indicators, in some cases the language (especially for written information), in some cases unclear data supply by supported vocational schools and MoLISA.



Methods used to evaluate project success

A six-point scale is used to evaluate the project according to OECD DAC criteria. The scale is as follows:

- Level 1 very successful: result that clearly exceeds expectations
- Level 2 successful: fully in line with expectations and without any significant shortcomings
- Level 3 moderately successful: project falls short of expectations but the positive results dominate
- Level 4 moderately unsuccessful: significantly below expectations, with negative results dominating despite discernible positive results
- Level 5 unsuccessful: despite some positive partial results, the negative results clearly dominate
- Level 6 highly unsuccessful: the project has no impact or the situation has actually deteriorated

The overall rating on the six-point scale is compiled from a weighting of all six 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 overall objective ("impact") and the sustainability are rated at least "moderately successful" (level 3).

Publication details

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List of annexes:

Annex 1: Target system and indicators

Annex 2: Risk analysis

Annex 3: Project measures and results

Annex 4: Recommendations for operation

Annex 5: Evaluation questions in line with OECD DAC criteria/ex post evaluation matrix

Annex 1: Target system and indicators

Project purpose at ou	tcome level	Rating of app	ropriateness	(former and current	view)
During project appraisal: Project A: "LILAMA2": By making use of the expanded and improved capaci- ties, LILAMA 2 offers labour market-oriented and internationally competitive training.		Training courses must be geared primarily to the needs of the relevant surrounding business community and the respective sectors. It is therefore not always necessary or possible to offer training courses according to international standards. The objective at outcome level was standardised for both projects as part of the EPE.			e not always necessary or tandards.
Project B: "VPT 2011": Competitive training by us ported vocational schools					
Modified at EPE for both p	projects:				
Sustainable use of the exp	panded and improved capacities at the supported voca	tional schools for	labour market-o	riented and internation	ally competitive training.
Indicator	Evaluation of appropriateness (for example, regarding impact level, accuracy of fit, target level, smart criteria)	PA target level Optional: EPE target level	PA status (2011)	Status at final inspection (2017)	Optional: EPE status (year)
Indicator 1 (PA) After commissioning of the new plants, at least 90% of the newly cre- ated capacities are filled with trainees <u>NEW:</u> From the start of the 2nd training course, at least 90% of the train- ing places are occupied.	Key question: Are the training courses offered relevant and are they in demand among trainees? The indicator was specified for the evaluation with regard to capacities (training places) and the measurement time (2nd training course), as a start-up phase must be taken into account.	90%	Cannot be ascertained	Indicator is re- garded as achieva- ble due to the posi- tive development of the institutes' enrol- ment figures, but cannot be ascer- tained as three years have passed after commission- ing	Achieved The enrolment figures show the full capacity utilisation of all FC-fi- nanced training courses in accordance with their design (100%).

Indicator 2 (PA): The workshops are used for training purposes for at least 60% (Project B) and 80% (Project A) of the operation period <u>NEW</u> : the financed equipment is used for training purposes in ac- cordance with the practi- cal part of the training courses' design and to an appropriate extent.	 <u>Key question:</u> will the financed equipment (a) be used in accordance with the practical part of the training courses' design; b) be used for both training and income-generating measures to an appropriate extent? For Project A: The indicator is not easy to measure and may not be fully conclusive. LILAMA2 has full autonomy and is therefore dependent on incomegenerating measures. However, some of these are also carried out during the training period and can therefore not be clearly differentiated from practical lessons. The possibility and necessity of income-generating measures strongly depend on the training courses and the degree of autonomy of the institutes. For this reason, the indicator was reformulated as part of the EPE. 	PA: 80% (LILAMA2) and 60% (VPT 2011) EPE: Yes/no	Cannot be ascertained	Indicator is re- garded as achieva- ble, but cannot be ascertained as three years have passed since com- missioning	Project A: Achieved The use of FC-fi- nanced equipment for training purposes clearly predominates (short term and long term training courses). In addition, some con- tract work to generate income is carried out during the training pe- riod and can therefore not be clearly differen- tiated from practical lessons. The contract work enables trainees to be introduced to quality assurance and completing orders from private companies to deadlines, and is therefore evaluated as positive. Project B: Achieved The use of FC-fi- nanced machines for training purposes clearly predominates (short term and long term training courses), as income-generating measures are only possible to a very lim- ited extent due to legal requirements.
Indicator 3 (PA):	Key questions:	80%	Cannot be ascertained	Indicator is consid- ered achievable,	Achieved

At least 80% of enrolled trainees pass their final exam	 (a) Is the cost of training fees appropriate so that the trainees can complete the entire training? b) Are the trainees' employment and income expectations met (for the previous cohorts), so that the training courses are completed? c) Do the trainees meet the pre-requisites for completing the training? The dropout rate is also relevant for the aforementioned questions. Important: are there financial disincentives for schools to generate particularly high rates of successful qualifications? Does the school follow examination regulations and standards? 		but cannot be as- certained as three years have passed after commission- ing (after the first cohort went through the training course)	Projects A and B: 95%.
Indicator 4 (NEW): Dropout rate in training courses	Indicator would have been expedient, but no data is available.			NEW: only verbal statements from the in- stitutes are available on the dropout rate, which is described as very low. Confirmation was given by other in- terviewees.

Project objective at impact level	Evaluation of appropriateness (former and current view)
During project appraisal: The supply of need-based skilled la- bour in sectors with growth potential has improved (DC pro- gramme objective).	The DC programme objective only highlights the impacts that the programme aims to have on companies. This formulation is appropriate, also as the project is integrated into the priority area of Sustainable Economic Development. The perspective of individuals is also mapped at indicator level (income increase).
	However, not all sectors with growth potential can be served. Therefore, the objective should be limited in this regard. In addition, graduates enjoy better employment and income prospects.

During EPE (if target modified):		Improving the supply of skilled workers in selected sectors with growth potential as well as em- ployment and income prospects for graduates.			potential as well as em-
Indicator	Evaluation of appropriateness (for example, regarding impact level, accuracy of fit, target level, smart criteria)	Target level PA / EPE (new)	PA status (year)	Status at final inspection (year)	Status EPE (year)
Indicator 1 (PA) (2010–2018) Independent sur- veys of companies and graduates con- firm a significant im- provement in train- ing at vocational training institutes supported by Ger- man DC 1. <u>Employment op- portunities:</u> The em- ployment rate of graduates of the in- stitutes supported under the pro- gramme is develop- ing at a consistently high level (>70%). 2. Increased in- come: Graduates re- port an improvement in their income situ- ation. <u>NEW:</u> At least 80% of successful voca- tional school	The indicator is relevant, but is difficult to measure and may be poorly aggre- gated due to the different periods per line of business. Only benchmarks and target corridors can be defined, which raises questions regarding the accuracy of the indicator. In addition, no actual data was reported as part of the final FA.				Achieved: 82% (2019)



graduates find em- ployment related to their qualification ei- ther as salaried em- ployees or as self- employed workers (six months after graduation).						
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Annex 2: Risk analysis

For Project A - "Vocational training reform programme in Vietnam, LILAMA2", BMZ no. 2010 65 473

Risk	Relevant OECD-DAC criterion
Ex ante: Due to the high additional funding requirements for the financing of a Centre of Excel- lence (CoE) compared to conventional vocational schools, an increased risk was identified that LILAMA 2 cannot become sustainable. However, the expansion of LILAMA into a CoE is being organised by the government as a prestige project; sufficient funds have been committed by the MoC. We classify the risk of funding deficits for ongoing costs and reinvestments as me- dium with low controllability.	Sustainability
AC : The fear that the amount of public allocations required for the implementation of the CoE strategy would not be sufficient or that LILAMA2 cannot be operated sustainably as a CoE has not yet been confirmed.	
Ex post: At the time of the evaluation, LILAMA2 already had the status of full autonomy. The CoE was able to cover costs, also because no larger reinvestments had been necessary until that point. Financing this will be a challenge for LILAMA2 in the future. At the same time, it can be assumed that there will continue to be significant support both on the political side and from the wider business community, due to the CoE's high reputation and success.	
Ex ante: So far, cooperation with the business community has been sufficiently established, especially in the welding technology sector. There is a risk that the business community does not sufficiently demand further training in the newly introduced sectors in which LILAMA2 has no long-standing experience and reputation to date. This would not fully exploit the potential to	Relevance /
generate additional revenue. This risk can be counteracted by providing advice as part of the TC measure. We therefore classify it as medium with a medium level of influence.	Sustainability
Final follow-up: This risk was adequately counteracted by in-depth advice as part of the TC measure.	
Ex post: LILAMA2 maintains diverse and successful business relationships with the wider business community. The demand for further training and other products/services is therefore good.	
Ex ante: In order to lay the foundations for sustainable operation of the CoE, the planned administrative reforms must be implemented within the school and, above all, a sufficient number of teachers must be further trained. Before the start of competitive bidding, the fulfilment of the	Effectiveness / Sustainability
indicators set out in TC 3.2.1 (sufficient teachers and pupils, five-year financial plan) and there- fore the status of preparations is be reviewed. This measure is intended to reduce the risk to sustainable operations. We therefore assess the risk as medium with medium controllability.	Sustamability
Final follow-up: The indicators mentioned were met before the start of competitive bidding.	
Ex post: The management of LILAMA2 is evaluated as competent and successful. There is a comparatively high retention rate of teachers. Nevertheless, attracting and retaining sufficiently qualified teachers remains a challenge, particularly in a context in which employment opportunities within the wider, prosperous business community would also be possible and, at the same time, the financial leeway for increasing teachers' salaries is limited.	



For Project B – "FZ Programme Vocational Training 2011", BMZ no.: 2011 67 089

Risk	Relevant OECD-DAC criterion
Ex ante: The project's success greatly depends on a sufficient school budget, from which the ongoing operating and maintenance costs of the supported institutes are to be financed. The programme schools are largely bound by government allocations (via the provinces and the MoC). MoLISA has ensured that it will continue to provide a sufficient budget, even in the future. Nevertheless, we assess the risk of funding deficits as medium with medium controllability. This could be counteracted by establishing income-generating measures, for example in cooperation with development aid.	Sustainability
Final follow-up: No comments.	
Ex post: The possibility for the supported schools to generate their own income is still very limited due to legal requirements.	
Ex-ante and final follow-up: At the time of the final follow-up, it was not possible to determine the identified risk that the teaching and management staff empowered as part of the project through advice and further training would not remain at the supported institutes. As part of the project, only teaching staff were trained. At the time of the final inspection, there appeared to be significant motivation for teaching and training on the new equipment in the new workshops.	Sustainability
Ex post: At the time of the evaluation, the teachers at the visited schools also gave the impression of being highly motivated. A high level of motivation was identified due to good working conditions, a suitable learning environment and a high level of loyalty to the institute, even if some salaries in the wider business community are reportedly significantly higher.	
Ex-ante and final follow-up: A key challenge in the Vietnamese system remains attracting young school graduates for vocational training. It is therefore unclear how vocational schools can counteract national trends towards higher education and attract enough school leavers for vocational education in the long term. This is also a factor that is beyond our control. The increase in fees at some vocational schools (e.g. at HVCT) could also contribute to making this education path less attractive. For vulnerable groups, school fees already present a hurdle, making them dependent on scholarships. Some apprentices additionally reported that they work alongside their training.	Relevance
Ex post: The number of pupils at the supported vocational schools has developed as expected, so that the training courses are being utilised as planned. Competition with universities remains a problem for the Vietnamese vocational school system. The number of university graduates has increased compared to those from vocational schools, so that the nationwide trend towards higher education could not be counteracted. However, all evaluated vocational schools were able to attract school leavers for vocational education and the vocational school system as a whole benefited from their success and growing reputation.	



Annex 3: Project measures and their results

For Project A – Programme for Vocational Education and Training Reform in Vietnam, (LILAMA2), BMZ no. 2010 65 473

The FC measure envisaged the creation of a total of <u>640 workshop stations</u> in the four professional fields of industrial mechanics, metalworking (focus area: chipping, CMC), industrial electronics and mechatronics, in which 856 trainees can learn simultaneously (excluding theory lessons).

A total of <u>four workshops</u> were equipped with industry-related equipment for the above-mentioned professional fields. A precise specification of the equipment lists was made at the start of implementation on the basis of a previously conducted feasibility study. It was ensured that the equipment ordered was fit for purpose and that maintenance costs remained low.

The Vietnamese MoC (owner of the vocational school) contributed to the construction of the school buildings and workshops to accommodate the equipment. A total of <u>three buildings</u> were built:

- A four-storey building with 4 x 600 m² for industrial electronics workshops.
- A 1,300 m² hall for metalworking and industrial mechanics.
- A three-storey building with a gross area of 2,700 m² for mechatronics workshops.

As a result of the FC measure, sufficient technical training capacity is currently available at the school for formal training in the professional fields defined by the programme. The teachers are well trained in the practical use of the delivered equipment. The implemented measures therefore correspond to the design.

Project B - FC Programme Vocational Training 2011, BMZ no.: 2011 67 089

The FC measure mainly provided the following services:

- Identification and selection of VET institutes to be supported;
- · Identification and selection of disciplines and departments;
- Definition and specification of equipment;
- Preparation of tender documents, procurement of equipment, contract management;
- Supervision during installation, commissioning and supplier training, quality control.

The supported vocational schools with the respective supported specialist divisions/areas of focus as well as the number of equipped workshops and laboratories are broken down as follows, with each workshop comprising around 20-25 training places:



Ho Chi Minh City College of Technology II (HVCT):

Specialist division/area of focus	Number of workshops/laboratories sup- ported
Automotive engineering/chassis/drive/vehicle electrical system	1 (for 5-6 teaching groups)
Wastewater technology	2

Nha Trang College of Technology (NTCT):

Specialist division/area of focus	Number of workshops/laboratories sup- ported
Automotive engineering/chassis/drive/vehicle electrical system	3
Food processing/kitchen/confectionery	3

Vietnamese - German Technical College (VGTC) of Ha Tinh:

Specialist division/area of focus	Number of workshops/laboratories sup- ported
Automotive engineering/chassis/drive/vehicle electrical system	4
Electrical engineering/network technology/IT	2
Metal engineering/welding/CNC/chipping	4

As a result of the FC measure, sufficient technical training capacity is currently available at the supported schools for formal training in the professional fields defined by the project. This means that the equipment implemented corresponds to the design.

Due to the initial training by the manufacturers and suppliers as well as the <u>basic and advanced training measures</u>, the teaching staff were able to incorporate the new equipment into their daily pedagogical work in accordance with the curricular specifications. In individual discussions with teaching staff during the final follow-up, some teachers articulated further training requirements that go beyond basic knowledge (for example, wastewater technology, automotive technology). The TC had mobilised development assistants for this purpose, who provided the schools with intermittent support. This contributes to a better use of the newly acquired teaching and learning materials in a risk-reducing manner and is also set to be anchored in the TC measures for future projects. In total, the basic and advanced training measure provided 1,357 training days for 188 participants. Originally, 705 training days were planned for 64 participants. As a result, a significantly larger proportion of the colleges' teaching and management staff were able to benefit from the programme.



Annex 4: Recommendations for operation

Project A:

No recommendations were made for operation in the project completion report.

Project B

Final follow-up: During the final follow-up on site, recommendations for operational management were given to the sponsoring ministry MoLISA and the vocational training institutes. These included compliance with occupational safety, workshop management (particularly for vehicle specialisations at the Nha Trang College of Technology) and securing the budget for maintenance/servicing, including the budget for repairs.

Ex-post: At the time of the evaluation, all the workshops visited and the equipment were in very orderly, functional condition. No violations of occupational safety regulations were found. Short- and medium-term budget plans for maintenance/repair of the institutes were available.



Annex 5: Evaluation questions in line with OECD-DAC criteria / ex post evaluation matrix

Relevance

Evaluation question	Specification of the question for the pre- sent project	Data source (or rationale if the question is not relevant/applicable)	Rat- ing	Weighting(- / o / +)	Rationale for weighting
Evaluation dimension: Policy and priority focus			2	0	Relevant strategies were both continued and diversified
Are the objectives of the pro- gramme aligned with the (global, regional and country-specific) poli- cies and priorities, in particular those of the (development policy) partners involved and affected and the BMZ?	 From a conceptual point of view, was the project aligned with the Vietnamese government's development and education strategy at the time? Were local priorities taken into account? From a conceptual point of view, was the project aligned with the Federal Minis- try for Economic Cooperation and Devel- opment's (BMZ) development and educa- tion strategy at the time? At the time of the EPE: Updates to Vi- etnam's TVET policy – were there any changes, was the CoE concept main- tained? 	- PA; - Sector strategies			
Do the objectives of the programme take into account the relevant politi- cal and institutional framework con- ditions (e.g. legislation, administra- tive capacity, actual power structures (including those related to ethnicity, gender, etc.))?	 Do the objectives of the BB programme take into account the relevant underlying political conditions (e.g. sector responsi- bilities in the TVET segment)? Were Vietnam's economic ambitions and growing demand for skilled workers adequately accounted for and assessed? 	 PA and related correspondence (if stored in the document management system) Other sector strategies of the Vietnamese government 			
Evaluation dimension: Focus on needs and capacities of participants and stakeholders			2	0	The project was open to a broad target group and scholarships were used to try to increase the proportion of vul- nerable groups.
Are the programme objectives fo- cused on the developmental needs and capacities of the target group? Was the core problem identified correctly?	1. Was the high demand for qualified la- bour actually a significant barrier to devel- opment in the regions of the sites at the time of the PA? And what is the current situation?	- PA; BE - Sector papers - Surveys of companies			
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Were the needs and capacities of particularly disadvantaged or vul- nerable sections of the target group taken into account (possible differ- entiation according to age, income, gender, ethnicity, etc.)? How was the target group selected?	 Were the disadvantaged families iden- tified in the PA clearly defined? Was the proportion of women suffi- ciently taken into account in the PA and in the target group analysis? 	PA; BE - Sector papers			
Would the programme (from an ex post perspective) have had other significant gender impact potentials if the concept had been designed differently? (FC-E-specific question)	Would explicit inclusion of women through quotas have been possible and expedient? Would the need for skilled labour have also existed in professions more heavily occupied by women, so that taking into account a different training course may have allowed women to have better op- portunities?	 Surveys of companies Final follow-up EPE interviews and site visits 			
Evaluation dimension: Appropriate- ness of design			2	0	Design and impact as- sumptions still con- sistent
Was the design of the programme appropriate and realistic (techni- cally, organisationally and finan- cially) and in principle suitable for contributing to solving the core problem?	 Were the proposed measures in principle suitable for counteracting the shortage of skilled workers? Was the design suitable for meeting the requirements of a CoE in terms of Vietnamese reform efforts? To what extent is the purely technical training sufficient for employability? Should social competence areas also have been addressed as part of the training? 	 Surveys of companies Final follow-up EPE interviews and site visits 			

Is the programme design suffi- ciently precise and plausible (trans- parency and verifiability of the tar- get system and the underlying impact assumptions)?	Were the impact hypotheses underlying the project plausible, and were the as- sumptions contained therein adequately substantiated?	_
Please describe the results chain, incl. complementary measures, if necessary in the form of a graphical representation. Is this plausible? As well as specifying the original and, if necessary, adjusted target sys- tem, taking into account the impact levels (outcome and impact). The (adjusted) target system can also be displayed graphically. (FC-E- specific question)	Problem: training courses offered in Vietnam are not geared to the needs (technical and content-related) of companies, so there is a shortage of adequately trained special- ists, which also hinders Vietnam's eco- nomic development. The projects have therefore acquired ad- equate equipment (market-oriented) and trained teachers to operate them and in- tegrate them into updated curricula that is aligned with the wider sector. For this purpose, exchange mechanisms were established with the surrounding in- dustry, which made it possible to share subject matter and conduct training courses.	
To what extent is the design of the programme based on a holistic ap- proach to sustainable development (interplay of the social, environmen- tal and economic dimensions of sustainability)?	If applicable: clarify whether the training courses were suitable for sustainable companies or aimed at more environmen- tally difficult areas?	- PA and related correspondence (if stored in the document management system)
For projects within the scope of DC programmes: is the programme, based on its design, suitable for achieving the objectives of the DC programme? To what extent is the impact level of the FC module meaningfully linked to the DC pro- gramme (e.g. outcome impact or	Is the FC measure aimed at creating labour market-oriented and inter- nationally competitive training through the use of expanded and improved capacities at the supported vocational schools suita- ble for contributing to the programme ob- jective of improving the supply of needs-	-



output outcome)? (FC-E-specific question)	based skilled workers in sectors with growth potential?				
Evaluation dimension: Response to changes/adaptability			_	_	Project did not have to be adapted
Has the programme been adapted in the course of its implementation due to changed framework condi- tions (risks and potential)?	Were there any changes to the training courses and the equipment required for them?	- Final follow-up			

Coherence

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rat- ing	Weighting(- / o / +)	Rationale for weighting
Evaluation dimension: Internal co- herence (division of tasks and syn- ergies within German development cooperation):			1 (A) or 2 (B)	+ or o	Cooperation be- tween FC and TC at LILAMA2 goes significantly be- yond the regular level
To what extent is the programme designed in a complementary and collaborative manner within the German development cooperation (e.g. integration into DC pro- gramme, country/sector strategy)?	Are FC and TC measures designed in a joint DC programme? Is the pro- curement of equipment designed to complement the TC's consultancy services?	- PA - BE - Final follow-up			
Do the instruments of the German development cooperation dovetail in a conceptually meaningful way, and are synergies put to use?	Were the procurement of equipment and the overarching advice for the institute (Project A, LILAMA2) com- plementary? Did the selective TC advice (set up of the wastewater management training course, Project B, VPT2011) complement the delivery of FC-fi- nanced equipment?	- PA - BE - Final follow-up			

Is the programme consistent with international norms and standards to which the German development cooperation is committed (e.g. human rights, Paris Climate Agreement, etc.)?	To what extent were the environ- mental and social standards taken into account in the design and imple- mentation of the project at the time of the PA? Were energy efficiency aspects also taken into account in the competitive bidding for the equipment/machines?	 PA Financing agreement MVP documentation Final follow-up 			
Evaluation dimension: External co- herence (complementarity and co- ordination with actors external to German DC):			2	0	
To what extent does the pro- gramme complement and support the partner's own efforts (subsidiar- ity principle)?	Was/is the implementation of the project complementary to the Viet- namese government's own efforts to implement the national reform strat- egy in the vocational education sec- tor? What efforts were made by the exe- cuting agency (MOLISA/GDVT)? How should the MoC's own contribu- tion be interpreted? How are the future financing/auton- omy plans for the supported insti- tutes to be assessed?	- Sector strategies - EPE interviews and site visits			
Is the design of the programme and its implementation coordinated with the activities of other donors?	To what extent did the measures proposed in the PA and the measures actually implemented complement or compete with simi- larly oriented interventions or other (bilateral or multilateral) development partners with the same or similar programme schools in Vietnam? Was there coordination with these in- stitutes before the design of the measure? Or executing agencies?	- PA - BE - Final follow-up			

Was the programme designed to use the existing systems and struc- tures (of partners/other donors/in- ternational organisations) for the implementation of its activities and to what extent are these used?	Were existing training structures (state and private) included in the design?	- Sector strategies - Feasibility study - PA
Are common systems (of part- ners/other donors/international or- ganisations) used for monitor- ing/evaluation, learning and accountability?	Is there nationwide follow-up of vo- cational schools, apprentice num- bers, graduation figures, training courses, graduates, alumni, etc. e.g. at DVET?	 PA EPE interviews and site visits Discussions with AFD and GIZ

Effectiveness

Evaluation question	Specification of the question for the pre- sent project	Data source (or rationale if the question is not relevant/applicable)	Rat- ing	Weighting(- / o / +)	Rationale for weighting
Evaluation dimension: Achievement of (intended) targets			2	0	
Were the (if necessary, adjusted) objectives of the programme (incl. capacity development measures) achieved? Table of indicators: Comparison of actual/target		-EPE interviews and site visits			
Evaluation dimension: Contribution to achieving objectives:			2	0	
To what extent were the outputs of the programme delivered as planned (or adapted to new devel- opments)? <i>(Learning/help question)</i>	To what extent was the planned equip- ment procured and valued through FC/basic and advanced training measures?	- PA - Final follow-up -EPE interviews and site visits			

Are the outputs provided and the capacities created used?	 Was the technical equipment pro- cured, installed and put into operation within the agreed time schedule? Was the teaching and learning mate- rial procured within the agreed time schedule? Were teachers and instructors trained at the new facilities within the agreed time schedule? 	- Final follow-up - EPE interviews and site visits
To what extent is equal access to the outputs provided and the ca- pacities created guaranteed (e.g. non-discriminatory, physically ac- cessible, financially affordable, qualitatively, socially and culturally acceptable)?	 Was the infrastructure provided built so that it was accessible? Can the technical systems be used in an accessible manner? Are there any students with disabili- ties? Are there separate sanitary facilities and bedrooms? What is the proportion of women? 	- Final follow-up - EPE interviews and site visits
To what extent did the programme contribute to achieving the objec-tives?	Specification of the question using the individual indicators listed in the "Target system" section.	 Final follow-up EPE interviews and site visits
To what extent did the programme contribute to achieving the objec- tives at the level of the intended beneficiaries?	How many (in %) enrolled apprentices passed the final exam? Were all sections of the target group identified in the PA reached?	- BE - Final follow-up - EPE interviews and site visits
Did the programme contribute to the achievement of objectives at the level of the particularly disad- vantaged or vulnerable groups in- volved and affected (potential differ- entiation according to age, income, gender, ethnicity, etc.)?	How many of the least targeted 10% vulnerable groups have received a scholarship from the Vietnamese state? Will the scholarship programme con- tinue unchanged? Is there any possibil- ity of expansion? Alteration to access requirements?	 Monitoring system MoLISA/vocational schools EPE interviews and site visits
Were there measures that specifi- cally addressed gender impact po- tential (e.g. through the involvement	To what extent have the information campaigns specifically for women in- creased the proportion of women?	 Final follow-up EPE interviews and site visits

of women in project committees, water committees, use of social workers for women, etc.)? (FC-E- specific question)	Were separate residences built? And did this increase the proportion of women?				
Which project-internal factors (tech- nical, organisational or financial) were decisive for the achievement or non-achievement of the intended objectives of the programme? <i>(Learning/help question)</i>	Was a review of the indicators planned after commissioning? For what reasons was this not carried out?	- Final follow-up - EPE interviews and site visits			
Which external factors were deci- sive for the achievement or non- achievement of the intended objec- tives of the programme (also taking into account the risks anticipated beforehand)? (Learning/help ques- tion)	To what extent was the increasing inte- gration of the Vietnamese economy into world trade and the resulting demand for skilled workers in the production and services sector decisive for achieving the target? What changes were there compared to PA? What was the impact of the COVID-19 pandemic? Recovery already achieved vs. long-term effects?	- Final follow-up - EPE interviews and site visits			
Evaluation dimension: Quality of implementation			2	0	
How is the quality of the manage- ment and implementation of the programme to be evaluated with re- gard to the achievement of objec- tives?	 How was the division of labour be- tween Lilama 2 and MoLISA/GDVT as well as MoC regulated? For what reasons did the consultants demobilise and how was the implemen- tation in their absence regulated? What impact did the absence have on the quality of the installation and commis- sioning? 	 Final follow-up EPE interviews and site visits 			
How is the quality of the manage- ment, implementation and participa- tion in the programme by the part- ners/executing agencies evaluated?	This question is summarised with the question above	 Final follow-up EPE interviews and site visits 			

Were gender results and relevant risks in/through the project (gender- based violence, e.g. in the context of infrastructure or empowerment projects) regularly monitored or oth- erwise taken into account during implementation? Have correspond- ing measures (e.g. as part of a CM) been implemented in a timely man- ner? (FC-E-specific question)	not applicable	_			
Evaluation dimension: Unintended consequences (positive or nega-tive)			_	_	There were no un- intended effects
Can unintended positive/negative direct impacts (social, economic, ecological and, where applicable, those affecting vulnerable groups) be seen (or are they foreseeable)?	How was occupational safety structured in the workshops and how is it put into practice? Are there any accidents with machines?	 Final follow-up EPE interviews and site visits 			
What potential/risks arise from the positive/negative unintended effects and how should they be evaluated?	No specification required	 Final follow-up EPE interviews and site visits 			
How did the programme respond to the potential/risks of the posi-tive/negative unintended effects?	No specification required	 Final follow-up EPE interviews and site visits 			

Efficiency

Evaluation question	Specification of the question for the pre- sent project	Data source (or rationale if the question is not relevant/applicable)	Rat- ing	Weighting(- / o / +)	Rationale for weighting
Evaluation dimension: Production efficiency			2	0	Project A: particu- larly good cooper- ation with TC, very strong school



		-		management, very good location and cooperation with the local busi- ness community
How are the inputs (financial and material resources) of the pro- gramme distributed (e.g. by instru- ments, sectors, sub-measures, also taking into account the cost contri- butions of the partners/executing agency/other participants and af- fected parties, etc.)? (Learning and help question)	 To what extent has the detailed specification of equipment taken into account the economic sectors to be supported? How are the inputs from the measures distributed, taking into account GIZ and AFD support? What is the own contribution? What is the share of the complementary measure in Project B? 	- Final follow-up - EPE interviews and site visits		
To what extent were the inputs of the programme used sparingly in relation to the outputs produced (products, capital goods and ser- vices) (if possible in a comparison with data from other evaluations of a region, sector, etc.)? For exam- ple, comparison of specific costs.	 How does the CoE's equipment compare to "normal BB centres"? Is there EUR per school/student? To what extent has the use of the Vietnamese government's own funds (construction of school buildings and workshops) contributed to ensuring a sustainable investment? How high were the inputs from vocational schools that were supported by other donors? To what extent was the distribution of tasks with GIZ and AFD resource-saving? 	- PA - Final follow-up		
If necessary, as a complementary perspective: To what extent could the outputs of the programme have been increased by an alternative use of inputs (if possible in a com- parison with data from other evalu- ations of a region, sector, etc.)?	No specification required	- EPE interviews and site visits		
Were the outputs produced on time and within the planned period?	For what reasons was the implementa- tion delayed?	 Final follow-up EPE interviews and site visits 		

Were the coordination and man- agement costs reasonable (e.g. im- plementation consultant's cost com- ponent)? (FC-E-specific question)	Has this delayed the start of training courses? Was it possible to start training straight after the equipment was installed (were teachers present, etc.)? Appropriateness of consulting costs? Was it expedient and necessary to have a PIU at Lilama 2 level and a PMU at GVDT level? Were these PIUs and PMUs then "scaled" again? Was there an addendum for the demobi- lisation period?	- Final follow-up - EPE interviews and site visits			
Evaluation dimension: Allocation ef- ficiency			2	+ (A) or o (B)	
In what other ways and at what costs could the effects achieved (outcome/impact) have been at- tained? (<i>Learning/help question</i>)	Would the same employment opportuni- ties have been possible without making a CoE from Lilama 2, e.g. by expanding Lilama 2 into these or other training courses? Would it have been possible to transfer part of the practical training to the com- panies? Would this even have increased employability more?	- EPE interviews and site visits - Discussions with companies			
To what extent could the effects achieved have been attained in a more cost-effective manner, com- pared with an alternatively de- signed programme?	Less high-tech equipment?	- Discussions with companies			
If necessary, as a complementary perspective: To what extent could the positive effects have been in- creased with the resources availa- ble, compared to an alternatively designed programme?	Was the FC allocation appropriate over- all in order to ensure the achievement of the objectives in terms of sector strengthening and promotion for the supply of skilled workers? Were the sectors and training courses correctly identified from both a current perspective and the perspective from	- EPE interviews and site visits - Discussions with companies			



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Impact

Evaluation question	Specification of the question for the pre- sent project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting(- / o / +)	Rationale for weighting
Evaluation dimension: Overarching developmental changes (intended)			2	0	
Is it possible to identify overarching developmental changes to which the programme should contribute? (Or if foreseeable, please be as specific as possible in terms of time.)	 To what extent has the Vietnamese ecolomy developed? How have the industries around HCMC developed? Was there a higher demand for Lilama's skilled workers on the labour market after 2020? Have the graduates found a job that fits with their newly acquired qualifications? Are the graduates from the region and have they also sought employment there, or have the come from other regions and possibly returned there? Have graduates gone abroad because of an attractive job there and how can this be assessed from a development policy perspective? 	- Discussions with companies			
Is it possible to identify overarching developmental changes (social, economic, environmental and their interactions) at the level of the in- tended beneficiaries? (Or if fore- seeable, please be as specific as possible in terms of time)	 How many students have successfully completed the final exam after 2020? Were Lilama 2 graduates absorbed into the Vietnamese labour market after 2020? Rest of the target group, see above? Train ing, further training, students, unemployed workers, teachers from Lilama 2 and other centres? 				
To what extent can overarching de- velopmental changes be identified at the level of particularly disadvan- taged or vulnerable sections of the	1. Has the proportion of women in vocation training increased in the supported training courses since 2020?				

target group to which the pro- gramme should contribute? (Or, if foreseeable, please be as specific as possible in terms of time)	2. How does this proportion compare to those in other training courses/schools/regions that are not supported by DC?3. To what extent have scholarship programmes increased access to vocational training for vulnerable groups/girls?	
To what extent did the programme actually contribute to the identified or foreseeable overarching devel- opmental changes (also taking into account the political stability) to which the programme should con- tribute?	Share of Lilama2 in apprenticeships in the HCMC catchment area (total and in the sec- tors)? (Due to the low quantitative volume of the programme (in relation to the size of the Vietnamese education sector), an estimation will be difficult; the project will probably only have been able to make a contribution.)	- EPE interviews and site visits
To what extent did the programme achieve its intended (possibly ad- justed) developmental objectives? In other words, are the project im- pacts sufficiently tangible not only at outcome level but at impact level? (e.g. drinking water sup- ply/health effects)	No specification necessary	 EPE interviews and site visits Interviews with companies Monitoring systems of vocational schools
Has the programme contributed to overarching developmental changes or changes in life situa- tions at the level of particularly dis- advantaged or vulnerable sections of the target group (potential differ- entiation according to age, income, gender, ethnicity, etc.) to which the programme was intended to con- tribute?	No specification possible	EPE interviews and site visits
Which project-internal factors (tech- nical, organisational or financial) were decisive for the achievement or non-achievement of the intended	Which courses were in greater demand, which less? Does this reflect the job offer?	 Final follow-up, Dialogue with former responsible project manager

developmental objectives of the programme? (Learning/help ques- tion)		
Which external factors were deci- sive for the achievement or non- achievement of the intended devel- opmental objectives of the pro- gramme? (<i>Learning/help question</i>)	In what way have the political and economic changes in Vietnam influenced the pro- gramme's success in the course of integra- tion into world trade and competition with neighbouring countries? What impact has the COVID-19 pandemic had? What effects can still be felt today?	- Dialogue with former responsible pro- ject manager
Does the project have a broad- based impact? - To what extent has the pro- gramme led to structural or institu- tional changes (e.g.in organisa- tions, systems and regulations)? (Structure formation) Was the programme exemplary and/or broadly effective and is it re- producible? (Model character)	 Were employers satisfied with the qualifications of LILAMA2 graduates? Is the successful cooperation between business and schools having any effects on other companies/schools? To what extent has the testing of the model of centres of excellence been confirmed for Vietnam and is it replicable? In which sectors does the CoE actually have a model character and where does it have a structural effect on the BB range in Vietnam in general? 	 Dialogue with companies Dialogue with MoLISA Dialogue with "satellite schools" that should have benefited from the compe- tence centre (e.g. through teacher train- ing)
How would the development have gone without the programme? (Learning and help question)	 Have non-subsidised vocational schools contributed to the supply of need-based qualified labour? How were they organised and financed, and how was the supply taken on? What is the role of LILAMA2's former exe- cuting agency (LILAMA Corporation before the project went to the Vietnamese state)? Is there still close cooperation (committees with companies, etc.?) Does LILAMA Corporation recruit from LILAMA2? Has LILAMA Corpo- ration previously financed training without a government grant? Are there company-spon- sored training centres? 	- Dialogue with non-subsidised voca- tional schools



Evaluation dimension: Contribution to (unintended) overarching devel- opmental changes			_	_	No unintended changes occurred
To what extent can unintended overarching developmental changes (also taking into account political stability) be identified (or, if foreseeable, please be as specific as possible in terms of time)?	No specification required	- EPE interviews and site visits			
Did the programme noticeably or foreseeably contribute to unin- tended (positive and/or negative) overarching developmental im- pacts?	No specification required	- EPE interviews and site visits			
Did the programme noticeably (or foreseeably) contribute to unin- tended (positive or negative) over- arching developmental changes at the level of particularly disadvan- taged or vulnerable groups (within or outside the target group) (do 26no harm, e.g. no strengthening of inequality (gender/ethnicity))?	No specification required	- EPE interviews and site visits			

Sustainability

Evaluation question	Specification of the question for the present project	Data source (or rationale if the question is not relevant/applicable)	Rating	Weighting(- / o / +)	Rationale for weighting
Evaluation dimension: Capacities of participants and stakeholders			Project A: 2 Project B: 2	0	Long term (re-)fi- nancing and therefore plan- ning security not secured

Are the target group, executing agencies and partners institution- ally, personally and financially able and willing (ownership) to maintain the positive effects of the pro- gramme over time (after the end of the promotion)?	 Are the supported vocational schools in a position and willing to continue and, if necessary, expand the training of qualified specialists in terms of per- sonnel and finances? How are revenues developing, such as the government allocations of the MoL and the MoC? Are funds available for maintenance, servicing and rein- vestment? To what extent has the intended tar- get group changed due to economic changes? 	 Sector strategies Dialogue with MoLISA EPE interviews and site visits 			
To what extent do the target group, executing agencies and partners demonstrate resilience to future risks that could jeopardise the im- pact of the programme?	 Are the promoted vocational schools operated economically/are all costs covered at the time of the EPE? Does the access data increase? What were the impacts of the socio- economic consequences of the COVID- 19 pandemic (lockdown, funds for fees, companies' demand for training courses, etc.)? How many students have dropped out of the training before the end? Did the drop-out rate increase during the pandemic? What proportion of students who complete the training pass the final exam? How many compared to the en- rolments at the start of the training? What are the reasons for drop-outs? 	 Sector strategies Dialogue with MoLISA EPE interviews and site visits 			
Evaluation dimension: Contribution to supporting sustainable capacities:			2	0	
Did the programme contribute to the target group, executing agen- cies and partners being institution- ally, personally and financially able and willing (ownership) to maintain the positive effects of the	1. Have the measures achieved their objectives and therefore provided in- centives for schools and companies to contribute financially and in terms of personnel?	 Dialogue with MoLISA EPE interviews and site visits Dialogue with companies 			

programme over time and, where necessary, to curb negative ef- fects?	 Are the supported vocational schools in a position and willing to continue and, if necessary, expand the training of qualified specialists in terms of per- sonnel and finances? How are revenues developing, such as the government allocations of the MoL and the MoC? Are funds available for maintenance, servicing and rein- vestment? To what extent has the intended tar- get group altered due to economic changes? 	
Did the programme contribute to strengthening the resilience of the target group, executing agencies and partners to risks that could jeopardise the effects of the pro- gramme?	 Are the promoted vocational schools operated economically/are all costs covered at the time of the EPE? Does the access data increase? What were the impacts of the socio- economic consequences of the COVID- 19 pandemic (lockdown, funds for fees, companies' demand for training courses, etc.)? How many students have dropped out of the training before the end? Did the drop-out rate increase during the pandemic? What proportion of students who complete the training pass the final exam? How many compared to the en- rolments at the start of the training? What are the reasons for drop-outs? 	- EPE interviews and site visits
Did the programme contribute to strengthening the resilience of par- ticularly disadvantaged groups to risks that could jeopardise the ef- fects of the programme?	 How has the further training and guidance given to teachers and man- agement developed through the sup- port of GIZ? How many trained teachers are still at the supported vocational schools at the time of the EPE? How many teach- ers were trained for other BB centres? Does the migration of teachers into industry also have a positive effect on the Vietnamese economy? 	- Reports from GIZ - EPE interviews and site visits



	4. Are the employees of the supported vocational schools able to operate and maintain the training equipment as well as commission and monitor maintenance and servicing? Are the maintenance concepts developed by the FC consultant still known and in application? Do the supported vocational schools have the necessary funds?				
Evaluation dimension: Durability of impacts over time			2	o (A) - (B)	
How stable is the context of the programme (e.g. social justice, economic performance, political stability, environmental balance)? (<i>Learning/help question</i>)	 How stable are the policy framework and sectoral policies? How stable are the economic condi- tions in the school regions? 	 Dialogue with MoLISA, Dialogue with companies, Dialogue with AHK, EPE interviews and site visits 			
To what extent is the durability of the positive effects of the pro- gramme influenced by the context? <i>(Learning/help question)</i>	 How stable are the vocational schools of the two projects with regard to Vietnam's economic development, gender equality, economic perfor- mance, political stability and ecological balance? How promising are the training courses from an economic perspec- tive? Are the supported vocational schools able to identify and implement any necessary realignments/adjust- ments in the training courses them- selves? 	 Dialogue with MoLISA, Dialogue with companies, Dialogue with AHK, EPE interviews and site visits 			
To what extent are the positive and, where applicable, the negative ef- fects of the programme likely to be long-lasting?	Can the additional maintenance and servicing costs be covered by the sup- ported schools? Have revenues devel- oped as forecast?	 Dialogue with MoLISA, Dialogue with companies, Dialogue with AHK, EPE interviews and site visits 			