

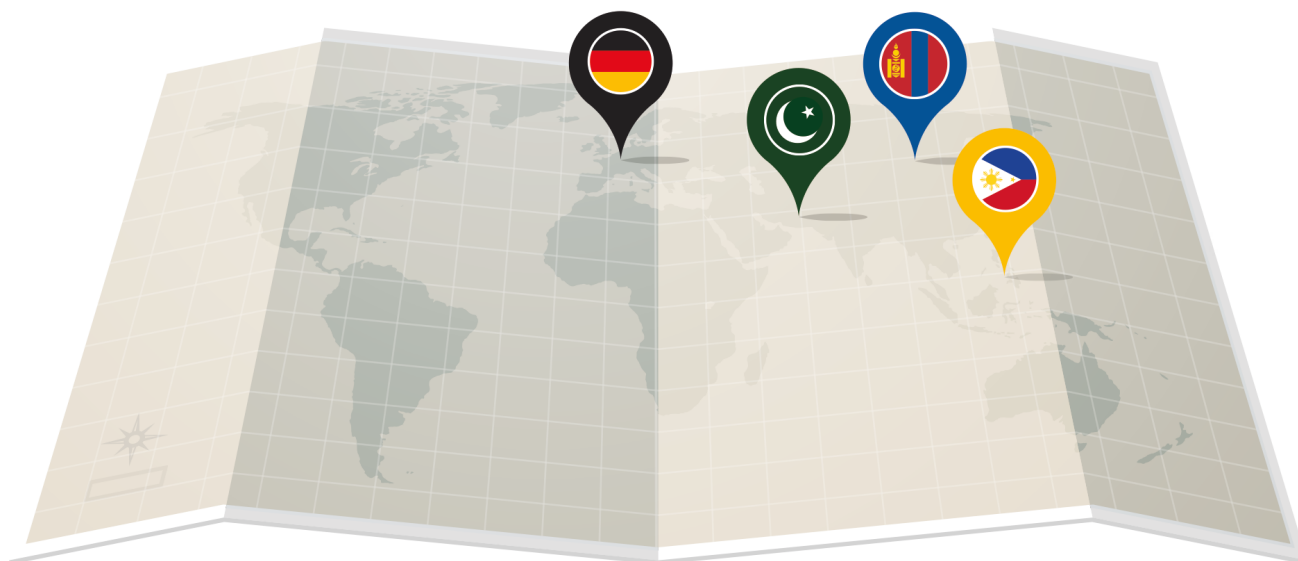


BUILD4SKILLS TOOLKIT

DELIVERING RETURN ON INVESTMENT THROUGH WORK-BASED TRAINING

Published by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



IMPRESSUM

Published by:

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered Offices

Bonn and Eschborn

Global Project Build4Skills
Friedrich-Ebert-Allee 32 + 36
53113 Bonn, Germany

E info@giz.de

I www.giz.de

Editing:

Global Project Build4Skills

Author:

Friedemann Gille

Helen Osborne

Editing/Responsible:

Global Project Build4Skills

Design/Layout:

Atelier Löwentor GmbH

Illustrations:

Elisabeth Horschmann

B4S-Logo:

designed by MediaCompany, Bonn
based on Soviyanto, CC BY-SA 3.0

On behalf of German Federal
Ministry for Economic Cooperation
and Development (BMZ)
Division 413 Education, Bonn

GIZ is responsible for the content
of this publication.

Version 1.0 – Consultation Version
November 2020

CONTENTS

Abbreviations	4
1. Introduction	5
2. The Build4Skills Delivery Framework	6
3. The Build4Skills 4+2 Toolkit	9
Stage 1 Portfolio Screening	9
Stage 2 Diagnostics & Design	12
Stage 3 Implementation	15
Stage 4 Evaluation & Learning	20
Design Principle 1 Stakeholder Management	22
Design Principle 2 Sustainability & Systemic Change	25
4. Conclusion	27
Annex 1 – Methodological Remarks	29

FIGURES

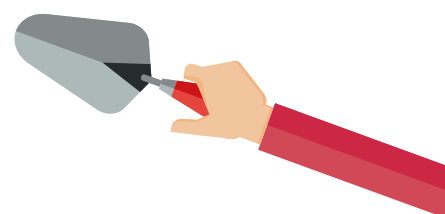
Figure 1 Build4Skills Delivery Framework and Toolkit Structure	5
Figure 2 Build4Skills Simplified Results Model	7
Figure 3 Selected Pilot Results to Date from Mongolia	16
Figure 4 Build4Skills Stakeholder Overview	22

TABLES

Table 1 Steps for Integrating a TVET Requirement in MDB Simple Procurement Process	19
Table 2 Proposed Monitoring Metrics	21

TEXT BOXES

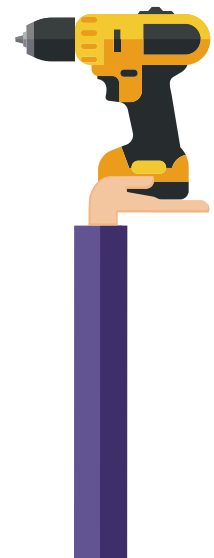
Text Box 1 Build4Skills Participant Profile	8
Text Box 2 Guiding Questions for Determining Construction Sector Skills Demand and Supply	13
Text Box 3 Spotlight “TVET in MDB Construction Procurement”	14



**“A COUNTRY’S MOST VALUABLE RESOURCES
ARE ITS HUMAN RESOURCES.”**

ABBREVIATIONS

ADB	Asian Development Bank
AfDB	African Development Bank
BMZ	German Federal Ministry for Economic Cooperation and Development
GIZ	Deutsche Gesellschaft für internationale Zusammenarbeit
ILO	International Labour Organisation
MDB	Multilateral Development Banks
MLSP	Mongolia Ministry of Labour and Social Protection
PIU	Project Implementation Unit
PMO	Project Management Office
TVET	Technical and Vocational Education and Training
TVET AIMC	TVET Assessment, Information and Methodology Centre, Mongolia



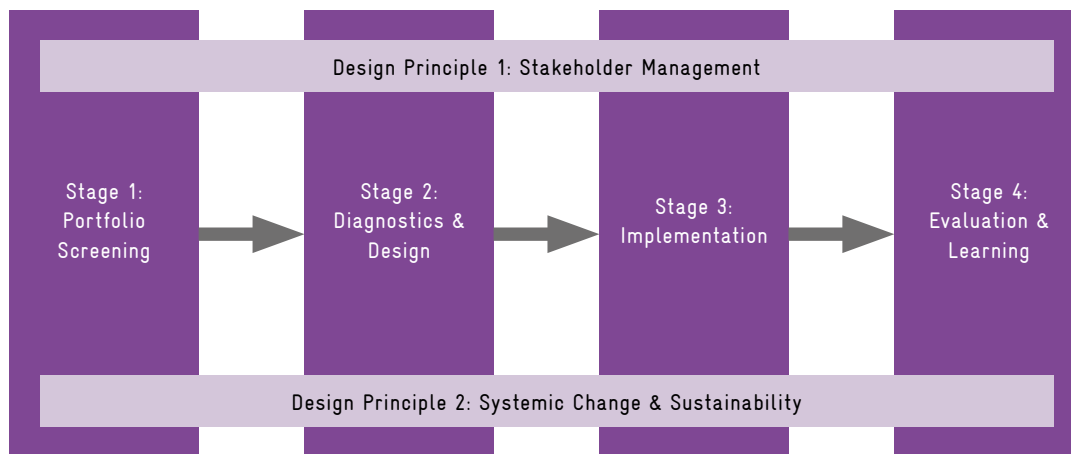
1. INTRODUCTION

This Toolkit has the objective of summarising the Build4Skills implementation experience in a comprehensive and practical document that facilitates the collaborative development and scaling of this innovative approach. It is presented as a **living document**, which can evolve in line with the ongoing implementation experience of key partners over time. This initial version is based on learnings by the principal implementing agency, the Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ). **It summarises the implementation practice, offers guidance on**

how Build4Skills can be applied in additional construction projects in the future and provides an outlook on how this Toolkit and the project's approach can be further developed.

The Toolkit presents a *Delivery Framework* based on four sequenced components to design and deliver a Build4Skills project. Two additional design principles underpin this Framework and are of relevance throughout the four stages, as illustrated in Figure 1.

Figure 1: Build4Skills Delivery Framework and Toolkit Structure



Source: GIZ Build4Skills

The “4+2” Build4Skills Toolkit provides practical guidance for each of the six components of the Framework based on the experience of implementing two pilots in the construction sector, in Mongolia and Pakistan.

Each of the six components contains its own section in the Toolkit that sets out key considerations and insights. Each section includes: the scope of the component or cross-cutting principle, the objective; and recommendations. By sharing learnings and documenting the delivery approach, it is intended that the Toolkit can support

further uptake of the Build4Skills model across both existing and new partners, including in other countries and regions. The Toolkit can also inform ongoing discussion processes and efforts in multilateral development banks (MDBs) to mainstream skills development and job creation across project portfolios. The comparative advantage of MDBs to facilitate employability and employment through their investments will become increasingly significant as governments around the world seek support for inclusive and sustainable socioeconomic recovery.

2. THE BUILD4SKILLS DELIVERY FRAMEWORK



Context

The implementation of major **infrastructure projects** with large construction components represents an important **opportunity for delivering practice-oriented, work-based training**. Particularly in countries with training systems that are primarily focused on institution-based learning, the inclusion of on-the-job training in large-scale construction projects has the potential to prepare trainees effectively for employment and the realities of the world of work. By participating in work-based training, current and future construction workers can learn the skills that correspond to the skills in demand by industry and thereby improve their chances for decent employment in the future.

By engaging with the construction industry in the framework of on-the-ground projects, MDBs can leverage their position as project funders with a development agenda to ensure that practice-oriented skills building measures become an integral part of infrastructure project design. This builds on a growing track record among development partners to maximize the positive impact of infrastructure to achieve sustainable growth and development.¹ There has been significant advancement in institutional approaches that minimise the direct, indirect and induced (through spillover effects) job creation of investments that can **trigger a “virtuous circle” of economic and social progress**. For example, as part of its *Jobs for Youth in Africa Strategy*,² the African Development Bank (AfDB) is mainst-

reaming job creation in new operations with specific age-disaggregated targets decentralized to country-office level, including through staff training and capacity building. The World Bank has a dedicated Jobs Group and has developed guidance to aggregate jobs-related impacts across project sectors and investment types in terms of job creation, job quality and access to jobs³.

Strengthening workforce development through integrated skills development and employment facilitation in infrastructure projects can make an increasingly important contribution to tackling the escalating labour market challenges caused by the **COVID-19** pandemic in all regions of the world. Experiences from past socioeconomic shocks show that more people will be pushed into precarious informal work with significant second-order effects, with vulnerable and marginalized groups most severely impacted, such as women, youth, migrants and people with disabilities. The International Labour Organisation’s (ILO) *Employment-Intensive Investment Programme’s* (EIIP) Guidance⁴ on measures to cushion the labour market fallout of the pandemic is therefore recommending labour-intensive infrastructure investment as a short- and medium term solution to save existing employment – particularly in small and medium construction enterprises – and to create new jobs. In this context, the introduction of work-based training into construction projects is one key strategy to include sustainability aspects in the design of emergency response measures.

¹ See for example: G20. 2019. G20 Principles for Quality Infrastructure Investment. Tokyo. https://www.mof.go.jp/english/international_policy/convention/g20/annex6_1.pdf (accessed 15 October 2020)

² AfDB. 2016. Jobs for Youth in Africa: Strategy for Creating 25 Million Jobs and Equipping 50 Million Youth 2016–2025. Abidjan. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Boards-Documents/Bank_Group_Strategy_for_Jobs_for_Youth_in_Africa_2016-2025_Rev_2.pdf (accessed 15 October 2020)

³ See for example: World Bank. 2017. Monitoring & Evaluation for Jobs Operations: Jobs M&E Toolkit Volume 1. World Bank Group. Washington D.C. <http://documents1.worldbank.org/curated/en/530811506021536510/pdf/119131-REVISED-PUBLIC-Jobs-M-E-Toolkit-June-2017-Volume-1.pdf> (accessed 15 October 2020)

⁴ ILO. 2020. COVID-19: Job creation through employment-intensive public works programmes. Geneva. https://www.ilo.org/global/topics/employment-intensive-investment/WCMS_743537/lang--en/index.htm (accessed 15 October 2020)

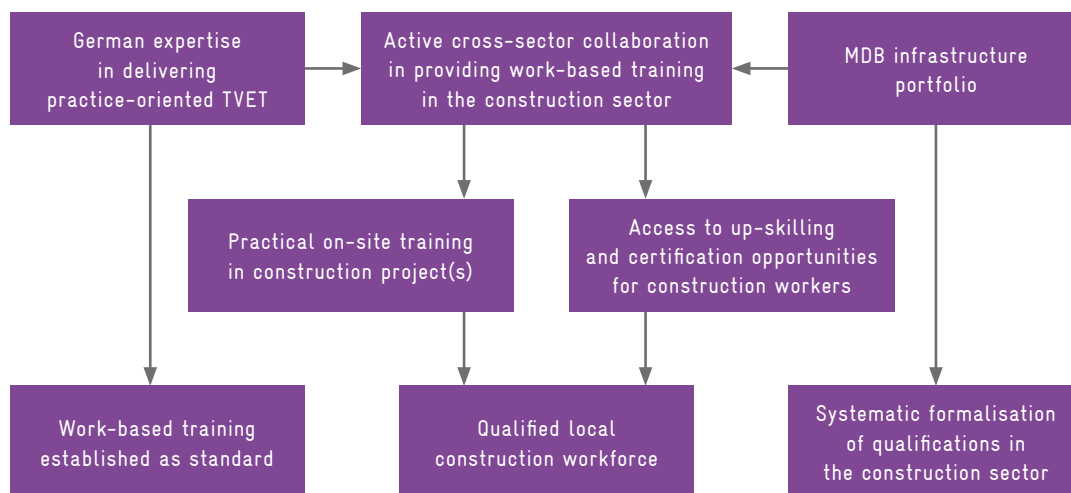
The Build4Skills Model

The Build4Skills pilot was designed with **two outcome dimensions** in mind: **(1) the provision of training and certification opportunities for individuals** and **(2) catalysing systemic change towards an increase of practice-orientation in technical and vocational education and training (TVET)**. Next to providing concrete training opportunities, the integration of Build4Skills in MDB-financed construction projects can demonstrate the feasibility and the potential of work-based training and assessment in the respective country context. In this way, Build4Skills contributes to establishing practice-oriented TVET as a standard in training systems and initiates systemic change processes aimed at

the formalisation of training and certification for the construction sector.

Central to the Build4Skills value proposition is the **return on investment** for the engaged companies through enhanced retention of staff, increased competitiveness, and higher productivity. As a result of the value that hands-on practical training delivers for companies, a much wider group of stakeholders can ultimately benefit. Graduates have better employment prospects, the overall skills level of a country's construction industry workforce is raised and a larger amount of investment spending for construction can be captured locally or nationally.

Figure 2: Build4Skills Simplified Results Model



Source: GIZ Build4Skills



Build4Skills Pilot

In 2016 the Asian Development Bank (ADB) and the German Federal Ministry for Economic Cooperation and Development (BMZ) signed a Declaration of Intent⁵ to foster their engagement in TVET in Asia. Build4Skills is the first substantial output of this joint agreement. GIZ was tasked with leading the implementation between January 2018 and August 2021. In the spirit of the *Paris Declaration*,⁶ Build4Skills **brings together a multilateral and a bilateral development partner** and provides a **leading example of creating synergies between instruments of international financial cooperation and technical cooperation**. In addition, the founding partners have a **shared commitment to ensuring a gender-responsive approach** with a particular focus on improving training and employment opportunities for girls and women in the construction industry across project activities. The commitment of both organisations to the Build4Skills project is underlined by the inclusion of specific references to the Build4Skills model in both the Operational Plan for the first

Operational Priority under ADB's Strategy 2030⁷ and the agreement of Germany's governing coalition for the period 2018 – 2021⁸.

The primary objective of the ongoing pilots is to **explore through practical application how work-based training can be implemented in the framework of two construction projects financed by ADB**, one in Mongolia and one in Pakistan. Mongolia and Pakistan were selected as the host countries for Build4Skills pilots following consultations with their respective governments. In Mongolia, the *Ulaanbaatar Urban Services and Ger Areas Development Investment Program* is the anchor infrastructure project which includes significant construction of new public infrastructure such as roads, water supply, heating plants, training centers and business incubators. In Pakistan, the *Improving Workforce Readiness in Punjab Project* was designated as the Build4Skills reference project. Here, the project approach includes a sizable construction component for the upgrading of TVET institutes, including the construction of new workshops and dormitories.



Text Box 1: Build4Skills Participant Profile

While attending secondary school, Mandakhbayar Urangoo had envisioned to train as a chef after his school graduation. However, after discussion with family members about future employment prospects, he decided to enroll at the Construction Polytechnic College in Ulaanbaatar to train in a construction-related occupation. In the course of his technical training, he decided to specialise on plumbing and welding. In the final year of Mandakhbayar's training, he was able to gain practical work experience through an internship with the Khurd Stock Company, one of Mongolia's largest construction contractors. The work placement was arranged through Build4Skills and took place on the site of the heating plant construction at Selbe subcenter which is part of the ADB-financed *Ulaanbaatar Urban Services and Ger Areas Development Investment Program*. Already during his practical training, Mandakhbayar was offered a permanent job with the company that provided his internship. Mandakhbayar will graduate from his TVET course in December 2020 and is looking forward to working a full-time employee of the Khurd Stock company.

Source: GIZ Build4Skills

⁵ Federal Ministry for Economic Cooperation and Development of the Federal Republic of Germany and Asian Development Bank. 2016. Joint Declaration of Intent with Respect to Fostering Cooperation in the Field of Technical and Vocational Education and Training. Frankfurt/Main. https://www.bmz.de/de/zentrales_downloadarchiv/Service/Joint_Declaration_of_Intent_TVET.pdf (accessed 15 October 2020)

⁶ OECD. 2005. Paris Declaration on Aid Effectiveness. OECD Publishing, Paris. <https://doi.org/10.1787/9789264098084-en> (accessed 15 October 2020)

⁷ ADB. 2019. Strategy 2030 Operational Plan for Priority 1: Addressing remaining Poverty and Reducing Inequalities, 2019–2024. Mandaluyong City. <https://dx.doi.org/10.22617/SPR200017> (accessed 15 October 2020)

⁸ CDU, CSU und SPD. 2018. Ein neuer Aufbruch für Europa. Eine neue Dynamik für Deutschland. Ein neuer Zusammenhalt für unser Land. Koalitionsvertrag zwischen CDU, CSU und SPD: Koalitionsvertrag der 19. Legislaturperiode. Berlin. <https://www.bundesregierung.de/resource/blob/975226/847984/5b8bc23590d4cb2892b31c987ad672b7/2018-03-14-koalitionsvertrag-data.pdf?download=1> (accessed 15 October 2020)

3. THE BUILD4SKILLS 4+2 TOOLKIT

STAGE 1: PORTFOLIO SCREENING

Operational Scope

The first stage in preparing for a Build4Skills project involves conducting a screening process of relevant projects of the MDB partner based on guiding criteria to identify feasible reference projects.

Objective

To identify a project pipeline of MDB-financed construction projects that are particularly suitable for the inclusion of practical, on-the-job training measures. During the portfolio screening, the general feasibility of an infrastructure project with a large construction component as the foundation for integration of Build4Skills is determined.

Recommendations

Target construction projects in preparation

– considering MDB-financed infrastructure investments as anchor projects for Build4Skills measures in the early stages of their conceptualisation has clear advantages. Most importantly, the modeling of Build4Skills can evolve in parallel to the design process of the infrastructure project's construction components. Diagnostic work carried out for the design of construction projects can already include components that cover data and information aspects with relevance for designing a work-based training program. In addition, the finalisation of the Build4Skills design at an early stage allows that preparatory implementation activities can be carried out before procurement processes for construction works are launched.



As part of the Mongolia pilot, the Build4Skills approach was introduced after the construction phase of the project had already started. This illustrates that – if the construction phase is long enough – it is possible to introduce work-based training into a MDB-financed construction project after it has started. While the inclusion of Build4Skills measures during the project design phase can be considered the optimal process solution, starting training measures after the project implementation has begun can still deliver important impact.

Consider both cross-country and in-country screening – as well as cross-country portfolio reviews, a screening for projects can also be undertaken as part of a MDB’s country portfolio planning processes. This would allow for discussions within country teams at an early stage in the project cycle about the general feasibility of work-based training as part of the infrastructure project. Particularly if the screening process is undertaken in the framework of in-country portfolio planning processes, the screening can already entail first engagements with host governments on their interest to include work-based training in the design of upcoming projects. This is particularly relevant for countries where human capital investments and skills innovations are among national priorities.

Mobilise a multi-sectoral working group – in order to maximize the scope within a MDB for screening high-potential projects, it may be efficient to bring together representatives from different sectors and divisions across the institution to support the process of identifying suitable projects. For example, a group could include experts from relevant sectors and thematic areas such as

infrastructure and construction, urban and rural development, skills development, TVET. Gender and community engagement specialists could also provide valuable inputs. Champions can help drive a new or emerging agenda internally.

Focus on project size and duration as the first screening criterion – construction projects that are deemed suitable for the inclusion of the Build4Skills approach should generally be substantial enough in size to offer training opportunities for a large cohort of trainees. Given that Build4Skills projects require resources for the set-up of the implementation structures, the scale of the construction project and the number of trainees who can benefit from on-site training should justify the required initial inputs. However, in cases where it is clear that systemic effects can be achieved through pilots, for example via legislative change, smaller anchor projects can also be considered. If the project duration is longer, there is more scope for a gradual, needs-based introduction of Build4Skills instruments, for a demonstration effect over time, and for innovation in response to challenges emerging during implementation.



The *Ulaanbaatar Urban Services and Ger Areas Development Project*, the first Build4Skills partner project, is one of ADB’s sovereign operations in Mongolia and aims at fostering environmentally sustainable and inclusive economic growth through upgrading basic infrastructure and social services in the capital city’s unplanned neighborhoods. The project is to be implemented over a period of 9 years. This allowed the project team to carry out consultations with construction contractors and to develop new instruments as a response to challenges that emerged once project implementation started. For example, a specialised short-course training for welders was introduced when it became clear that a high share of workers did not pass the examinations for the recognition of prior learning in welding.

Align with project community engagement plans – when reviewing potential projects and plans for the engagement of the local community in the infrastructure project, for example as part of the resettlement process, can signal additional feasibility for Build4Skills. The provision of on-the-job training to community members and the

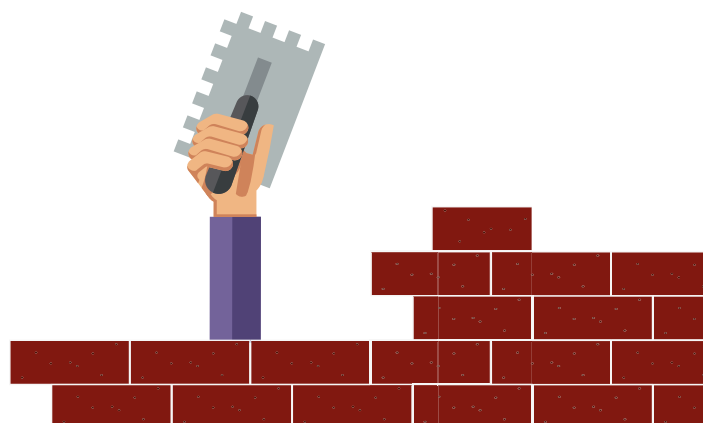
formal recognition of skills acquired in informal employment can be an important part of a support package for the restoration of livelihoods. In line with experience in public works, it seems that a sense of community ownership of the asset can help drive development outcomes.

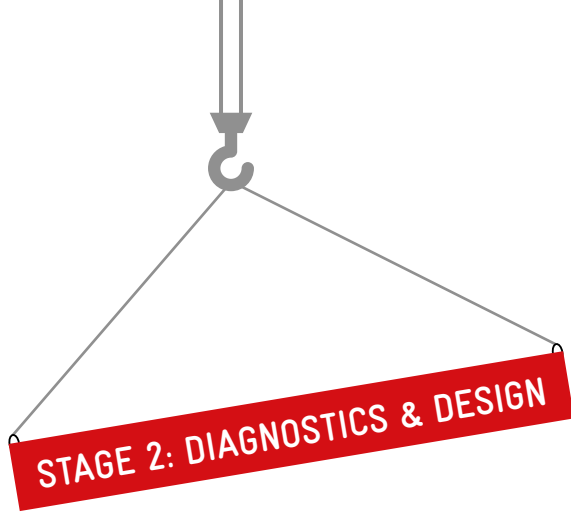


Build4Skills implementation in Mongolia has shown that MDB-financed construction projects with an important community engagement component designed to mitigate adverse social impacts of construction activities are particularly suited for the inclusion of the Build4Skills approach. The project experience in Mongolia indicates that high levels of community ownership of the infrastructure asset can motivate the potential local workforce. This might be particularly relevant for infrastructure projects with close community linkages, such as new affordable housing or business incubators.

Implement a set of screening criteria – over time as more implementation experience of Build4Skills is acquired, it is recommended that a set of screening criteria is defined that can serve as a tool for MDB project staff to conduct systematic portfolio screening. Based on insights from the pilot phase, the following enabling factors are initial considerations that can start to inform the development of robust criteria:

- Project with substantial civil construction component
- Basic legal and practical framework for work-based training
- Recognized constraints in the provision of demand-relevant training
- Enabling skills policy environment with national and local government commitment
- Conducive arrangements to mobilize cross-sector collaboration, in particular public-private partnership.





Operational Scope

Once stakeholder interest and suitability of a particular infrastructure project is established, an in-depth diagnostic and design stage can be undertaken, which should deliver a detailed context analysis, including a full implementation strategy.

Objective

To determine if and how the Build4Skills approach can be implemented in the respective country and project context. This stage should result in a determination about the actual feasibility for the integration of Build4Skills measures as part of a construction project.

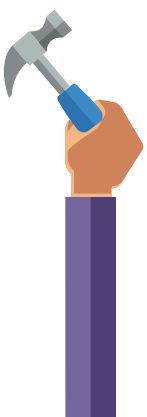
Recommendations

Design tailored implementation approach – given that the skills needs of the construction industry and the framework conditions for the provision of work-based training vary significantly between and even within countries, the design of individual Build4Skills measures needs to be adapted to each implementation context. Deep-dive diagnostics and extensive consultations with key actors from the skills development ecosystem and the construction industry are the basis for understanding the working environment. While selected instruments and lessons

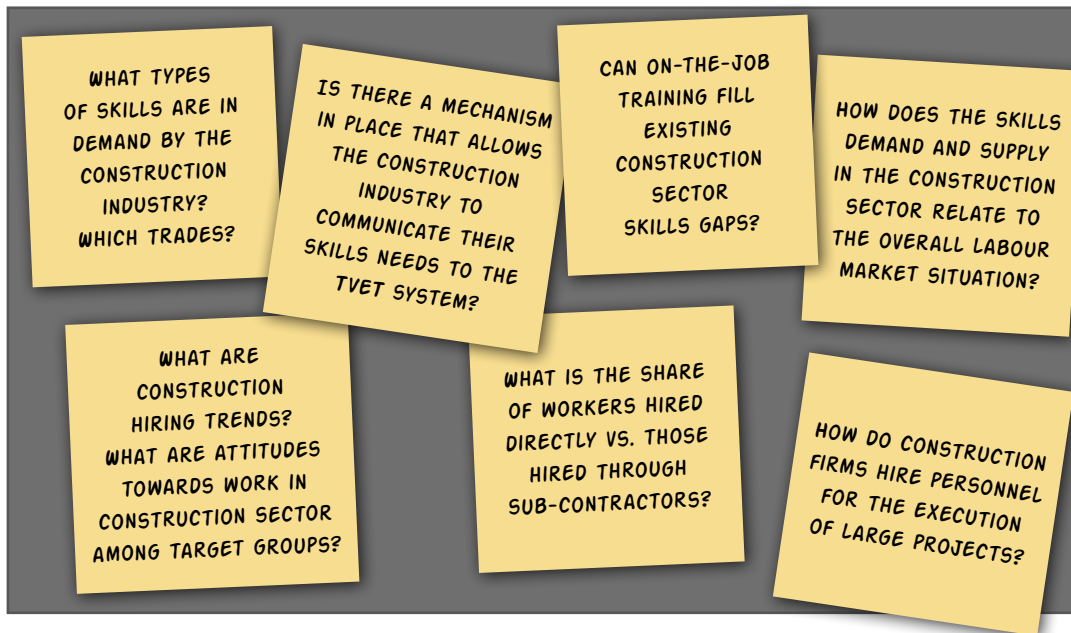
learned can be transferred between countries, the design process for implementation options always needs to respond to the specific requirements of the individual implementation context.

Consider the macro conditions in-country – in order to increase the likelihood of replication of the Build4Skills model towards systemic change, the broader labour market trends in a country of potential implementation are a useful guiding consideration, in particular for forecasting growth trends in the construction industry.

Carry out construction sector survey – particularly in those cases where the data basis in regard to skills demand and supply in the construction sector is weak, surveys to understand the requirements of the construction industry and the training needs of beneficiaries are crucial to design a tailored project approach. A set of guiding questions for carrying out a construction industry survey is provided in Text Box 2.



Text Box 2: Guiding Questions for Determining Construction Sector Skills Demand and Supply



In Mongolia, Build4Skills commissioned a survey to develop an understanding of the skills demand in the country's construction industry. The survey was undertaken by Mongolia's Research Institute for Labour and Social Protection and jointly overseen by the Ministry of Labour and Social Protection and GIZ. Since the survey in Mongolia was undertaken after the Build4Skills measure started, the results are used for a consultative process with government ministries and the construction industry on how to up-scale the integration of work-based training in construction projects. However, it is recognized that the information from the survey would have been highly relevant during the design stage to better understand the challenges in the construction industry.



Understand the barriers to increasing female employment in the construction sector –

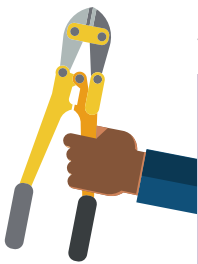
female employment in the construction sector remains low across countries. The first step in designing measures that respond to this challenge is to understand the specific barriers that prohibit girls and women to consider and pursue a construction trade as a career option. Based on an analysis of potentials and obstacles, targeted Build4Skills activities aimed at encouraging girls and women to train in construction trades can be designed.

Plan for the introduction of a work-based training requirement in construction services procurement – including work-based training

as a requirement in the procurement process for MDB-financed construction would provide a strong incentive for the pro-active participation of contractors in Build4Skills training activities. If the inclusion of a training requirement is considered a feasible option, a comprehensive document that describes how contractors are expected to implement work-based training within the construction project needs to be drafted. This document should be made available to the experts in charge of managing the project's procurement operations as early as possible. A summary of subsequent steps for working with a work-based training requirement in procurement processes is provided in "Spotlight: TVET in MDB Construction Procurement".



In the design process for the *Improving Workforce Readiness in Punjab Project* in Pakistan, ADB and GIZ jointly elaborated for the first time the modalities for the operationalisation of the work-based training requirement for the procurement process. Once the project is approved, construction companies bidding for a service contract at one of the project's construction sites would be required to make provisions for their participation in work-based training delivery a part of bidding documents.



Text Box 3: Spotlight "TVET in MDB Construction Procurement"

Introducing work-based training as a requirement in procurement processes for MDB-financed construction is one strategy to incentivise construction contractors to introduce or improve their in-company training systems. This strategy would follow the example of a number of countries (e.g. UK⁹, Norway¹⁰) that have introduced an obligation for companies to train apprentices when obtaining public contracts.

An expert study commissioned by GIZ confirmed the feasibility of this strategy.¹¹ The following table provides a simplified overview¹² of the different steps that have to be taken in the procurement process for the inclusion of the training requirement.

Source: GIZ Build4Skills

⁹ See for example: Jackson, M. and Brown, J. 2011. Delivering local economic value through Capital Programmes and Apprenticeships Exploring the cost benefits of the Manchester People into Construction scheme. Centre for Local Economic Strategies Briefing, Manchester. <https://cles.org.uk/wp-content/uploads/2016/10/Apprentices-Publication.pdf> (Accessed 15 October 2020).

¹⁰ European Centre for the Development of Vocational Training. 2017. Norway: Apprentices Must Feature in Public Procurement. <https://www.cedefop.europa.eu/en/news-and-press/news/norway-apprentices-must-feature-public-procurement> (Accessed 15 October 2020)

¹¹ Thygesen, A. 2020. TVET by default: Integrating TVET into tendering processes of regional development banks. Unpublished working paper.

¹² This model follows the framework of a simple procurement process in which the procuring entity sets all parameters of the project and is in charge of monitoring the contractor's compliance. If the construction works were procured through a negotiated procedure, the process would entail additional steps.



STAGE 3: IMPLEMENTATION

Operational Scope

Following the conclusion of the Diagnostic & Design stage and the decision among stakeholders to proceed with the realisation of a specific Build4Skills measure, the implementation of Build4Skills activities can start.

Objective

To provide practical training and industry-led assessments on construction sites. Depending on the framework conditions, several steps – such as the training of trainers in construction companies – might have to be undertaken before the actual training on construction sites can take place.

Recommendations

Build on existing frameworks for work-based training – integrating work-based training on construction sites into existing frameworks, for example internships or work placements as part of TVET long-courses, allows for the fast-tracking of Build4Skills implementation. Where these frameworks are in place, they already determine practical aspects of work-based training, such as the designation of time slots for practical learning within a TVET curriculum or the responsibilities for trainees' workplace insurance and allowances. Setting-up these frameworks from scratch typically requires considerable time and effort and might not be feasible in the limited time span of a Build4Skills project.



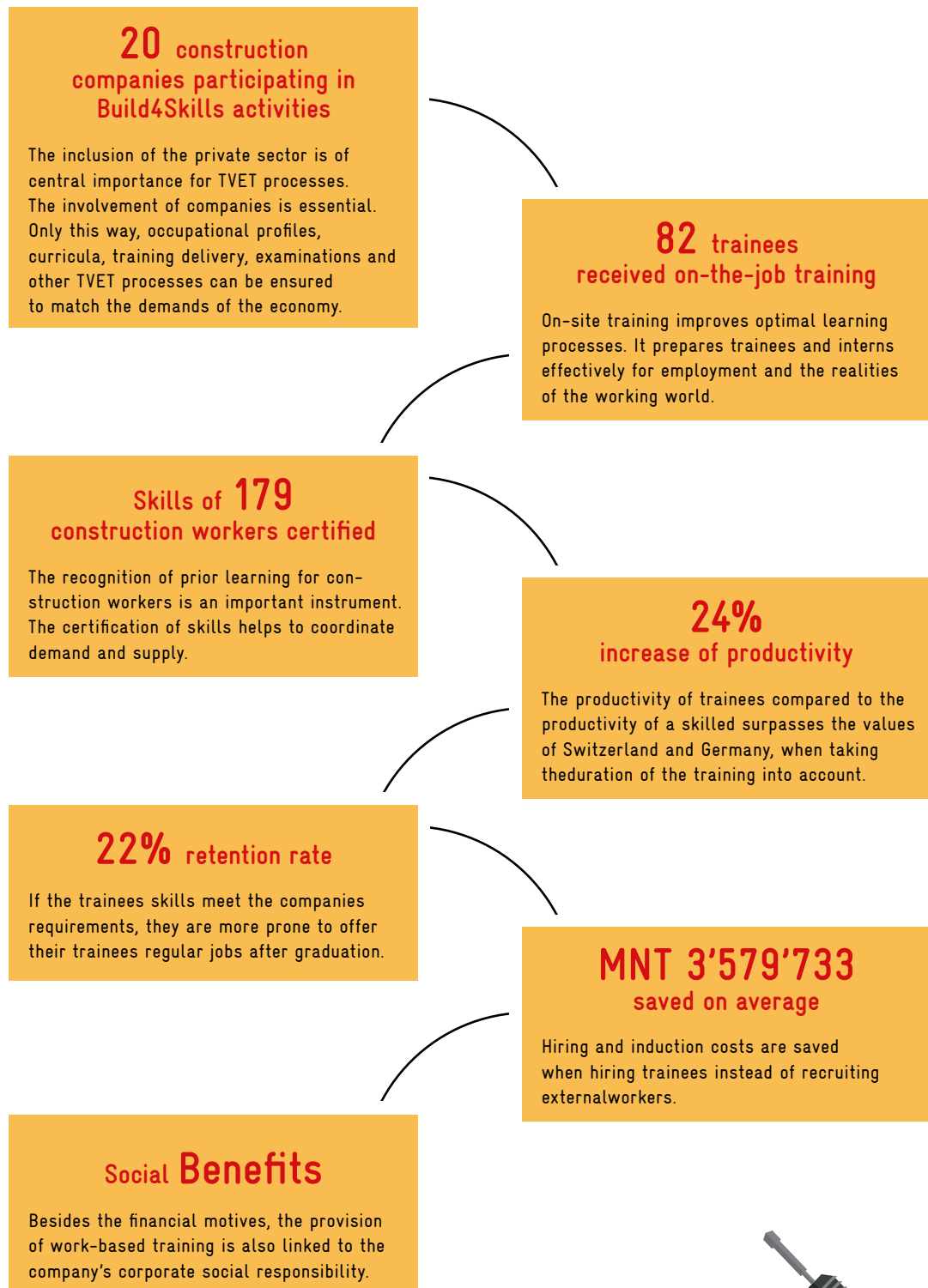
Build4Skills work-place training in Mongolia is part of regular long-course TVET training with a duration of either one or two-and-a-half years. For courses with a two-and-a-half-year duration, three separate internship periods are part of the curriculum. Construction contractors that are part of Build4Skills offer work placements within their companies typically for the second or third internship period as trainees benefit most from the on-site learning experience in an advanced stage of their training. So far, all trainees that graduated successfully in their respective TVET course and completed on-site training organized through Build4Skills have been offered employment with a construction contractor.

Improve in-company training quality – the quality of in-company learning is a key determinant for achieving optimal learning and employability outcomes. Central to the quality of work-based training is the guidance that trainees receive from in-company instructors. However, even experienced senior workers often do not

have the mindset or the competences to pass on their knowledge to trainees in a structured manner. In order to improve the quality of on-the-job training, it is recommended to assist companies in selecting suitable in-company trainers and to provide instructors with basic didactical training to become effective instructors.



Figure 3: Selected Pilot Results to Date from Mongolia



* The figures for Mongolia were reported by Double pyramid, DUBB, Erdenet Orchlon LLC, Khangal construction, Khurd LLC, Moninjbar LLC, Render, SHTB LLC, Undur Bar.



In Mongolia, Build4Skills is providing two-week courses to prospective in-company trainers. The course consists of four modules, namely (1) Objectives and importance of TVET and Vocational training system in Mongolia, (2) Planning in-company training, (3) Implementing in-company training, and (4) Observing occupational safety, health and environmental protection in vocational education and training. There is consistent high demand for the course due to frequent turnover of personnel in construction firms.

Make training and certification opportunities available to experienced construction workers

– despite years of construction industry work experience, experienced workers might have never undergone formal training and their specific skill sets were never tested or documented. This puts them at a disadvantage in recruitment processes as well as in contract and salary negotiations.

Continuous informal employment also makes it difficult to sustain skills development efforts and to put workers on a career development path which allows them to gain work experience and grow their technical expertise successively. Including mechanisms for the formal recognition of construction skills can therefore be an important part of the Build4Skills instrument portfolio.



The recognition of prior learning for construction workers is an important instrument of the Build4Skills pilot in Mongolia. In cooperation with Mongolia's national certification and assessment body the TVET Assessment, Information and Methodology Centre (TVET AIMC), Build4Skills supports the assessments of construction workers with experience in seven different construction trades. Prior to organising the assessments, appropriate testing standards were defined in cooperation with industry and training regulators. For ADB's reference construction project in Mongolia, this instrument has become an integral part of the community engagement strategy. Members of the community affected by the construction activities are given access to the recognition of prior learning assessments. The certification of existing skills helped 179 workers in the community to improve their chances on the labour market and raised the possibility of receiving officially recognized positions and higher wages.

Use the employment potential of the construction sector for girls and women – Build4Skills can play an important role in promoting and showcasing the success of female trainees and

workers in construction trades. Targeted activities aimed at encouraging girls and women to train in construction trades should therefore be part of all future Build4Skills measures.



In Pakistan, Build4Skills initiated the *Shana Bashana* initiative in cooperation with Siemens to promote the training of female trainees in the infrastructure industry. As part of the project, Siemens Pakistan provides internships in advanced construction trades (e.g. high voltage substation engineering, and Auto CAD 3D) for female TVET graduates. *Shana Bashana* has also supported the review of selected teaching materials for construction trades to reflect gender equality. A social media campaign documents the implementation of the initiative and creates awareness for employment opportunities in the construction sector. In Mongolia, Build4Skills organized a Girls' Day at selected TVET institutes in October 2020. The Girls' Day aims at introducing girls with a hands-on approach to technical professions that are traditionally associated with men.



Pursue in-country upscaling opportunities pro-actively – once the structures and linkages for Build4Skills implementation have been established, important pre-requisites for the scaling

of tools and instruments are in place. In this stage of implementation, additional opportunities for training in construction projects should be pro-actively pursued.

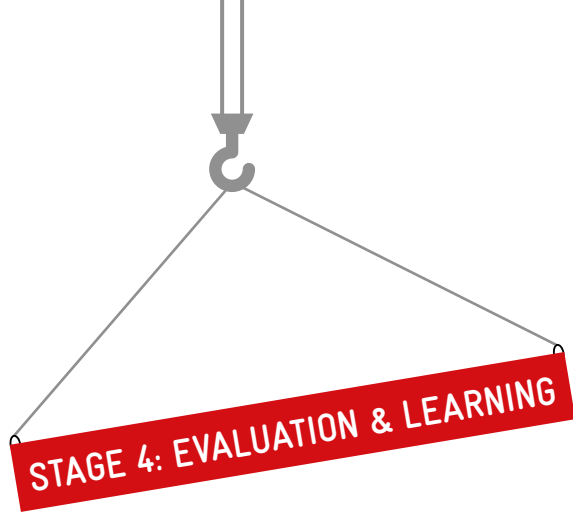
In Mongolia, it was suggested that in addition to the cooperation with the *Ulaanbaatar Urban Services and Ger Areas Development Investment Program*, Build4Skills could also work with construction companies that are selected as contractors on other ADB-financed infrastructure projects within and outside Ulaanbaatar.



Table 1: Steps for Integrating a TVET Requirement in MDB Simple Procurement Process

PROCUREMENT PROCESS STEP	RECOMMENDED STEPS FOR TRAINING REQUIREMENT
1. Planning the procurement process	Prepare document describing scope of work-based training requirement, link to national training framework, and responsibilities of the contractor
	Designate training expert as point of contact for procurement expert to clarify training-related questions during the procurement process.
2. Preparation of the bidding document	Transfer information on training requirement into the Standard Bidding Document (SBD) Sections 1-4 and 6-9
	Transfer information on training requirement from SBD/Section 2 into Invitation for Bids.
3. Pre-Bid Meeting	Invite training expert to pre-bid meeting to deliver briefing on training requirement and to answer bidder questions.
4. Site visits	No relevant action.
5. Requests for clarifications	The training expert will provide the technical input for responses to requests for clarification related to the training requirement.
6. Bid opening	No relevant action.
7. Bid evaluation	Make training expert available for training-related questions from Bid Evaluation Committee.
8. Contracting	The bidding document is included as an appendix to the contract. The document will provide the contractor with guidance in regard to the training requirement.
9. Hand-over from procurement team to contract implementation team	Training expert participates in hand-over meeting Plan for implementation, draft monitoring plan and assign responsibilities.
10. Initial meeting between project and contractor	Training expert ensures that training provision is part of the implementation plan.





Operational Scope

The monitoring of Build4Skills' impact over the short and medium-term will be important to understand not only the immediate effects of training provision but also the impact on the quality and quantity of trainees' employment and changes on a systemic level that were initiated by Build4Skills. Implementation experience and data collected during the four stages serve as the basis for the adaptation and innovation of the Build4Skills approach.

Objective

To measure the results delivered through Build4Skills operations in terms of intended objectives and derive learning for future adaptations to enhance the model.

Recommendations

Use implementation experience to develop standardised instruments – the standardisation of Build4Skills tools that can be applied across

different countries is not feasible at the moment because so far only the full implementation experience from Mongolia has been documented. With implementation experience from additional pilots, it should become feasible to design the framework for instruments that can be adapted to a variety of country contexts.

Initiate targeted reform efforts based on Build4Skills lessons learned – with its public-private coalitions of stakeholders relevant for organising training in the construction sector, Build4Skills can contribute to change processes that go beyond the immediate organisation of work-based training. Building on implementation experience and working with its partners, Build4Skills is uniquely placed to contribute to reform efforts in areas such as curriculum development, teacher training and the improvement of dual-training approaches.



In the course of the construction phase of the *Ulaanbaatar Urban Services and Ger Areas Development Investment Program*, it emerged that there is a shortage of workers with experience in infrastructure works undertaken below ground. These projects require often high safety standards and specialised know-how. So far, the available TVET courses do not include training for these specific skills set and trainees are often not allowed to train on-the-job due to safety concerns. Build4Skills is currently consulting with the project partners to assess the possibilities for curricula reform or the creation of new curricula that respond to this specific industry needs.

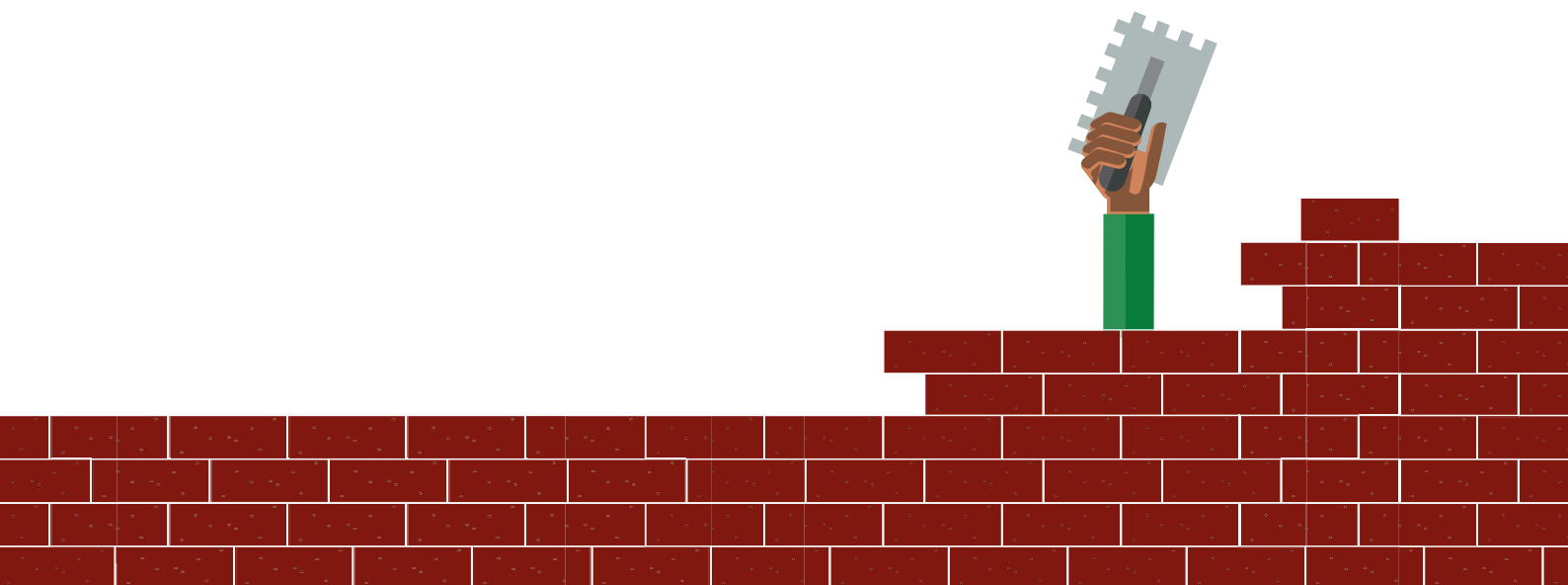
Apply monitoring metrics from various levels
– systematic monitoring and evaluation of the Build4Skills activities will provide significant value for onward development and uptake of the

model. The following metrics are proposed for monitoring and evaluating of the two ongoing Build4Skills pilot projects.

Table 2: Proposed Monitoring Metrics

INDIVIDUALS	CONSTRUCTION-SECTOR	SYSTEMIC
Number of trained workers	Number of construction company partners	Inclusion of obligation for work-based training in procurement for construction in MDB-funded projects
Graduation rate	Share of international/national and large/medium/small company partners	Inclusion of obligation for work-based training in government-issued construction procurement
Increase in employment rate	Contractor satisfaction levels with trained workers	Introduction of minimum share of certified workers in publicly funded construction projects in relevant legislation
Increase in household income	Number of [new] partnership agreements between construction firms and training providers	Integration of structured work-based training elements in TVET curricula

Source: GIZ Build4Skills





DESIGN PRINCIPLE 1: STAKEHOLDER MANAGEMENT

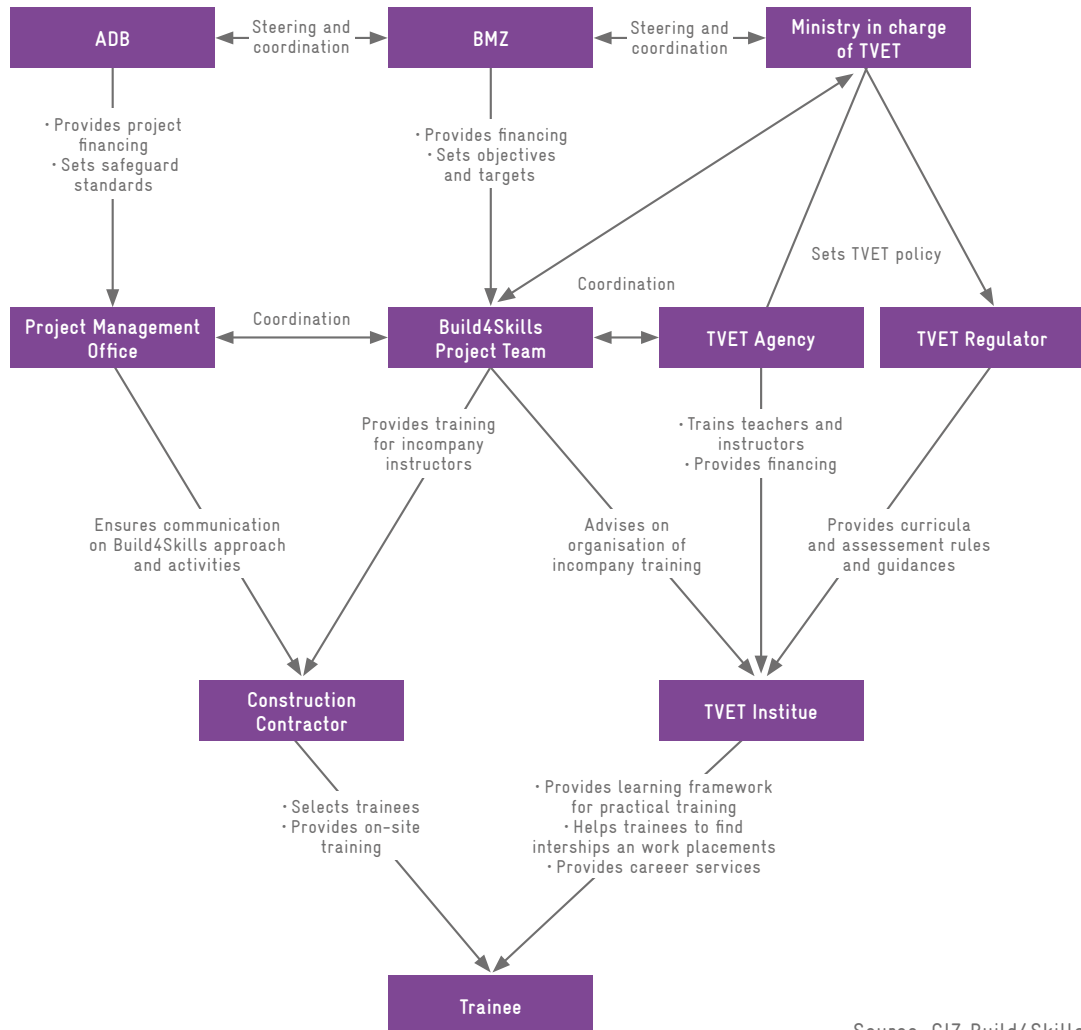
Operational Scope

The management of stakeholder relations is a key success factor throughout the four stages of the Build4Skills delivery framework. Alignment of a range of stakeholders across spheres requires dedicated resources to enable the systematic inclusion of work-based learning elements in training systems.

Objective

To design and implement effective stakeholder coordination to underpin efficient and inclusive Build4Skills delivery with contributions from a diverse range of complementary partners.

Figure 4: Build4Skills Stakeholder Overview



Source: GIZ Build4Skills

Recommendations

Involve potential partners in diagnostic work

– the diagnostics for Build4Skills measures should combine research, the development of recommendations and the planning for implementation. Considering that the success of

Build4Skills builds on a well-functioning coalition of different stakeholders, potential partners should be identified and included in collaborative diagnostic work as early as possible.



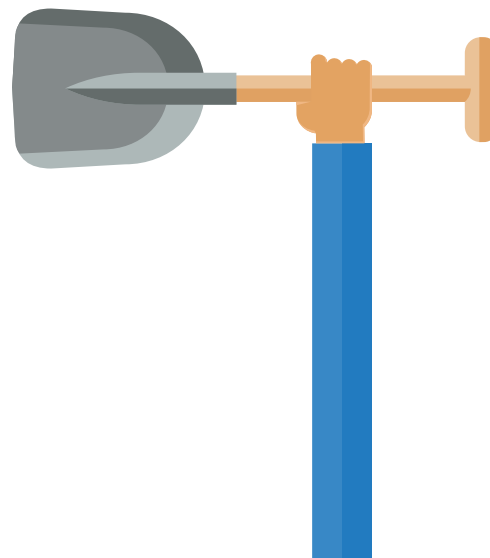
After the engineering firm Siemens expressed interest in joining Build4Skills as a flagship training partner, GIZ and Siemens representatives undertook a joint scoping mission to determine which elements could be included in the design of the Build4Skills pilot in Pakistan. As a result of the joint consultations with partners in Pakistan, the *Shana Bashana* initiative was designed and launched.

Develop a shared understanding of the project approach and objectives among stakeholders

– it is important to invest time for forging a common understanding about Build4Skills' approach, the contributions that are required from partners and the objectives that the project seeks to achieve. A common misunderstanding pertains to Build4Skills' size of output. Other than training and employment project approaches that seek to train on a large scale, Build4Skills' operational frame are construction sites and a limited pool of companies who can only absorb a limited number of trainees at a time. Managing expectations in regard to the project's output and outcome dimensions early on is therefore an important prerequisite for a good collaboration throughout the project stages.

Establish in-country steering structure with a mandate for operational decisions

– in addition to a tailored implementation approach, an in-country steering structure with the mandate to take decisions for all aspects of project implementation should be established. Moreover, the actors in charge of overseeing project implementation must ensure that all relevant stakeholders are part of the Build4Skills coalition.





In Mongolia, the Build4Skills in-country steering committee consists of representatives from ADB, BMZ, GIZ as well as the Ministry of Labour and Social Protection (MLSP). The MLSP's state secretary chairs the annual steering committee meeting. All steering committee members have the mandate to take operational decisions on behalf of the organisations they represent. This allows for fast decision-making that is embedded in local realities.

Identify and designate lead agency – an essential element for the success of Build4Skills is the identification and designation of a suitable lead agency for Build4Skills from government, the private sector, civil society or the donor community. This agency coordinates different work processes, brings different stakeholders together as needed and tracks project progress. Ideally, this lead agency can already build on existing stakeholder networks and expertise in regard to organising work-based training.



Designate project management office to liaise with construction companies – a project management office (PMO) (or project implementation unit – PIU) that is staffed with social sector experts and oversees the MDB-financing construction project is an important enabling factor for the success of the implementation phase. The PMO/PIU is ideally placed to act as the interface between the Build4Skills implementing agency and the construction contractors.

In Mongolia's Build4Skills pilot, all communication with construction contractors is channeled through the project's management office. The communication through the project management office signals the importance that ADB attaches to training on the construction sites and showed greater motivation to participate in Build4Skills activities. GIZ's Build4Skills team and the designated social sector expert from the project management office meet bi-weekly for updates and to plan upcoming joint activities.



DESIGN PRINCIPLE 2: SUSTAINABILITY & SYSTEMIC CHANGE

Operational Scope

The implementation of Build4Skills measures has the potential to catalyse change towards the systematic inclusion of work-based training and the formalisation of the construction industry. In order to realise this potential, the sustainability and systemic change dimensions need to be reflected in all four stages of the Build4Skills delivery framework.

Objective

To induce systemic change and ensure that Build4Skills' impact lasts beyond the duration of the MDB-financed construction project.

Recommendations

Advocate for the inclusion of work-based training as a requirement in government construction tenders – in addition to the inclusion of a work-based training requirement in MDB-financed projects, governments can also introduce an obligation for participation in training when construction works are procured with public funds. The introduction of this requirement can be another important avenue towards establishing work-based training as a standard in national training systems for construction trades.



Pakistan's TVET strategy, the "National Skills for All Strategy" (2018) contains a recommendation [to make] "TVET training component(s) mandatory for all companies participating in the bidding for Government Tenders".¹³ While this recommendation has not yet been translated into action, it gives Build4Skills a good basis for engaging with the construction industry.

Work with sector councils and construction industry associations – in training systems with strong, long-established practical training elements, industry associations and sector councils often have the responsibility to develop training standards, to carry out testing/certification and to coordinate member companies' training contributions. Industry associations have taken over these responsibilities because companies from the same sector often share an interest in having access to a pool of well-trained recruits.

For the same reason – even in those contexts where industry platforms do not yet take up these roles – it is essential to include associations and professional bodies in the delivery of work-based training and in the exchanges about the sustainable functioning of platforms created by Build4Skills.

¹³ Government of Pakistan, Ministry of Federal Education & Professional Training. 2018. National "Skills for All" Strategy: A Roadmap for Skills Development in Pakistan. Islamabad. <http://navttc.org/wp-content/uploads/2019/03/National-Skills-for-All-Strategy-2018-1.pdf> (accessed 15 October 2020)



In September 2020, Build4Skills organised a consultative meeting between representatives serving on the Professional Boards of the Institute of Engineering and Technology (IET) and the Construction Polytechnic College (CPC) as well as construction firms working as contractors on ADB's *Ger Areas Development Investment Project*. The main objective of the meeting was to foster working relationships between the different stakeholders and to promote the participation in Build4Skills-organized training activities. This first meeting revealed a strong interest in continued exchanges about the Build4Skills approach and work-based training in general among industry representatives.

Promote the relevance of data on skills demand and supply in the construction sector

– one of the important datasets that inform the design of a Build4Skills measure is an overview of skills demand and supply in a given country's construction sector. This data enables identification of skills gaps that can be filled – among other measures – through the delivery of work-based

training. Ideally, this data is collected on a continuous basis – for example through a labour market information system – to serve as a basis for future exchanges between the construction industry and training institutions on skills needs and training programs.



Build4Skills is working with Mongolia's Ministry of Labour and Social Protection (MLSP) to set up the Occupational and Skills Gap Platform – a digital tool that will integrate skills supply data and collect high-quality skills demand data for the construction sector. The platform will be maintained by *Mongolia's TVET Assessment and Methodology Center*. Based on the data collected from 500 construction companies, the platform can identify areas where additional training courses are needed, whether workers in a given trade and level of experience are available or for which skills levels additional training is necessary.

Work with Build4Skills graduates as “Ambassadors of Change” to promote work-based training – workers who have undergone practical training are perhaps the most powerful messengers to communicate the added value of work-based training to the private sector and the community. Therefore, the trainees graduating from

Build4Skills training should be fully informed about the work-based training approach and their testimonies can play an important role in the promotion of Build4Skills activities.

4. CONCLUSION

Two years after Build4Skills' on-the-ground operations were launched, the organisation of work-based training on construction sites of ADB-financed reference projects has become a reality. In Mongolia, TVET students receive practical training on construction sites and experienced construction workers benefit from the formal recognition of their skills. **Build4Skills has become an integral part of ADB's community engagement strategy** that mitigates social risks and aims to improve the livelihoods of people affected by construction activities. This is an **important experience that can be instructive for other MDBs** to identify entry points in their project cycle to integrate work-based training into construction projects. In Pakistan, the Build4Skills approach was integrated into the design of the reference construction project and training activities can start as soon as construction activities are launched. In both pilot countries, Build4Skills has undertaken targeted activities to encourage girls and women to pursue a career in the construction industry. *Shana Bashana* in Pakistan and the organisation of the *Girls' Day* in Mongolia are **important contributions to making technical vocations more accessible for female workers.**

The pilots show that that systematic inclusion of work-based training in MDB-financed infrastructure projects could be the **starting point for gearing training systems towards practice- and demand-orientation in many countries.** By defining preliminary recommendations for how to implement Build4Skills, this Toolkit maximises the application of lessons learned from the pilot phase in order to inform future uptake, replication and/or evolution of the Build4Skills model. The positive feedback received while engaging with key stakeholders during the drafting process of the Toolkit is another indicator that the Build4Skills approach has scaling potential. Whilst rooted in ADB's and GIZ's on-the-ground collaboration, the Toolkit is intended to generalise as far as possible the direct experience to increase relevance for other MDBs and development partners. Yet necessarily, this Toolkit only reflects initial findings from a two-year two-country pilot phase and represents, therefore, **a first step in a process towards building a well-evidenced framework that can guide future scaling.**

The founding partners share a commitment to advance operational knowledge on the integration of work-based learning in infrastructure development. Leveraging their respective comparative advantage, they will continue to test and adjust the findings set out in this Toolkit and to scope and develop innovative implementation approaches. Ongoing monitoring of project results and support for exchange and collaboration across Build4Skills partners will be critical to underpin future directions. Possible areas for new work include exploring the potential for Build4Skills in new sectors beyond construction and in other regions beyond Asia and the Pacific. **Feedback on the Toolkit is encouraged from interested partners. The Build4Skills community is open to sharing lessons and insights directly and to new opportunities for collaboration.**

For additional information on the ADB anchor projects, please visit www.adb.org/projects/45007-003/main (Mongolia) and www.adb.org/projects/52069-001/main (Pakistan).

For further information and additional resources on Build4Skills, please visit GIZ's Build4Skills project website or get in touch via build4skills@giz.de.



ANNEX 1 – METHODOLOGICAL REMARKS

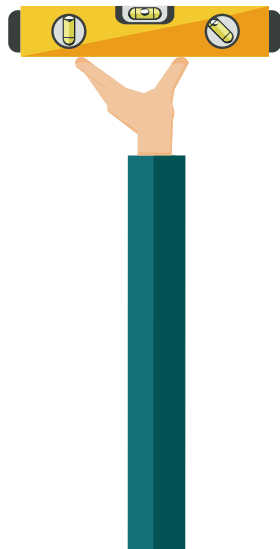
This Toolkit was compiled between September 1st and October 15th, 2020 on the basis of an analysis of Build4Skills implementation to date. This analysis was informed by the following sources:

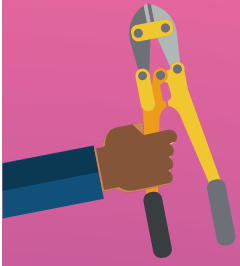
- Minutes and documentation of Build4Skills stakeholder workshop on September 15th and 16th 2020
- Individual semi-structured interviews with GIZ and PMO project staff
- Consultations with the Build4Skills leadership team
- Documents relating to BMZ project commission to GIZ, including results matrix
- Project progress reports, including updated data on progress implementation from Mongolia and Pakistan
- Knowledge products developed during the pilot phase
- Factsheets pertaining to specific aspects of project implementation.

These sources describe developments in the project between January 2019, when on-the-ground implementation was launched, and October 2020. Given that project design and focus have considerably evolved since the induction, documented project results go beyond the scope of the objectives and corresponding indicators contained in the results matrix that forms part of BMZ's original commission to GIZ.

The development of this Toolkit is the result of an analytical process that builds on the existing qualitative and quantitative evidence for project results as well as the underlying interdependencies and causal relationships in Build4Skills' evolving change model. The structure of the guidance for each Stage was selected with the intent to present implementation experience and lessons learned from the pilot phase in a format as practical and user-friendly as possible. However, there are limitations to the rigor of the recommendations proportionate to the extent of implementation experience so far i.e. only two-years' project implementation in two countries. Ideally each recommendation would be directly derived from a lesson learned. This is the case for a number of recommendations, where the specific lesson is shared in parallel. For the formulation of recommendations that are not listed with an attached lesson learned (i.e. "Design tailored implementation approach"), contextual information from the implementation experience were combined with best practices in project design and implementation. Further, the number of data points that the lessons learned are based on are limited and the triangulation of data provided was not possible in all cases.

Given the lack of corroborating data and evidence, the recommendations contained in this version of the Toolkit should therefore be seen as working hypothesis until they are confirmed through a dialogue process with all partners that are part of the implementation process and until additional data on project results has been generated. Further testing and strengthening of the recommendations can take place through the implementation of additional pilot projects.





Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn

Friedrich-Ebert-Allee 32 + 36
53113 Bonn, Germany
T +49 228 44 60-0
F +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1 - 5
65760 Eschborn, Germany
T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
I www.giz.de

On behalf of



Federal Ministry
for Economic Cooperation
and Development