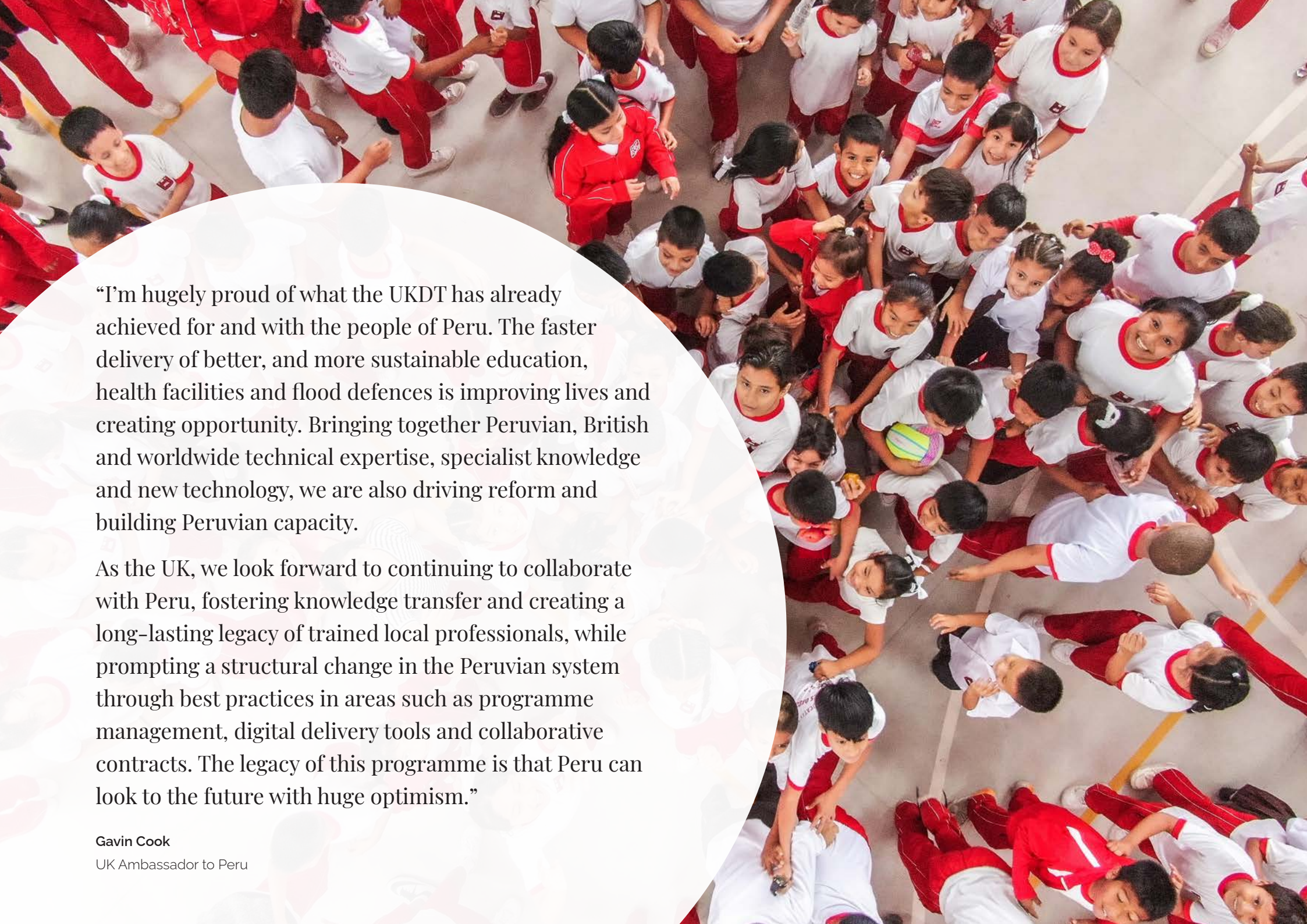




# Partnership of progress

Year 3 of the Peru-UK  
Government to Government  
agreement





“I’m hugely proud of what the UKDT has already achieved for and with the people of Peru. The faster delivery of better, and more sustainable education, health facilities and flood defences is improving lives and creating opportunity. Bringing together Peruvian, British and worldwide technical expertise, specialist knowledge and new technology, we are also driving reform and building Peruvian capacity.

As the UK, we look forward to continuing to collaborate with Peru, fostering knowledge transfer and creating a long-lasting legacy of trained local professionals, while prompting a structural change in the Peruvian system through best practices in areas such as programme management, digital delivery tools and collaborative contracts. The legacy of this programme is that Peru can look to the future with huge optimism.”

**Gavin Cook**

UK Ambassador to Peru



# Foreword

**The third year of the UK Delivery Team's (UKDT) support of the Reconstruction Programme in Peru was one of transition. The majority of our flood infrastructure projects moved from the design to the construction phase and the procurement of further urban drainage and river flood defence schemes progressed at pace. In the education and healthcare sectors, UKDT focused on bringing facilities delivered through the Government to Government (G2G) agreement into use, completing and opening schools, health centres and hospitals.**

Transition brings challenges. The new facilities are designed and built to international standards, transforming the provision of education and health services. The move from old to new requires preparation and training in new skills, equipment and ways of operating. Our teams work closely with the contractors and with school and health centre leaders and staff, from the design of facilities through to their opening and operation,

to help smooth this transition. While there are always issues to overcome on the road towards high-quality facilities and infrastructure, it has been a privilege for the UKDT to see G2G schools and health facilities open and make an immediate difference to the quality of life of communities most impacted by the El Niño event in 2017.

Cyclone Yaku arrived in March 2023, bringing rains and flooding to central and northern Peru. The resilience of the schools and the healthcare facilities was brought into focus for the first time, a stiff test for the standards of design and construction that UKDT had developed with officials and contractors. Not only did the completed and under-construction projects withstand the weather, through their positioning, structural integrity and drainage systems, they provided shelter to the local communities – a visible demonstration of the Peru Reconstruction programme's benefits in action.

The programme also underwent a transition, with the transfer of the portfolio of G2G projects to the new National Infrastructure Authority (ANIN) as Peru looks to the future of its infrastructure planning and renewal. In 2024, the UKDT is working with ANIN to continue supporting the delivery and opening of critical education and health facilities and flood protection infrastructure.

We look forward to another year of delivering real social value to Peruvian communities, assuring the completion of our projects to the highest standards and continuing the transition to a safer and more sustainable Peru.

**James Redman**  
Programme Director, UKDT

# The United Kingdom Delivery Team (UKDT)

In 2020, the United Kingdom signed a G2G agreement with the Republic of Peru to provide technical advice and support to the reconstruction of public facilities and infrastructure most impacted by the devastating 2017 El Niño weather phenomena.

The UKDT team in Peru, made up of experts from UK consultancies Mace, Arup and Gleeds, and assisted by their global network of subject matter specialists, is supporting the construction of 74 schools, 18 healthcare facilities, flood defences for 17 river basins and 5 gullies, including nature-based solutions, and urban drainage in 7 cities along the coastal regions of Peru.

A new integrated early warning system will help protect new infrastructure from extreme weather events, benefiting local communities and businesses.

Core to the partnership is the proactive transfer of knowledge, tools and skills to build the national and regional capacity of Peru to deliver sustainable and resilient infrastructure for generations to come.

The partnership with UKDT has been extended until the end of 2024, so the team can work with the new National Infrastructure Authority (ANIN) to continue the completion and transition through to the opening and operation of critical new public facilities and infrastructure for Peru.

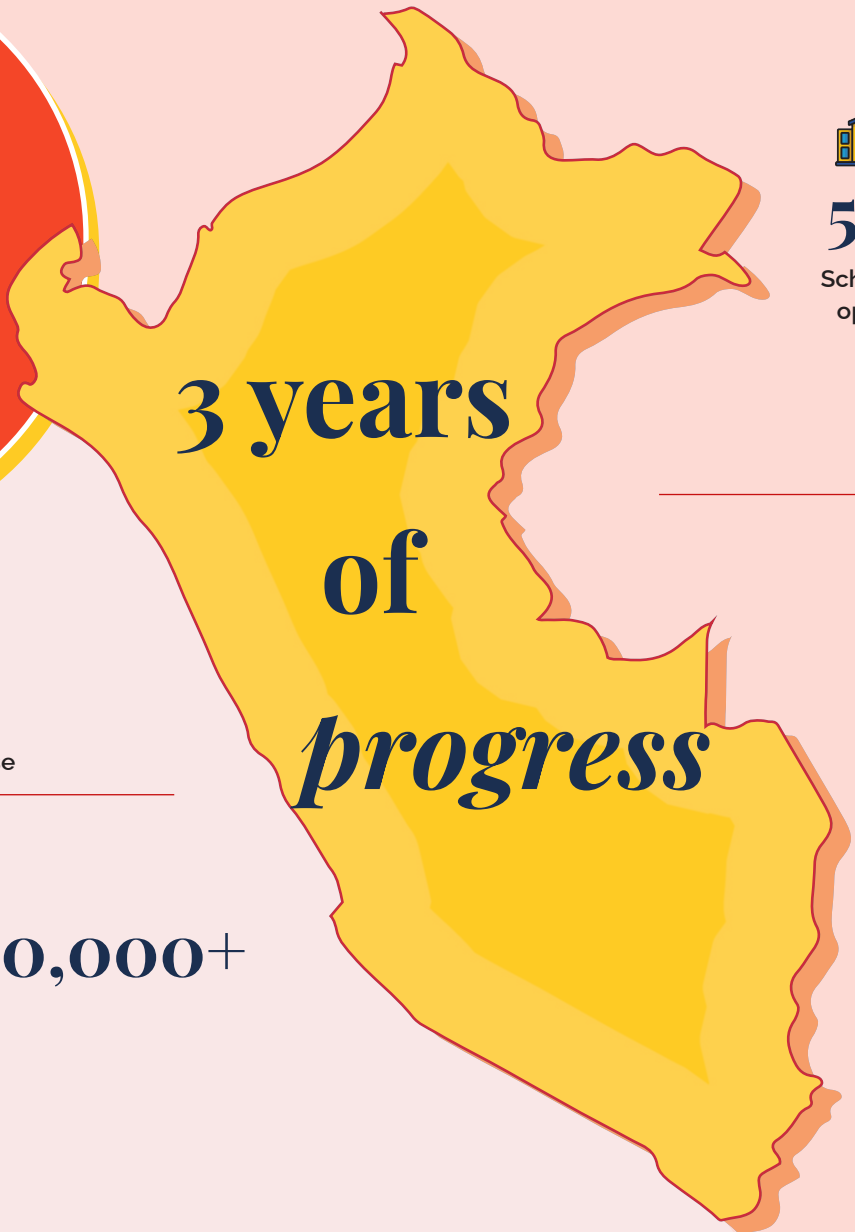


**140**  
Total number of projects

**57**  
Facilities in use

**105**  
Projects on-site

**45**  
Projects nearing completion



**50**  
Schools open



**5**  
Health centres open



**16**  
Flood protection works underway

**1**  
Hospital open

**1**  
Gully complete



**5,024,676**

People benefiting from facilities in use



**\$/30,000,000,000+**

Estimated total value of contracts



**193**  
BIM models developed



**15,000**  
Digital design documents developed



**75,000+**  
Comments from stakeholders addressed



## Accelerating & sustaining change

The founding purpose of the Peru-UK G2G agreement is to accelerate the delivery of safe and sustainable public facilities and infrastructure in parts of the country most impacted by the 2017 El Niño. Through the UKDT partnership, new schools, health facilities and flood defences are being started and completed in less than half the time of comparable projects and at international standards of quality.

### The 5 drivers of UKDT acceleration

#### Innovation

Digital tools cut time and increase quality and transparency, from the online procurement process and GIS-based multi-hazard risk modelling, to digital design reviews and digital modelling (BIM - Business Information Modelling) of the whole life cycle of every project.

#### Collaboration

Proactive partnership with contractors, neighbours, facility staff, and other stakeholders maintains progress and ensures the quality of facilities and infrastructure. An open and transparent relationship with Contraloría and other government agencies builds trust and confidence in the process and results.

#### Programme management

Introducing world-class programme management systems, structures, tools and training. Including real-time information on progress and quality across project delivery, so issues are identified and resolved before they cause delays.

#### Contracting

The introduction of collaborative NEC contracts, and training on their application, which encourage the sharing and solving of challenges between the client, contractors and subcontractors to keep projects progressing. For example, cutting time by progressing subcontracting packages in parallel while the detailed design work is ongoing.

#### Procurement

The rapid, efficient and transparent appointment of contractors through a rigorous and robust UKDT-led process, trusted to deliver quality contractors for the best value within a fast-tracked timeframe.

# Going further, faster

Despite the range of complexity and challenges, UKDT-supported facilities and infrastructure are being delivered, on average, in half the time typical for Peru, and to international standards of design, user-experience, resilience and sustainability.

The Peru Government estimated that, compared to projects with similar levels of investment, without the support of the UKDT it would take on average:

- 3 years longer to build and open the 74 schools being delivered through the UKDT partnership since 2020, which could complete in 2027 rather than 2024.
- 4 years longer to deliver the 15 health facilities originally being delivered with the UKDT (now 18 health centres and hospitals), doubling the delivery time to all of the health centres opening in 2029 rather than 2025.
- 4 years longer to deliver the flood protection, urban drainage and early warning systems, which would not be fully complete until 2033 rather than 2029.

San Juan Hospital,  
Matucana

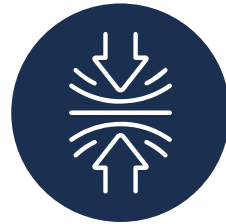




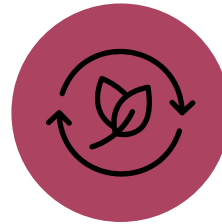
# Quality, safe & sustainable architecture

UKDT worked with public officials, ministries, universities, communities, agencies, users of facilities and contractors to set high quality standards of design and technical requirements, tailored to local conditions and needs. Advising on the development of detailed designs for each project, UKDT specialists are assuring the quality and helping to embed standards, solutions and approaches that will be applied to future public projects across the country.

## The 5 drivers of UKDT design quality



**Resilience**  
Current and future hazards are modelled and assessed to inform designs and ensure that schools and health facilities and flood protection infrastructure are built to withstand seismic and extreme weather events.



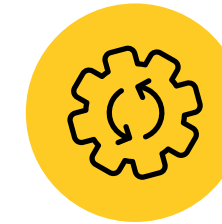
**Sustainability**  
Standards have been improved for efficient construction and operation, reducing costs through the use of natural light, ventilation, and nature-based solutions. The lifecycle of a project is considered in design using tools such as Building Information Modelling (BIM) through construction to operation, and future adaptation. Natural solutions to manage water, cut carbon and create spaces for people and wildlife.



**People-focused**  
The needs and optimum experience of the people using and running facilities and infrastructure are embedded into guidance, standards and details. Schools are designed to boost the learning and teaching experience, and health facilities are carefully planned to increase access, streamline treatment and aid recovery.



**Collaboration**  
A fast-track, structured design development and review process, enabled through a digital platform, provides space for collaboration between officials, contractors and their design team, leading to clear actions and decisions. Training was built into the adoption of these new approaches, which were supported by deep specialist expertise worldwide.



**Legacy**  
The UKDT has worked with authorities to modify the legally mandated national model for school design and develop comprehensive technical guides which are already being used to support the design of schools, health facilities and flood protection infrastructure, across Peru.





“The classrooms are spacious, children sit comfortably and so do the teachers. You open the window and the natural ventilation is like a breath of fresh air. The school has gutters, gable roofs and stormwater drainage so that the water flows. Already we have sheltered families during the 2023 cyclone, the infrastructure has passed the test.

The teachers, students and community are proud of our new school, many pupils that had previously dropped out now come to classes in the evening and we reached capacity for the first time in our history.”

**Luis Chomba**

Deputy Director of San Juan de Illimo school, Lambayeque

# Strengthening national resilience

The UKDT is helping strengthen Peru's resilience to extreme weather events, which are increasing in frequency and ferocity with climate change. As well as ensuring new schools and healthcare facilities withstand future weather events, we are supporting the planning, design and implementation of large-scale integrated (flood management) solutions across 17 river basins, 5 gullies and 7 cities, with an integrated early warning system and natural infrastructure solutions to protect the lives and livelihoods of 16 million people. While the integrated solutions projects have the longest lead time of those delivered through the partnership, international standard flood protection works are beginning to complete and provide critical protection.

River defence works in El León, La Libertad





# Integrated solutions



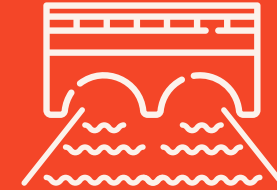
## Dams

to slow and control large water flows from the upper catchment, and when possible, to increase the use of water for agriculture irrigation.



## River defences

to ensure that rainwater is contained within the river channel or gully.



## Transversal dykes

in gullies to retain sediments and protect vulnerable infrastructure and communities from the risk of mass movements and landslides.



## Natural infrastructure

including reforestation and natural terraces to absorb water across 14 river basins, slow flows and reduce sedimentation movements and landslides amongst other benefits.



## Integrated national early warning system

connecting radar technology, communications and coordination to alert communities to get to areas of safety ahead of adverse weather events.



## Digital tools

for design and decision-making including multi-hazards risk assessments, modelling of future climate impact and a social cost/benefit analysis to inform investment.



## Integrated drainage

in urban areas to clear and absorb water, reducing the community and economic impact.

# Resilience in action

## Schools and health facilities to stand the test of time

Resilience to extreme weather and seismic events is fundamental to the design standards and guides developed for education and healthcare facilities delivered with the support of UKDT. Schools are raised above ground level, with ramps and steps for access, and positioned to reduce the impact of rainwater, with single gable roofs to capture and guide water and grounds sloping into water-absorbing gardens.

Schools and healthcare facilities are built with seismic requirements taken into consideration as standard, with hospitals incorporating seismic isolators as part of the structural design. Hospitals also include systems to continue functioning through impacts such as the loss of electricity or outbreaks of infectious diseases.

## Providing resilience & refuge

During the 2023 rainy season, schools delivered through the G2G partnership not only managed the extreme weather. They also provided a safe place of refuge for the local community forced out of their homes by flooding. Healthcare facilities were opened early to help manage the subsequent outbreak of Dengue in areas impacted by flooding.



## Supporting national resilience

UKDT developed more than 30 detailed guidance documents on distinct technical elements of planning, designing, operating and maintaining flood defences, urban drainage and early warning systems. This guidance and the training of thousands of officials and contractors on their implementation, will benefit efforts to manage water and reduce flooding across Peru.





# Boosting national capacity & confidence

Building the capacity and confidence of officials, leaders, contractors and communities to design, deliver and operate critical public infrastructure to international standards is fundamental to the UK-Peru partnership.

The UKDT has continued to embed tools and approaches, and transfer specialist knowledge to thousands of public officials and industry professionals working in more than 100 public organisations and private companies in Peru.

This planned and proactive transfer of practical knowledge and capability includes formal training, informal support, one-to-one sessions, written technical guidance and seminars, all collected on an online learning portal for ongoing use.

The legacy of this investment is in the increased capability of individuals and organisations at a regional and national level, but also in the growing confidence to drive and deliver the standard of infrastructure and public facilities that contribute towards a safer and more sustainable Peru.

The UKDT is supporting ANIN in developing self-sustaining knowledge capabilities, to enable the continuous improvement for the ANIN programme.

To help establish a baseline of knowledge, UKDT is working with ANIN on a mix of inductions, capability assessments, formal training modules and workshops. This will be followed by efforts to enhance knowledge capabilities through the sharing of lessons learned and 'knowledge leaders', responsible for knowledge development within specific disciplines.

Design management workshops with stakeholders



## Formal training

113

Total number of courses

308

Modules within the courses

16,795

Personnel trained formally through the knowledge transfer program

350

Public officials trained through the UKDT and London School of Economics programme

450

Master's level certifications completed



## *Knowledge transfer in action*

A planned, proactive transfer of practical knowledge and capability through formal and informal support and training.



## Informal training

215

Total number of cafe sessions

1,923

Workshops covering a wide range of topics

320

Q&A sessions with stakeholders across the programme

525

Written guidance issued to parties on the programme

5

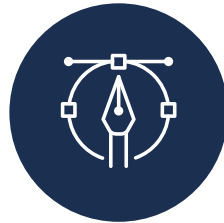
Communities of practice establish to carry on the legacy of learning



# A strong transition to operation

Through the completion of a number of schools, healthcare facilities and flood prevention projects we have worked with public officials and contractors to develop and embed an effective approach to the transition to opening and operating of this critical infrastructure. A planned and systematic approach is essential to identify and overcome barriers and ensure that new facilities are up and running as soon as possible.

## The 5 drivers of transition to operations



### Design

The whole lifecycle of a facility or piece of infrastructure, including how it will be operated and maintained, is built into the design process, with the input of those who will be responsible. This minimises the risk of design issues slowing the transition to opening and operations, as the daily life of running a school or healthcare facility has been fully considered and planned for.



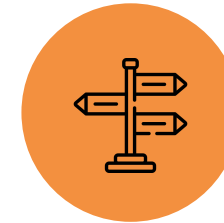
### Understanding

UKDT deep knowledge specialists spend time with the team that will be responsible for running a facility to listen and understand their challenges, working together to identify and plan the best approaches to making the transition to what is a far higher standard of building or infrastructure.



### Training

In-person and online training has been developed and delivered, with the support and advice of the UKDT, to help staff learn how the facility works and develop the skills and knowledge to operate international standard equipment and systems. Digital modelling enables staff to explore and get a feel of a facility before it is complete.



### Guidance

Detailed transition guides have been developed by UKDT specialists in health, education and water infrastructure, which can be used to support the opening of public facilities and infrastructure across Peru.



### Support

Preparing to open and operate a facility can throw up unexpected challenges for the people leading the transition, so the UKDT team stays in regular contact to provide ongoing support and advice.



## Enabling the future

Digital modelling (BIM) has been used at every stage of the design and, once construction is complete, becomes a tool to support the long-term operation and maintenance of these public assets.

A modular approach to design and construction is being applied across new schools, healthcare facilities and flood protection infrastructure supported by the UKDT. This enables efficient construction, by repeating standard materials, methods and

layouts. It also opens the opportunity of adding or adapting modules for future expansion or change of use, for example changing the purpose of a specific room in a health centre or expanding a whole hospital.

Taking a long-term view while rapidly creating critical infrastructure maximises the role that these facilities and interventions can play in supporting future health, education and water management strategies.



# A new model of transition to operations

The new Yungar Health Centre has transformed the range and quality of health care provision in a remote area of Ancash, overlooked by the highest mountain in Peru. The UKDT worked with the Yungar team for four months, to help prepare for the opening and operation of a more modern facility with new technology and staffing requirements.

Supporting continuous and transparent communication between the government delivery authority, construction contractor, regional health authority and centre staff

through a collaborative and structured planning process and budget setting. This achieved a successful opening and better health care for local people.

By building capacity and knowledge, the efficient opening of an international standard of health facility has already led to, for the first time:

- Specialised cleaning services, previously carried out by doctors and nurses.
- Universal and free clinical laboratory analyses, previously

available through private clinics.

- IT equipment and technology for patient management and to provide telemedicine to people in remote areas.
- The methods developed through UKDT, including lessons learned through each transition, can now benefit the opening and improvements of health facilities across Peru.

Yungar Health Centre, Ancash



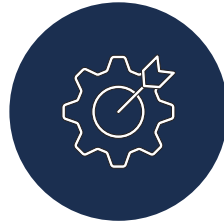




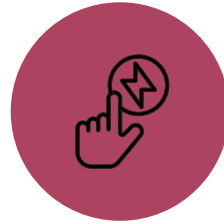
# Building the future

UKDT is committed to working with ANIN and contractors towards the future safety, sustainability and prosperity of Peru. The following are proposed ways to continue the progress being made to ensure successful infrastructure planning and delivery for generations to come.

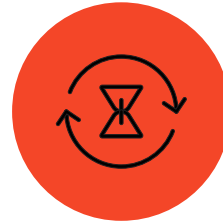
## The 5 ways to keep up the momentum



Embed the systems, tools and approaches developed through UKDT for procurement, programme and project management and design and construction standards across public projects and demonstrate the value of these approaches to the private sector.



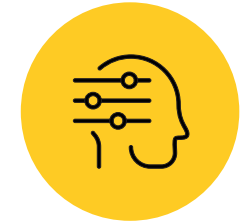
Continue to develop an integrated approach to the strategic planning of national infrastructure and delivery of major programmes, to realise the transformational long-term benefits of critical infrastructure to communities and the economy.



Promote a whole-lifecycle approach to planning, designing and building facilities and infrastructure, including operations, maintenance and potential to adapt to future need.



Capitalise on the new facilities and infrastructure delivered with UKDT's support to connect, grow and improve the infrastructure and quality of life in the surrounding areas, using the new infrastructure as anchors for well-planned growth.



Connect education institutions and industry groups to establish and assure national standards in the core infrastructure skills, knowledge and experience so that high-quality training, career development and accreditation are nationally recognised and sought after.



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