Building Sustainable Health Infrastructure in Rural Myanmar

**Introduction**

For several decades, Myanmar had extremely low levels of investment in the provision of health services, considered the lowest in the world in 2009 as a percentage of GDP (Ministry of Health and Sports, 2016). Alongside the Lao People’s Democratic Republic, Myanmar scored lower on health indicators than other countries in Southeast Asia, including a life expectancy of 66 years and a maternal mortality rate of 282 per 100,000 (Department of Population, 2014). It had the world’s second-highest HIV infection rate after Thailand. Over half of the region’s malaria deaths were in Myanmar, and it was among the top 30 countries in the world with the highest rate of tuberculosis infection. In 2014, there were 5,632 recorded cases of multi-drug-resistant tuberculosis (National Tuberculosis Plan, 2017).

With the advent of political reforms in 2010, the government and development partners took steps to address these issues. One way to do this was through the provision of simple health facilities, especially in those areas where access to health services was most limited. Communities in rural areas, the rapidly growing peri-urban areas, and areas affected by conflict were particularly vulnerable.

In Myanmar, the United Nations Offices for Project Services (UNOPS) implemented health infrastructure projects that contributed to the Ministry of Health and Sports’ (MOHS) plan to make a package of basic health services universally available by 2020, and to the longer-term goal of giving everyone access to needed health services without imposing financial hardship by 2030. These goals corresponded to Sustainable Development Goal 3, to ensure healthy lives and promote well-being at all ages.
UNOPS’ contribution to these ambitions included the design, construction, and equipping of 141 rural and peri-urban health centers across the country in the 2014-2019 period. Health centers functioned as a one-stop facility for all types of health care services for people in need.

Funding came from the Three Millennium Goal Fund, a multi-donor program supported by Australia, Denmark, the EU, Sweden, Switzerland, the UK, and the US. Separate funding came from the Asian Development Bank and Ooredoo, a private mobile telecom operator. The project included: assessment and site selection; preparation of detail designs; costing and technical specifications for the rural health centers; procurement of contractors; project implementation, supervision, and contract administration; quality control; and project handover and closure.

Delivery Challenges

During the period of the design and delivery of the project, Myanmar was attempting a triple transition: from military rule to democracy, from conflict to peace, and from a closed economy to a more open and competitive market (UNDP Myanmar). At the same time, it was subject to natural disasters, such as Cyclone Komen in 2015, and an intensification of violence in Northern Rakhine, an area where the project was not active.

Coordination and Engagement: Stakeholder Engagement

Coordination was challenging, with many stakeholders. The government side involved the Ministry of Health and Sports, state and regional health authorities, and township health authorities. Parliament took an increasingly engaged role, especially after the general election of 2015. There was also a need for consultations with communities and in some cases with the diverse set of health care providers practicing traditional approaches to health care within ethnic groups around the country. These ethnic health care providers were often the only provider of health services in rural areas. With so many groups wanting facilities in their townships, the political pressure on site selection was intense for the government, the United Nations, and funders.

On the donor side, the Three Millennium Goal Fund board initially had seven members who needed to form a consensus. With other donors becoming involved later, who all had differing priorities with differing mandates and objectives, forming a consensus was challenging.

Commitment and Leadership: Opposition or Lack of Focus

The project started when information about populations, health data, land ownership, and the presence of existing facilities was often limited or inaccurate. UNOPS and funders also assumed that the facilities would be concentrated in a limited number of areas where the Three Millennium Goal Fund was most active. This did not reflect the changing political environment, however, in which the government would increasingly need to show its engagement with a broader population. A cut in funding to the original project, as well as new funding with a different geographical emphasis, meant the project had to shift some of its focus.

Environment and Geography: Geographic Access

Geographically, many of the regions were very hard to reach, especially in the mountainous areas in Chin, Kayin, and northern Shan states, and the islands of the Ayeyarwady region. This had implications for the cost of construction, the availability of contractors, and UNOPS’ ability to supervise implementation. Potential sites also faced risks of flooding and landslides. Most sites had no grid power and some lacked readily available water. On some sites, access for construction was impossible during the rainy season, which typically ran from May to October. While in the urban centers of Myanmar there was a vibrant construction industry, it was more difficult to attract contractors to rural and hard-to-reach areas.

Legislation and Regulations: Lack of Regulation or Legislation

Building codes were not mandatory, quality control was weak, and there was a lack of understanding of the competitive bidding process used by international organizations. There were no standardized health center designs at the ministry or among development partners.

Conflict and Instability: Civil Unrest & Armed Conflict

Several of the facilities were constructed in areas that had recently emerged from conflict or were still affected
Building Sustainable Health Infrastructure in Rural Myanmar

by conflict. This meant a need for conflict sensitivity and in some cases required dealing directly with ethnic health care providers. Operating in these areas created issues around the management and functions of the health facilities. Some of the sites were located in active conflict zones and off-limits to international staff, with only members of specific ethnic groups allowed access. Construction suffered several stoppages due to fighting between armed groups.

Social and Cultural: Gender

The remote and off-limits sites created an even greater challenge for activities related to gender mainstreaming. While gender mainstreaming activities in consultation processes and construction designs could be successfully managed, workers in some areas were selected from villages’ “labor groups” that did not include women. This created an obstacle to improving the participation of females during the implementation phase, hindering the gender balance.

Addressing Delivery Challenges

To address issues around coordination, the project team and government consulted at all levels, establishing coordination mechanisms and joint criteria by which decisions on the location of health facilities could be made. A project board was established involving the Ministry of Health and Sports and UNOPS, with funders also permitted to attend board meetings. In the initial phase, meetings were regular and intense. As the project started to deliver, with trust established, the meetings became less frequent, but regular written updates were produced along with joint site visits and inspections. As new funders emerged, the structures and routines established in the initial phases of implementation could be duplicated. This enabled separate reporting for the new funders while allowing the government and UNOPS to work with familiar roles and responsibilities, such as typical project management and engineering tasks.

Agreeing on joint site criteria before sites were selected helped create consensus and a transparent decision-making process. The criteria included: population coverage, distance to other facilities, land ownership, access for patients and construction, and presence of health staff to operate the facilities. Once potential sites were agreed upon, they were inspected, and local health authorities and communities were consulted on the usefulness of the sites. These on-the-ground consultations allowed for community control and ownership over data and the elimination of inappropriate sites, giving communities the opportunity to locate better options for the sites.

As construction moved into conflict-affected areas, the project team and stakeholders shared the assessment and site selection process, including key criteria agreed upon with the Ministry of Health and Sports and the ethnic health care providers, which helped build trust. The ministry agreed in writing that it would provide staffing and funds for operations and maintenance. Without that commitment, construction could not begin. As most sites were off the grid, electricity was supplied by solar power. The water supply was augmented by rain harvesting and wells that operated with a diesel pump. The design of the health centers made use of daylight and natural ventilation. Designs were kept simple to allow maintenance with local materials and equipment.

In conflict-affected areas, UNOPS made clear it would not pay for the right to operate. For example, at one site contractors were asked to pay an ‘access tax’ by an armed group that exercised territorial control in that area. UNOPS instead emphasized the benefits of the health centers to all members of the community, ultimately gaining the support of the armed group for the initiative. The use of local contractors and site engineers also built the community’s confidence in the initiative.

Some ethnic health care providers considered the project to be an encroachment on their territory by the union government, as the Ministry of Health and Sports insisted on having its personnel operate the health facilities. In two cases, this led to the cancelation of construction in the corresponding sites. In two other cases, thanks to additional consultation processes promoting the priority of health access above all other considerations, the ministry agreed to allow these ethnic health care providers to operate the centers. This decision led to a successful outcome, with beneficiary parties buying in after consultations with UNOPS and the idea of “health for peace” gaining some momentum.

UNOPS worked with the Ministry of Health and Sports, health experts, and other development partners to establish a set of standardized designs for rural health centers, which was then adopted by the ministry. These designs were adapted to cope with different climatic and topological challenges. For example, centers in the
flood-prone delta had higher plinths (the foundations on which the structures were built), raising them above potential floodwaters, while those in the sparsely populated mountainous areas were more compact.

Due to careful site selection, the devastating flooding during Cyclone Komen did not have much impact on sites, but it did cause delays as workers had to take care of their own homes and families. Delays caused by inaccessibility in the rainy season were mitigated by stockpiling materials on site ahead of the rains.

Limited experience in construction bidding in all regions and states meant there was a need to train contractors at different stages: (i) pre-bid; (ii) tender; (iii) implementation. By the end of the project, a total of 360 contractors were trained across the country. While the sites were more spread out than originally envisaged, the project team did attempt to cluster locations and join them in lots before tendering to allow contractors to achieve some economies of scale.

Health and safety, environmental and social safeguards, and quality were addressed in continuous training sessions for all stakeholders, site supervisors, contractors, Ministry of Health and Sports engineers, and maintenance staff, among others. UNOPS site supervisors moving on motorcycles visited most sites daily. They taught contractors how to use plans, checklists, and control templates. In some extremely remote locations, systems for on-site testing of material were introduced. Sub-quality work was knocked down or had to be redone, sending a clear message to contractors. Firm adherence to standards with a strong recording system allowed the office to gain ISO 14002 and BS OHSAS 18001 certification for meeting health, safety, and compliance standards.

In 2018, a digital platform developed by UNOPS (called Fieldsight) was introduced to provide an effective digital quality assurance, remote supervision, and monitoring system. Fieldsight was available offline on smart phones and tablets, providing dated and geotagged reports to assess, monitor, and evaluate the development of the clinics.

The project ensured that approximately 25 percent of the overall workforce were women. This was done by continuous conversations with contractors and by the project’s active promotion of women’s capacity. This included occasions where the project team highlighted that women had been more productive than their male colleagues.

Lessons Learned

The experience of project implementation yielded a number of lessons about success factors and overcoming delivery challenges.

Governance: With so many stakeholders, working through formal, regular, open governance structures such as the project board and local equivalents were crucial. This was a slow process, especially at the start, but it built trust and was critical for jointly identifying issues. Delays that may appear ‘bureaucratic’ often have deeper causes.

Evidence-based decision making: Establishing jointly-agreed criteria for site location of a much-desired resource, a health center, helped all involved make difficult decisions transparently. This said, attempts to totally remove ‘political’ agendas are bound to fail and do not reflect the needs of government, donors, or communities. There is a balance.

Housing for midwives was as important as health facilities: It seems obvious, but health funders are often concerned not to become housing agencies. Good housing is critical to secure and retain health staff in rural and remote places. Without them, nothing works.

Keep control of supervision: Initially, UNOPS planned to contract out supervision, which would put more money onto the physical infrastructure or ‘works’ side of the budget. However, in fragile environments, it proved crucial from a standpoint of risk mitigation to have direct control of supervision. Although it did not impact the overall cost, some funders were uneasy when they saw the ‘non-works’ side of the budget increase. It was necessary for implementors to explain project risks up front to funders and why certain mitigation measures are necessary.

Health, safety, and environmental safeguards and quality: These can be delivered in some of the most challenging environments. The Myanmar health project showed that this takes dedicated resources and constant focus. This meant tough enforcement, with sub-quality work knocked down and foundations redone, sending a clear message to contractors, but was even more about monitoring, oversight, mentoring, and leadership. The last factor was very important. Two sites run by the same contractor, not far from each other, had very different
leadership cultures when it came to such issues. Strong leadership helps to build capacity, well after the project is over.

**Community involvement:** The project placed considerable focus on working with health officials, which had good results. However, as the project progressed, it became clear how enthusiastic communities were about the provision of accessible basic health care facilities. This led to community initiatives, such as clearing areas, building access roads, donating land, and taking on roles in cleaning and maintenance. It proved important not to underestimate this resource, especially for the long-term sustainability of the facilities.

**References**

