FEATURE-Bangkok struggles to protect slum dwellers as floods worsen

By Thin Lei Win

BANGKOK, June 19 (Thomson Reuters Foundation) - In Phrom Samrit, a squatter settlement along a major canal in Bangkok, most of the 300 households live cheek by jowl and have become used to floods after living next to water all their lives. But now their resilience is being chipped away, says Adirak Sangnut, the slum's elected leader.

"Before, it started flooding after raining for three days. But now, it floods after just three hours of rain," the 47-year-old said. "After a while, if nothing is done, it'll be less than an hour before it starts flooding."

As Thailand's rainy season gets underway, residents in and around Bangkok say they are experiencing more intense and frequent seasonal floods since 2011, when the capital was hit by its worst flooding in half a century.
That flood disaster - caused by factors including an unusually heavy monsoon, building on flood plains and changes in water management - affected millions of people and caused $45.7 billion in losses.

Experts do not expect floods of that magnitude again any time soon but say the city's low-lying location, continued urbanisation and extreme weather linked to climate change are raising Bangkok's vulnerability to floods.

The Bangkok Metropolitan Administration (BMA) is planning 28 flood protection projects worth nearly 26 billion baht ($765.6 million).

They include dredging and expanding canals, and constructing flood barriers and water retention areas to drain and divert floodwater to Thailand's main conduit, the Chao Phraya River.

The budget for four projects to build embankments along canals has already been approved, and an extra 2 billion baht from the military government is being used to carve out giant underground tunnels, said Vallop Suwandee, chairman of an advisory group to the Bangkok governor.

The city also issued a resilience strategy earlier this year that includes improved weather forecasts and drainage systems.

Yet not everyone approves of the BMA's plans. Adirak says nearly half of his neighbours, who live near Don Muang airport, disagree with the canal works, fearing they will lose their homes.

Experts have criticised the plans for focusing too much on hard infrastructure solutions which they say are costly and will never be adequate.

Barriers such as flood walls could trap rainwater, worsening flash floods, and create a two-tier system where some areas are protected at the expense of others, usually the urban poor and those in neighbouring provinces, they add.
But Vallop said climate change makes it imperative for Bangkok to prepare.

"It's necessary for Bangkok and Thailand to invest in infrastructure. If we do not do it now, the damage may cost a lot more in the future," he told the Thomson Reuters Foundation.

The city government has warned investors and home-owners whose properties are on major floodways - spillover channels for floodwater - but they have built there anyway, he added.

Deputy government spokesman Lieutenant-General Werachon Sukhondhapatipak said Bangkok lacks effective infrastructure to handle large-scale flooding.

Problems include inadequate town planning, construction blocking waterways and littering of drainage systems, he said by email. "Effective flood management requires genuine cooperation from all sides," he added.

UNEVEN EXPOSURE

In the aftermath of the 2011 floods, the government unveiled a much-criticised $11-billion flood prevention plan, which was scrapped after the military coup of May 2014.

Despite Thailand's frequent cycle of floods and droughts, its approach to water management has always been piecemeal, said Nipon Poapongsakorn of the Thailand Development Research Institute (TDRI).

Whenever a disaster hits, committees are set up, but they soon disappear, leaving no institutional memory. The absence of a single water agency and a national water law are other major challenges, he added.

In Siriwan Klai-iam's neighbourhood of Bang Bua Thong market in Nonthaburi, a province to the north of Bangkok, flooding has become
more common since 2011. Then water reached chest height, and her home and workplace were submerged for nearly three months.

"It's happening every monsoon," said the 39-year-old, pointing at the road outside that was flooded again in early June. "The government helps sometimes... but mostly after the floods."

Danny Marks, a researcher on urban climate resilience in Southeast Asia at the University of Toronto, said neighbourhoods like Siriwan's could be adversely affected by the BMA's plans.

The main government response has been to construct more and higher flood walls and other infrastructure rather than significantly improve water management, data collection and land-use planning, said Marks, whose doctoral thesis examined the authorities' handling of the 2011 floods.

Flood walls create uneven exposure to future flooding, he added, with urban economic areas protected while marginalised groups such as farmers, fishermen and rural communities are exposed to losses and damage.

The TDRI's Nipon said Bangkok needs to become a "sponge city" - a concept promoted by China where infrastructure, including pavements and green roofs, is designed to absorb water.

RISING RISKS

When Bangkok became Thailand's capital in 1782, it was a backwater village crisscrossed by canals known as the "Venice of the East". But many were filled in to make way for cars, while squatter settlements have encroached on others.

With that, Bangkok lost much of its drainage capacity.

"It's easier to fill canals instead of appropriating land, but now we are paying a very high price," said Apichart Anukularmphai, president of the Thailand Water Resources Association.
Many also blame slum residents for throwing trash into the canals and blocking the waterways, calling for them to be evicted.

There are hundreds of such communities in Bangkok and they cannot all be dismantled, said Thipparat Noppaladarom, advisor to the Community Organizations Development Institute (CODI), a government agency that upgrades slums.

CODI is currently working with residents along a major canal that is being expanded. They will be relocated to higher ground but still live in the same area - a "win-win" situation, said Thipparat.

The complexity of acquiring land for infrastructure projects is a familiar challenge to Thongchai Roachanakanan, an urban planning expert at the Department of Town and Country Planning and Public Works.

He designed a floodway after 2011, but almost all the governors he met rejected the plan because much of the land was owned by the rich and powerful.

Meanwhile, Bangkok is becoming more vulnerable each year, he added.

Thongchai is particularly concerned about flood walls to the east of the ancient capital Ayutthaya, north of Bangkok. Built after 2011, these walls - some as high as 6 metres (19.7 ft) - could cause problems should a major storm hit central Thailand, he said.

If that happens, the water could flow south fast, threatening Bangkok's two international airports, he warned.

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