The UN Recognition for achieving sustainable development goals

In a rare gesture of appreciation from the UN commune, the 42-km Thiruvananthapuram City Road Improvement Project (TCRIP), an iconic project by Infrastructure Leasing and Financial Services (IL & FS) that has set up a world-class road network in the State capital, was in the Agenda in the Public Private Partnership (PPP) Forum of the United Nations Economic Commission for Europe (UNECE) held in the UN Headquarters in Geneva, from March 30 to April 1, 2016. Anilkumar Pandala, Project Director, TCRIP explains the reasons for TCRIP getting national and global recognition.
TCRIP was one of the twelve PPP projects from across the world that found a place in the forum; it was shortlisted from the initial list of 47 projects that was first narrowed down to 30 high calibre PPP case studies that fulfilled the Sustainable Development Goals of the UN Agenda 2030. The project was shortlisted for demonstrating good governance and achieving sustainable development goals.

The TCRIP has been widely acknowledged as a great initiative. It is referred to by the World Bank in its document on Urban Infrastructure Projects. It was also recognised by International Road Federation for the best Project in the World in the category of Urban Mobility. The Ministry of Urban Development had advised the Chief Secretaries of States and Union Territories to emulate the successful TCRIP model for planning and execution of Urban Infrastructure Projects. Minister for Road Transport and Highways, Nitin Gadkari acknowledged the contribution of the Project to Greening of Urban Spaces.

The Asian model was led by Korea, followed closely by Thailand, Malaysia, Philippines, Indonesia and Singapore. These development initiatives, supported by respective Governments, were flaunted in the early 80’s as the best way forward. Pointing at the tremendous success of these Countries, the World found pleasure in ridiculing India and even said, “look to Mexico, Brazil, and Korea”.

The public now demands “TRDCL-type” roads that provide a very high ride and life cycle of at least 15 years!

goals and the “stakeholders”. For example, even though the quality and delivery of healthcare under PPP projects were superior, progressively it became less and less affordable to the ordinary man in the street. Some PPP project also upset or threatened an established local industry and its dependents.

5. Global recession became a major spoiler of the PPP initiatives. Governments found it difficult to meet Annuity payments. Thrift made users find alternate ways, drastically upsetting projected revenue models. There emerged an urgent need to have a direct people’s involvement in the Projects, and a predictable cash flow to be generated more by innovation and involvement of local population.

Numerous such issues came to the fore making the Governments rethink the emphasis on PPP projects. It was evident that while PPP model is a smart way to move ahead with development, it was time for introspection: the demand, and how the benefits reach the common man, whether the lifecycle is sufficiently long so that the cost set off does not affect his purse, and so on. That the Projects should make sense to the local economy to ensure recovery of investment in a sustained manner became a key indicator. It should also be such that global economic, demand-supply or socio-political related problems should have the minimum impact on the Project. In short, the Project should suit all win-win, since economies are becoming increasingly fragile, whatever the reasons may be.

This is what brought the UN into the fray. UNICEF International Centre of Excellence Concessions / PPP, therefore, has been mandated to create the necessary framework for PPP projects in future by suggesting a “People First” approach. They have to draw from the valuable experience gained both from unsuccessful and successful PPP projects across the World.

The Rs. 450Cr TCRIP is the first PPP project in the country for Urban Infrastructure (city roads) development with the active participation of the State and the private sector. Thiruvananthapuram Road Development Company Ltd is the Concessionaire as per PPP norms, and is the Special Purpose Vehicle for the Project under IL & FS Transportation Networks Ltd.
TCRIP – In the Honour List!

The project involved developing 42.06km of city roads by strengthening surface, widening in acquired portions, correcting geometric and vertical profiles, providing proper facilities for drainage of storm water, enhancing pedestrian facilities such as footpaths, traffic islands and pedestrian refuges, improving overall safety by installing solar powered and GPS enabled traffic systems, installation of energy-saving street lighting systems, and landscaping and arboriculture. It also had other infrastructure components such as bridges, flyovers and underpasses.

What made the difference?

Going the Extra Mile, is what made the difference. What is visible to the Public are good roads, phasing junctions and grass patches, bright and smart traffic signals, good road marking, good road signs and a very enjoyable footpath and bright and pleasing street lighting. But this is not what the UN saw. At least, not this alone. The key elements are:

Difficulty in Execution: The project has migrated through three Political Administrations, and has worked under seven Ministers, ten Secretaries to the Government, and eight Project Engineers. At one stage – end of 2006 to be precise – the first change of Ministry took place. It was at this time that there was a serious threat to the Project as it had reached the completion stage without progressing beyond one-third point on account of land acquisition issues. The effort of TRDCL in generating the required ownership for the project was the sole reason why this project was resumed by the new Government and ensured continuity. The assiduous and long initiative took two years to bear fruit. All the while, IL&FS stood steadfast behind the SPV helping it progress in the path it had chosen.

Trust Deficit: Any initiative from the Governments’ side is usually viewed with doubt and disdain by the Public at large, on account of previous experiences. TCRIP was no exception. The innovative initiatives of the Concessionaire in establishing a people-to-people contact and involvement, contributed significantly to the success of the Project. Keeping the people updated about technology & quality of execution, the benefits of a strong Concession Agreement & the PPP model and the professionalism embedded in the Concession that gives no room for partisan decisions, all appealed to the Public. Sample stretches exceeded expectations, creating a bond of trust and camaraderie with the people that helped the project move forward.

A redefining of the “Stake Holder”, and educating all the affected people –including street vendors – about the compelling need for transition, were support elements that reversed the Trust Deficit.

Inertia: The balance struck between commitments, rights and responsibility in the case of a PPP model was a threat to the contract delivery system that prevailed. This resulted in unhappiness within the administration as the Project working model threatened to upset established working arrangements. The Concessionaire, through a series of initiatives, conveyed to those who were apprehensive of their future, the need for reform. TCRIP gave the officials who chose to involve in the Project a sense of pride, which was never in their dictionary till then.

Tweaking of specifications: TRDCL had to modify specifications in many contexts so that the final product met all user requirements on the ground while maintaining the design requirements as well as contractual obligations intact. This was a very difficult process. For example, it maintained low height footpaths, which could give the city an added friendly look and the pedestrians a very high level of comfort. Planting of more number of trees than specified, improving safety of pedestrians, reducing impact on environment, saving of energy and improving public appeal were all through tweaking of DPR specifications without affecting the Concession Agreement.

Poverty Alleviation: Poverty alleviation is a yardstick that the UN gives maximum importance to. In the case of TCRIP, the Concessionaires (TRDCL’s) contractor initially was Aparj Lloyd Ltd. After the exit of PLL, the Concessionaire suggested execution of balance work through local contractors. Almost Rs 3000m. of PLL, the Concessionaire suggested execution of balance work through local contractors. Almost Rs 3000m.

The decision of TRDCL to continue the Project by developing local contractors has resulted in generation of close to 2,00,000 mandays of work for the local work force. In the process of execution, ITNL also developed enterprise among ordinary skilled workers into 37 quality-conscious contractors, capable of working to deadlines, meeting quality standards and maintaining prescribed safety and health requirements. This has substantially helped to upgrade skill, improve employment opportunity and therefore, a significant effort to poverty alleviation.

Access to Services: Thiruvananthapuram, like many other Indian cities, had witnessed haphazard laying of utility lines. Water, Power, Communication and Sewage services have been reached to the public by laying the lines under pavement surface in varying depths. No utility agency has any map of the resource lines under the pavement. Had the Concessionaire proceeded with work without waiting for the agencies to lay fresh lines wherever required, there would have been a need to dig up freshly laid roads. Though this has happened in a few cases, by and large the willingness to wait for the agencies to finish their work paid rich dividends.

Once new roads are laid, deterrent pricing for restoration of roads excavated for laying utility lines was the incentive for departments and agencies to think ahead, and sensibly. The Project also set out strict parameters of depth of laying utilities. This was in addition to the cross ducts which prevented, to an extent the need to cut open road surface. This regime has, in effect, improved the quality of services and its availability without sacrificing on the quality and availability of the road infrastructure.

Putting the increasing number of high-rise buildings and commercial districts, cutting down trees and reclaiming water bodies have become rampant. The people of Trivandrum are now against any form of environmental degradation. Cutting down even one tree for proper geometric alignment of the Road is now an impossible task.

In the face of such stiff resistance, the onus was on IL&FS to demonstrate the sincerity embedded in the Project and convince the people of Trivandrum that the Government and the Concessionaire are actually in agreement with the pressing need to protect environment while addressing development. Extensive greening beyond the scope and reduction in consumption of energy were resources used by IL & FS to reach out to the Public. TRDCL also educated them how good roads reduced CO2 emissions.

Against a specified 1200 trees in the Detailed Project Report, TRDCL planted 2600 trees. In fact, on completion, the number could be a little higher. Combined with meticulous care, this more than compensated for cutting down 374 trees for construction of the Project.

By cutting down 374 trees TCRIP had released approximately 75 T of CO2 per month (0.27 T per month = one tree). But...
by planting 2600 trees 520 T of CO₂ has been cut per month – a net gain of approximately 445 T of CO₂ per month. This is not accounting for the aforesaid that the Concessioning Authority had taken up in 2007 for planting and nurturing 3000 trees through Kerala Forest Development Corporation Ltd. It also does not take into consideration the additional landscaping, grass turf and shrubbery developed in the project.

Estimated savings of 2% on fuel per vehicle due to improved road design has also helped cut CO₂ emissions.

Usage of GPS enabled Solar Powered traffic signals have contributed to the environment in two ways:

a. The system is synchronised in a corridor. This enables a vehicle with optimum speed to get green signal at all intervening junctions. The “Green Channel” reduces wait states at junctions, leading to lowering of emissions.

b. By adopting solar powered signals, a further 0.12 tons per month of CO₂ emissions have been saved.

The project has 550 advanced street lighting systems that help save 29.7 MW of power a month. At 0.75kg of CO₂ per Unit of power, 75 T of CO₂ a month – or approximately 900 T of CO₂ in a year – is offset.

By advocating footpath paved with interlocking blocks, against the specification of granite tile on cement mortar, TRDCL has helped percolation of rain water which is in abundance in the region. Thus, though rainwater harvesting was not in the agenda when the project started, it has recharged the groundwater. Added with grass turf on road sides and traffic islands, TCRIP has helped birds find its prey, kicking off a bio-diversity cycle. It has helped insects thrive, and have brought many a bird back.

TCRIP, thus, qualifies in every way as one of the most ideal development projects that has consideration for the Planet!

Replicability and Skill Development: Many features of the project threw up challenges to the public. Restricting entries to byroads on account of new medians, handrails provided for pedestrians safety restricting jaywalking and exposing the parking problem and so on. Extensive interaction with the public, educating them on technologies, principles, discipline and the way forward convinced them that sacrifice of certain comforts would be compensated by net gains like fast mobility, safety and better facilities on the streets.

This exercise convinced the people, the Government and people’s representatives the need for such changes. The consistent efforts on the part of TRDCL in keeping the footpaths free of encroachments and sustained maintenance of all features of the project have given the confidence to the Government and the public that similar projects are possible to be replicated in the region. TCRIP has also empowered 37 small contractors to take up any challenge.

In summary TCRIP has been acknowledged as a fitting example how PPP can be translated into a truly “Peoples” Project establishing, beyond doubt, the sustainability of each feature.