

---

## SUSTAINABLE INFRASTRUCTURE ASSET MANAGEMENT THROUGH ASSET RECYCLING

*Dr. Pooja, Assistant Professor, Commerce, Govt. College, Saha (Ambala)*

### Abstract

The responsibility of creating and managing infrastructure lies with the public sector undertaking operated by center or state government. Creating infrastructural facilities puts a lot of burden on government and is considered as a major expense of government out of tax revenue. The problem is not only of creating the facilities but also of maintaining which is again a massive burden. Initially after economic liberalization government ran short of funds for fulfilling this responsibility. At that time, it switched to Public Private Partnerships to fill the financing gap. Private companies were asked to build, operate and then transfer infrastructure to the government (the BOT approach). Due to operation of BOT approach, PPPs expanded at a lightheaded rate in the 2000s, and once-unknown companies like GMR, GVK and Lanco became infrastructure giants. Majority of PPP projects were financed with 70% debt and only 30% equity. So, any delay in the project implied huge interest payments that were unparalleled with the revenues. Many projects sank because of delay and involvement of huge interest costs. The PPP model became fundamentally unsound. In 2016, the Kelkar Committee suggested reversing the model. As per the committee, the new model has the government building, operating and then transferring projects to the private sector. This reversal makes excellent sense in present scenario. The present paper throws light on the conceptual framework of asset recycling keeping in mind the Kelkar committee report.

**Keywords:** Infrastructure Asset Management, Asset Recycling, Kelkar Committee Report, Built Operate Transfer (BOT), Public-Private Partnership (PPP)

### INTRODUCTION

In 2014 Arun Jaitley's Union budget has a potentially revolutionary proposal, which was termed as "asset recycling". The reason beyond such proposal is that government constantly lacks funds for badly needed infrastructure. The proposal provides a solution that is government undertakings should routinely sell existing assets, and use the sale proceeds to finance fresh investment. In other words, the government can sell old roads to finance new ones; sell old ports to build new ports; and sell old power stations to build modern ones. Public sector entities can sell entire subsidiary companies, or projects, or vacant land to finance fresh projects. That means the government should recycle the asset or replace the old investment into new investment.

The concept will help the companies to extend their life cycle also. If new technology has come in, old assets shall have no value. But if any company disposes their old assets and get minimum sale proceeds, sale proceeds shall depend upon condition of asset, they can use those funds for switching over to new technology. This disposing of old assets exercise will help the undertaking to come out of exit stage.

## **WHAT IS INFRASTRUCTURE ASSET MANAGEMENT?**

Infrastructure asset management is integrated, multidisciplinary set of strategies which help in sustaining public [infrastructure](#) assets such as water treatment facilities, sewerage, roads, bridges and railways etc. In United States, after decades of capital investment in infrastructure, the need to maintain such infrastructure created mounting challenges. The current challenges include insufficient [state and local budgets](#), deferral of required maintenance funding, and political pressures to cut government spending.<sup>[1]</sup> Today, the management of the infrastructure system has dramatically altered. The maintenance not only requires repairs but also expert opinions to keep the facilities operative. As a result, the life cycle of a facility, including Planning, Design, Construction, Operations, Maintenance, Upgrading, and Replacement, has become bifurcated between agencies and firms where Design and Construction has been contracted separately from Operations and Maintenance. The push for more dual-track strategies and not segmented ones such as design-build and build-operate-transfer helps in maintaining public facilities.<sup>[2]</sup> Yet, over time, the government focused more on start-up capital expenses for constructing public assets without focused on maintenance.<sup>[3]</sup> In recent times, the concept of infrastructure asset management has completely changed. Government is also looking out for selling the infrastructure projects to private players not only at construction stage but also at operational stage. Various examples can be sighted, where in India, private companies are taking up the responsibility of maintaining the roads and are also operating and maintaining the toll taxes booths or expressways.

## **WHAT IS ASSET RECYCLING?**

Asset recycling is an economic program whereby state and central authorities receive cash subsidies to sell existing infrastructural assets and reinvest the revenue in new infrastructure projects. Asset recycling programs have the potential to create investment opportunities for private institutions as well. This type of program places assets previously held by public entities into the hands of private enterprise. This transfer in ownership is more likely to raise investment in newly privatized assets and spur greater economic activity throughout a country. The idea is to unlock hidden capital in the balance sheet to fund new job-creating projects.

## **PROCESS AND ACTIVITIES FOR ASSET MANAGEMENT**

The basic aim of infrastructure asset management is to manage asset at various strategic points in its normal life cycle so that the expected service life of the asset increases, and its performance is maintained. Generally, a long-life-cycle asset requires multiple interference points including a mixture of repair and maintenance activities and even overall analytical treatment. It is well known that costs decrease with planned maintenance rather than unplanned maintenance. But in case of infrastructure, excessive planned maintenance sometimes leads to increased costs. Thus, a balance between the two must be recognized. As far as condition curve is concerned, each improvement raises an asset's condition curve, each treatment resets an asset's condition curve, and complete replacement returns condition curve to new level or upgraded level. Therefore, timing these interferences is an important task as it will lead to extending an asset's life.

A simple working definition of asset management would be: first, assess what you have; then, assess what condition it is in; and lastly, assess the financial burden to maintain it at a targeted condition.<sup>[1]</sup>

Essential processes and activities for infrastructure asset management include the following:

- Maintaining a systematic record of individual assets (an inventory)—e.g., acquisition cost, original service life, remaining useful life, physical condition, repair and maintenance
- Developing a defined program for supporting the aggregate body of assets through planned maintenance, repair, and replacement
- Implementing and managing information systems in support of these systems<sup>[1]</sup>

Now the problem lies that all these asset management activities require huge investment and public sector undertakings are practically able to finance either the construction or the maintenance. Funding both simultaneously puts a lot of burden on public sector undertakings. The solution to this problem is either it goes for Public-Private Partnership under BOT approach or for Asset recycling.

## **THE CONVENTIONAL ASSET MANAGEMENT**

In British colonial times, many private sector railways, ports and power stations were built up. But after Independence, Indian socialist economy directed that the government should own the powerful assets of the economy, including infrastructure, defense etc.

From a market-friendly perspective, the government's role is to facilitate private enterprise. For facilitating these, provision of infrastructure is critical. Providing roads and electricity to every territory, or ports and airports for international connectivity, can greatly improve business opportunities. Some of the infrastructure sectors require enormous funds, carry great commercial risks, and are unprofitable (eg. no villagers will pay tolls on rural roads). The government has the greatest capacity to raise money and take risks, since it can use tax revenues rather than commercial capital. Hence it has dominated infrastructure everywhere. Thus conventionally, the responsibility of creating and maintaining infrastructure lies on the government only.

## **RECENT CHANGES**

When the government ran short of funds after economic liberalization, it switched to Public-Private-Partnerships to fill the financing gap in infrastructure sector. Private companies were asked to build, operate and then transfer infrastructure to the government (the BOT approach). Public-Private-Partnerships expanded at a lightheaded rate in the 2000s, and once-unknown companies like GMR, GVK and Lanco became infrastructure giants.

The 12th Plan (2012-17) aimed at investing one trillion dollars in infrastructure, of which half was to come from the private sector. Unfortunately, private sector growth in infrastructure proved as a daydream. Many older Public-Private-Partnerships could not complete their commitments on time and were in financial crisis. The reasons included delays in land acquisition and environmental clearances; the failure to meet positive predictions; the lack of gas or coal to fuel power stations; and a range of problems in financing and clearances. Many Public-Private-Partnerships projects were financed with 70% debt and only 30% equity. So, any delay implied huge interest payments that were difficult to be paid by revenues earned. The projects were dropped. Construction is the riskiest part of an infrastructure project. Due to unexpected delays and interventions, major infrastructure projects have suffered huge cost overruns. The Public-Private-Partnerships model handed over the riskiest part, i.e. construction, to the private sector. The project was to be transferred to the government after the risky stage was over that means after construction. This placed the maximum burden of risk on highly leveraged private players, who were least prepared to bear it. The Public-Private-Partnerships model thus became faulty.

The solution to this faulty PPP model was given by Kelkar Committee. The committee was of the view point that the greatest potential lies in recycling infrastructure. Instead of depending on money from the tight budget, infrastructure sectors can raise all the equity they need by selling old assets. Instead of building in order to own and run, the government should build in order to sell. Conceptually, this transforms the role of the state. Thus now the government has a major role in building infrastructure, it should not worry about the maintaining the same. Once the assets have been built, they can be sold to private entities for routine operation and maintenance. This reverses the conventional asset management thinking.

The Kelkar Committee further suggested that the government, which has the greatest risk-bearing capacity (it can always use tax revenues to rescue a project) should build projects, and operate

them in the initial phase when revenues are uncertain. Once the project is firmly established and revenues are steady and predictable, it can be sold to private players (including international ones) who will pay a high price for utilities with stable revenues. The sale proceeds can then be recycled by the government into new projects.

The old PPP model had the private sector building, operating and transferring a project to the government. The new model has the government building, operating and then transferring projects to the private sector. This reversal makes excellent sense.

## CONCLUSION

Privatization has proved politically difficult because of trade union opposition. But asset recycling is politically less challenging. As a recent example, once the government only operated every jetty in every major port. But in recent years, jetties have been auctioned to private players for operation. This has drawn no political criticism and acts as a support for sale of other infrastructure projects too.

Based on the recommendations of Kelkar Committee, Niti Aayog is identifying assets for recycling. Instead of getting buried in case-by-case examinations of every government undertaking, Niti Aayog should quickly formulate procedures for selling old infrastructure assets. Thus role reversal will help government to grow at a faster pace as the blocked money in old assets can be encashed and can be used for financing new infrastructure projects which will lead to rapid economic growth.

## REFERENCES

1. Cagle, R. F. (2003). "Infrastructure Asset Management: An Emerging Direction". *AACE International Transactions*.
2. Pietroforte, R. and Miller, J. B. (2002). "Procurement Methods for U.S. Infrastructure: Historical Perspective". *Journal of Research, Development, and Demonstration*. Pp. 425-434.
3. *EuDaly, Kevin; et al. (2009). The Complete Book of North American Railroading. Minneapolis: Voyageur Press. ISBN 978-0-7603-2848-4. OCLC 209631579.*
4. <https://www.reference.com/business-finance/asset-recycling-a63862e721505ece#full-answer>
5. Revolutionary road: recycle assets to create new ones, March 6, 2016, 12:00 am IST [SA Aiyar](#) in [Swaminomics](#) | [Business](#), [Economy](#), [Finance](#) | TOI