

INNOVATIONS IN PUBLIC SYSTEMS-AN EXAMPLE FROM KARNATAKA

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DOI: doi.org/10.34293/seamjr-v1i3-001

Abstract

Innovations drive the economic development of a nation. The more innovative a country is, the more advanced it shall be. Very early at the beginning of the twentieth century itself, economists have realised that there is a strong nexus between the innovations and economic development. While innovations in private sector add to the profits and wealth creation, innovations in public systems benefit the public at large. As a matter of fact, State has an obligation to provide certain essential services to the people. Efficiency in these systems would go a long way in extending the needed services at a lower cost. In this regard, the innovative approach and the schemes of the Government of Karnataka stand apart. The present paper is a brief of such innovative initiatives ideated and implemented by the GOK.

Keywords: *Innovations, Economic Development, Agriculture, Education, Health, Energy Systems, Digitalisation, Sakala.*

Man is inquisitive and innovative since his birth. It is the driving force to lead and sustain living in tune and against the nature. Found out the fire to help him in the ways convenient and designed wheel to initiate the civilization. All these attempts were aimed at protecting and providing congenial life to his clan and further enlarged to cover the entire mankind. In the modern times similar responsibilities are destined to be taken up by the State, which include its own departments, autonomous bodies and specially created institutions, in

the name of public institutions pressed into the service of citizens.

It is felt that innovation defined as the “systematic attempt at ideating new concepts, new knowledge, products, services and processes that add value and comfort to the public or people in the society. As a matter of fact, economists like Schumpeter realised that innovation is the key to economic development and thus advocated economies to innovate or perish (Schumpeter 1934). These innovations in the present day context have taken the share of ‘creative destruction’ also called

‘disruptive technology’. Therefore, every sector of the economy needs to innovate in terms of new products or services, new methods of production, processes, new sources of supply and even new organisation structure. While businesses involve themselves to make a profit and outweigh the competitor, public organisations shall do it for the sake of extending services efficiently, at the cost affordable by the people.

There are quite a good number of examples at the level of Government of India like the Aadhaar, DBT, RTGS, Fastag, Net metering, Digi locker, Academic Bank of Credits and One Nation One Subscription; which have impacted the people and economic operations in a large measure. In the same way diverse State Governments are also innovating in their attempt to deliver services in the most effective manner. A few such examples include: Village Secretariat System of AP, Geo-tagging and remote sensing in irrigation systems of Maharashtra, Solar Panelling of the River Streams of Gujarat, Cashless Village Palmer of Chhattisgarh, Solar Urja Lamps of Rajasthan and Automated Facial Recognition implemented for counting the number of devotees attending the mammoth event of Kumbh mela by the Government of UP. In this regard, the schemes introduced by the Government of

Karnataka are still more innovative and hence the focus of this write up.

In the field of Agriculture, recognising the growing importance of organic culture and the use of millets, the Karnataka Government has proposed to create an exclusive hub intended to be developed as a knowledge centre and market place. This is expected to divert a large number of farmers from the traditional farming to newer methods. Vasudhamrutha is another flagship programme of the Government designed to introduce the sustainable practices to protect soil health, water management, and climate action. Catching up with the advancements in IT, setting up in a large scale ‘farmers call centres using Artificial Intelligence. This is expected to provide an interactive desk to share real time information to the farmers. Added to this the Department of Agriculture is operating an automated Chatbot for recording the grievances of the people in the supply of food items under PDS. A novel scheme, which can be followed by other State Governments is the introduction of ‘Organic Certification System’ to help consumers not to fall pray to the dishonest business men in this sphere. Intending to promote ‘soil-less culture’ as a measure of conserving water and preventing diseases, which is experimented by a few corporate houses as ‘hydroponics’.

Another pioneering effort of the Government of Karnataka, which can be emulated by others is the one relating to the 'pressurised piped network for irrigation and urban water supply' commissioned early in 2004 (GOK 2025). Considered to be the World's largest network of this kind and funded by the World Bank. The reach of the project is so wide that it covers about 30,000 acres, benefiting 7000 farmers at the time of commissioning. The Government is adding value year after year intending to extend the facility to the entire state. Supply of water to the households is also part of this scheme. Formation of water user societies to entrust the responsibility of protecting the village water tanks to the villagers themselves is another good move. Computerisation and networking of PACS in Karnataka is another novel initiative.

Karnataka is all out in trying to take advantage of the emerging AI technology and adopting a few measures in the field of education. Digitalised tutor facility using AI to benefit students from class 8 to 12 is one such step forward. This is expected to benefit about 12.28 lakh students pursuing education in Government schools. Setting up of AI Labs in all Government Degree colleges is one added measure. The Government is also bent up on making a big leap forward in providing quality upgradation for employment and skill transformation, known as K-QUEST with a

significant allocation of Rs. 1, 386 crore in 2026-27 budget for this lone project. In the health sector, distribution of 'insulin pens' to the children below the age of 18, suffering from Type-I diabetes is a step in the right direction. Further, using the IT network already available, it intended to digitalise all health records and link UPI based payment mechanism to this system. Providing home based palliative care for patients having severe illness or terminally ill patients and taking every care to see that such patients 'die with dignity' is all the more welcome.

Creation of a multimodal logistics hubs across the state, a vehicle scrapping facility, mechanism for Battery Energy Storage System (BESS) to store excess electrical energy from renewable sources like solar and wind with high-end technology are highly appreciable. Construction of Long Tunnel up to about 20 KM in the urban areas to reduce traffic congestion and emissions fits very much to the Bangalore traffic. Establishment of Solar Micro-grids in every Grama Panchayat to generate about 4000 MW annually can be considered a giant leap in ensuring uninterrupted supply of electricity to the rural households. In order to reduce man-animal conflict, the Government is taking steps to earmark spaces for 'grassland conservation reserves. To protect 'air-quality' setting up of 'biodiversity parks in urban centres. GIS

based digitalisation of land records, data centres Bhoomi are a few other steps in the domain of using IT, BT and AI (Siddaramaiah 2026). As a matter of fact, Karnataka is already known for implementing unique schemes like 'sakala' (Sakala 2012) to ensure timely delivery of government services to citizens, backed by the Karnataka Guarantee of Services to Citizens Act, 2011, Bidadi AI City to focus on zero-carbon, zero-waste, and low-traffic outcomes, and 'regulatory sandbox to test new technologies like drones and robotics, crop-loss monitoring system and livestock tracking, etc. It is high time that other states also peep out for the innovations happening around them and come forward to share the knowledge.

Acknowledgement

Keynote Address delivered at the International Conference held at S.E.A. College of Engineering and Technology on

International Conference on Emerging Trends in Green Engineering, Business Excellence and Applied Sciences – 2026, & Inno think: Design to Empower, Intra - Poster Presentation-2026, during 9th and 10th April 2026.

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