Sub: KJA Task Group for preparing Vision and Plan for Usage of Big Data in Governance

1. Big data means large volumes of data – both structured and unstructured – that is available to society on a day-to-day basis and which is exponentially increasing with the digitalisation of wide range of human activities. While the term “Big Data” may be relatively new, the very act of gathering and storing large amounts of data (and its processed form – information) has been humankind’s age old activity – but the computerization and internet technologies have given a boost to the data and information capture revolution. Today, every action of citizens, society, industries and governments are based on digital technology and thus have become amenable to digital capture and (then) its storage.

2. Big Data are not only “voluminous and complex”; “scattered and distributed” but have intricate “linkages and connected” – thus traditional data processing methods are inadequate to deal with them. Online, unimaginable volumes of data are available – the ability to access them, systematise them and analyse them is becoming easier and easier due to developments in IT systems and digitisation. With Big Data concepts, performing predictive analytics, user behaviour analytics, time-series analysis, change analysis, governance analytics and other advanced data analytics methods is becoming increasingly possible for society – governments, individuals.

3. Big data can be analyzed for insights that lead to better decisions and strategic business moves. Big Data challenges include assimilating various data sets that have been capturing differently and at different times, effectively store and access them, perform data analytics and visualisation and determine new meanings and perspectives of data.

4. Today, society, organizations and governments collect “voluminous” data from a variety of sources, including business transactions, social media, e-governance, public services and information that are “sensed” or “recorded” without any human interventions automatically. Data streams in at rapid “velocity” – with unprecedented recurrence in near real-time of acquisition with an instant time-stamp and transferred at high speeds – making data in instantaneous time-domain. Data is also in “variety” of formats – from structured, numeric data in traditional databases to unstructured text documents, email, video, audio, stock ticker data and financial transactions. In future, Big Data will drive Governance decision-making.

5. KJA has discussed the importance of Big Data and has recognized that Karnataka, which has led the IT revolution in the country, should also lead in the era of Big Data and show how the nation – Governance; industries; academia and the citizens can benefit from the potential usage of Big Data concepts. The large repository of different kind of data being produced by and within the state can be seen as “Big data” – its proper usage has to be systematised. In a vanguard position, Karnataka can assess all the existing technological and analytical capacity
to leverage Big Data for smart Governance – allow for more onus to be placed on data analysis and interpretation and making informed, effective, evidence-based decisions from data.

6. Recognising the importance of Big Data and accepting the recommendation of KJA, Hon’ble Chief Minister of Karnataka has announced, in the State Budget of 2018-19, that Karnataka will use Big Data in state administration and has earmarked specific budget for same. KJA is of the view that Big Data can be used in various development initiatives and policy making by the Government – especially through citizen-centric analysis and good policy making. Karnataka has major programmes in financial inclusion, e-gov services, Khajane, departmental development data, sakala, municipal databases, property records, Bhoomi data, crop insurance data, education data, transportation data, government schemes data and many other large datasets. In conjunction with national and global data, a “Big Data” gets configured that is a great asset to the government – which, if properly utilized, can be of tremendous aid to policy making and governance and can be of immense benefit to citizens.

7. KJA considers that it is essential to develop a vision for using Big Data in Governance and work out a broad roadmap for implementation – including pilots and demonstrations; structuring a Big Data environment, training and skilling in Big Data and also positioning proper policies and legal regimes. Government is the main “anchor” in its responsibility of providing good governance and development – thus Government is key stake-holder. There is important role of industries to provide the technology, architecture and application services for Big Data usage in society and this has to be promoted. Similarly, in education and research also Big Data must find key importance and thus academia must play a role. The Vision must enable an ecosystem to be created for Big Data.

8. In the 7th meeting of KJA, it was recommended that a specialist, expert Task Group be established for working out the Vision and Plan for Usage of Big Data in Governance. The Task group can engage with government departments and others and undertake a comprehensive exercise to prepare the vision and plan - with focus on technological, industry participation, utilization, policy/legal and education and research aspects. The following expert Task Group is constituted for this purpose:

- Prof. Pulak Ghosh, Member, KJA - Co-Chair
- Mr. S.V Ranganath, Former CS/Vice Chair, KSHEC - Co-Chair
- Dr BN Suresh, Member, KJA/ISRO Vikram Sarabhai Prof - Member
- Prof S Sadagopan, Director, IIIT-B/Member, KJA - Member
- Dr. Mukund Rao, Member Secretary, KJA - Member
- Mr. Mohandas Pai, Member, KJA - Member
- Mr. Sanjeev Mittal, CEO, NISG - Member
- Prof. Shawn Cole, Harvard Business School (Online Participation) - Member
- Prof. Bhuvanesh Pareek, Faculty, IIM-Indore - Member
- Additional Chief Secretary, E-Gov Department, GoK - Member
- Principal Secretary, IT/BT Department, GoK - Member
- Additional Chief Secretary, Planning Department, GoK - Member
- Mr M Jayachandran, Technical Officer, KSRSAC - Member-Secretary
- Ms Rashmi Raj, SRA, KJA - Convenor
5. The Task Group is to develop a **Vision and Plan for Big Data Usage in Governance** so that Karnataka would lead in data driven governance and modernization of state administration. In developing the vision and plan, the Task Group, amongst other things, may specifically address the following:

- Assess the global trends of Big Data and characterize the technical, utilization, legal and social aspects for usage in governments and policy-making and document some specific success cases.
- Ideate and develop insights into how Karnataka can use Big Data for policy-making, governance and data-driven decision-making in Karnataka. Specific examples for different departments/sectors may be outlined. A stake-holder strategy for such Big Data efforts – involving government, industry, academia and citizenry could be worked out.
- Document the benefits of Big Data usage – benefits to government; commercial benefits and others – so that a perspective of overall benefits is justified.
- Identify the way-forward to create a state eco-system for Big Data – determining and delineating the technical and applications aspects – with specific reference to industry role and participation; academia role in education and research and also citizen engagement.
- Recommend specifically designed pilot project that will quickly (within 6-9 months) showcase an implementation of Big Data for Governance in state’s administration – with focus on specific sectors like water resources, agriculture etc.– in consultation with GOK. Metrics for evaluation of its effectiveness may also be defined.
- Suggest a mechanism for implementing the Vision and Plan for Big Data – the Architecting aspects so that over time the Big Data implementation in governance is achieved.
- Address any other related aspects of Big Data and its advancements which the Task Group may feel necessary.

6. Towards preparing the detailed report, the Task Group may undertake wider consultations across the state – involving GOK departments; private sector; legal experts; academia; citizenry and other related groups. In particular, it is important to discuss with as many departments of GOK as possible and make an inclusive effort for their involvement right from beginning. The outcomes can then be internalized by the Task Group into a report. Once the report is developed by the Task Group it may be presented to KJA for formal endorsement/approval. KJA shall formally submitted the final recommendation to Government of Karnataka (GoK) for implementation actions.

7. Other experts, as identified/approved by Co-Chairs and Member-Secretary, KJA, may be co-opted to the Task Group and/or invited for specific meetings, as required. Sub-committees may be formed for specific purposes.

8. Specific budget will be approved/earmarked by KJA for the Task Group activity. The expenses of the Task Group would be met from this approved budget of KJA. For administrative purposes, the expenses for meetings, any travel/fees/honorarium and any other meeting expenses etc. could be met from KJA funds, as per KJA procedures, allocated for the Task Group activities. Funds related to this activity will be expended upon approval of Co-Chairs of Task Group and as per procedures of KJA.
9. The term of the Task Group will be for a period of 9 months from the date of issue of this order by which time the final report may be submitted with following milestones:

- Within 3 months of issue of this order, pilot-project proposal for using Big Data in Governance may be formalised and submitted to KJA – so that actions for its possible formalization for execution can be taken up by KJA with GOK.
- Within 6-9 months a holistic report maybe prepared and made available to KJA for discussions/consultations and for its formalization by KJA and submission to GOK.

10. This order issues with the approval and under authority of Chairman, KJA.

(Mukund Rao)
Member-Secretary, KJA

To,

- All Members of KJA Task Group on Vision and Plan for Usage of Big Data in Governance

Copies for information to:

- PS to Hon’ble Minister of HE – with a kind request to bring this to the notice of Hon’ble Minister
- All Members of KJA
- Chief Secretary, Government of Karnataka
- ACS, E-Gov Department, GOK
- Principal Secretary, IT/BT Department
- Additional Chief Secretary, Planning Department
- Addl. Chief Secretary, Dept of Higher Education, GoK
Karnataka Jnana Aayoga
(Karnataka Knowledge Commission)
Bangalore

Ref: KJA: Order-05/01: Big Data: 2018
August 23, 2018

Sub: Induction of 3 new Members to KJA Task Group on Vision and Plan for Usage of Big Data in Governance

- In partial modification of the Karnataka Jnana Aayoga (KJA) Office Order KJA: Order -05: Big Data: 2018 dated March 02, 2018, Prof. Sudip Gupta from Gabelli School of Business of Fordham University, Prof. Gopal Devanahalli from MaGE & CEO E-Governance, GoK (Representative Mr. Chandrashekar) have been included as Members, in KJA Task Group on Vision and Plan for Usage of Big Data in Governance.

- With the inclusion of Prof. Sudip Gupta, Prof. Gopal Devanahalli & CEO, E-Governance (Representative Mr. Chandrashekar), the TG- Vision and Plan on Usage of Big Data in Governance shall be as follows:

  - Prof. Pulak Ghosh, Member, KJA - Co-Chair
  - Mr. S.V Ranganath, Former CS/Vice Chair, KSHEC - Co-Chair
  - Dr BN Suresh, Member, KJA/ISRO Vikram Sarabhai Prof - Member
  - Prof S Sadagopan, Director, IIIT-B/Member, KJA - Member
  - Dr. Mukund Rao, Member Secretary, KJA - Member
  - Mr. Mohandas Pai, Member, KJA - Member
  - Mr. Sanjeev Mittal, CEO, NISG - Member
  - Prof. Shawn Cole, Harvard Business School (Online Participation) - Member
  - Prof. Bhuvenesh Pareek, Faculty, IIM-Indore - Member
  - Prof. Sudip Gupta, Faculty, Fordham University - Member
  - Prof. Gopal Devanahalli, VP, Manipal Global Education - Member
  - Principal Secretary, E-Gov Department, GoK - Member
  - Principal Secretary, IT/IT Department, GoK - Member
  - Principal Secretary, Planning Department, GoK - Member
  - CEO, E-Gov Dept (Rep Mr. Chandrashekar), GoK - Member
  - Mr. M Jayachandran, Technical Officer, KSRSAC - Member-Secretary
  - Mrs. Rashmi Raj, SRA, KJA - Convenor

- This amendment order is issued with approval and under authority of Chairman, KJA.

(Mukund Rao)
Member-Secretary, KJA

(March 2, 2018)
To,

- Chair and Co-Chair and All Members of KJA Task Group on Vision and Plan for Usage of Big Data in Governance

Copies for information to:

- All Members of KJA
- Chief Secretary, Government of Karnataka
- ACS, E-Gov Department, GOK
- Principal Secretary, Dept of Higher Education, GoK