Terms of Reference for the Concurrent Evaluation of the 104 Aarogya Sahayavani -Health Information Helpline in Karnataka and perspective evaluation of its augmentation and modification

1. Title of the Study:

The title of the study is "*Concurrent Evaluation of the 104 Aarogya Sahayavani Health Information Helpline in Karnataka and perspective evaluation of its augmentation and modification*".

2. Department implementing the scheme:

The Health & Family Welfare Services department, Government of Karnataka, is implementing the scheme through Piramal Swasthya Management and Research Institute (PSMRI), Hubballi. PMSRI is an institution registered under the Karnataka Societies registration Act 2001 and headquartered at Hyderabad has entered into an agreement with department of Health and Family Welfare as a service provider for this helpline.

3. Background and the context:

Health Information Helpline (HIHL) is a health contact centre that aims to reduce the minor ailment load on the public health system. Any citizen having a health or medical complaint, those desirous of getting advice on medical matters, those who have any complaint to make against any government health facility can dial the toll free number 104 and get these matters addressed/redressed. Even directory information is provided through this facility. Accredited Social Health Activist (ASHA) workers can use 104 to register complaints against non-fulfilment of their contractual appointment conditions.

Qualified and trained paramedics, counsellors, and doctors utilize Piramal Swasthya's software to triage callers. Medically validated algorithms and disease summaries provide paramedics and doctors with the support to drive this high level of standardized care forward.

a) Journey in Karnataka

The Health information helpline 'Arogya Sahayavani 104' services commenced in June 2013 from Hubli (as Hubballi was known then) to cater to basic health queries and issues of the people of Karnataka. It was launched by the Honourable Chief Minister of Karnataka.

It is conceptualized that 'Aarogya Sahayavani' will assist people living in rural areas of the State who face difficulty in accessing a qualified doctor. The health helpline is to ensure that rural people get basic information on health ailments/ conditions, common remedies for it and the available medical facilities. The health helpline service user is thereby generally saved of visiting a doctor, pharmacist or a health centre.

Over the past one to one and half year, the model has established itself as a mainstay programme to address minor acute and acute conditions. Some of the key achievements of Arogya Sahayavani Health Helpline104 services are-

- 100 seat Health information Helpline (HIHL) set up at Hubli, June 2013.
- HIHL handled 6mn+ calls till date, and handles about 20,000 calls a day.
- Handled 4.75+ lac cases of acute conditions like migraine, abdominal pain, influenza, diarrhoea and critical conditions like heart burn; advice saved out of pocket expenses to the tune of INR 1000 to 1500 per episode.
- 97% closure of health related grievances by coordinating with the District Health administrators; handled 6763+ grievances and successfully averted 234 suicides.

b) Performance since inception:

1. Types and number of calls received by the health helpline (inception to May'16)

Category	Number of calls received
Total Health Query Calls	92,81,721
Medical Advice related	29,06,177
Counselling Service	76,087
Directory Services	1,746
Blood Bank Service	2,337
Eye Donation Service	483

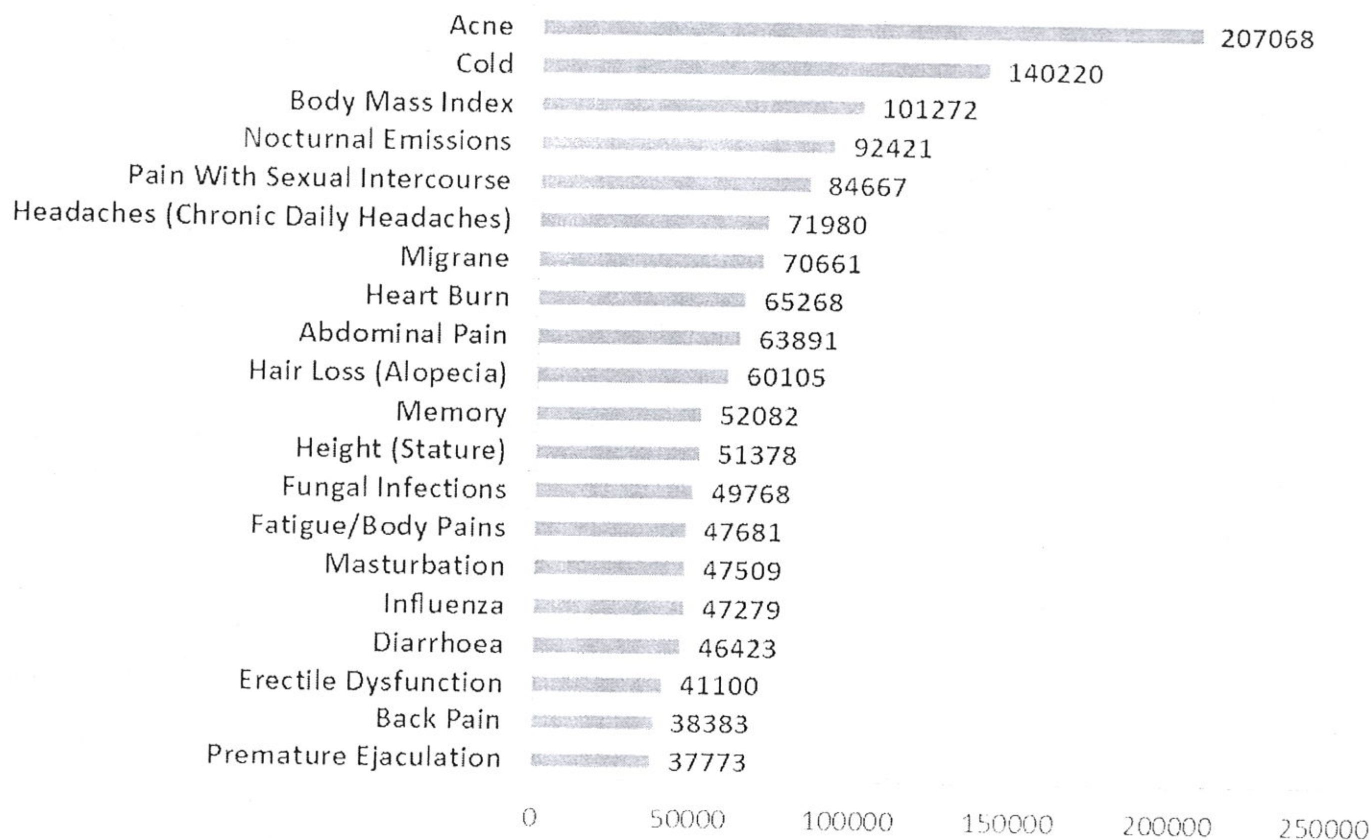
2. District wise information of 104 helpline calls

Sl.no.	Division	District	2013-14	2014-15	2015-16	Total
1	Bengaluru	Bengaluru Urban	21092	37488	34836	93416
2		Bengaluru (R)	2104	5373	7328	14805
3		Ramanagara	3418	7218	6667	17303
4		Chitradurga	25431	72987	110093	208511
5		Davanagere	20385	64261	110589	195235
6		Kolar	4204	6246	8666	19116
7		Chikkaballapur	3618	4634	9425	17677
8		Shivamogga	7183	23005	34930	65118
9		Tumkuru	14062	29301	40276	83639
Sub Total			101497	250513	362810	714820
10	Mysuru	Chickamagaluru	6366	14295	21213	41874
11		Dakshinkannada	5640	6766	9068	21474
12		Udupi	2741	3639	4116	10496
13		Hassan	8070	15335	20170	43575
14		Kodagu	2594	4300	5052	11946
15		Mandya	6135	8663	11338	26136
16		Mysuru	11321	52921	119617	183859
17		Chamarajanagar	2946	3000	3439	9385
Sub Total			45813	108919	194013	348745
18	Belagavi	Belagavi	33084	80207	147224	260515
19		Vijayapura	40241	112556	215400	368197
20		Bagalkot	27855	85180	152550	265585
21		Dharwad	20712	36881	55092	112685
22		Gadag	12244	29750	44322	86316
23		Haveri	15757	33351	52163	101271
24		Uttarkannda	4017	9199	8916	22132
Sub Total			153910	387124	675667	1216701
25	Kalburgi	Bellary	18835	53675	100795	173305
26		Bidar	11116	42618	104462	158196
27		Kalburgi	43106	120957	248109	412172
28		Yadgir	12403	30915	76441	119759
29		Raichur	19271	52921	119617	191809
30		Koppal	17159	50594	88109	155862
Sub Total			121890	351680	737533	1211103
Grand Total			**423110**	**1098236**	**1970023**	**3491369**

3. *Total number of helpline users served by the 104 Aarogya Sahayavani Helpline at different levels*

Total helpline users served	92,71,133
Helpline users served by Registration Officer	88,17,208
Helpline users served by Health Advisory Officer	30,42,082
Helpline users served by Medical Officer	4,52,299
Helpline users served by Counselling Officer	76,087
Helpline users served by Service Improvement Officer	25,655

4. *Typical conditions addressed by 104 Arogya Sahayavani Services*



Aarogya Sahayavani has provision (through 78 algorithms in the MIS) to address 657 medical conditions ranging from minor acute to acute pertaining to skin, seasonal infections, fevers, and certain acute complications like heart burn, acute kidney failure, anal fistula etc. It is to be noted that the services of Aarogya Sahayavani seems to have assumed the mainstay for acute care conditions, especially

in rural Karnataka. This can be ascertained from the fact that first time callers are reaching the helpline repeatedly for solutions on varied acute conditions.

C. Activities taken up to ensure the utilization of health helpline services:

Aarogya Sahayavani services reported a consistent raise in number of calls received since inception. This rise in number of calls can be attributed to varied efforts undertaken to increase the awareness of Aarogya Sahayavani services, prime among them being-

- Conducting monthly awareness program in villages/cities (District/Taluk) through IEC activity (Information, Education & Communication).
- Promoting 104 service through Radios, Banners on Buses & Pamphlets.
- Registering Grievance on Govt. health institute and reverting back to caller with resolution status of Grievance.
- Participation in 'Blind walk' to promote 104 service.
- Addition of new services to Arogya Sahayavani platform to attract new callers.
- IVR played on different programs before the call is answered/kept on hold which creates awareness about various Govt. Health Programs.
- Conducting Customer Delight Index (CDI) studies to enhance service delivery and satisfaction levels of beneficiaries, training the associates to better address the helpline users.

D. Repeat utilization of the helpline services:

Repeat utilization of 104 health services by the helpline users clearly points out its importance and relevance. Moreover, the repeat utilization also indicates the trust created by the with helpline users.

> There are 12.09 Lac repeat callers utilizing the health helpline services,

> Nearly 78% of the helpline beneficiaries spread the word of mouth on helpline indicated,

by the increased calls from the immediate callers of the family.

A sample analysis of the helpline callers suggests that at least 60% of the callers repeatedly utilized the helpline calling the helpline once in a month.

E. Key commitments made to the Government of Karnataka and performance:

Service Level Agreement (SLA) committed	Performance on SLAs
Lead time taken to pick/answer the call.	**99.25%** of the calls picked in one ring.
Feedback or response from the helpline users.	**95.14%** of the helpline users expressed response and clarity of the call taker was very good.
Adherence to protocol by Health Advisory officers.	**96.25%** (adherence to clinical algorithms, transfer to Medical officers).

F. Impact created by the model:

An internal short study commissioned by the service provider in the quarter March to May 2016 found that the helpline users were able to save costs per episode (resulting in the call) as they availed services from 104 Aarogya Sahayavani. The following table is the abstract of the study which shows that nearly 54% of the helpline users who used 104 Aarogya Sahayavani services were able to save more than INR 100 per episode.

Cost saving through 104 Arogya Sahayavani services	% of beneficiaries
<100	**46.9%**
100-300	**25.4%**
300-600	**13.9%**
600-1000	**4.8%**
>1000	**9.0%**

(70)

G. Change ushered by Grievance redressal cell of the 104 Arogya Sahayavani services:

The structured grievance recording, follow up and redressal ensured that a sense of awareness and ownership prevailed among the helpline users and the ASHA workers on matters related to the Public Health.

The following illustrations support the change ushered by the grievance redressal cell.

Illustration: Total number of ASHA health service grievances, EPIDEMIC health service grievances and Generic health service grievances addressed by the cell since inception are as follows-

Year	ASHA health service grievances		EPIDEMIC health service grievances		Generic health service grievances	
	Grievances per year	Average grievances per month	Grievances per year	Average grievances per month	Grievances per year	Average grievances per month
FY 13-14	117	12	104	9	1400	117
FY 14-15	175	15	65	5	2138	178
FY 15-16	104	9	93	8	2174	181

It may be noted that the generic grievances in the last 6 months reported to be higher than the average number of grievances/month in comparison with FY 13-14, FY 14-15 and FY 15-16.

Specifically the grievance redressal cell could usher the following changes in the Public health system in Karnataka-

A. Helpline users

1. A sense of right to basic health with uncompromised service quality.
2. Increased awareness on various aspects of health services– quality, availability Infrastructure, drug quality and availability etc.
3. Increase availability of care at an affordable cost.
4. Renewed trust on Public Health services.

B. ASHA Workers

1. Increased motivation due to timely receipt of payments.
2. The field level staff to become integrated part of public health delivery.
3. Proactive approach in collection of credible data at field level.

C. Doctors/Medical officers at Government institutions

1. Increased accountability and involvement in health service delivery.
2. Change in the behaviour of the medical officers towards the patients.
3. Increased availability of doctors and compliance to services.

H. Performance on Technology, Service quality and customer delight Index:

The evaluation (done by service provider) on technology was performed with analysis on number of calls abandoned/missed. Its results are-

Type of calls	Number	% of total calls received
Abandoned	**4,00,924**	**4.12%**
Missed	**48,328**	**0.50%**

The internal quality audits revealed that the model experienced the following limitations-

a. The Customer (helpline user) Delight Index stood around 3.4 on a scale of 5 as against the target of 3.5; this essentially translates to decrease in utilization of health helpline services, non-return of callers, and decrease in capacity utilization. Training for Health Advice Officers was undertaken to improve the response to certain complex health issues posed by varied callers. Probing skills of the health advisors were worked on thus increasing the service delivery. This drove the customer delight index from 3.4 in June 2014 to 3.82 in June 2015. Now the target for customer delight is 4 for FY 15-16 and FY 16-17.

b. The internal audits also suggested the existence of fatal calls. Data analysis for six months call audits showed that zero calls/fatal calls are figuring as an average of 7% over total call's audited. Zero call is where the agent has not provided advice to helpline users according to parameters/protocols defined in Call Monitoring Process and thus affecting the Call Quality and also the Customer satisfaction.

c. The quality team undertook a Six Sigma study to address the fatal calls issue. The team critically reviewed all possible causes leading to low quality scores at HAO due to fatal errors, HAO domain knowledge, inability to judge the caller

requirement, overloading of calls during peak hours, HAO attitude & unprofessional approach, ineffective feedback mechanism, Technical issues like quality of head set and application hang up, HAOs were not clear about the call and closure types, scaling of Critical to Quality (CTQ). A well-coordinated and proactive approach was taken to improve the process and implement the solutions. The process was modified by introducing Standard Operating Procedure (SOP)'s for Fatal errors for Transaction Monitoring Process, Calibrations focused on fatal errors, implemented effective reporting and feedback mechanism, Continuous onsite retraining for Domain skill enhancement and soft skills to HAO's, continuous training to the quality auditors on Transaction monitoring through calibrations and pre and post assessment of training needs to both HAOs and QAs.

4. Evaluation Scope, Purpose and Objectives:

a. Scope of Evaluation:

- The scope of the study is all 30 districts of the State.
- The Services rendered by health helpline.
- Value additions taken up by health helpline to increase the service reach of helpline.
- Service quality initiative taken up to improve delivery.
- Adherence to Service Level Agreements (SLAs) (number of calls addressed, reduction in number of call drops, turnaround time in case of service unavailability etc.)
- Internet communication technologies implemented at the helpline.
- Change brought by health helpline towards health seeking behaviour of helpline users and awareness on public health system.

5. Purpose and Objective of the study:

The study report to provide situational analysis, outline the health scenario of pre and post 104 program and establish causal relationships between initiatives and outcomes/outputs, suggest directions to improve the services. The Customer Delight Index (CDI) to be calculated afresh and to suggest for *augmentation and modification* in the service delivery and management system.

6. Sampling and Evaluation Methodology:

A total of at least 300 helpline users are to be interviewed over telephone. Out of these 200 helpline users should be fresh callers and 50 repeat callers. 50 persons to be interviewed over telephone for grievances redressal taken from ASHA health

services, EPIDEMIC health services and GENERIC health services. The selection of helpline users is to be done by random sampling method.

7. **Evaluation questions (Inclusive not exhaustive):**

1. What is the mechanism of conducting awareness of the 104 Aarogya Sahayavani helpline in all the districts? How can this be made still better? Which are the districts where conducting awareness of this helpline needs special focus?
2. From the district cumulative call details it emerges that the helpline service is more availed in Northern Karnataka district than districts of Southern Karnataka? What are the reasons for this?
3. What is the district wise ailment and grievance wise profile of calls received in the helpline centre? What is the district wise ailment profile? What lessons can be learnt or suggestions given on the basis of analysis of this data?
4. Has the service provider recruited all key personnel for the helpline service as per requirement of Service Level Agreement (Schedules-2, 3 and 4 of MoU).
5. What was the average time taken by the Registration Officer, Health Advisory Officer, Medical Officer and counselling Officer for a call during 2013, 2014 and 2015 (till March)? Is there any improvement in the time taken to register the calls, address them, reduction in call drops and turnaround time in case of service unavailability? Are these in adherence to the Service Level Agreements (SLA) as per MoU signed? If not, why not?
6. What is opinion of Medical Officers/Doctors at Government Institutions on grievance redressals made by Aarogya Sahayavani? What is their perception of augmentation/modification of the helpline service?
7. There is a time line for closure of calls received on grievances of ASHA, EPIMEDIC and GENERIC. Is the time line prescribed in the SLA is being adhered to? If not, what are the problems faced in closure of the calls?
8. Were there any connectivity (internet) or communication problems to handle the calls at the helpline centre to take the increasing load of 20000+calls per day? If yes what are these? What is the action taken by the service provider to address these issues and what are the suggestions for modification/augmentation of the service? What are the actions to be initiated by the service provider, State/Central Government?
9. What are the problems faced by the service provider such as (attrition of doctors and paramedics and lack of personnel with domain knowledge at Health Advisory are ones that are known from the discussion with service provider), Health Information/Service Improvement Levels? How can these be ameliorated/ minimized/eliminated?

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10. What are the additional services rendered by the helpline service during the 2nd and 3rd year of implementation? Were there demand based services by the beneficiaries or added by the service provider themselves?
11. The IT compliance audit was taken by a third party software company recently what is the action taken on the observations made? Have all the actions small taken? If not, why not?
12. Customer Delight Index is said to have been done recently by considering 10 parameters which is 3.82 out of target score of 5. The revised target set is 4 for Financial Year 2015-16 and 2016-17. Are the 10 parameters for the index calculation are adequate or not? If not, can it be measured afresh by modifying the parameters with proportionate weightage to calls of Health Query, Medical Advice related, Counselling Service, Directory Services, Blood Bank Service, Eye Donation Service Health Services of ASHA,EPIMEDIC and GENERIC grievances?
13. The main objective of Aarogya Sahayavani is to reduce the minor ailment load on the Public Health System and render qualitative service and grievance redressal mechanism? To what extent has this objective been achieved?
14. What should be the minimum, optimum and maximum call load (in terms of number of calls handled by a person in 8 logged in hours) that should be handled by a person at the helpline facility? Based upon this, the Consultant Evaluation Organization must design and present the staffing pattern, the working process chart (from receiving the call to finally ending it after providing all the service that is expected for it) and organogram of a helpline centre that would handle 20000 calls per day (this is just about what is the present call load).
15. What should be the qualities, facilities and amenities (including availability of trained personnel of desired qualifications, experience and 24x7 mobility) a district should have to make it suitable for having a health helpline centre? On this basis which are the top five districts best suited to have health helpline centres in Karnataka?
16. What are the other helplines that can be linked with the 104 Aarogya Sahayavani?

8. Deliverables time schedule:

The Director of Health & Family Welfare Services will instruct Head Operations (HO) of PSMRI to provide the information required to the evaluation consultant organization connected with the study such as district wise call data on different ailments and details of grievances redressal mechanism and action plan, solutions for vital issues and measures taken to improve the efficiency in the Health Help Line Service at Hubballi and co-operate with the consultant organization in completing the study in the stipulated time. It is expected to complete the study in 3 months' time excluding the time taken for approvals. The evaluating agency is expected to adhere to the following timelines and deliverables.

a. Work plan submission : Fifteen days after signing the Contract Agreement.
b. Field Data Collection : Fifteen days from date of Work Plan approval by Technical Committee of KEA.
c. Draft report Submission : One month after field data collection.
d. Final Report Submission : One month from draft report acceptance by Technical Committee of KEA.
e. Total duration : 3 Months

9. Minimum Qualifications of Core team members:

The core team should comprise of the following members (the list is inclusive not exhaustive) should have the minimum technical qualifications/experience as stated below-

i. One Post Graduate in Medical Science (Allopathy health system only) (Principal Investigator)
ii. MBA in Health Management/Masters of Hospital Administration or similar field (Member-1)
ii. MSW/Post Graduate in Psychology (Member-2)

or more/better, and in such numbers that the evaluation is completed within the scheduled time prescribed by the ToR.

Consultant Evaluation Organizations who do not meet these criteria will not be considered for doing the evaluation.

10. Agency for evaluation:

The evaluating agency should be finalized as over provision of the Karnataka Transparency in Public Procurement Act and Rules, but without compromising on the quality.

11. Contact person to get further details about the study:

Smt. Vimala Patil, Director of Health & Family Welfare Services, Bengaluru. Phone number -9449843004, email:dirhfw@gmail.com and Dr. S.Parimala, Deputy Director, Health & Family Welfare Services Phone No. 9449843133 email: ddemrikar@gmail.com and Sri. Mohammed Yaaqub, Head Operations 104 Arogya Sahayavani Health Help Line Service, Hubballi Phone numbers 0836-2350235/9845888104 will be the contact persons for giving information and details for this study.

12. Qualities Expected from the Evaluation Report:

The following are the points, only inclusive and not exhaustive, which need to be mandatorily followed in the preparation of evaluation report:-

a) By the very look of the evaluation report it should be evident that the study is that of Director of Health & Family Welfare Services, Bengaluru and Karnataka Evaluation Authority (KEA) which has been done by the Consultant Evaluation Organization. It should not intend to convey that the study was the initiative and work of the Consultant Evaluation Organization, merely financed by the Director of Health & Family Welfare Services, Bengaluru and Karnataka Evaluation Authority (KEA).

b) The evaluation report should generally conform to the United Nations Evaluation Guidelines (UNEG) "*Standards for Evaluation in the UN System" and "Ethical Standards for Evaluations*". The report should be complete and logically organized in a clear but simple language. Besides conforming to the qualities covered in the Terms of Reference, it should be arranged in the following order –

1. Title and opening page.
2. The Index.
3. List of acronyms and abbreviations.
4. Executive Summary – A stand-alone section that describes the program, gives purpose and scope of evaluation, the evaluation methodology, key findings, constraints and recommendations.

5. Sector history – A section that briefly covers the history of the sector under which the scheme/program being evaluated falls. It should give recent data taken from reliable and published sources.

6. The objectives and performance of the program being evaluated – The section will include the stated objectives of the program and the physical and financial achievements of the program in the period of evaluation. It should cover the description of the target group, the aim of the program and the method of selection of beneficiary (if included in the program).

7. Review of literature / past evaluation reports.

8. Evaluation Methodology – This should include the sample size and details of sample.

9. Findings of the evaluation study.

10. Limitations/constraints in the evaluation study.

11. Recommendations that flow from the evaluation.

This should be followed by the following Annexures –

(A) The sanctioned Terms of Reference of the study.

(B) The survey tools and questionnaires.

(C) List of persons with addresses personally interviewed.

(D)The places, dates, and number of persons covered by Focus Group Discussions (FGD).

(E) Compilation of case studies / best practices.

(F)Table showing details of major deviations, non-conformities, Digressions of the program.

13.Cost and Schedule of Budget release

Output based budget release will be as follows-

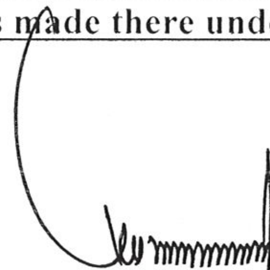
a. The First instalment of Consultation fee amounting to 20% of the total fee **can** be paid as advance to the Consultant Evaluation Organization after the approval of the inception report, but only on execution of a bank guarantee of a scheduled nationalized bank valid for a period of at least 12 months from the date of issuance of advance.

b. The Second instalment of Consultation fee amounting to 40% of the total fee **can** be paid to the Consultant Evaluation Organization after the approval of the Draft report.

c. The Third and final instalment of Consultation fee amounting to 40% of the total fee **will** be paid to the Consultant Evaluation Organization after the receipt of the 30 hard copies in English and 30 hard copies in Kannada and 3 soft copies of the final reports in both the languages in such format as prescribed in the agreement, along with all original documents containing primary and secondary data, processed data outputs, study report and soft copies of all literature used to the final report.

Taxes will be deducted from each payment as per rates in force. In addition, the Consultant Evaluation Organization is expected to pay statutory taxes at their end.

The entire process of evaluation shall be subject to and conform to the letter and spirit of the contents of the government of Karnataka order number PD/8/EVN (2)/2011 dated 11th July 2011 and orders made there under.



Chief Evaluation Officer 29/06/16
Karnataka Evaluation Authority