

Social Inclusiveness of Indian Science Centres & Museums – A Snapshot through Case Studies (Part II)

Subhabrata Chaudhuri

The educational aspects of science centres and museums have been the subject of numerous studies, while there is much less tangible information on the economic, political or public aspects of these institutions. As a follow-up of accessibility studies in the Part-I of the article, it has been attempted in the Part-II to measure the 'Social Inclusiveness' of a Science centre/museum (including Planetarium, and Natural History Museum), apparently an immeasurable quantity, through statistical interpretations testing the authenticity of the available parameters of the Indian Science centres by direct and indirect methods.

In course of doing so, a set of questionnaire ('Social Inclusion Survey Questionnaire' as attached in Appendix A) is sent to the institutions addressing a number of parameters (statutes), which have already been set as benchmarks of social inclusiveness by different renowned institutions/departments like those of civic bodies in India -Central Public Works Department, Judiciary -framing and executing various laws to combat exclusion, international organizations like UN, Smithsonian Institutions, ICOM etc.

Underlying Philosophy of the Study

Background of the Main Survey

This survey is designed to judge in two stages the inclusiveness of the centre by the means of visitor turnout

in terms of participation of different strata of the society to Science Centre activities, social activity orientation i.e.how the centre is addressing different social classes and other parameters like fee structure (in an attempt to make a measure of the magnitude of financial inclusiveness of such institutions), publicity budget (to measure the institutional initiatives towards social inclusion) etc.

Aim of the Analysis

For a Science Centre / Museum or rather for any cultural institution in India reaching out to the multifold society is the biggest of all the issues. The objective of this elaborate study is to test the 'Social Inclusiveness' of the Indian Science Centres, in the light of various rationales. However, it is to be kept under consideration that in context of Indian Science Centres and Museums, complex multifold social issue like social inclusion cannot properly be understood just by some numerical figures and statistical simulations that use figures related to visitor turnout and outreach programmes or social activities as the base data.

Fundamental Analysis of the Data

We'll use simple fundamental statistical analysis on the basis of the collected data through graphical / thematic interpretations. Based on these interpretations, an attempt has been made to analyse the inclusive characteristics of the Indian Science centres.

Name of the Participating Indian Science Centres, Museums & Planetaria

APSC:	Arunachal Pradesh Science Centre	RMNHBBSR:	Regional Museum of Natural History, Bhubaneswar
BMPIL:	Birla Museum, Pilani	RMNHBHO:	Regional Museum of Natural History, Bhopal
BITM:	Birla Industrial & Technological Museum	RSCBHO:	Regional Science Centre, Bhopal
DSCDGA:	Digha Science Centre & National Science Camp	RSCBBSR:	Regional Science Centre, Bhubaneswar
DSCDHAR:	District Science Centre, Dharampur	RSCCALI:	Regional Science Centre & Planetarium, Calicut
DSCDKL:	Dhenkanal Science Centre	RSCG:	Regional Science Centre, Guwahati
DSCGUL:	District Science Centre, Gulbarga	RSLC:	Regional Science City, Lucknow
MANSC:	Manipur Science Centre (Department of Science & Technology, Govt. of Manipur)	RSCNAG:	Raman Science Centre & Planetarium, Nagpur
DSCPURU:	District Science Centre, Purulia	RSCT:	Regional Science Centre, Tirupati
DSCTIRU:	District Science Centre, Tirunelveli	SCBUR:	Science Centre, Burdwan
GUWPLA:	Guwahati Planetarium	SCPB:	Science Centre, Port Blair
GSC:	Goa Science Centre	SCSOLA:	Sholapur Science Centre
KPSC:	Kurukshetra Panorama & Science Centre	SCTY:	Science City, Kolkata
MIZOSC:	Mizoram Science Centre	SHISC:	Shillong Science Centre, Meghalaya
MSPSSC:	Meghnad Saha Planetarium & Space Science Centre	SSC:	Sikkim Science Centre
NAGSC:	Nagaland Science Centre	SSCP:	Shrikrishna Science Centre, Patna
NBSC:	North Bengal Science Centre	SUKACK:	Sukanta Academy, Agartala
NSCD:	National Science Centre, Delhi	TNSTC:	Tamilnadu Science & Technology Centre
NSCM:	Nehru Science Centre, Mumbai	VITM:	Visvesvaraya Industrial & Technological Museum
PSPBBSR:	Pathani Samanta Planetarium, Bhubaneswar		
PGSC:	Pushpa Gujral Science City		

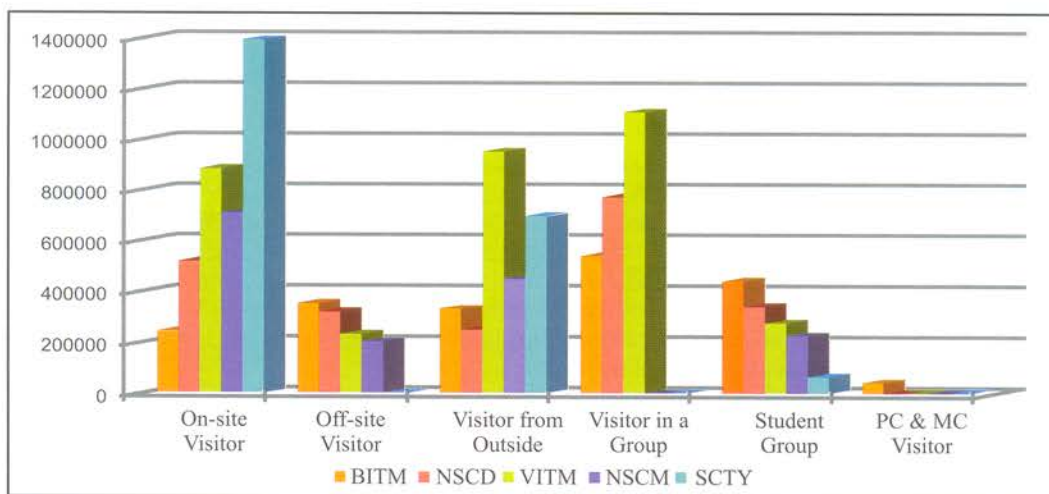


Chart 1

(Data: 2009-2010)

Analysis of the visitor figure of the National level Science Centres.

Considering the visitor statistics of five National level centres of NSCM

- * It is observed that Science City has the largest on-site visitor turnout (about 1400000) and the BITM, Kolkata has the lowest.
- * Mainly the outreach programmes like MSE, science fairs etc. are sources of off-site visitors. In this segment, BITM and NSCD are far ahead of their nearer counterparts VITM and NSCM.
- * Visitor base of NSCD is mostly local whereas VITM, Bangalore has got the highest number of outside visitors and Science city is not far behind of VITM in getting outside visitors.

- * NSCM & Science City could not provide the exact figures in respect of physically challenged (PC) & mentally challenged (MC) visitors and also those of group visits; however, amongst the others VITM received the maximum number of group visitors.
- * BITM, Kolkata outperformed others in reaching out to the student groups. Though Science city has the largest visitor turnout figure, student groups do not visit much.
- * Except BITM, NSCD and VITM, the other two National level centres fail to provide the visitor data regarding the physically and mentally challenged segment groups. Because of the exhibition on 'World in Darkness' (a gallery for visually impaired groups) and also due to some other reasons, BITM got largest number of PC & MC visitors during 2009-10.

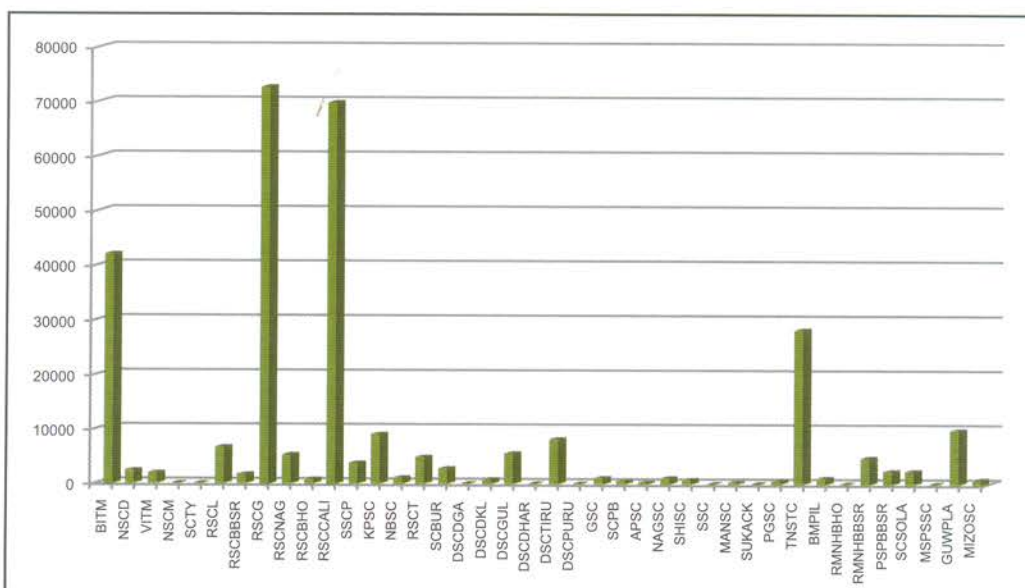


Chart 2

Analysis of figures of physically and mentally challenged visitors in all the centres surveyed

The above chart represents the visitor turnout pattern of the number of physically and mentally challenged visitors in the science centres, museums, natural history museums and planetariums surveyed.

- * It is evident from the above that RSCG has received the highest number (more than 70,000) of physically and mentally challenged visitors, whereas RSCCALI is also closely following (about 70,000). BITM received more than 40,000 of physically and mentally challenged visitors.
- * Outside NCSM network, TNSTC, RMNHBSR and GUVPLA have received a significant number of physically and mentally challenged visitors.

All collected samples are not included in this analysis as representative random data is required and some of the data are found to be incomplete.

- * Here it may be noticed that in most of the cases the regional and district science centres more or less operate with the local visitors.
- * All over the world 'Bringing student groups in the science centre' is regarded as one of the yardsticks of successful social inclusion measure for science centres. Under this, RSCCALI is emerging as a leading institution among the above studied samples.
- * Moreover, we must take into note that with respect to the total visitor count, the centres situated in the southern part of the country showed better performance than their northern counterparts, in bringing organized student groups in their respective centres.

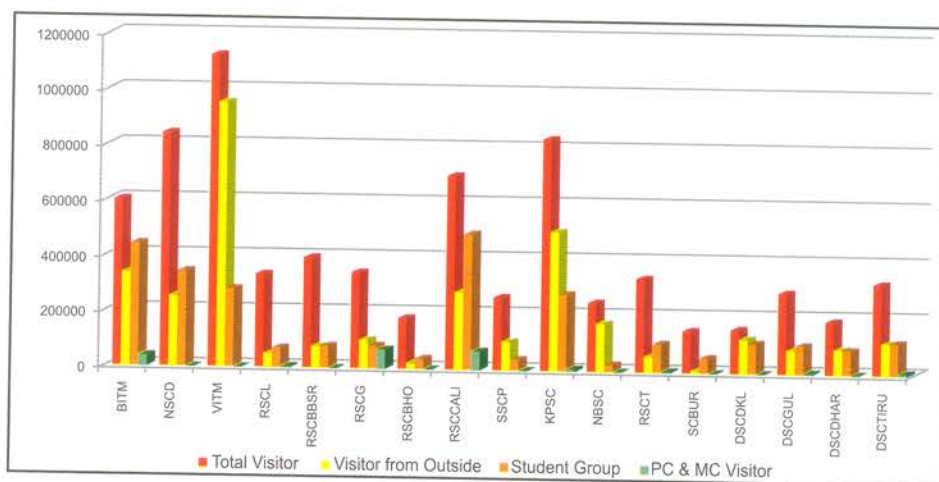


Chart 3

Distribution of the Visitors in National, Regional & District level Science Centres.

- * Not only that regional level science centres are better performers in bringing physically and mentally challenged visitors into their centres.

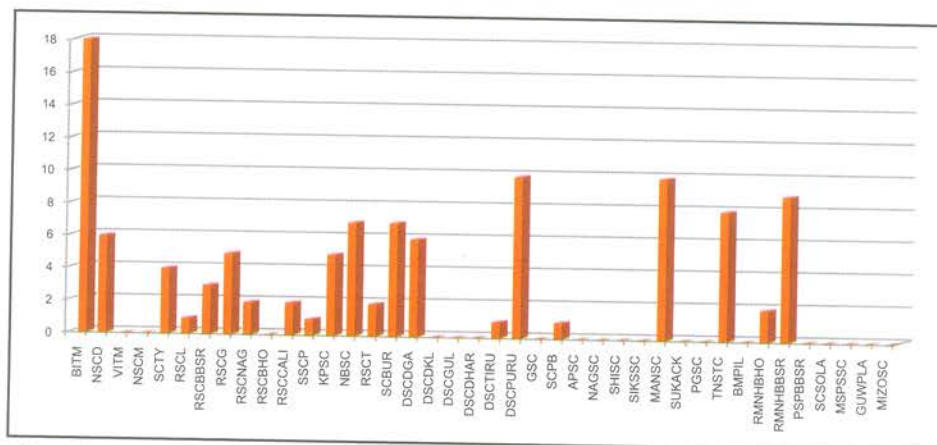


Chart 4

Programmes for Groups with Special Needs

Conducting programmes for groups with special needs is regarded as an important social inclusion initiative for science centres/museums etc.

- * In last 5 years BITM, Kolkata has conducted highest number of programmes (about 18 nos) for groups with special needs and 6341 participants participated in these programmes.
- * Besides BITM, NSCD and SCTY are the two national level science centres which conducted a number of programmes for groups with special needs in the last five years.
- * Regional and District Science Centres have done well in organizing programmes for groups with special needs. As evident from the collected data, DSCPURU conducted maximum number of such programmes followed by SCBUR, NBSC, Siliguri; DSCDGA, RSCG, KPSC, RSCs at Nagpur, Bhubaneswar Calicut, Tirupati and Lucknow, SSCP and DSCTIRU.
- * Outside the NCSM network, MANSC, TNSTC, RMNH at Bhubaneswar and Bhopal conducted a number of programmes for people with special needs.

Engaging Senior citizens and women by science centres through different activities is a sign of inclusiveness for the centre.

- * Most of the NCSM centres conduct programmes for senior citizens and women. Among all NCSM centres, NSC, Mumbai conducts maximum number of programmes for this particular group followed by GSC, RSCG, RSC, Tirupati etc.
- * Among the non-NCSM centres, TNSTC conducts maximum number of programmes for this group. It is the most active centre in this segment amongst the centres surveyed.

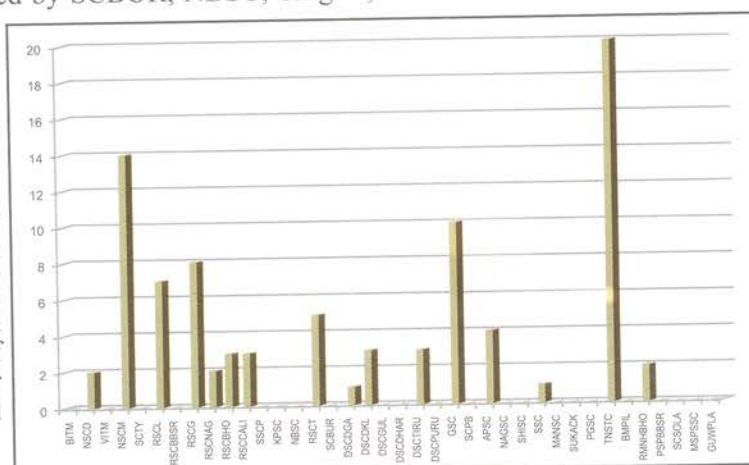


Chart 5

Programmes for Senior Citizens & Women.

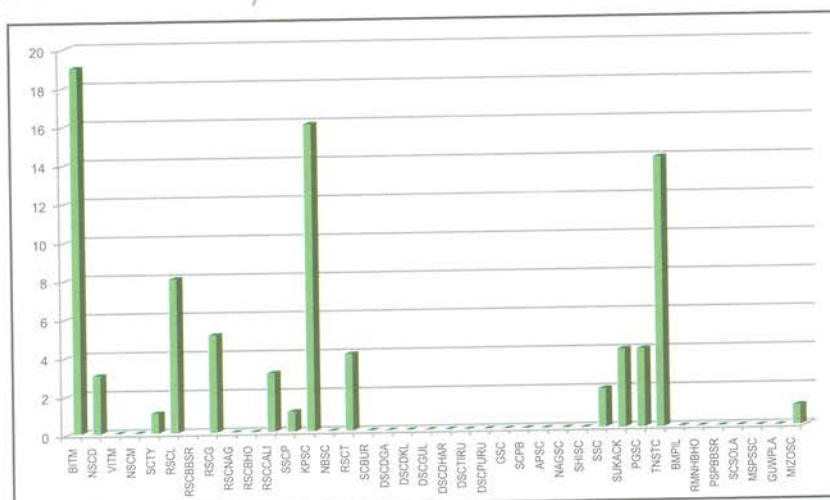


Chart 6

Programmes for Personal Growth.

Enhancing personal quality of the citizens is regarded as one of the important steps of a science centre/museum towards the social inclusion.

- * In this segment BITM, Kolkata is leader, followed by KPSC, RSCL, RSCG, RSCT, etc.
- * Outside the NCSM network, TNSTC is the most active in doing programmes towards social inclusion, followed by PGSC and SUKACK.

the steps of a science centre/museum towards social inclusion.

- * In this segment, RSCBHO is way ahead of its nearer competitor DSCGUL followed by DSCDHAR, RSCL and BITM, Kolkata etc.
- * Outside NCSM network, SUKACK has performed significantly in this segment in the last few years.

However, it seems that there is some data incompatibility in respect of DSCTIRU which is said to

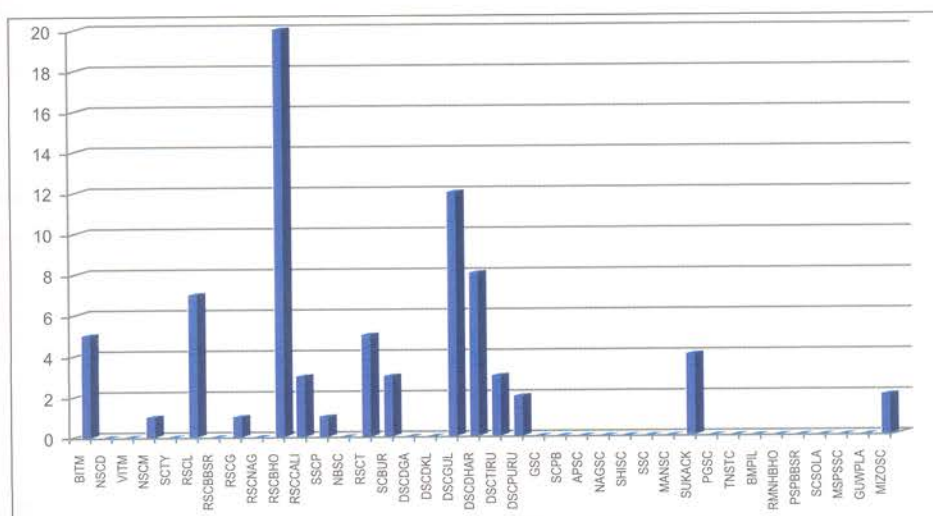


Chart 7

Programmes for Community Empowerment.

Conducting programmes for community empowerment or making healthier community is one of

be conducting good numbers of community empowerment programmes.

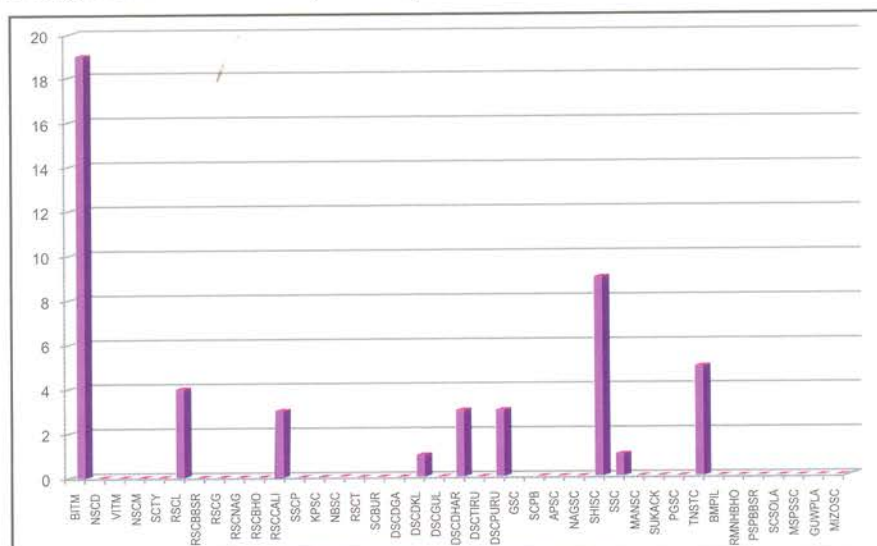


Chart 8

Programmes for Tackling Unemployment

Step towards solving the problem of unemployment is another aspect of social inclusiveness of a science centre/museum.

- * Among all, BITM, Kolkata has taken a lot of steps towards solving this social problem followed by RSCL, RSCCALI, DSCDHAR, DSCPURU etc.
- * Outside NCSM network, SHISC and TNSTC have already taken steps in addressing this issue.

As communicated, a programme was conducted in the year 2002 at DSCDKL on motor rewinding. After undergoing training in the said programme, two students have started their own workshops and are now earning their livelihood.

RSCCALI have separate publicity budget for social inclusion.

* Outside NCSM centres, PGSC has the largest budgetary allocation for publicity, but RMNHBBBSR, followed up by TNSTC, have got separate social inclusion publicity budget.

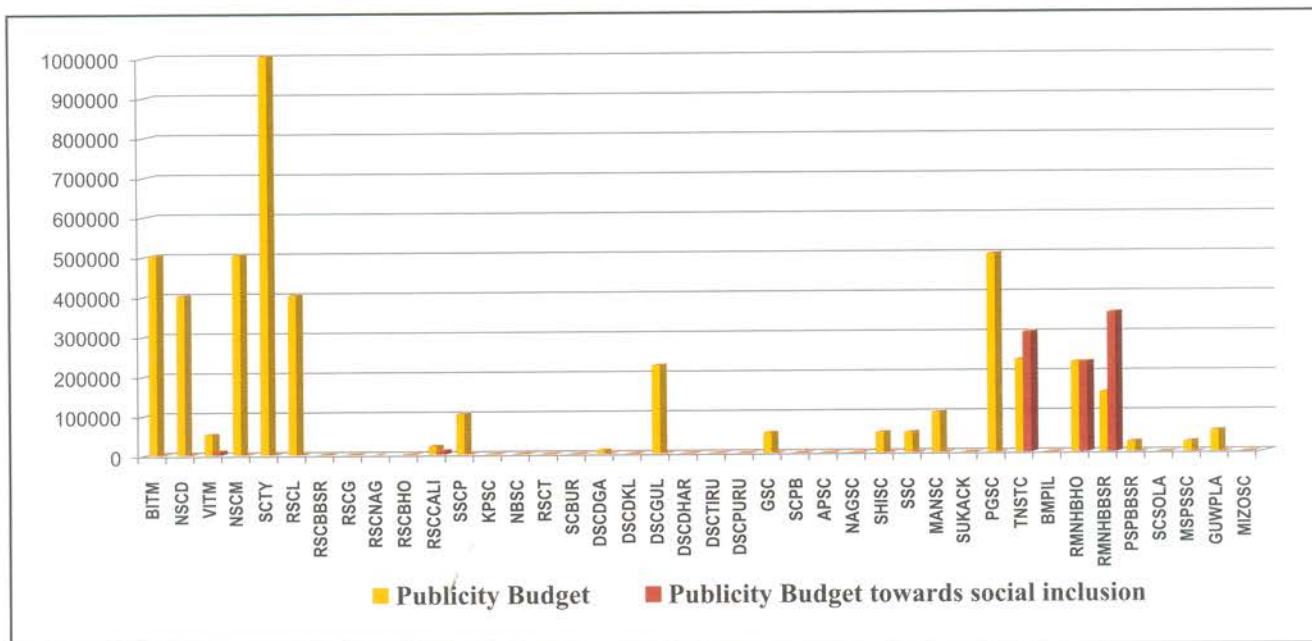


Chart 8

Publicity Budget – an initiative towards social inclusion towards social inclusion.

Publicity Budget (and publicity budget for social inclusion) is regarded as an initiative for a science centre to be socially inclusive.

- * Science City has the largest allocation towards publicity among the entire group of science centres surveyed. It is followed up by NSCM, BITM, Kolkata, NSCD, RSCL, etc. In fact among all these NCSM centres VITM, Bangalore and

- 1) Science City, Kolkata – Rs. 10,00,000.00 (No separate budget for measures towards social inclusion)
- 2) NSCM – Rs. 5,00,000.00 (No separate budget for measures towards social inclusion)
- 3) BITM – Rs. 5,00,000.00 (No separate budget for measures towards social inclusion)
- 4) TNSTC – Rs. 2,31,000.00 (Special Budget for social inclusion 3 lakh)
- 5) RMNH, BBSR – Rs. 1,50,000.00 (Special Budget for social inclusion 3.5 lakh)

Critical Analysis for Critical Groups (from the data collected)

In course of building a confidence interval indicating the inclusive attendance of the physically and mentally challenged visitors in Indian science centres/museums (based on the surveyed data).

Name of the Centre	PC* & MC** Visitor
BITM	42105
NSCD	2528
VITM	2252
NSCM	1185
SCTY	496
RSCL	6723
RSCBBSR	1794
RSCG	72820
RSCNAG	5445
RSCBHO	912
RSCCALI	70000
SSCP	3930
KPSC	9202
NBSC	1265
RSCT	5055
SCBUR	3053
DSCDGA	NA
DSCDKL	804
DSCGUL	5867
DSCDHAR	14
DSTIRU	8250
DSCPURU	NA
GSC	1176
SCPB	608

Name of the Centre	PC* & MC** Visitor
APSC	349
NAGSC	1200
SHISC	862
SSC	NA
MANSC	340
SUKACK	NA
PGSC	750
TNSTC	28426
BMPIL	1200
RMNHBHO	NA
RMNHBBSR	5004
PSPBBSR	2600
SCSOLA	2534
MSPSSC	NA
GUWPLA	10134
MIZOSC	946

Table 1.

Mean (m)	7496
SD (σ)	16807

Significance level	0.01	0.05
Standard deviation of the population	16807	16807
Sample size	40	40
Confidence interval for population mean	± 6845.1	± 5212.2

Table 1.1

To find the Confidence Intervals for 1% and 5% significance level for the (Population) mean,

Collected data with Mean 7496 and Standard Deviation of 16807,

We can choose the statistics

$$u = \sqrt{n}(\bar{x} - m)/\sigma$$

whose sample distribution is assumed to be normal (0,1) and which depends on m, the parameter to be estimated.

Taking two points $\pm u_\alpha$ symmetrically about the origin such that

$$P(-u_\alpha < U < u_\alpha) = 1 - \alpha$$

$$\text{or, } P(-u_\alpha < \sqrt{n}(\bar{X} - m)/\sigma < u_\alpha) = 1 - \alpha$$

may be written as

$$P(\bar{X} - \sigma u_\alpha / \sqrt{n} < m < \bar{X} + \sigma u_\alpha / \sqrt{n}) = 1 - \alpha$$

Hence a confidence interval for m having confidence coefficient $1 - \alpha$ is $(\bar{x} - \sigma u_\alpha / \sqrt{n}, \bar{x} + \sigma u_\alpha / \sqrt{n})$

We find that, in our sample of 40 science centres/museums/planetaria, the average turnout of physically and mentally challenged visitor is 7496 with a population standard deviation of 16807.

Case-I

With $\alpha = 0.05$, CONFIDENCE (0.05, 16807, 40) returns 5212.2 (~5212).

The corresponding confidence interval is

then $7496 \pm 5212 = \text{approximately } [2284, 12708]$.

We observe from the above table that RSC, Guwahati (72820), Calicut (70000) and BITM (42105) are way ahead of others in getting physically and mentally challenged visitors.

But based on the above 5% confidence interval (mainly considering the lower bound) about the mean of this special group of visitors (physically and mentally challenged) figure (where standard deviation is known), we may conclude that –

- Though the PC & MC visitor figure seems to be very low for NSCD (2528), SCSOLA (2534), PSPBBSR (2600), SSCP (3930) and SCBUR (3053) but they are still inclusive in nature.
- DSCDHAR (14), MANSC (340), APSC (349), SCTY (496), SCPB (608), PGSC (750), DSCDKL (804), SHISC (862), RSCBHO (912), MIZOSC (946), NBSC (1265), GSC (1176), NAGSC (1200), BMPIL (1200) and VITM, Bangalore (2252), are the centres

which need to work towards the direction, so to increase the visitation of this special group (physically and mentally challenged) to their respective centres.

- Rest of the science centres/museums and planetaria seem to be socially inclusive against the above set standard.

[We exclude those centres which have indicated visitor figure as nil due to the reason that they either didn't maintain their data properly or weren't able to provide the consistent data.]

Case – II

With $\alpha = .01$, CONFIDENCE (.01, 16807, 40) returns 6845.1 (~6845).

Based on the above 1% confidence interval (mainly considering the lower bound) about the mean of this special group of visitors (physically and mentally challenged) figure (where standard deviation is known), we may conclude that –

Most of the surveyed centres have inclusive special group visitor figures (physically and mentally challenged) except a few like MANSC (340) and SCTY, Kolkata (496).

In order to test the Social Inclusiveness of Indian science centres/museums, planetaria and natural history museums for the special group visitors (physically and mentally challenged), we further extended our study in a comprehensive way to arrive at a definite conclusion.

Following is the methodology of this further study:

- * We collected the Total population data of the Indian states, the state wise 'Disable Population' and the Local population data from census 2001. In course of calculating the local disable population, we assume that % of disable population is 'homogeneous' in the state.
- * From the questionnaire survey as received from 40 centres, we have the number of physically and mentally challenged visitors to the centres.
- * We will find the % of physically and mentally challenged visitors against local population and against the total visitors of the centre. If these figures seem to be compatible in nature then we declare the centre to be inclusive.

So we need the following for the thematic study:

- Local population (where the science centre is situated),
- Percentage of disable population in local group and
- Number of special group visitors in the centres.

(A)	(B)	(C)	(D)	(E)	(F)	(G)	REMARKS
BITM	5138208	2.31	601487	42105	0.82	7.01	Inclusive
NSCD	13782976	1.71	842530	2528	0.02	0.31	No/Poor Inclusion
VITM	5101000	1.78	1126000	2252	0.05	0.2	No/Poor Inclusion
NSCM	11914398	1.63	912134	1185	0.01	0.13	No/Poor Inclusion
SCTY	5138208	2.31	1400000	496	0.01	0.04	No/Poor Inclusion
RSCCL	3226000	2.08	336139	6723	0.21	2.01	Less Inclusive
RSCBBSR	1900000	2.78	398584	1794	0.1	0.46	Less Inclusive
RSCG	818809	1.99	346758	72820	8.9	21.01	Highly Inclusive
RSCNAG	2420000	1.63	363000	5445	0.23	1.5	Inclusive
RSCBHO	1458416	2.34	182320	912	0.07	0.51	Poor Inclusion
RSCCALI	436556	2.71	700000	70000	6.04	10	Highly Inclusive
SSCP	1885470	2.28	262000	3930	0.21	1.5	Less Inclusive
KPSC	215443	2.16	836514	9202	4.28	1.11	Inclusive
NBSC	284602	2.31	248000	1265	0.45	0.52	Less Inclusive
RSCT	250821	1.8	337000	5055	2.02	1.5	Inclusive
SCBUR	331759	2.31	152620	3053	0.93	2.01	Inclusive
DSCDGA	1202047	2.31	217357	0	0	0	NA
DSCDKL	1900000	2.78	157508	804	0.05	0.52	No/Poor Inclusion
DSCGUL	427929	1.78	293321	5867	1.38	2.01	Inclusive
DSCDHAR	19932	2.07	192405	14	0.08	0.01	No/Poor Inclusion
DSCTIRU	431603	2.64	330000	8250	1.92	2.5	Inclusive
DSCPURU	113766	2.31	175000	0	0	0	NA
GSC	1200000	1.17	117521	1176	0.1	1.01	Less Inclusive
SCPB	100186	1.99	40500	608	0.61	1.51	Inclusive
APSC	34970	3.04	21757	349	1	1.61	Inclusive
NAGSC	165782	1.34	15000	1200	0.73	8	Inclusive
SHISC	232946	1.25	17200	862	0.38	5.02	Inclusive
SSC	29354	3.77	4000	0	0	0	NA
MANSC	217275	1.31	34000	340	0.16	1	Inclusive
SUKACK	189327	1.85	60000	0	0	0	NA
PGSC	709255	1.75	375000	750	0.11	0.2	No/Poor Inclusion
TNSTC	4216268	2.64	812164	28426	0.68	3.51	Inclusive
BMPIL	26219	2.5	20000	1200	4.58	6	Highly Inclusive
RMNHBHO	1458416	2.34	45000	0	0	0	NA
RMNHBBSR	1900000	2.78	250180	5004	0.27	2.01	Inclusive
PSPBBSR	1900000	2.78	130000	2600	0.14	2	No/Poor Inclusion
SCSOLA	873037	1.63	36200	2534	0.3	7	Inclusive
MSPSSC	331759	2.31	NA	0	0	0	NA
GUWPLA	818809	1.99	168900	10134	1.24	6	Highly Inclusive
MIZOSC	228280	1.81	143272	946	0.42	0.67	Less Inclusive

Table 2

- (A) Name of the Centre.
- (B) Local Population (Centre Location) as per 2001 Census.
- (C) Avg. % of Disable Population of the area (Assuming it to be homogeneous in the state) as per 2001 Census.
- (D) Total visitor to the Centre and its outreach programmes.
- (E) Total PC & MC Visitors to the Science Centres.
- (F) Avg. % of PC & MC visitors in Science Centres w.r.t Local Population.
- (G) Avg. % of PC & MC visitors w.r.t total visitors in Science Centres.

[The yardstick is set considering both the % of PC & MC visitors in Science Centres w.r.t Local Population and % of PC & MC visitors w.r.t total visitors in Science Centres].

Inference from Table 2:

Most of Indian science centres/museums are inclusive in terms of visitation of physically and mentally challenged people.

However, some of the centres like NSCD, VITM, NSCM, SCTY, PGSC, DSCDKL, PSPBBSR and RSCBHO are very poor i.e. non inclusive for the group of visitors with special needs.

Centres like RSCG, RSCCALI, BMPIL and GUWPLA are among the highly inclusive centres in terms of visitation of physically and mentally challenged people.

Conclusion

While in this article it has been endeavoured to highlight the areas of social inclusiveness of Indian science centres and museums in terms of physical accessibility, employability and other related social parameters, the Part III of this study will deal with the parameters like cognitive accessibility, financial accessibility, emotional accessibility aspects of this sector in Indian scenario.

Acknowledgement

The author sincerely acknowledges the cooperation extended by the heads of science museums and centres that came forward to respond to the questionnaire survey and Shri Rajarshi Bhattacharjee of CRTL who assisted in compiling data for statistical analysis.

Select Bibliography

- 1) Ground Work of Mathematical Probability & Statistics, Gupta Amritava, Academic Publishers, Kolkata, 1988.
- 2) Families in Museums: Motivation, Behavior & Collective Learning Experience, Rautela G.S, Humankind, vol. 3, 2007. pp 13-25.
- 3) Learning Scientific Concepts in Science Centres, Javelkar Vijay. D., (http://informalscience.org/researches/VSA-a0a5g1-a_5730.pdf).
- 4) The science centre movement in India: a conspectus, Mukhopadhyay Ingit Kumar (<http://www.scielo.br/pdf/hcsm/v12s0/13.pdf>).
- 5) Annual Report National Council of Science Museums 2009-2010.

Social Inclusion Data for Science Centers and Science Museums
(Survey Questionnaire)
Central Research and Training Laboratory
National Council of Science Museums, India

Institutional Information

Name:

Address:

State:

PIN/ZIP:

Country:

Name of the Head of the Institute/CEO:

Position:

Phone:

Email:

1. Please tick which ONE of the following BEST describes your institution:

- | | |
|---------------------------|---------------------------|
| a. Science Center | [] |
| b. Science Museum | [] |
| c. Planetarium | [] |
| d. Natural History Museum | [] |
| e. Others | [] Please specify: |

2. In which year your institution was first opened regularly to the public? []

3. Does your institution charge a general admission fee?

- | | |
|--------|-----------|
| 1. Yes | [] |
| 2. No | [] |

4. How much floor space in your institution is for public use?

(Exclude areas such as offices, workshops, storage space etc.)

Indoor	:	_____ square metres
Outdoor	:	_____ square metres

Note: (1000 sq feet = 93 sq metres, if your institution has more than one building / site, please show combined floor area)

Number of days in a year that your institute remains open:

(Remarks: To discern the center in a better way)

Area of Your Centre

5. How do you characterize the area of your centre: Is it situated in a cosmopolitan city area or in a tourist spot or in a suburban or rural area?
6. What is your observation on the financial and social condition of the local population of the surrounding area? (e.g. whether agrarian economy, surrounded by any ethnic community)

Financial (Please tick)

- | | |
|----------------------------|-----------|
| 1) Agrarian Economy | [] |
| 2) Business driven economy | [] |
| 3) Mixed Economy | [] |
| 4) Others (specify) | [] |

Social Resolution

- | |
|------------------------------|
| 1) Major Linguist group: |
| 2) Ethnic Group(s) (if any): |
| 3) Mixed population group: |
| 4) Others (specify) : |

(Remarks: To know the socio-economic resolution of the area, help understand the social exclusiveness)

Your staff (based on the recent statistics)

7. How many staff, including 'active friends' and volunteers, worked for your institution?

	Category of staff	Number
5.1	Total paid full-time staff	
5.1.1	Total Female paid full-time staff	
5.1.2	Total physically challenged paid full-time staff	
5.1.3	Total scheduled caste (SC) / scheduled tribe (ST) / backward class (OBC) paid full-time staff	
5.1.4	Total minority paid full-time staff	
5.2	Total paid part time staff	
5.2.1	Total Female paid part time staff	
5.2.2	Total physically challenged paid part time staff	
5.2.3	Total scheduled caste (SC) / scheduled tribe (ST) / backward class (OBC) paid part time staff	
5.2.4	Total minority paid part time staff	
5.3	Total Full Time Equivalent (FTE) paid staff (Trainees/Contract etc.)	
5.3.1	Total Female FTE paid staff	
5.3.2	Total physically challenged FTE paid staff	
5.3.3	Total scheduled caste (SC) / scheduled tribe (ST) / backward class (OBC) FTE paid staff	
5.3.4	Total minority FTE paid staff	
5.4	Unpaid staff-volunteers and 'active friends'	
5.4.1	Female Unpaid staff-volunteers and 'active friends'	
5.4.2	Physically challenged Unpaid staff-volunteers and 'active friends'	
5.4.3	Scheduled caste (SC) / scheduled tribe (ST) / backward class (OBC)	
5.4.4	Minority Unpaid staff-volunteers and 'active friends'	

8. Values and attitudes of your staff towards the centre/museum:

Value Attitude (Please tick)	
1) Passionate	[]
2) Dutiful	[]
3) Regular	[]
4) Indifferent	[]
5) Others (specify)	[]

9. Distribution of functionality of your staff in terms of number of Educators, Scientific/Technical Staff:

(Remarks: to assess the social distribution of the staff members (though in a Govt. org recruitment is highly regulated by govt. norms) and their functionality)

Your Fee structure

10. What is your entry-gate fee?

11. What are the other facilities with additional fees?

Name:

Fee:

(mention currency)

(Remarks: it is worth noting to Social Inclusion that some have a marketing agenda)

Profile of Your Visitors

12. Your visitors (you can give an approximate average numerical data)

a) On-site attendance?

b) Off-site attendance?

(Consider mainly the outreach programmes conducted by you, if necessary classify these like Mobile Science Exhibitions, Participation in Fairs etc.)

c) What is the approximate percentage of the visitors coming from the outside? (At least 50 km away from the centre)

d) What percentage of your visitors comes in a group? (families or friends in groups of 3 or more)

e) What percentage of your visitors is 'students' or 'students in groups'? (approximately)

f) What percentage of your visitors is physically challenged?

g) What percentage of your visitors is mentally challenged?

(Remarks: to assess the Social Inclusiveness and acceptability of the Centre to the different class of the society)

Your Social Activity Orientation

13. What is your idea of 'social exclusion' (50 words approx)?

14. What is your idea of 'social inclusion' (50 words approx)?

15. How many programmes did you conduct (during the last five years) where schools participated? (Programmes like Science Fair, Creative Ability Centre etc.) If possible, please give a separate brief account (50 words) of each of these programmes.

16. How many times did your representatives visit the schools in the last three years?

17. Did you ever conduct any programme targeting groups with special needs in last five years (say, visually challenged and/or visitors with hearing or speech impairment, orthopedically handicapped groups etc.)

Name:

Year:

Duration (days):

Participants:

Remarks:

18. Please give a brief account of those programmes you conducted targeting senior citizens and women in last five years? (Please specify the programmes)

Name:

Year:

Duration (days):

Participants:

Remarks:

19. Have you ever conducted any programme for Personal Growth and Development in last five years? Please give a brief description. (The Programmes are supposed to make significant differences in the lives of individuals at risk of financial, intellectual and social disadvantages. Expected outcomes include enhanced self-esteem, confidence and creativity, which, in turn, have helped people develop more active, fulfilled and social lives)

Name:

Year:

Duration (days):

Participants:

Remarks:

20. Have you ever conducted any programme for community empowerment in last five years? Give a brief account.

Name:

Year:

Duration (days):

Participants:

Remarks:

21. Have you ever conducted any programme directed towards tackling the problem of unemployment? Please elaborate.

Name:

Year:

Duration (days):

Participants:

Remarks:

22. Have you ever conducted any programme for tackling the problem of crime, directly or indirectly? Please elaborate.

Name: Year: Duration (days): Participants: Remarks:

(Remarks: to assess the Social Inclusiveness of the Centre by the means of its activity towards social inclusion and how included is society interpersonally to your centre)

Steps Taken/Envisaged for the Publicity of Your Centre vis-à-vis social inclusion

23. State briefly the steps taken for the publicity of your centre. (not only to bring more visitors but to project the centre as an institution for Social Inclusion i.e. including more people from all strata of the society)
24. What is your budget allocation in publicity?
Total Budget in Publicity:
Budget for publicity towards programs aiming social inclusion:

(Remarks: Visitor development initiative is also a step towards Social Inclusiveness for a Centre)



Subhabrata Chaudhuri, Director, Central Research and Training Laboratory, NCSM, Kolkata.
chaudhuri.subhabrata@gmail.com