

विद्यया ऽ मृतमश्नुते



एन सी ई आर टी
NCERT

Post NAS Interventions



COMMUNICATION AND UNDERSTANDING OF THE DISTRICT REPORT CARDS

NAS 2017 NATIONAL ACHIEVEMENT SURVEY

EDUCATIONAL SURVEY DIVISION

राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद्
National Council of Educational Research and Training



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MESSAGE

**RELEASE OF DISTRICT REPORT CARD
NATIONAL ACHIEVEMENT SURVEY – 2017**

It is indeed a pleasure to participate in the release of the District Report Cards for the National Achievement Survey (NAS) 2017. It is the largest survey conducted in the country and is amongst the largest conducted in the world. NAS, 2017 has been different in many ways from its precursors. For the first time the survey has been conducted to assess the learning outcomes of children studying in classes 3, 5 and 8 in Government and Government Aided schools in India.

This survey has been conducted in 701 districts of the country covering all states and Union territories. Over 2.2 million children from 1,20,000 schools participated in the survey.

I congratulate NCERT for releasing the District Report Cards (DRCs). The information given in the district report cards will help the individual Districts to understand the interventions required to improve the quality of education. The district report cards give the analysis which reflects the disaggregated and detailed learning levels of the students. The inference will be used to design classroom interventions percolated to all the schools in the districts for implementations. Further, the findings of the survey will help in understanding the efficiency of the education system. NAS results will help to guide education policy, planning and its implementation.

Anil Swarup
(Anil Swarup)

New Delhi,
22nd January, 2018

FORWARD

NCERT has been conducting the National Achievement Survey (NAS) since 2001. It has successfully conducted four cycles in Classes 3, 5 and 8 and in the verge of completing the 2nd cycle for Class 10. The present NAS, 2017 conducted for Classes 3, 5 and 8 based on learning outcomes developed by NCERT.

The major objective of conducting National Achievement Survey is to have a system level reflection of its effectiveness. An accurate assessment of the learning outcomes at different stages of education can provide important insights as to whether the inputs made into the elementary education system had helped in improving the educational health of the nation. NCERT conducted the National Achievement Survey based on learning outcomes in November, 2017. The performance of the different learning outcomes in the different districts is now available.

This report is based on the data collected from approximately 1,20,000 schools, **2,70,000** teachers and 22, 000,00 students through tests and questionnaires from 701 districts of the country. This survey differs from earlier cycles of NAS in several important aspects. Most importantly, in this survey, the attainment of learning outcomes in term of competencies was tested. As a result, all the scores in this report tell about the attainment of the competencies by the students in different Classes.

The data collected and analysed is summarised in the form of auto generated district reports giving an objective overview of the present situations in the different districts. This information is shared with Districts in the States so that they can, in collaboration with NCERT, prepare district-specific intervention programmes.

NCERT is grateful to MHRD, UNICEF and all the States / UTs for their continued support and cooperation in the conduct of the National Achievement Survey and its further implications in improving the learning process.

Prof. Hrushikesh Senapaty
Director, NCERT

PREFACE

The reports generated through the web application after the conduct of the National Achievement Survey, 2017 is available in the website <http://nasslo.ncert.gov.in/>. After logging in through district USER-ID and password, the district level user can view the report cards vis-à-vis the data uploaded. These district report cards (DRCs) will help all the stakeholders to understand the performance of the students in the districts on different learning outcomes in Classes 3, 5 and 8. These district report cards will also facilitate evidence based planning for ensuring quality in education at the district level. The District Report Cards (DRCs) can be downloaded from the NCERT website at <http://www.ncert.nic.in/programmes/NAS/DRC.html>

As concerted efforts are being made by the government for bringing in the quality aspects in education, one of the major challenges is to develop competency based learning in the classrooms. The present report gives the baseline results in terms of competency based learning in the different districts. This shift in focus needs to be brought about by enabling a competency based learning situation in the classrooms.

The pedagogical inputs for improving the learning outcome in the districts will also be facilitated by NCERT by training the State Level Master Trainers (SLMTs), and the District Level Master Trainers (DLMTs). The understanding and implementation of the competency based learning in the classrooms will be supported by the SLMTs, DLMTs and the Block Resource Centre Coordinators (BRCCs) and the teachers.

This entire exercise, which is a child friendly support, is envisaged to bring about a quality improvement in the learning process at the classroom level.

Prof. Indrani Bhaduri
Head, Educational Survey Division
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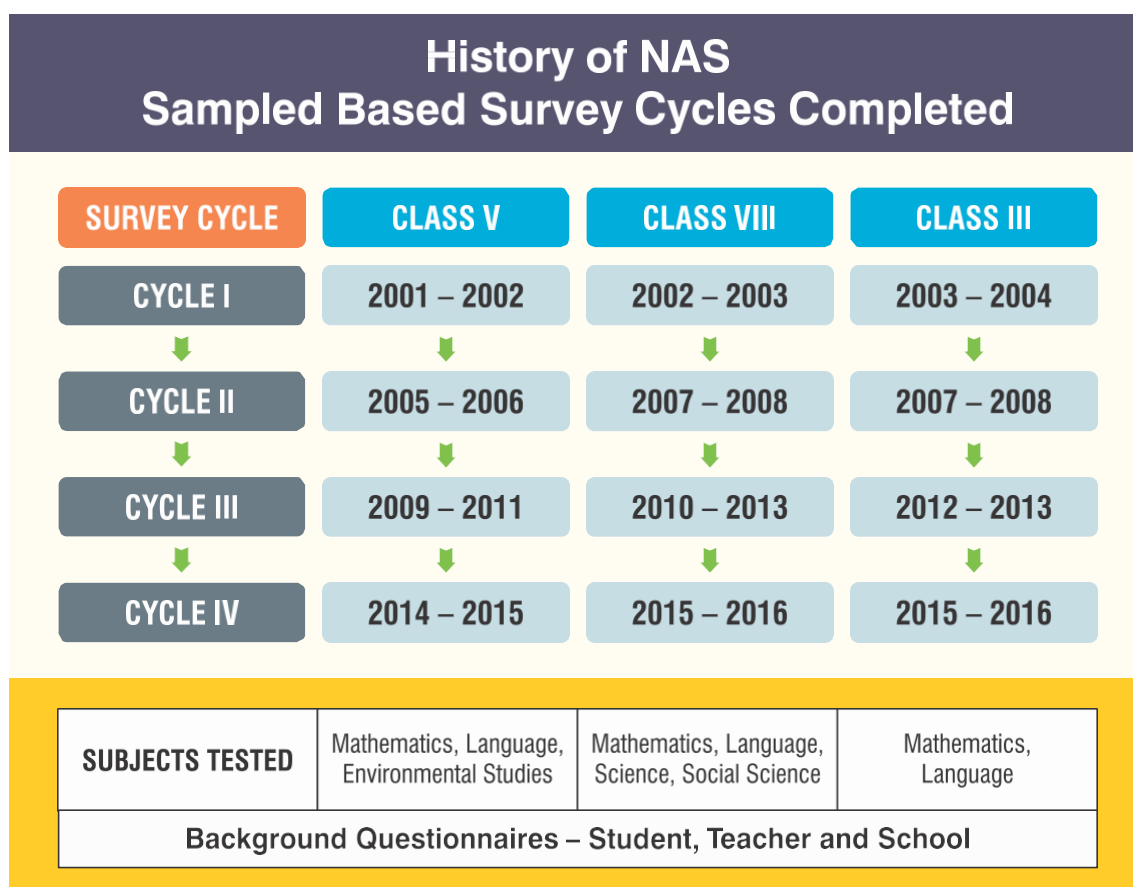
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STATE FUNCTIONARIES

- State Directorate of Education, SCERTs, SIEs, DIETs, Schools

INTRODUCTION

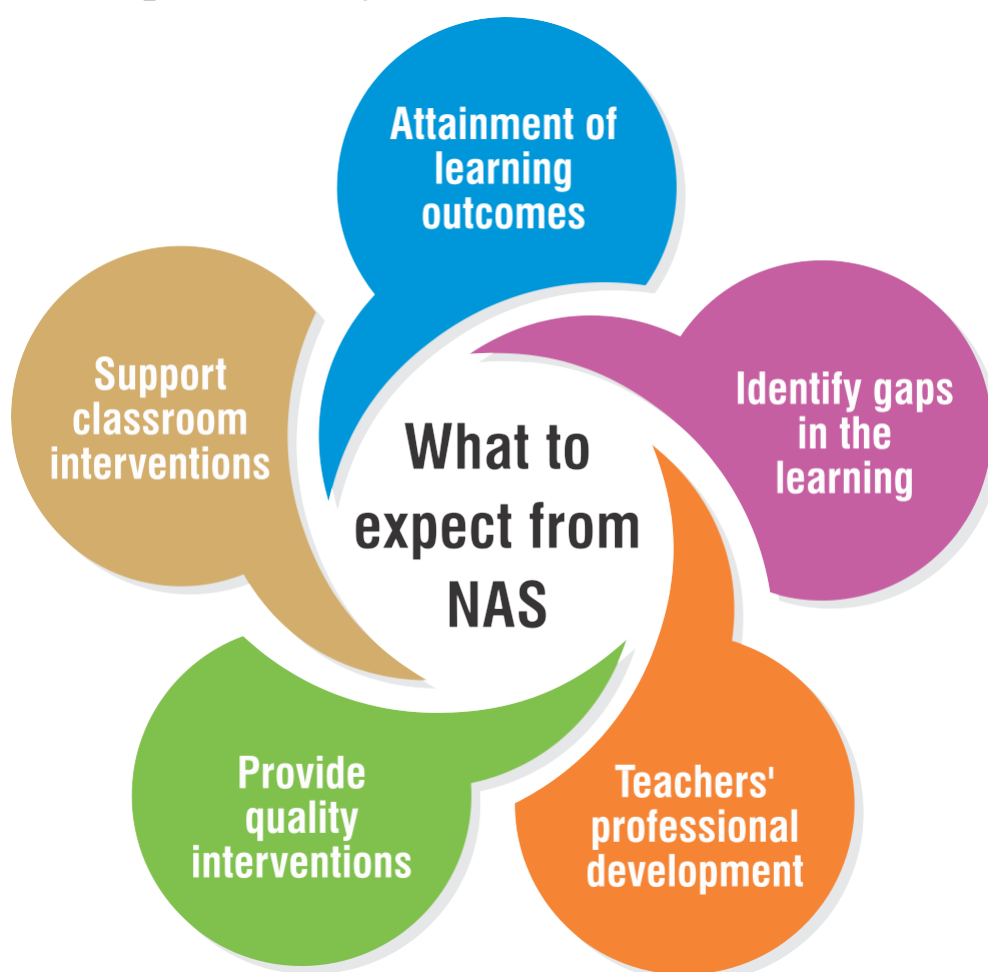
National Council of Educational Research and Training (NCERT) has been periodically conducting the large-scale surveys of learning achievement in government and government aided school at grade III, V and VIII in different curricular areas since 2001 with an interval of three years.



NCERT has been implementing these surveys on sample basis at the State/UT level to provide evidence on health of education system and learning levels of children in key curricular areas at classes 3, 5 and 8. Though the NAS results were shared with the States/UTs through different modes of communication, the findings of these learning achievement surveys were not being used in education policy, planning and teacher professional development.

While planning for new NAS it was felt that these concerns need to be addressed in a more decentralized manner. The NAS (2017) was administered on 13th November, 2017 on nearly 2.5 million children from 120,000 schools across all states and UTs in the country. Being districts as the unit of reporting, the NAS 2017 will help education system to develop differential education plan and need based teacher support system till district level to support learning of children. The test instruments of present National Achievement Survey (2017) are competency based and linked to learning outcomes recently developed by NCERT. In the year 2017, the union government amended Rule 23(2) under the Right to Education (RTE) Act making it compulsory for all state governments to codify expected levels of learning which students in Classes I to VIII should achieve in different subjects. The present NAS will generate detailed report at the district level on the percentage of students achieving these learning outcomes. This will help the districts to develop evidenced based programmes for improving the quality of education. It is expected that a framework of intervention developed would help to improve the quality of teaching and learning at the schools. The designing and implementation of these interventions is envisaged to include in its ambit the school leaders, teachers and the whole network of officials at clusters, blocks, DIETs, SCERT and the directorate of education at different levels in the States/UTs.

Figure 1: Expectations from NAS



The learning outcome oriented assessment will not only help to make the shift in the focus of student learning from content to competencies. It will also help the teachers to divert their teaching-learning in the desired manner and make responsible and alert for ensuring quality education of other stakeholders especially the parents/guardians, School Management Committee (SMC) members, community and the state functionaries.. The learning outcomes defined explicitly will help to guide and ensure the responsibility and accountability of different stakeholders.

Communication and Understanding of District Report Card (DRC)

In NAS 2017, students were assessed in Reading, Mathematics and Environmental studies in Classes III and V and in Class VIII, students are assessed in Reading, Mathematics, Science and Social Science. As part of the effective test design, two test forms in each of the classes were developed. In Class III, test forms 31 and 32, Class V test form 51 and 52 and in Class VIII

How to read NAS District Learning Report Card: 2017

The district report card displays learning level of children at district level for each of the classes and in each of the subjects separately. The district report card depicts the learning level as below:

1. *Overall learning level at district level:* Overall learning level is depicted in per cent. Suppose, mathematics performance for a district is 55%. This means, on an average student in this district correctly responded 55% of the items in Mathematics.
2. *Disaggregated learning level by gender, location and social group:* The report is based on the performance in all subjects through disaggregation by gender (female, male), Area (Rural and Urban), Management of schools (Government and Government aided) and Social Groups (Schedule Caste (CS), Schedule Tribe (ST), Other Backward Communities (OBC) and General.
3. *Detailed performance in each of the learning outcomes:* The students' achievements are detailed out against each of the learning outcomes. Suppose the performance of students in one learning outcome is 45%; this means 45% of children could correctly answer that learning outcome.
4. *The learning outcomes where children require more support:* Under this heading, the poorest performing learning outcomes were indicated so that teacher and student support plan can be developed accordingly.
5. *Distribution of learning level:* The learning level of children distributed in four slabs i.e, below 30%; 30 to 50%; 50 to 75% and 75% and above. This slab indicates that what proportion of people scored within this range
6. *Sample coverage:* The sample coverage section indicates what are the disaggregated sample size within a district by gender, location, school management, etc;

Performance on Learning Outcomes(LOs)

Learning Outcomes	Description	Average Performance(%)
E302	Identifies simple features (e.g. movement, at places found/ kept, eating habits, sounds) of animals and birds in the immediate surroundings.	70.98
E303	Identifies relationships with and among family members	81.16
E304	Identifies objects, signs (vessels, stoves, transport, means of communication, transport, signboards etc.), places (types of houses/shelters, bus stand, petrol pump etc.) activities (works people do, cooking processes, etc.) at home/school/neighborhoods	74.01
E305	Describes need of food for people of different age groups, animals/birds, availability of food and water and use of water at home and surroundings	78.72
E307	Groups objects, birds, animals, features, activities according to differences/similarities using different senses. (e.g. appearance/place of living/ food/ movement/ likes-dislikes/ any other features)	79.42
E309	Identifies directions, location of objects/places in simple maps using signs/symbols/verbally	75.87
E310	Guesses properties, estimates quantities of materials/activities in daily life and verifies using symbols/non-standard units	79.20
E311	Records observations, experiences, information on objects/activities/places visited in different ways and predicts patterns etc.	59.79
E313	Observes rules in games (local, indoor, outdoor)	45.25
E314	Voices opinion on good/bad touch , stereotypes for tasks/play/food in family w.r.t gender, misuse/wastage of food and water in family and school.	80.86

Range of Performance of Students who Answered Correctly							
Below 30%		30% - 50%		50% - 75%		Above 75%	
Number	%	Number	%	Number	%	Number	%
58	5.07	102	8.92	332	29.02	652	56.99

Learning Gaps Identified (LOs which require Intervention)

- 1 - Observes rules in games (local, indoor, outdoor) (45.25)
- 2 - Records observations, experiences, information on objects/activities/places visited in different ways and predicts patterns etc. (59.79)
- 3 - Identifies simple features (e.g. movement, at places found/ kept, eating habits, sounds) of animals and birds in the immediate surroundings. (70.98)
- 4 - Identifies objects, signs (vessels, stoves, transport, means of communication, transport, signboards etc.), places (types of houses/shelters, bus stand, petrol pump etc.) activities (works people do, cooking processes, etc.) at home/school/neighborhoods (74.01)
- 5 - Identifies directions, location of objects/places in simple maps using signs/symbols/verbally (75.87)

CSWN: LD- Locomotor Disability; VI- Visual Impairment; HI- Hearing Impairment;
S&LD- Speech and Language Disability; ID- Intellectual Disability; Oth- Other Disability.

Every question on each form assesses student's attainment of Learning outcomes (LO) mentioned above. Within a subject tested e.g. language, a District Report Card (DRC) shows the district's performance on all LOs tested for a subject, across both the forms.

The auto generated district report cards reflect the participation and performance of the students on tested subjects of a Class. The DRC begins by capturing demographic and identification information about the State/ UT such as name of the State, District, Class and Subject tested under NAS. This is followed by Districts' 'overall' information about their students' performance on Learning Outcomes. Overall performance refers to the percentage of students in a district which correctly responds to questions being tested in a subject.

Apart from the above, the DRC depicts the subject specific performance by gender (girls and boys), areas (urban and rural), management of schools (government and government aided), social groups (SC, ST, OBC and General). It is presented as group performance, such as, that for girls and boys, what is the percentage of questions which girls and boys correctly respond to in a subject e.g. Class III Mathematics.

The above section is followed by a table which indicates the range of students who correctly respond to questions in a class and a subject. Student performance is recorded under the following four percentage slabs: Below 30%; 30-50%, 50-75% and above 75%.

DRCs gives in detail the performance of the Districts in the different Learning Outcomes (Los). LOs on which performance is found to be 30% or lower requires special care and immediate intervention from the district education functionaries.

QUALITY INTERVENTIONS BASED ON NAS FINDINGS

Immediate/short term

Understanding the District Report Cards and Pedagogical Practices to Support Classroom Transaction Based on Learning Outcomes

A) Training the State Level Master trainers (SLMTs) to:

- Communicate the NAS results as per the District Report Cards
- Assist States/ UTs in understanding NAS results
- Demonstrate the exemplar pedagogical interventions developed by NCERT. Understanding of the suggested pedagogical processes mentioned in the existing NCERT LO document would be strengthened through the demonstrations of theses actual transactions.
- Master Trainer's (SLMTs) would be encouraged to develop other Classroom transactions based on the five Learning Outcomes identified.

B) The SLMTs will further disseminate the understanding of the NAS District Report Cards at the District level. This will include:

- Sharing of findings with District level functionaries such as DIETs, DEOs, teachers, head teachers, parents, SMC members and other stakeholders.
- Identifying learning gaps and understanding of the same by the teachers and other stakeholders.
- Facilitation by the teachers (use of alternative instructional strategies to overcome learning gaps with the support of BRC/CRC) and peer support (e.g. Teacher– Teacher & Student – student support).
- Seeking support from parents or other important members in the family and community.
- Organisation of awareness programs for community.
- Training of teachers on evolving learning strategies to achieve learning outcomes.

Mid Term Interventions:

1. Development of an Intervention Handbook

NCERT in collaboration with supporting agencies/ partners will consolidate a final version of the intervention handbook.

Formation of team of teachers (KRPs) as master trainer in different subjects.

2. Use of NAS findings to develop State AWPBs

- a) NCERT will identify various NAS based indices which will be associated with other datasets such as UDISE. Report associations of the teacher quality index, infrastructure index and state and district fund allocation indexes with student achievement.
- b) The above stated associations will help states develop evidence based AWPBs.

3. Development of an Item Bank (Dynamic)

- a) Items will be developed for classes III, V and VIII for all subjects in English and then translated into other regional languages.
- b) Items will be piloted and finalized
- c) Action plan will get developed on item replenishment

4. Development of ICT based Learning Resources/ Material

- a) ICT based resources to be developed for classroom transactions of LOs
- b) Existing NCERT's ICT based learning material to also be adapted.
- c) Exemplary resources to be developed and shared with states for replication in their regional languages and further development in other subject areas.
- d) Role of ICT based interventions to be linked to NAS findings to increase outreach.

- e) Development of supplementary learning resource materials for students and teachers.
- f) Development of material for Orientation of school leaders.
- g) Development of e-content on learning outcomes identified as difficult.
- h) Development of interactive modules on various learning outcomes identified as difficult.

5. Data Sharing with States/ UTs

- a) NAS 2017 weighted and scaled data will be shared with States/ UTs to help them carry out independent research on variables of interest.

Long Term Interventions:

Curriculum Review and Reform

- a) NCERT will develop policy briefs for systemic review and reform
- b) NCERT will come out with guidelines/suggested practices for teacher education/training and school curriculum review and reform e.g. review of curriculum of pre service teacher education programme.
 - Review of curriculum of pre-service teacher education programmes.
 - Review of school curriculum in States/UTs
 - Revisiting the curriculum/syllabi and textbooks.
- c) Developing a web based application to address the needs and concerns of teachers and students.

Creating a discussion forum for teachers and students for improving quality of education e.g. using of educational technology.

Section on participation/ coverage records the percentage of boys and girls who are tested in the survey; percentage of urban and rural students who are tested in the survey; percentage of different category (SC, ST, OBC and General) students who are tested in the survey; percentage of Children with Special Needs (CWSN) who are tested in the survey; percentage of students studying in government and government aided schools who are tested in the survey. DRC also considers the number of students of different disability types, who are tested under NAS.

Last section of the DRC is dedicated to identification of LOs (n=5) which require intervention from the district in a class and subject.

The DRCs is shared with the different functionaries in the States and UTs for:

- Making the State, District and block/cluster level officials sensitized about the issue of learning outcomes and hence the usefulness of NAS district report cards. This also includes Teachers, DIETs and DRGs
- Involving and making the community members aware of DRC- Parents, SMCs and VECs, elected representatives of local governments- Taking the help of appropriate and easily comprehensible IEC materials, display of the NAS in schools, clusters and publicity through newspapers, radio and other channels of mass media.
- Placing a Grievance Redressal Mechanisms available to the parents/SMC members within the districts

- Appraisal of the competencies of the teachers linked with learning outcomes of the children

FRAMEWORK FOR THE SHORT TERM INTERVENTIONS:

What	Who	Content	Mode	Expected Outcomes
State Level Interventions	<ol style="list-style-type: none"> 1. Education Secretary 2. SPD 3. SCERT, State Level Education Institutes 4. Commission/Advisory Committees 5. Research Institutes 6. Bilateral and Multilateral Agencies 7. Departments of Women and Child Development, Social Justice (SC-ST Welfare) and Tribal Development Departments 	<ol style="list-style-type: none"> 1. What is NAS and Objective of NAS 2. Criterion of assessment under NAS (LOs) 3. Explaining the District Report Cards- Participation/Coverage 4. Identifying the score disaggregated across gender, caste, rural- urban, school management type 5. Identifying the aggregated Score (Below 30%, 30%- 50% and above)- Subject and class wise 6. Identifying the LOs for intervention - Subject and class wise 7. Brainstorming on action plans - Pedagogic, administrative and Budgetary (What are the available heads, 	Presentation and discussions	<ol style="list-style-type: none"> 1. Analysing the above mentioned prospective interventions and coming out with a list of workable short term, medium term and long term interventions with timelines

What	Who	Content	Mode	Expected Outcomes
		<p>what could be the additional sources that can be tapped)</p> <p>8. Looking at the NAS data what differentiated approach can be adopted- Gender, social groups, area</p>		

What	Who	Content	Mode	Expected Outcomes
State Level Dialogue on NAS	1. SSA and RMSA State Unit 2. SCERT 3. State Education Department 4. Related Departments_ Women and Child Welfare, SC ST Welfare Department 5. District Level Officials (DEO) 6. State level MTs and SRG members 7. INGOs and NGOs working in the state towards improvement of learning outcomes	1. All above as applicable 2. After discussion of performance as mentioned above, LO wise performance (in different subjects and classes) should be shared. Using different colors to indicate categories of performance in the Los (like red for Los below 20, yellow for 20 to 50 and green for above 50). 3. Brainstorming on actions plans for mitigating the challenges identified by DRC 4. Discussion and decision on inter district competitions focusing on LOs	Presentation, Dialogues with sufficient usage of infographics and other ICT	1. An action plan for short. Medium and long term strategies for improving the performance of children

What	Who	Content	Mode	Expected Outcomes
District Level Dialogue on NAS	<ol style="list-style-type: none"> 1. DEO 2. SSA functionaries at the district 3. Local elected representatives (MLA, Local Government) 4. MTs, at the district level 5. Professional Learning Communities 6. Related Departments_ Women and Child Welfare, SC ST Welfare Department 	<ol style="list-style-type: none"> 1. Discussion on all the above mentioned points in a more audience friendly way 2. Distribution of DRC formats- Subject and class wise 3. Discussion and decision at inter block level focusing on Los 4. Brainstorming and development of action plans related to pedagogy and monitoring 	<p>Presentation, Dialogues with sufficient usage of infographics and other ICT</p> <p>Developing classroom transactions to improve learning</p>	<ol style="list-style-type: none"> 1. An understanding of the NAS and its results in the district 2. Pedagogic action plans with targets, timelines 3. Identifying concerned officials and delineating their roles and responsibilities related to execution and monitoring of the Classroom transaction <p>District level planning and budgeting</p>

What	Who	Content	Mode	Expected Outcomes
Block Level Sharing Meeting	1. Concerned BEO 2. Concerned BRC 3. All CRCCs 4. ALL HMs	1. What is NAS and its objectives 2. Los 3. Sharing the DRC and its parameters 4. Sharing of the learning outcome targets and timelines as developed for the district 4. Focused discussions on performance- LO, class and subject wise 5. Discussion on critical Los requiring immediate intervention 6. Strategies for improving classroom processes and performance of children 7. Discussion on resource requirements by taking into consideration existing resources 8. Decision on conducting day long/ two day long session on learning outcomes and NAS results with the teachers and SMC members	Presentation, Dialogues with sufficient usage of infographics and other ICT	1. An understanding of the NAS and its results in the district 2. Pedagogic action plans with targets, timelines in tandem with the district level targets 3. Identifying concerned officials and delineating their roles and responsibilities related to execution and monitoring

What	Who	Content	Mode	Expected Outcomes
School Level Dialogues on NAS	1. Concerned CRCC 2. Teachers 3. Head teacher 4. Parents- Class wise 5. SMC Members 6. Local Government representatives including education standing committee members of the local Gram Panchayat and Panchayat Samity	1. Discussion on Learning outcomes and performance of children in NAS 2. Reasons for low performance in different subjects/Los 3. Exploring the role of parents and SMC members 4. Action plans at the school level to raise the learning outcomes of children 5. Possibilities of including plans for enhancing learning outcomes in the local government plan (GPDP as suggested by the Union Government) 6. Discussion on resource requirements by taking into consideration existing resources and possibilities to tap resources locally for additional requirement (MA LAD, MLA LAD, Panchayat funds, local charity)	1. Dialogue and discussion 2. Use of locally popular innovative methods of interaction	Participation of parents and SMC members in the discussions, planning and monitoring of activities to be undertaken for enhancement of learning outcomes