



BEHAVIOUR CHANGE

May 2022





THEMATIC REPORT

Behaviour Change

May 2022

Disclaimer

This document presents a systematic review of behaviour change approaches adopted by central sector schemes and central schemes in government of India, and the resultant areas of opportunities and gaps. The data used for this assessment is from the UCSS reports (2021), and operational and IEC guidelines of select schemes. In specific, using a sample set of schemes across different sectors, we have analysed the common behavioural change channels used in schemes, funds allocated towards them, their impact and challenges. These specific schemes sampled for this analysis are presented in the *appendix*, at the end of this report. The analysis presented in this report must be viewed in the context of the following disclaimers:

- a. A sample set of schemes are analysed for the purposes of this report. All schemes are not exhaustively represented.
- b. Data on specific budgetary allocation for behaviour change is missing for most analysed schemes
- c. The report does not contain scheme wise data for sectors such as jobs and skills, social inclusion, water resources, agriculture, animal husbandry and fisheries, environment and forests due to inconsistency in the source data
- d. Data is available on behavioural change channels at a sectoral level, instead of a scheme level.

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PREFACE

The Government of India (GoI) spends close to Rs. 14 lakh crores annually on development activities, through nearly 750 schemes implemented by Union Ministries. In 2019, the Development Monitoring and Evaluation Office (DMEO), NITI Aayog was assigned the task of evaluating 28 Umbrella Centrally Sponsored Schemes, which are schemes/programmes funded jointly by the Centre and the States and implemented by the States. This historic exercise, undertaken between April 2019 and February 2021, evaluated 125 Centrally Sponsored Schemes, under 10 Sectors, together covering close to 30% of the GoI's development expenditure, amounting to approximately Rs. 3 lakh crores per annum.

As a part of the evaluation studies, the Centrally Sponsored Schemes were also assessed based on various cross-sectional themes such as accountability and transparency mechanisms, use of technology, convergence, gender, social inclusion, regulatory framework, climate change, behaviour change, Research and Development and private sector participation. These evaluation studies adopted a mixed method approach and underwent a review process involving consultations with NITI Aayog subject matter divisions, concerned Ministries and Departments, and external sector experts. For the cross-sectional analysis across sectors, additional secondary research was undertaken by DMEO, and the findings were reviewed by experts in the respective domain in order to optimize the robustness of the evidence generated across the sectors.

The present report is an outcome of the cross-sectional assessment of Behaviour Change across all the Centrally Sponsored Schemes. In this report, we seek to review examples of global behaviour change mechanisms. The report also develops a theoretical framework based on existing literature for assessing the performance of schemes, Sectors and Ministries/Departments against measures of behaviour change exhibited in the design and implementation of schemes. The report highlights the need for expanding the tools used for changing behaviours, from IEC/SBCC to Nudges, allocation of dedicated budgets to behaviour change and development of measurable outcomes for behaviour change activities.

We hope that this report will help in strengthening elements of Behaviour Change in the design and implementation of central and state government programs. Building and adopting systems for enhancing behaviour change in government will greatly contribute to the achievement of national priorities and to the well-being of all sovereign citizens of India.

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DMEO team has been at the core of the overall endeavour on thematic analysis, and this report would not have been possible without the contributions of Ms. Priyanka Dua, Monitoring & Evaluation Lead and Mr. Sanyam Kapur, Monitoring & Evaluation Lead who worked on the report, under the guidance of Ms. Urvashi Prasad, Director and Dr. Shweta Sharma, Director. Special thanks are extended to ex-colleagues Mr. Alok Mishra, Deputy Director General, Ms. Sumitra K., Monitoring and Evaluation Lead, Mr. Subham Awasthi, Monitoring and Evaluation Lead, Ms. Ruchika Hirna, Young Professional, who played an important role in completing the study. Across the cross-sectional theme reports, Dr Shweta Sharma, Director also oversaw coordination, standardization and monitoring of the processes.

In accordance with the massive scope and scale of the exercise, this report owes its successful completion to the dedicated efforts of a wide variety of stakeholders.

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LIST OF ACRONYMS

CRP	Community Resource Person
CSSTE	Centrally Sponsored Scheme on Teacher Education
DAY	Deendayal Antyodaya Yojana
DFP	Directorate of Field Publicity
DNT	Denotified Tribes
DoRD	Department of Rural Education
EAST	Easy, Attractive, Social and Timely
EPIC	Energy Policy Institute at the University of Chicago
EY	Ernst and Young
FGD	Focus Group Discussion
FNB	Food and Nutrition Board
GIS	Geographic Information System
GP	Gram Panchayat
GRS	Gram Rojgar Sevak
HBNC	Home Based Newborn Care
HIV/AIDS	Human Immunodeficiency Virus Infection/Acquired Immune Deficiency
HRD	Human Resource and Development
ICAP	Integrated Cluster Action Plan
ICDS	Integrated Child Development Services
ICDS	Integrated Child Development Services
ICS	Improved Cookstoves
ICT	Information and Communication Technology
IDCF	Integrated Diarrhoea Control Fortnight
IEC	Information, Education, Communication
IFA	Iron and Folic Acid
ILEP	International Leaders in Education Program
INDGAP	India Good Agricultural Practices
IPC	Intra Personal Communication
IPM	Integrated Pest Management
ITDP	Institute for Transportation and Development Policy

JJM	Jal Jeevan Mission
JSSK	Janani Shishu Suraksha Karyakram
JSY	Janani Suraksha Yojana
KII	Key Informant Interview
KMC	Knowledge Management and Communication
LPG	Liquified Petroleum Gas
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MIDH	Mission for Integrated Development of Horticulture
MMU	Mobile Medical Unit
MoHUA	Ministry of Health and Urban Affairs
MoWCD	Ministry of Women and Child Development
MPEW	Mission for Protection and Empowerment of Women
MPV	Mahila Police Volunteer
MSP	Minimum Support Price
MSY	Mahila Samridhi Yojana
NAM	National Agricultural Market
NCAP	National Clean Air Programme
NCS-DA	National Career Service for Differently Abled
NGO	Non Governmental Organisation
NHM	National Health Mission
NIPCCD	National Institute of Public Cooperation and Child Development
NIUA	National Institute of Urban Affairs
NLEP	National Leprosy Eradication Program
NRIDA	National Rural Infrastructure Development Agency
NRLM	National Rural Livelihoods Mission
NSAP	National Social Assistance Programme
NSSO	National Sample Survey Office
NULM	National Urban Livelihoods Mission
NULP	National Urban Learning Platform
NWM	National Water Mission
ODF	Open Defecation Free
OECD	Organisation for Economic Cooperation and Development
OOPE	Out of Pocket Expenditure
OOSC	Out Of School Children
OSC	One Stop Centre
PAB	Public Accountability Board
PHC	Primary Health Centre

PMAY-U	Pradhan Mantri Awas Yojana-Urban
PMGSY	Pradhan Mantri Gram Sadak Yojana
PRI	Panchayati Raj Institution
PwD	Persons with Disabilities
RBI	Reserve Bank of India
RCT	Randomised Control Trial
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RUSA	Rashtriya Uchcharat Shiksha Abhiyan
SAM	Severe Acute Malnutrition
SB	Saakshar Bharat
SBCC	Social and Behaviour Change Communication
SBM-U	Swacch Bharat Mission-Urban
SC	Schedule Caste
SCM	Smart Cities Mission
SDIC	Smart Data and Inclusive Cities
SERP	Society for Elimination of Rural Poverty
SHG	Self Help Group
SMAE	Sub Mission on Agricultural Extension
SPMRM	Shyam Prasad Mukherji Rural Mission
SRLM	State Rural Livelihoods Mission
SRRDA	State Rural Roads Development Agency
ST	Schedule Tribe
TKK	Tata Kisan Kendra
TV	Television
UK	United Kingdom
UNICEF	United Nations Children's Fund
US	United States
USAID	United States Agency for International Development
UT	Union Territory
VHND	Village Health and Nutrition Day
VT	Visiting Teacher
WALMI	Water and Land Management Institute
WASH	Water, Sanitation and Hygiene

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EXECUTIVE SUMMARY

In recent years the importance of behavioural insights to bring about desired changes has become an increasingly popular theme in public policy. Traditional approaches to policy making rely on the assumption that human behaviour is fully rational whereas behavioural insights—from a synthesis of behavioural economics, psychology, neurosciences and other behavioural sciences—can provide a more realistic understanding of human behaviour and therefore lead to better policy making (OECD, 2019; Strassheim and Beck, 2019)¹.

In countries such as the United States and the United Kingdom, behavioural economics has been used in policy making across sectors such as agriculture, finance, environment, etc. (Reisch and Sunstein, 2018)². Successful policy interventions targeted towards behavioural changes in the UK, for instance, include tax prompts to encourage timely payment, reduction in unnecessary antibiotic prescriptions by sending letters to highest-prescribing general medical practitioners, job search improvements for those out of work and others. (Halpern and Sanders, 2016)³.

India has a unique opportunity to learn from the behaviour change strategies adopted by other countries so far while also innovating in this space for the developing world. Under this context, this report examines the current approaches adopted by the Government of India towards behaviour change, identifies areas of opportunities and gaps, introduces some global frameworks for applying behavioural insights in policy making and, finally, highlights case studies of some successful interventions.

While the Health, Women and Child Development, Rural Development, Urban Development and Human Resource Development sectors, actively leverage behavioural change tools for effective policy implementation, sectors of Agriculture, Animal Husbandry and Fisheries, Water Resources and, Environment and Forest sectors utilise behavioural change tools only moderately. On the other hand, Jobs and Skills and Social Inclusion sectors lack any form of behavioural change component, from the sample analysed for this report.

Box 1: Summarized sectoral comparison on behavior change approaches

The sectoral analysis reveals that sectors such as Health, Women and Child Development and Rural Development rely significantly on behavioural change approaches for successful policy implementation whereas sectors such as Jobs and Skills and, Social Inclusion lack behavioural change components.

1 <https://www.elgaronline.com/view/edcoll/9781785367847/9781785367847.00005.xml>

2 https://www.econstor.eu/bitstream/10419/177419/1/005-007-Forum-Sunstein_Reisch.pdf

3 <https://behavioralpolicy.org/wp-content/uploads/2017/06/Sanders-web.pdf>

A summary of the behaviour change tools employed by different sectors is given below.

I. Reminders, Prompts and Incentives

These are effective ways of nudging people to behave in a desired manner. According to Sunstein (2014)⁴, “people tend to have a great deal on their minds and when they do not engage in certain conduct, the reason might be inertia, procrastination, competing obligations, and simple forgetfulness. A reminder can have a significant impact. A closely related approach is “prompted choice,” by which people are not required to choose, but asked whether they want to choose.” For example, in India, rural women are sent messages regarding the ways in which savings can make a difference to their household emergency needs.

Incentives are also a popular behaviour change tool. The Government of India provides free drugs, free diagnostics, free dialysis, free transport services and other incentives to promote healthcare service utilisation. To encourage farmers, a Minimum Support Price (MSP) is given on select products. However, it is important to note that incentives may sometimes be counterproductive. For example – the MSP has led to the farmers preferring to grow rice or wheat and a reduction in crop diversification. Similarly, the subsidies on agricultural power have contributed to the overuse of groundwater and its resulting depletion.

Incentives are also given in the form of awards/scholarships/fellowships as a way of rewarding and promoting good practices. For example – these tools are used under the Centrally Sponsored Scheme on Teacher Education (CSSTE) to reward teachers.

II. Mass Media

This is the one behavioural change channel which is used across almost all the sectors. Information, Education and Communication (IEC) strategies are behavioural drivers as people have limited retention and can respond to regular environmental cues given through IEC tools (OECD, 2019). IEC tools are seen as cost-effective methods to bring about changes in the attitudes and behaviours of people. Specifically, there is ample research around the behavioural impacts of mass media. For example–Gerber, Karlan and Bergan (2009)⁵ in an experiment conducted in the US find that exposure to newspapers influence voter perceptions and turnout. Wakefield et al (2014)⁶ conduct an analysis to show that media campaigns can influence health related behaviours of individuals.

Commonly used IEC tools across sectors include posters, leaflets, banners, radio broadcasts, television spots, social media, SMS campaigns, wall paintings, documentary films, pamphlets, booklets, etc. For instance, Health and Women and Child Development sectors use IEC tools extensively to spread health, nutrition, women empowerment and child protection related information. Multi-media campaigns are organised to raise awareness about health issues (such as maternal and child health, reproductive health, communicable diseases, etc.), schemes (such as Ayushman Bharat, Anaemia Mukt Bharat, POSHAN Abhiyaan, etc.), women empowerment related issues (such as sex ratio at birth, challenging son-centric rituals, preventing child marriage, etc.).

4 https://dash.harvard.edu/bitstream/handle/1/16205305/shortguide9_22.pdf

5 <https://www.aeaweb.org/articles?id=10.1257/app.1.2.35>

6 https://www.researchgate.net/publication/47382474_Use_of_Mass_Media_Campaigns_to_Change_Health_Behaviour

III. Leveraging the cultural and social contexts and networks of Frontline Workers

Leveraging the cultural and social contexts is a behavioural driver as people are more likely to behave in a way which is in conformity with the existing social norms (OECD, 2019). Often, gram panchayats, Self Help Groups, ASHA Workers and AW workers are important drivers of behavioural change. They not only help in generating scheme/issue related awareness but also the delivery of various services such as in Pradhan Mantri Awas Yojana, National Health Mission, Deendayal Antyodaya Yojana (Rural), etc.

Globally, community workers have been used for awareness generation, sensitisation and delivery of services. In countries such as Bhutan, Bangladesh, Brazil, Iran, etc. community workers have been mobilized and trained for the successful delivery of health care, nutrition and education related services (Bhutta et al, 2010)⁷. In rural India ASHAs/AWWs/ANMs are important sources of health and nutrition related information and help in reinforcing appropriate child care and rearing practices. Similarly Self-Help Groups (SHGs) have played an important role in the social, economic and political empowerment of women and providing a platform for linking livelihood actions with sectors such as agriculture, horticulture, health, etc.

IV. Community Based Events / Programmes and Initiatives

Programmes and initiatives or community-based events which mobilize and engage communities are also commonly used as a tool of behaviour change. They aid in awareness generation and sensitization of the citizens. Under the Pradhan Mantri Awas Yojana-Urban (PMAY-U), the Angikkar campaign is organised to encourage households to adopt sustainable and healthy practices. To promote holistic planning approaches in cities, challenges such as the Cycle4Change and Nurturing Neighbourhoods are organized. Under the National Health Mission “Health days” and peer education programs are organised. Other health and women and child development events organised are the Poshan Maah, Poshan Pakhwara, Naari ki Chaupal, Beti Janmotsav, etc. Even under the education sector, programs such as the Praveshotsav are organised to help improve enrolments, reduce dropouts, etc.

V. Training and Capacity Building

Training and capacity building activities are undertaken both for service providers and beneficiaries to bring about behavioural changes. Frontline workers are trained to enhance their understanding on various gender related issues so that they can contribute towards sensitising the community. They are also given training on Social and Behaviour Change Communication (SBCC). Nutrition related training programs are conducted for all kinds of stakeholders ranging from policy makers to field functionaries. Training sessions are organised for farmers to disseminate information on the kinds of crops to grow, how and when to grow such crops, etc.

Box 2: Commonly used behavior change tools

Commonly used / popular behavioural change tools are mass media, network of Frontline Workers, Incentives, Community Based Events, Training and Capacity Building.

7 https://www.who.int/workforcealliance/knowledge/publications/alliance/Global_CHW_web.pdf

FUND ALLOCATION

In terms of allocation of funds towards behavioural change channels and specifically towards IEC, there is limited data availability. Of the available data, **only a few schemes have funds dedicated towards the behavioural channels.** The Mahatma Gandhi National Rural Employment Guarantee Scheme, Swachh Bharat Mission – Urban, Deendayal Antyodaya Yojana – National Urban Livelihood Mission, Sarva Siksha and Rashtriya Madhyamik Siksha Abhiyan, Saakshar Bhaarat, Poshan Abhiyaan, Beti Bachao Beti Padhao and National Health Mission are some of the schemes which have funds allocated towards IEC activities.

OTHER INSIGHTS

- ⦿ There is a lack of monitoring and evaluation in behaviour change tools, such as IEC and SBCC, which may inhibit the effective mapping of behavioural change interventions to the desired impact. Schemes have an opportunity to strengthen their behaviour change interventions and initiatives by mapping the impact of the channels to specific output and outcome indicators.
- ⦿ IEC and Frontline Workers are major tools used for influencing behavioural changes through awareness generation and sensitisation. In general, there seems to be heavy reliance on communication and awareness generation activities to bring about behavioural changes. An additional focus on conversion of the information into action is also required. Merely providing information can't ensure behavioural changes because of the potential gap between intention and action. As examined by Corace and Garber (2014)⁸, “while knowledge about vaccines is a good first step, it does not necessarily increase vaccine uptake.” Likewise, Gupta (2017)⁹ through a randomized control trial to measure the impact of providing information and application assistance to the beneficiaries of the Widow Pension Scheme shows that merely providing information does not increase application rates as much as providing information along with application assistance does. Therefore, while IEC is an effective information generation tool, it must be accompanied with other behavioural change channels which help in converting information into action.
- ⦿ There is an opportunity for behavioural change perspective to be adopted by the jobs and skills, and social inclusion sectors. For water resources and, environment and forest sectors behavioural change could be used more extensively, as seen through global examples.

8 <https://pubmed.ncbi.nlm.nih.gov/25483478/>

9 https://scholar.harvard.edu/files/sarikagupta/files/gupta_jmp_11_1.pdf

INTRODUCTION TO BEHAVIOURAL INSIGHTS¹⁰

All public policies are designed with the intent to maximize their impact on human life. Depending on the problem they are out to tackle, policy makers use different types of policy instruments based on their assessments of feasibility and impact. We interact with these policy instruments on a daily basis, which shapes our actions. Drunk driving incurs criminal penalties, but not saving for retirement won't put you in jail. You get tax deductions for donating to charitable organisations, but not for choosing to have salad for dinner. Taxes on cigarettes discourage smoking, but pre-natal sex determination is outrightly banned.

The Economic Survey of India 2019-20¹¹ attempted to categorize these various types of policy instruments, placing them on a spectrum of policy making based on their influence on behavior. On one extreme are policies which are “laissez faire”, which literally translates into “allow to do”. These are areas of human life where policy does not directly intervene, such as your choice of dinner, your favourite colour, or which holiday destination you opt for. On the other extreme are policies that mandate people to act in a socially desirable manner. The ban on practices such as child labour and dowry are examples of mandates. A policy instrument “softer” than mandates is incentives, which attempts to alter the costs on certain behaviors. Cigarette smoking is costlier with taxes on tobacco, not using renewable energy is costlier when renewable energy is subsidised.

The focus of this section is the fourth policy instrument which lies in between these classes of policies: Nudges. Simply put, nudges are means of encouraging or guiding behaviour but without mandating it. Nudges are behaviourally focused policy instruments that “gently steer” behavior in a particular direction while preserving people’s liberty to choose. The way they achieve this is by altering aspects of the choice architecture without forbidding any options or significantly changing the economic incentives.



Figure 1: Nudges in the spectrum of policy making

(Source: Economic Survey of India 2019-20)

Nudges can change the choice architecture in various ways. A predominant way is changing the default. For example, countries such as Austria consider every individual an organ donor at the time of death by default. Those who do not wish to donate their organs can follow a simple process of

¹⁰ Please note that this section “Introduction to Behavioural Insights” is borrowed entirely from a working draft of “Behavioral Insights in Indian Policymaking: Vision Document by the Behavioral Insights Unit of India”, scheduled to be published in 2022.

¹¹ https://www.indiabudget.gov.in/budget2019-20/economicsurvey/doc/vol1chapter/echap02_vol1.pdf

opting out. The result is that more than 90% of people are registered to donate their organs. In countries which instead have an “opt in” system for organ donation, for example U.S. and Germany, fewer than 15% of people are registered to donate¹². People tend to stick with the default option, because making an active choice incurs cognitive costs. This is especially pertinent when we think about the number of choices we are faced with every day, each with their own albeit small cognitive costs. Thus, a lot of opt-in policies can have low impact not because of a lack of will, but a lack of action.

Nudges can be an effective tool for policy making when the problem involves people’s failure to follow through on their intentions- or a gap in knowledge to form an intention in the first place. The rest of this paper will explore different kinds of behavioral interventions that hold utility in policy making, gains to the government from the use of these interventions, designing and measuring the impact of these interventions, and their relevance and application in different sectors of policy making.

1.1 RELEVANCE OF BEHAVIORAL SCIENCE IN POLICY MAKING

Each of us has implicit biases that often drive our perception and decision making. This is at the centre of the distinction that behavioral economics makes between “Humans” and “Econs”. A few decades ago, policymakers relied predominantly on the idea that the target for their policies were perfectly rational humans (which is often simplified as a straw man called “homo economicus”) who, quite like robots, will make predictable decisions all with the purpose of maximizing their utility. This insight would predict that all farmers in Kenya will definitely buy fertilizer because it increases their yield, all residents in Ugandan villages prone to malaria will definitely sleep under mosquito nets (after all, “No one *wants* to get sick!”), and people in parts of India will automatically stop open defecation once toilets are built in their neighborhood.

Consider the small exercises in Boxes 3 and 4.

Box 3: Small Exercise (Part -1)

Answer the following questions:

- ◉ Which of the two is a more frequent cause of death in India: road traffic accidents OR diarrhoea?
- ◉ Which of the two is a more frequent cause of death in India: neonatal disorders OR suicide?

The correct answers are diarrhoea and neonatal disorders, respectively. But studies have shown that respondents’ health estimates are warped by media coverage- stories of suicides and road accidents are covered more often by the media. This is called Availability bias: beliefs about events are formed on the basis of which examples come to mind most easily. This has a huge impact on people’s risk assessments. For example, women might perceive themselves to be at a lower risk of having anemia or breast cancer than they actually are, or people might overweight their risk from road accidents and underweight their risk of heart disease.

¹² <https://sparq.stanford.edu/solutions/opt-out-policies-increase-organ-donation>

Box 4 Small Exercise (Part -2)

Imagine that you are asked to retain a list of 10 digits for two minutes. You are told that remembering the digits is your top priority.

- These are the digits you have to remember: 5 7 4 8 9 3 4 7 5 8
- Attempt to commit them to memory and then read on.

While your attention is focused on the digits, you are offered a choice between two meals: a chocolate cake, and a salad. Which do you pick? Evidence suggests that people are more likely to select a tempting chocolate cake when their mind is engaged in a demanding cognitive task. Both self-control and cognitive effort are forms of mental work.

Departing from the standard neoclassical economic model, these can be explained if we see people as imperfectly rational actors. Notice the distinction between irrational and imperfectly rational. An irrational actor will always go against their costs and benefits; an imperfectly rational actor will account for costs and benefits, but also additional factors, in their decision making. Behavioral science seeks to investigate what these additional factors are, and as a result provides insights for real-world policy making for healthcare, savings, agriculture, sustainability, business, and many other aspects of public policy. It works with the assumption that the targets of public policy are “humans” or homo sapiens rather than “econs” or the straw man Homo Economicus. This reflected aptly in the chapter on behavioral economics in the Economic Survey of India 2019-20, which carried the title “Policy for *Homo Sapiens*, Not *Homo Economicus*”.

Two Systems of Thinking

At the heart of behavioral science is the concept of two systems of thinking in our brain that drive decision-making:

- System 1, also known as the automatic system which operates automatically quickly and associatively with little or no effort and no sense of voluntary control. For example, complete the following phrases:

Bread and _____ ; OR $2 + 2 = \underline{\hspace{2cm}}$

- System 2, also known as the reflective system, which is slow, deductive, rule-following, self-aware and allocates attention to the effortful mental activities that demand it, including complex computations. Operations of this system require attention and are disrupted when attention is drawn away. For example, answer this:

$177 \times 244 = \underline{\hspace{2cm}}$

For the purpose of policy making, two insights regarding these systems of thinking are particularly relevant:

- System 1 thinking process is sometimes called heuristics (mental shortcuts) that can lead to biases, which makes people prone to often unconscious systematic errors in their decisions.
- System 1 has more influence on behavior when System 2 is busy (i.e, we are engaged in a cognitively straining task). People who are cognitively busy are more likely to make errors in decision making, or self-defeating choices.

Consider the exercises in Boxes 5 and 6.

Box 5: Small Exercise (Part-3)

Imagine that you are asked to retain a list of 10 digits for two minutes. You are told that remembering the digits is your top priority.

- These are the digits you have to remember: 5 7 4 8 9 3 4 7 5 8
- Attempt to commit them to memory and then read on.
- While your attention is focused on the digits, you are offered a choice between two meals: a chocolate cake, and a salad. Which do you pick?

Evidence suggests that people are more likely to select a tempting chocolate cake when their mind is engaged in a demanding cognitive task. Both self-control and cognitive effort are forms of mental work.

Box 6: Small Exercise (Part-4)

Consider the two questions below:

- When it comes to productivity, are you a morning person or a night person?
- What time of day are you most likely to give in to tempting foods?

Research shows that the self-control of morning people is impaired at night; and the reverse is true of night people. This is because self-control requires attention and effort, and hence is one of the tasks that System 2 performs. A tired System 2 allows us to give in to temptation.

TRY IT! In the following days, try to notice changes in your decision-making before and after meals.

A study of parole judges in Israel showed that decisions were affected by whether cases came up before or after a meal break. The proportion of approved parole requests spiked after each meal, with 65% of requests granted. During the two hours or so until the judges' next feeding, the approval rate dropped steadily, to about zero just before the meal. Tired and hungry judges tended to fall back on the easier default position of denying requests for parole.

This finding holds an especially important implication for decision-making of those living in poverty. A series of experiments by researchers¹³ show that living in scarcity taxes mental bandwidth, reducing cognitive capacity and executive control in decision-makers. This “bandwidth tax” explains a number of confounding kinds of self-defeating behavior among those living in scarcity of resources – from the failure of poorer farmers in Africa to weed their fields despite having the time and incentive to do so, to the failure of low-income Americans to take diabetes drugs and other medications, or to eat more healthily even when it’s financially viable. In field experiments¹⁴ researchers found that sugarcane farmers performed worse on cognitive tasks before a harvest than after. They conclude that this cannot be explained merely by differences in time available, nutrition, work effort, or even stress. Instead, it appears that poverty itself reduces cognitive capacity. Poverty-related concerns

13 <https://psycnet.apa.org/record/2013-37402-000>

14 https://scholar.harvard.edu/files/sendhil/files/976.full_.pdf

consume mental resources, leaving less for other tasks. Thus, stress and poverty have a negative impact on people's mental capacity to process information and make rational decisions.

Social policies often rely on active decisions by those living in poverty, such as saving in bank accounts, enrolling in pension schemes, immunising children, pregnant mothers taking iron and folic acid tablets and getting the recommended number of ante-natal care check-ups. Behavioral science shows us that not only are all humans prone to behavioral biases, those living in poverty might also be constrained by the limited cognitive bandwidth to independently evaluate policies beneficial to them.

While defeating the traditional model of humans as perfectly rational actors, behavioral science informs insightful interventions that can be incorporated into policies to ensure greater impact for imperfectly rational actors. For example, researchers carried out an intervention to increase fertilizer use among Kenyan farmers¹⁵. A field officer visited farmers immediately after harvest, and offered them an opportunity to buy a voucher for fertilizer, at the regular price, but with free delivery. The farmer had to decide during the visit whether or not to participate in the program, and could buy any amount of fertilizer. They found that offering free delivery to farmers early in the season increases fertilizer use by 47 to 70 percent. Free delivery nulled the effects of procrastination, by saving farmers a 30-minute trip to town to buy fertilizers. Moreover, it asked them to make an immediate decision to commit money to fertilizer, thereby diminishing the effect of limited self-control and present-biased spending that they can be prone to during other times.

A large body of literature has emerged over the years to provide behavioral insights for policy making across sectors. Around the developed and developing world, there is an increasing sense of recognition amongst policy makers that policies that are designed for Econs will always produce limited impacts in a world of imperfectly rational Humans.

1.2 BENEFITS OF “BEHAVIORALIZING” POLICIES

Governments around the world aim to increase social spending through efficiently designed policies that will achieve high social impact. Yet, a myriad of well-intended policies often suffer from low enrolment rates or lower than expected impact. These policies are not only costly for governments, they also incur the temporal costs of slow progress on desired indicators. When policies don't reach optimal impact, many governments resort to higher outreach and incentives, which again incur high costs.

Behavioral science offers low-cost alternatives for increasing the effectiveness of policies. The gains from these interventions are much larger than their cost. At times, these can be gains in terms of literal lives saved. Take the case of opt-out organ donation in Austria, which presumed everyone to be an organ donor leading to 90% registration for organ donation. When compared to the 15% registration for organ donation in opt-in countries such as Germany, this translates into a massive number of lives saved.

Another example of behavioral interventions to save lives is nudges for road safety. The city of Ahmedabad, India painted optical illusions that look like roadblocks, on highway roads near school zones¹⁶. Highway officials reported that as a result, accidents have been eliminated in those dangerous traffic areas. From a distance, the illusion of a roadblock in the middle of the highway activates our

¹⁵ <https://economics.mit.edu/files/6170>

¹⁶ <https://www.digitaltrends.com/cool-tech/optical-illusion-speed-bumps-ahmedabad-india/>

System 2 and forces us to pay attention. As drivers approach closer, they realise that it is an optical illusion and hence they don't brake completely or stop the flow of traffic.



Figure 2: Optical illusion nudges for road safety in school zones in Ahmedabad, India

Behavioral interventions also offer large gains in monetary savings to governments. Consider the example of license plate sticker renewal in Ontario, Canada¹⁷. Ontario used to spend \$35 million (INR 203.9 crores) annually on infrastructure needed for in-person license plate sticker renewals, because only 10% of consumers renewed online. After an intervention to make the online renewal option and gains from online renewal salient through use of a different colour format for online renewal information in the letters mailed to consumers, online renewals went up by 41.7%. The increased use of the online renewal service during the eight-week period of the experiment saved the government approximately \$28,000 (1.6 crore INR), even after factoring in the costs for online renewal. The researchers projected that if the intervention was adopted permanently in Ontario, approximately \$612,000 (35.6 crore INR) would be saved annually, and this gain would be achieved at virtually zero cost to the government.

Consider the exercise in Box 7.

Box 7 Small Exercise (Part 5)

The city of Hyderabad wants to increase tax compliance among residents. Which of the following statements do you think will be more effective in their information campaign?

- a. "Your taxes go towards various good works, including education, police protection, and fire protection."
- b. "Not filing taxes will make you liable for a fine of Rs. 20,000."

¹⁷ https://behavioralpolicy.org/wp-content/uploads/2017/05/BSP_vol1is2_-Castelo.pdf

- c. “90% of Hyderabad residents file their taxes regularly and on time.”
- d. “If you have questions or face any problems filling out your tax form, you can dial the city-wide tax helpline 311 for assistance.”

Studies across contexts show that one of these interventions has a significant effect on tax compliance, and that is option C. Research shows that taxpayers are more likely to violate the law when they believe that the level of compliance is low. When informed that the actual compliance level is high, they become less likely to cheat. This principle of social conformity shows that desirable or undesirable behavior can be increased by drawing public attention to what others are doing.

Behavioral interventions can directly increase government revenue through their use in tax compliance. A great example of this comes from the UK, which implemented a social influence nudge wherein people were informed that the majority of citizens pay their taxes on time¹⁸. The intervention led to a 15% increase in the percentage of British citizens who paid their overdue taxes. During a 23-day experiment involving just 100,000 taxpayers, this resulted in an additional £9 million (INR 91 crores) in government revenue. It has been estimated that this intervention could bring in approximately £160 million (INR 1618.9 crores) at very low cost when implemented countrywide.

Finally, behavioral interventions also produce gains in welfare, by amplifying the impact of policies. Consider the example of nudges for conservation of water and/or electricity. Many nudges are also designed to obtain gains in efficiency, such as simplification of forms to enroll in government programs, or simplification of procedures by reducing barriers, such as for opening bank accounts. Often, these gains from efficiency translate into improved welfare for individuals- such as financial inclusion.

Thus, there is a clear benefit- a worthy return on investment- to governments in integrating insights from behavioral science into their policies. The gains received in terms of government savings, lives saved, societal welfare, and efficiency make nudges an effective low-cost high-impact tool. Before large amounts of funds are spent, behavioral science can help inform low-cost yet nuanced tweaks in program design, implementation, and communication which can increase potential impact. Moreover, incorporation of behavioral insights into existing programs can increase their efficiency thereby improving the value for money. Finally, the process of using a behavioural lens for policy making can also help challenge biases and assumptions on the part of government officials and practitioners, by providing them unique insights into the user experience of the target group, thus improving service delivery.

1.3 BEHAVIOURAL INSIGHTS IN STAGES OF POLICY MAKING

A huge potential exists to use behavioural insights throughout the policy making cycle as evidenced by comprehensive research from the OECD¹⁹ which included a survey of 60 nudge units from 23 countries and two international institutions, as well as a collection of over 100 case studies on the application of behavioural insights to policy in 11 policy sectors. The research shows that “behavioural insights appear to be used primarily at a relatively late stage in the policy process, mostly to fine-tune and improve implementation and compliance when a regulation is already in place. This is often

18 http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2015/07/BIT_FraudErrorDebt_accessible.pdf

19 <https://www.oecd-ilibrary.org/sites/9789264303072-10-en/index.html?itemId=/content/component/9789264303072-10-en>

to fill an implementation gap that is in part created by failing to properly consider implementation challenges in the design and early stages of development of policies and regulation”. (See Figure 3 below). The ultimate objective is to find innovative ways to integrate a more human-centred approach in public policymaking. As the diversity of the citizenry increases and more tools become available at the disposal of citizens and governments, this approach will become crucial.

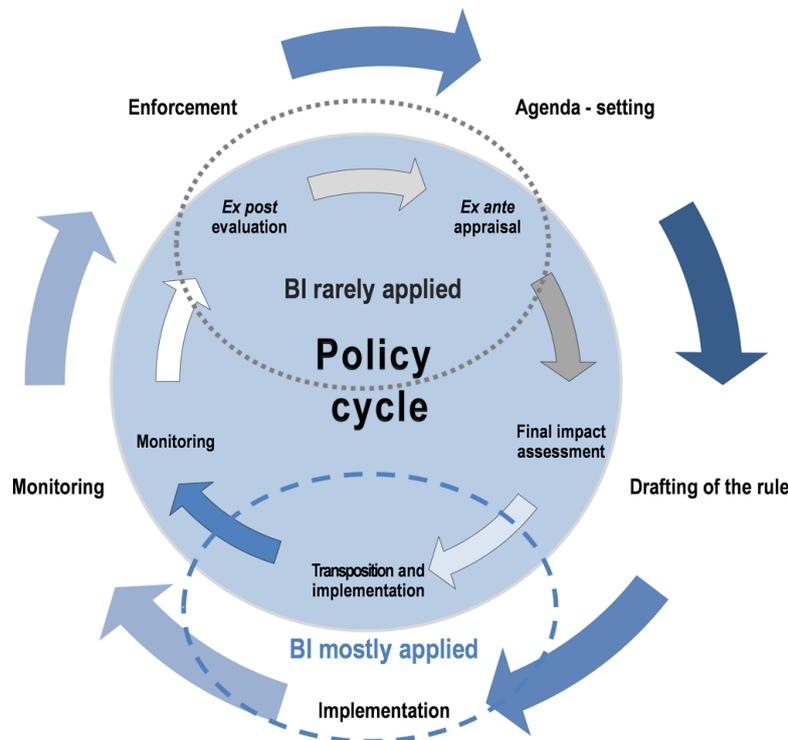


Figure 3: There is potential to integrate BI into all stages of policy making

1.3.1 Behavioural Insights in Problem definition or Ex-Ante Policy Analysis:

Behavioural insights can play an important role in informing the problem definition by governments and regulators, before any interventions are considered. They can help diagnose citizens' psychological impediments and analyze how they interact with traditional market failures (such as information asymmetry), government service delivery, and the social context in which they make their decisions, among other things²⁰. Integrating lessons from behavioural science into ex-ante appraisal of policy (i.e. problem definition or problem targeting stage) can help better define the problem at stake, identify the behavioural barriers that can potentially undermine the effectiveness of the policy solutions under consideration and collect data to understand what works, from a user perspective. To diagnose policy problems, this data can be used to discover which behavioural barriers are driving decision making and undermining the effective implementation of policies and regulations, and consequently the achievement of intended policy objectives. This can help the next stage- policy design- better incorporate those lessons while deciding which outcomes are pursued²¹.

At this stage, it is also important to have a diverse team of collaborators who can draw from theories in various disciplines such as economics, psychology, neuroscience, sociology and social anthropology thus contributing to an innovative behaviourally-informed policy design. Not only

²⁰ <https://onlinelibrary.wiley.com/doi/abs/10.1111/psj.12202>

²¹ <https://www.oecd-ilibrary.org/sites/9789264303072-10-en/index.html?itemId=/content/component/9789264303072-10-en>

academically diverse but also contextually diverse teams are important, to enable the understanding of various intersectional social identities (caste, gender, class, linguistic, sexual, etc) and how they impact decision making.

1.3.2 Behavioural Insights in Policy Design

The impact of behavioral insights can be enhanced by shifting from merely changes in implementation (which comes at a later stage), such as using a phone call to prompt individuals to fill out a form, to changes in design, such as eliminating the need for the form entirely. Behavioral science insights can certainly speed program adoption and the delivery of services during implementation, but they can also be built into the way programs are developed. For example, take the example of Singapore in reducing traffic congestion. With an “area licensing scheme” introduced in 1975, where drivers had to pay a fixed fee for a day or month to buy an area license to drive in congested areas, there was an increase in congestion. Individual drivers tended to continue and even increased the frequency of driving because they had already paid for the license (called “sunk cost bias” in behavioural science). Moreover, car owners who had come to accept the area license fee as part of the cost of driving in Singapore, were driving more, rather than less. Thus, when the policy was being reconsidered, this time behavioural considerations were taken into account. The licensing fee was changed to a pay-as-you-use basis, which also gave policymakers the flexibility to set congestion charges based on prevailing traffic conditions. Further, this cost of using a congested road was made more salient with monitors on displaying real-time license charges- every time a driver passes by, they are reminded of the cost of road usage by an audible beep. This worked in managing traffic congestion²².

1.3.3 Behavioural Insights in Policy Implementation:

Once a behaviourally-informed policy design is in place, it becomes more imperative to consider the operationalizing of the envisioned interventions. Within governments, there can often be a tendency to start discussions on a policy problem at a high level. However, application of behavioural insights to the problem means drilling down to very specific issues, behaviours, and mechanisms. In some cases, this can mean small tweaks to “traditionally-informed” designs; in other cases, it could mean targeting specific, relevant behaviours with a theory of change about how they relate and contribute to the overarching policy objective. While this might result in what may seem a narrow, ‘downstream’ solution, the very nature of behavioural insights and their evaluation process requires this specificity. For example, let’s take the policy problem of helping vulnerable families be more financially independent. Several factors impact this problem, including education levels, employment and family structure. Let’s say we decide to focus on sustaining employment as a possible area for intervention. The behavioural interventions then could be as specific as the design of job consultancy, the appointment process at career centres and follow up programmes to help employable members of the family stay in their jobs. These ‘last mile’ solutions offer the specificity required to test the impact of the interventions on behaviour²³.

1.3.4 Behavioural Insights in Policy Evaluation or Ex-Post Policy Appraisal:

This stage can involve better evaluation of existing policies through use of behavioural science and models of human decision-making, with a view to “behaviouralizing” them. It can also involve the

22 <https://www.csc.gov.sg/articles/nudges-why-how-what-next>

23 <https://www.csc.gov.sg/articles/nudges-why-how-what-next>

evaluation of an existing behaviourally informed program with considerations for scale and adapting to different contexts. This is crucial for evidence-based behavioural insights. The full potential of behavioural insights requires robust evaluation and complementing it with other policy tools such as design thinking, experimentation and data analytics. Sound data analytics can be used to examine the existing problem more closely and specify where root causes lie. Design thinking and qualitative research can complement established behavioural theories to design policy options, while experimental methods such as Randomized Control Trials and 'lab-in-the-field' or artefactual field experimentstest what works and what does not. Together, they provide the evidence that policymakers need to design user-centric policies. Without such scientific rigour, the discussion around behavioural interventions will remain at a philosophical level²⁴.

This stage also involves refining the outlined intervention from the implementation stage based on the learnings about effect. Knowing that a personalized SMS can be an effective nudge is a good starting point but it is important to refine the key parts: How it should be written, who should be seen sending it and when it is sent out. Working through the details of a behavioural intervention is an art, demanding acumen, broad consultation and an open mind. Having the discipline to test the hypothesis using experimentation is what distinguishes evidence-based interventions from gut-based applications²⁵.

Finally, there should be due consideration for collating lessons both of success and failure at this stage. This is important for creating a fail-safe environment, because not all interventions will produce impact, no matter how well-designed or well-implemented. Behavioural science, like any other science, needs an environment that is tolerant of failure so that important lessons can be learnt. For example, the Singapore government ran an experiment to test the framing of reminder messages to self-employed people to make mandatory health insurance contributions. Infographics were included in the letter, knowing the role they can play in explaining difficult government policies. However, results showed that the letter with infographics significantly reduced contributions. The team hypothesised that using cartoons may have trivialised the subject matter, which was about encouraging compliance. Instead of being viewed as a 'failure', this result provided a valuable lesson, and helped the government better identify what works in different contexts²⁶. Thus, a learning mindset, one rooted in curiosity and growth, is imperative at this stage to ensure the lessons learned are internalized within institutions successfully.

24 <https://www.csc.gov.sg/articles/nudges-why-how-what-next>

25 <https://www.csc.gov.sg/articles/nudges-why-how-what-next>

26 <https://www.csc.gov.sg/articles/nudges-why-how-what-next>

BEHAVIOURAL INSIGHTS IN GOVERNMENT OF INDIA

In this section we present a sectoral analysis through a behavioural change lens. For each sector we assess if there are any behavioural change channels and the specific tools and funds used therein. The 10 sectors presented below include–Rural Development, Urban Development, Health, Women and Child Development, Human Resource and Development (Education), Jobs and Skills, Agriculture, Animal Husbandry and Fisheries, Social Inclusion, Water Resources and Environment and Forest.

2.1 RURAL DEVELOPMENT

The Department of Rural Development (DoRD) envisions sustainable and inclusive growth for all through livelihood enhancement, building infrastructure for growth and provision of social safety net. Schemes such as the Pradhan Mantri Gram Sadak Yojana (PMGSY), Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Deendayal Antyodaya Yojana (DAY), Indira Gandhi Old Age Pension Scheme, Annapurna Scheme, etc. have been implemented to achieve this objective.

Behavioral science can be applied to large-scale rural development programs. Using behavioural science can contribute to making a public service program/intervention effective and sustainable by using mechanisms that reduce the intent-to-action gap. Tools used to bring about behavioural changes in this sector are:

1. **Defaults, Reminders, Prompts and Incentives:** For increasing the saving base by the women led SHG programmes in India, rural women are sent messages regarding the ways in which savings *can make a difference to their household emergency needs*.
2. **Mechanisms which take advantage of the social and cultural context:** In the rural development sector, contextual behaviours are also shaped by social factors, such as people's cultural beliefs and their perceptions of how socially acceptable particular behaviours are in their community. Mechanisms which take advantage of the social and cultural context can be used to *bring about changes on a large scale since people tend to "align with the behaviour of others and what others think is appropriate"* (OECD, 2019).

The interventions around *social groups, interpersonal interactions, social norms, and moral norms* drive home an explicit message that is desired for the programs. Social groups may include community or other support groups who may be used to apply social pressure or leverage social capital in order to influence people's practices and behaviours. For instance, under the Deendayal Antyodaya Yojana National Rural Livelihoods Mission (DAY – NRLM) the Community Resource Persons (CRPs) have proved to be key social motivators by providing critical inputs on various knowledge, skills and related behaviours with culturally appropriate social measures to convert thought process into a sustained habit. The Self-Help Groups (SHGs) have had a significant impact on the social, economic

and political empowerment of women. They have also been useful in dealing with issues such as undernutrition and providing a platform for linking livelihood actions with sectors such as agriculture, horticulture, health, etc.

1. **Media:** Sources of communication such as radio, television, internet, posters, leaflets, paintings, pamphlets, manuals, etc. are used for awareness generation and sensitisation activities. For example—Radio and television have been used to disseminate information on *various innovations in agricultural technology*, across farmers, entrepreneurs, extension workers and other stakeholders. In MNREGS, key messages regarding the scheme and its entitlements to various target groups are spread through wall paintings, door-to-door programmes, posters, leaflets, stickers, etc. Under the Pradhan Mantri Gram Sadak Yojana, awareness raising channels recommended in the scheme guidelines include *publication of pamphlets, audio-visuals, interactive programmes, etc.*
2. **Programmes and Initiatives:** Programmes such as the Rozgar divas (As a part of MNREGS, Rozgar Divas is organized in every Gram Panchayat every month on a fixed day to capture the demand of the ones who missed out on the opportunity of applying for work) are organised as a part of awareness generation initiatives.

While IEC tools are an integral part of many rural development initiatives, there is limited information on the budget allocated (if any) towards IEC activities and their delivery. Specifically, district and block level officials, SHGs and various forms of media emerge as important IEC tools for awareness generation and sensitisation.

2.2 URBAN DEVELOPMENT

The objective of urban development initiatives is to achieve balanced development across all aspects of life of an urban resident that includes physical, social and economic aspects in a comprehensive manner. The five core missions (amongst other schemes and initiatives) in the urban development sector are: Smart Cities Mission (SCM), Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Pradhan Mantri Awas Yojana–Urban (PMAY–U), Swachh Bharat Mission–Urban (SBM–U) and National Urban Livelihood Mission (NULM).

SBM–U is the most extensive behaviour change campaign that aims to make India a clean nation. It lays emphasis on behavioural change. Other than SBM–U most missions and schemes under the urban development sector also use behaviour change tools. The tools commonly used are:

1. **Programmes and Initiatives:** Initiatives which require community engagement are organised to bring about social behavioural changes. Such social cohesion efforts help in community-wide development. For instance, under PMAY–U, the Angikaar campaign aims to bring about a social behavioural change by encouraging households to adopt sustainable and healthy practices to lead better lives. Under the SCM, people-oriented initiatives such as the Cycles4Change challenge (SCM), Nurturing Neighbourhoods challenge (SCM) and Streets for People Challenge are organised to promote holistic planning approaches in cities across the country. As a part of the Deendayal Antyodaya Yojana–National Urban Livelihood Mission, the DAY–NULM Pakhwada and Shehri Samridhi are organised to generate awareness regarding the mission as well as its impact. Even under the SBM–U, awareness generation campaigns are carried out to sensitise citizens on toilet usage. The Mission has developed and adopted various engagement models for proactive citizen outreach and participation such as the Swachh Survekshan and Swachh Manch (more details in Box 6).

Box 8: Engagement models–Swachh Survekshan and Swachh Manch

- **Swachh Survekshan:** Swachh Survekshan aims to rank the cities annually based on their cleanliness status, fostering a spirit of healthy competition among cities. The survey also encourages large -scale citizen participation and uses Citizen Feedback as one of its key data sources. Between 2016-2020, a total of 4.8 crore citizens have participated in the Swachh Survekshan surveys .
- **Swachh Manch:** The Swachh Manch is a web citizen engagement platform that allows a) stakeholders to create/invite/participate in volunteering opportunities; b) uploads photographs as evidence of citizens and organisations participating in the initiatives and c) record the number of hours volunteered as an acknowledgement of citizens'/ organisations' efforts and contributions to the cause of 'swachhata' (Press Information Bureau, 2019). A total of 2.94 lakh events have been posted on the portal, 1.86 lakh citizens have signed up as volunteers who have contributed a total of 46.55 lakh volunteering hours to the Mission (MoHUA, Swachh Manch, 2020). Furthermore, a total of 1.52 lakh Swachhata Hi Seva 2019 events have been posted with total participation from 4.15 crore participants (ibid.).

2. **Training:** Trainings for stakeholders on the supply side are organised so that they can further contribute in program implementation and bring about behavioural changes. The nature of training courses varies from videos to case studies to classroom-based intending to strike a balance between theoretical constructs and application of practical use-cases. For example–under the Deendayal Antyodaya Yojana (NULM) gender and social inclusion are important capacity-building modules for SHGs that promote discussions and dialogue on gender equality concerns, shelter managers are sensitised on the issues of urban homelessness to enable them to empathise with residents and provide essential services to meet the needs of the residents.
3. **Media:** Missions such as the Swachh Bharat and Deendayal Antyodaya Yojana (NULM) use media as a way of awareness generation. The SBM uses audio-visual messages, thematic drives, collaborations with comic book publishers, newsletters, etc. to create awareness regarding cleanliness. The DAY-NULM releases newsletters which document best practices and innovative solutions that other states/ cities can replicate.

One of the most used behavioural change tools in the urban development sector are programmes/ initiatives/campaigns which target community wide changes through a people centered and community engagement approach. Generating behavioural changes through IEC is a crucial objective of the Swachh Bharat Mission. These initiatives have contributed to enhanced flow of information to the citizens and increased their awareness levels.

2.3 HEALTH AND FAMILY WELFARE

While public health falls under the State list, the Ministry of Health and Family welfare plays a critical role in shaping the sector through National Health Policy, centrally sponsored schemes, central sector schemes, and institutions for research & development.

The Government has placed focus on awareness generation and sensitisation for which the major tools employed are:

1. Media

- a. The initiatives taken by the Government in the field of IEC include awareness about the National Health Policy (2017), various national schemes and programs and National Mental Healthcare Act (2017) through print, outdoor and social media such as leaflets, flyers, brochures, radio, television, YouTube, Facebook, Twitter, etc. Multi-media campaigns are organised for schemes such as Ayushman Bharat, Immunization, TB management, Anaemia Mukht Bharat, Integrated Diarrhoea Control Fortnight (IDCF), Breastfeeding Week, Tobacco Control, etc. They are also organised for awareness about maternal and child health and nutrition, communicable diseases, good hygiene and sanitation practices, family welfare and adolescent, reproductive and sexual Health, non-communicable diseases, HIV/AIDS prevention and control, etc.
 - b. The Ministry of Health has partnered with the Directorate of Field Publicity (DFP) to spread awareness about promotive and preventive healthcare of newborns and children, adolescents, expectant mothers, feeding mothers, newly married couples, etc.
 - c. Approval of INR 25 crores has been received by the ministry to radio broadcast on all health issues, especially Dengue and Chikungunya.
 - d. Under the National Leprosy Eradication Program (NLEP) mass media and rural media are used to create awareness and reduce the stigma against leprosy affected people.
2. **Programs and Initiatives:** Programs and initiatives are organised as a way of community engagement to bring about social behavioural changes. For example, under the National Leprosy Eradication Program initiatives like celebration of Rakhi festival with leprosy patients are undertaken. Under the National Health Mission “Health days” and peer education programs are organised.
 3. **Using the network of Frontline Workers:** Frontline workers such as the ASHAs/ANMs/AWWs have been a major source of health information for minority groups. As mentioned under the Rural Development Sector, community groups may be used to apply social pressure or leverage social capital in order to influence people’s practices and behaviours. They are involved in awareness generation activities for maternal and child health and nutrition; communicable diseases; good hygiene and sanitation practices; family welfare and adolescent, reproductive and sexual health; non-communicable diseases; HIV/AIDS prevention and control; and specific vulnerable groups in urban settings (Ministry of Health and Family Welfare, 2015). The Government has focused on community- based distribution of contraceptives by involving ASHAs.
 4. **Incentives:** To reduce the out-of-pocket expenditure (OOPE) as a percentage of the total healthcare expenditure, various programs have been implemented. These programs include free drugs, free diagnostics, free dialysis, free transport services and other incentives to promote service utilization. In 2018, Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana was launched to provide free health coverage to the bottom 40% population.

To increase the accessibility and coverage of health care, there have been improvements in physical infrastructure, road connectivity, transportation services, etc. Accessibility has also been increased with transport facilities like 102/108; Mobile Medical Units (MMUs); and Telemedicine.

Mass media and the network of frontline workers are major sources of information and education in the health sector. These are used by the Government to spread awareness about all types of diseases, various schemes implemented for the citizens, benefits of various health related practices and so on.

2.4 WOMEN AND CHILD DEVELOPMENT

The Twelfth Five Year Plan titled 'Faster, Sustainable and More Inclusive Growth' recognises the primacy of India's women and children, who constitute over 70 per cent of India's population. For an inclusive growth process, the Plan envisions engendering development planning and making it more child-centric. It calls for a structural transformation in all the policies and programmes and not only the ones which directly impact women and children.

The Ministry of Women and Child Development (MoWCD) was constituted to address gaps in State action for women and children and to promote convergence to create gender equitable and child-centred legislation, policies and programmes. The Ministry focuses on empowerment and protection of women and children and ensuring their equitable and holistic development. The schemes of the Ministry are clubbed under two umbrellas viz. Integrated Child Development Services (ICDS) and Mission for Protection and Empowerment of Women (MPEW).

The Mission of the MoWCD includes mainstreaming gender concerns and creating awareness about the rights of women and children. *Awareness generation, sensitisation, behavior change and social norm changes are the foundations upon which the MoWCD's interventions are built upon, and it is an inherent part of all the schemes run by the Ministry.* MoWCD, through its schemes and other interventions tried to address the underlying norms through gender sensitisation, counselling, social and behaviour change communication and creating awareness of women's rights, entitlements and the opportunities available to them.

While behaviour change is an inherent part of most of MWCD's schemes, the Ministry also runs schemes such as POSHAN Abhiyaan and Beti Bachao Beti Padhao, specifically focused on awareness creation, social norms change and behaviour change. Different schemes have varying amounts allocated to IEC. However, there is an absence of a detailed break-up of the budget allocation. A critical mechanism for behaviour change is the mobilisation of communities at the grassroots level. Some of the tools employed are:

1. **Mass Media:** Posters, leaflets, banners, radio broadcasts, television spots, newspapers, magazines, wall paintings, documentary films, pamphlets, booklets, social media, SMS campaigns, bus panels, street plays, etc. are all forms of media which are used by the MoWCD initiatives such as the POSHAN Abhiyaan, Beti Bachao Beti Padhao (BBBP) Andolan and Child Protection Services. Mass media campaigns are organised on issues like maternal health and nutrition, infant and young child feeding practices and menstrual hygiene, sanitation and hygiene. The BBBP scheme is implementing a sustained advocacy outreach campaign with a 360-degree media approach for engaging communities for change of mind-set, improvement in sex ratio at birth, promoting institutional deliveries, challenging son-centric rituals and reversing social norms, preventing child marriage, re-enrolment drives for getting girls back to schools, etc. This nation-wide campaign includes radio spots/jingles in Hindi and regional languages, video spots, e-mailers, community engagement through song and drama, etc.

Under the Child Protection Services, each State Child Protection Society has a dedicated

Program Manager who coordinates all awareness generation activities on child protection issues to change social attitudes and traditional practices like child marriage, female foeticide, discrimination against girl child, etc. The Program Manager is responsible for assessing the IEC requirements of the State and developing appropriate advocacy plans and media strategy on child protection. Materials such as posters and leaflets are created in English, Hindi and other regional languages for awareness generation and sensitization.

2. **Using the network of Frontline Workers:** Frontline Workers such as AWWs/ASHA/ANMs play a critical role in the implementation of women and child related schemes especially in health and nutrition. More often than not, they are the points of contact and are responsible for service delivery. They aid in reinforcing health and nutrition behaviors and appropriate child-caring and rearing practices in the households through *intra-personal communication (IPC) and counselling*. The focus of counselling is on addressing the needs of children under three, through family-based interventions (Home Based New-born Care (HBNC)) instead of centre-based interventions. During the monthly VHND, the AWW is responsible for weighing all children under three years. This gives her an opportunity to interact with the child's caretaker on crucial issues of the child's diet, nutrition and recent morbidity. Identifying the need of each child and providing a situation-specific behaviour change communication based on each child's need is also undertaken. This has the long-term goal of capacity-building of women – especially in the age group of 15-45 years – so that they can look after their health, nutrition and development needs as well as that of their children and families.
3. **Training and Capacity Building:** Training and capacity building of the supply side stakeholders is undertaken for their sensitisation so that they can further spread awareness and sensitise the community/beneficiaries/end users/etc.

For instance, the Food and Nutrition Board (FNB) is engaged in advocacy and sensitization of policy makers around nutrition, nutrition orientation training for program managers and capacity building of field functionaries. Various activities are organised for different target groups for dissemination nutrition-related information and nutrition education of the community.

The NIPCCD supports AWS by conducting training on Social and Behaviour Change Communication (SBCC) for Anganwadi Services Scheme Functionaries. They are also oriented on demand generating message design and selection of media and channels for effective communication. Apart from this several refresher courses for CDPOs/ACDPOs are organised with the main objectives to review the implementation of restructured and strengthened Umbrella ICDS programme in the States concerning various aspects; provide a forum for sharing of experiences in implementing the Umbrella ICDS programme; apprise CDPOs/ACDPOs about the recent developments and trends in Umbrella ICDS programme; update their knowledge in the areas of early childhood care and development including nutrition and health care; and sharpen their communication, counselling and managerial skills.

The Frontline Workers are also trained to enhance their understanding on issues such as declining child sex ratio, gender-biased sex selection, other forms of discrimination against girl child and their social impact. Gender sensitisation initiatives are undertaken by way of integration of gender equality related topics and concerns in the curriculum of education

institutions and in the training strategy of administrative, police, judicial, medical and other training academies.

4. **Programs/Campaigns/Other Initiatives:** Programs/campaigns/other such initiatives are organised as a way of community engagement and mass mobilisation.

Most notably, under the POSHAN Abhiyaan, *Jan Andolan* is identified as one of the critical pillars of nutrition specific behaviour change communication and is aimed at building a mass movement around the adoption of preferred behaviours. Community-Based Events (CBEs) are being conducted for awareness generation on issues like care during pregnancy, infant and young child feeding practices, maternal nutrition etc. Two such events are the *Poshan Maah* and the *Poshan Pakhwara*. Both these events are mobilisation efforts through engagement with elected representatives, door-to-door campaigns and other such activities around themes such as antenatal care, optimal breastfeeding, complementary feeding, anaemia, right age of marriage, hygiene and sanitation, eating healthy-food fortification, etc.

Community mobilization and outreach activities are also undertaken under the BBBP scheme to discuss gender issues through platforms like Naari ki Chaupal, Beti Janmotsav, Mann ki Baat, et.

Behavioral change is the core focus of many of the MoWCD initiatives (especially, for nutrition, child protection and women empowerment). Consequently, behavioural change tools are used extensively as a part of these schemes. However, there is scope for many women protection and safety schemes such as the Swadhar Greh, Ujjawala, OSC and MPV to focus more on behaviour change and sensitisation.

2.5 HUMAN RESOURCES AND DEVELOPMENT

The Human Resources and Development sector has witnessed a plethora of policies and initiatives to improve the overall performance on educational outcomes. The Government support to improving the basic resources available with the education sector in India and in turn improve the overall sectoral performance is mainly through the Centrally Sponsored Schemes of Sarva Shiksha Abhiyan for elementary education, Rashtriya Madhyamik Shiksha Abhiyan for secondary education and partly for higher secondary education and Centrally Sponsored Scheme on Teacher Education (CSSTE) for teacher education. The primary outcome of all the initiatives in the education sector was to improve the performance of India on the pillars of educational development initiatives viz., Access, Equity and Quality.

To bring about behavioural changes, the focus has been on awareness generation and sensitization. This is done through:

1. **Programs/campaigns/Initiatives:** Under schemes such as the National Programme of Mid-Day Meal in Schools, Umbrella Programme for the Development of Minorities, Sarva Shiksha Abhiyan, Rashtriya Madhyamik Shiksha Abhiyan and Saakshar Bharat community mobilisation and awareness campaigns are organised. For instance, under the Saakshar Bharat scheme a volunteer-based mass campaign approach to increase the community level convergence of the scheme, and to generate a sustainable demand for literacy at the grassroot level has been prescribed.

Under the Sarva Shiksha Abhiyan initiatives such as Rangotsav (which includes cultural activities) and Kala Utsav (which includes competitions), are organised for enhancing the overall school education experience of school community members. Praveshotsav is an initiative undertaken by states to involve community members to help improve enrolments, reduce dropouts and bridge gender, socio-economic gaps in the school.

The scheme guidelines of Rashtriya Madhyamik Shiksha Abhiyan highlight community awareness, Parent Teacher Association, School Management & Development Committees as processes to generate beneficiary awareness. The Adolescent Education Programme (AEP) is also aimed at enhancing awareness for beneficiaries. A few states such as Uttarakhand and Himachal Pradesh have adopted community level mobilization or awareness building and sensitization programs to increase student enrolment/attendance/retention, especially for enrolment of dropouts/OOSC in regular/open schools, and for enrolment of girls (special enrolment camps) and 'Adolescent programs' for girls to raise awareness on personal hygiene/menstrual health/reproductive health, self defence program, arts and crafts programs, girl's stipend, special awareness programmes for SC/ST students. States have initiated Pravesh Utsav, a program where parents are invited to the schools and taken through presentations on teaching practices.

2. **Incentives:** Some schemes use incentives such as felicitation, scholarships, etc. as tools of behavioural change. Specifically, the main behavioural change tool used under the Centrally Sponsored Scheme on Teacher Education (CSSTE) is incentives. Mechanisms to promote teacher educators, and awareness and sensitization include *awards* (National ICT Award by MoE, Outstanding Science Teacher Prize, etc.), *exchange and training programs* (Fulbright Awards in Teaching Program, Japanese Teacher Training Scholarship, Microsoft Innovative Educator Program, etc.), *Fellowships* (Teach for India Fellowship, Gandhi Fellowship, Fulbright-Nehru Fellowship, etc.), *Scholarship* (RBI Research Scholarship Scheme), etc.

As per the data available, the above mentioned are the main behavioural tools employed in the Human Resources and Development sector.

2.6 JOBS AND SKILLS

Based on the available data, it seems that behavioural change tools are yet to be actively adopted in the Jobs and Skills sector. One scheme, which targets behavioural change is the National Career Service for Differently Aabled (NCS-DA). Under this, outreach and awareness programs such as job fairs and counselling sessions are conducted to promote beneficiary awareness and sensitization. However, no fund is specifically allocated towards such activities.

2.7 AGRICULTURE, ANIMAL HUSBANDRY AND FISHERIES

The importance of this sector is well known and documented. Under this sector few initiatives are undertaken to increase knowledge and awareness and nudge the farmers towards adopting better practices, including:

1. **Certification:** One of the initiatives to promote good agricultural practices is the India Good Agricultural Practices (INDGAP) certification implemented by the Quality Council of India. The areas around good agricultural practices focused under the scheme INDGAP aims to cater to quality and quantity of the produce obtained from a unit area, various

aspects of food safety, pre- and post-harvest practices including workers health and safety and sustained supply of produce of the desirable quality. Development of the voluntary sustainability standard such as INDGAP focuses on the adoption of certification by small and marginal farmers under the accreditation of National Accreditation Board for Certification Bodies. Under the Good Agricultural Practices in India, Integrated Pest Management (IPM) is practiced among farmers to keep pest populations below economic threshold levels by employing all available alternate pest control methods, especially bio-pesticides and pesticides of plant-origin like Neem formulations. Schemes such as Sub Mission on Agriculture Extension (SMAE), Mission for Integrated Development of Horticulture (MIDH), etc. also try to promote good agricultural practices among the farmers.

2. **Media:** To address the problem of information asymmetry between the farmers and the buyers and real time price discovery based on actual demand and supply, platforms like radio and television broadcasting and web portals like e- NAM are being promoted. Further, to sensitise the fisher community about environmental and socio-economic impacts of overfishing and competitive fishing the Central Marine Fisheries Research Institute (CMFRI) uses various communication tools and strategies such as training modules and animation films. Various capacity building programs are also undertaken to promote ornamental fish business, wetland fishing and cage culture.
3. **Training:** Trainings are imparted from the Tata Kisan Kendra (TKK) centers to farmers through workshops and screening of films related to good practices. The crop clinics under Tata Kisan Kendra (TKK) access information from the geographic information system (GIS) and advise farmers on what to grow, where and when to grow it, and how much urea and nutrients to use. At the soil-testing laboratory, technicians analyze soil samples to determine their composition and confirm what the satellite maps have indicated.
4. **Incentives:** In the agriculture sector, there is a wide gap between farm-gate price and consumer prices, as only a small share of consumer price reaches farmers. The prices further slump during the peak arrival season when there is good production. To encourage the farmers and ensure that the farmers get better value for their produce, the Government has introduced Minimum Support Price (MSP) on select crops. This nudges the farmers to produce crops which are more likely to be procured by the Government. MSP is more appealing as many state governments also announce bonuses on top of the MSP which make growing of these crops a better proposition. However, the majority of state and central level procurement are for rice and wheat. This has led to farmers preferring to grow rice or wheat as the risks are limited.

2.8 SOCIAL INCLUSION

Social exclusion takes various dimensions in India, including caste-based exclusion. It also includes vulnerable groups who face discrimination based on their religion (religious minorities), age (senior citizens, street children), economic status and occupation (economically weaker sections, homeless, manual scavengers), physical and mental ability (people with disabilities, mentally ill, victims of alcohol and substance abuse) and their gender identity (transgender people).

Various studies and ground-level reports point to the lack of awareness amongst the target social groups regarding schemes, programmes and policies resulting in weak implementation, poor participation of intended beneficiaries and thus weakened impact in attaining social inclusion. The

latest Parliamentary Standing Committee report on Social Justice and Empowerment also highlighted the weak promotion of schemes by the implementation agencies as a reflection of the extremely weak performance of schemes targeting SC population, senior citizens, etc.²⁷ Similarly, various other vulnerable groups such as PwDs, DNTs, etc. also lack awareness of their entitlements in terms of scheme and programmes.

This sector or schemes under this sector do not have available data on behavioural change strategies and channels adopted, if any.

2.9 WATER RESOURCES

Water resource is an important national asset and is of foundational importance for sustenance of life, food security, and maintaining ecological balance. Water resources are used across all sectors i.e. agriculture, industry, domestic, etc. Specifically, this sector has high convergence with the agricultural sector since it is the largest consumer of water resources. In terms of behavioural change, the few initiatives that appear to have been undertaken are:

1. For capacity building of the organisations/utilities creating and managing Water Resources infrastructure and providing services regarding appropriate water resource management, the Krishi Vikas Kendras situated across the country impart training to the farmers and the government officials at the state/district level. In Punjab, local awareness generation programs are regularly held by Punjab Agricultural University. In Bihar, Water and Land Management Institute (WALMI) provides trainings.
2. To conserve water, a campaign called “Sahi Fasal” has been launched under the National Water Mission (NWM) which is nudging the states to look at water efficient crops or diversification of crops and asking/requesting the farmers to cultivate alternate crops which consume less water. The NWM has also launched the “Catch the Rain” campaign to nudge the states and various stakeholders to create appropriate Rain Water Harvesting Structures suitable to the climatic conditions and subsoil strata before monsoon.
3. To reduce the over dependence on groundwater for irrigation, IEC and capacity building activities are being undertaken in Karnataka. It is interesting to note that the major reason for over dependence on groundwater is the behavioural tool of incentives. Heavy subsidies on agricultural power consumption (and non-availability of assured surface water) encourage wasteful use of groundwater
4. There is inefficient utilisation of water resources due to lack of awareness and poor water pricing. In states like Rajasthan, (under AMRUT) replacement of non-functional water meters and IEC activities are being undertaken.

2.10 ENVIRONMENT AND FOREST

Broadly, this sector covers forests and wildlife, pollution abatement and climate change. Under all the three, the behavioural change channel employed is awareness generation and sensitisation. For instance:

1. Programs such as the National Wildlife Action Plan and the National Biodiversity Action Plan include goals and targets to increase the awareness regarding wildlife and biodiversity

²⁷ Lok Sabha Secretariat, New Delhi, (2020), Standing Committee on Social Justice and Empowerment 2019-20, Seventeenth Lok Sabha, Ministry of Social Justice & Empowerment, Department of Social Justice and Empowerment, Last accessed on 20th September 2020

conservation and protection. Several states launched bird conservation projects for example, Rajasthan initiated the Project Great Indian Bustard to protect the endangered bird from extinction, Uttarayan Save Birds festival has also helped rescue birds and generate awareness on impact of kite flying bird lives. There has also been an increase in Environmental Education at the school and college levels to raise awareness among youth in the country.

2. The National Mission for Sustaining Himalayan Ecosystem has been drafted under the National Action Plan on Climate Change. One of the targets of this is to create awareness to protect the Himalayan biodiversity.
3. To combat air pollution the National Clean Air Programme (NCAP) has been launched. To augment public awareness and for inclusive public participation, the programme includes data dissemination and public outreach initiatives.

IN-DEPTH BEHAVIOURAL DIAGNOSIS OF A GOI SCHEME

The following section illustrates in-depth the opportunities that CSS and CS schemes have towards integrating behaviour change for effective policy implementation. Swachh Bharat Mission – Gramin has been selected a sample scheme.

3.1 SWACHH BHARAT MISSION-GRAMIN

Perhaps the most expansive application of behavioral insights in India can be seen in the *Swachh Bharat Mission* (Clean India Mission)- a national campaign launched in 2014 to achieve universal sanitation coverage. The SBM campaign was up against a prevalent social norm in many parts of India- open defecation. Eliminating open defecation was not merely a matter of constructing more toilets, it was also a behavioral challenge- to create a demand for toilets and make salient the link between sanitation and health. For the same, Information, Education and Communication (IEC) mechanisms have been highlighted as key to the success of the Mission. They are to be used to nudge the communities into adopting safe and sustainable sanitation practices.

Previous sanitation programs assumed people were rational actors who would use toilets once they were constructed, especially once they were informed about the health benefits of toilets. The failure of these assumptions gave a key insight for the design of the new program- emotional motives are much more powerful levers of behavioral change. According to Parameswaran Iyer, who led the SBM, the campaign utilized three main “non-rational” motives- pride, disgust and love.

- **Pride:** The campaign messaging and messages painted on toilets indicated that using a toilet was an act of dignity and self-respect. Celebrities engaged by the campaign as brand ambassadors also positively reinforced the use of toilets.
- **Disgust:** During community outreach sessions, campaign ambassadors put a fly into a glass of water and passed it around asking if anyone would drink it. When people refused, ambassadors informed them that open defecation also infests their water; their feces ultimately end up in their food and water.
- **Love:** Making the connection between toilets and women safety salient made toilets a dealbreaker for marriages. Marriage proposals from villages without functioning toilets started to be rejected, invoking a sense of loss aversion.

Once use of toilets became a widely accepted norm, the social observability of open defecation made it easier to eliminate it due to social pressure. Clear, contextual messaging throughout the campaign with frequent repetition ensured its ease of recall. The SBM, while still ongoing, has been very successful in effecting behavior change. A study found that open defecation in Punjab reduced

by 7.8 percentage points between 2016 and 2017. A similar study for Rajasthan found that open defecation in rural areas between 2016 and 2018 decreased by 17.5 percentage points. A national study on outbreaks of acute diarrheal diseases found that their incidence was significantly lower in successive years of SBM, exhibiting a declining rate.

Even though the Mission has achieved key milestones in bringing about behavioral changes, the behavior change tools employed can be diversified to further impact the mindsets of individuals and communities. In the current structure, significant importance is given to IEC activities to stir communities. They target sensitizing the rural communities regarding hygiene and sanitation through awareness generation activities. The Ministry of Water and Sanitation has also laid down detailed IEC guidelines and recommended various tools to be used at the village level to achieve the said outcome. Here, major focus areas of the guidelines are highlighted and a few challenges are identified:

1. **Behavior change in SBM scheme guidelines:** *The guidelines clearly state the importance of active behavior change activities to encourage communities to adopt better sanitation practices. As per the SBM-G guideline (2017), "Behavior change has been the key differentiator of Swachh Bharat Mission and therefore emphasis is placed on Behavior Change Communication (BCC). BCC is not a 'stand-alone' separate activity to be done as a 'component' of SBM-G, but about mobilizing and nudging communities into adopting safe and sustainable sanitation practices through effective BCC".*

The SBM has its target audience as rural communities, students, teachers, parents and adolescent girls/women. However, *the role of behavior change can further be expanded to include the specific behaviors desired by specific target audiences and highlighting the barriers to these desired behaviors.* These barriers can be mapped to the various behavioral change tools that are being employed / will be employed to challenge them.

2. **Importance of IEC activities:** The guideline highlights the importance of Information, Education and Communication tools and their effective implementation in the success of SBM-G. The end goals of these behavior change tools are to generate demand for sanitary facilities in houses, schools, anganwadis, and places of community congregation, make the communities use toilets every day and time and generate demand for Solid and Liquid Waste Management activities.

However, such behavior change tools can be used to target micro behaviors like washing hands after defecating, cleaning the toilet every time after use to avoid overflow, storing water in the vicinity of toilets, etc. These micro behaviors need to accompany the behavior of using the toilet impact of SBM-G remains sustainable. For example-If individuals do not clean the toilet every time after use, overflow will eventually make them stop using the toilets.

3. **Complementary behavior change tools:** SBM- G recognizes the importance of making the usage of toilet a habit such that the default becomes toilet usage. However, there is a need to not only adopt complementary behavior change tools but also to expand the scope of these tools. The gap between construction of toilets and usage of toilets needs to be narrowed. For example-a study conducted by Gupta et al (2019), reveals that 23% of rural people in Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh defecate in the open in spite of having toilets in their household.

Over and above disseminating information about the importance and construction of toilets, awareness about nitty-gritty such as the placement of a window within the toilet, the shape of the window, the correct place for the construction of toilets, etc. can be generated.

One of the complementary behavior change tools which can be adopted are nudges. For example–Latrine use can piggyback on everyday behaviors such as washing clothes, socializing with peers, etc. As per Neal et al (2016), “if ritualized socializing is part of the open defecation habit in a community, explore construction of café/ shaded areas for socializing near public toilets to maintain existing habit”.

In Uttar Pradesh, GAVI and Unilever through its initiative “Safal Shuruaat” translated as ‘Successful Beginning’, harness parents’ aspirations for their child’s success to help mobilise parents to handwash with soap at key occasions and immunize their children and other key parenting behaviours. This was done through a mix of tools such as demonstration aids, games, story-telling, hand washing rituals, competitions, commitment-making and certification for mothers/ guardians who have completed the programme. These tools led to a multifold increase in the handwashing practices of the beneficiaries. In Ethiopia, rather than promoting a single practice, health workers partnered with family members to observe their WASH practice and chose small doable actions which the family members could perform consistently.

Behavior change tools can also target existing social norms. According to Coffey et al (2016), “beliefs, values, and norms about purity and pollution contribute to the ubiquity and social acceptability of open defecation”. Pits require manual cleaning and this is a task which is often associated with the Dalit community. This too may contribute to ineffective fecal management. Therefore, in the existing behavioral change tools or while adopting new tools, information challenging such norms can be disseminated.

4. **Monitoring and Evaluation:** The existing Monitoring and Evaluation framework includes monitoring the IEC activities and the verification of ODF status of ODF free villages.

The system can be further improved by establishing a direct linkage between IEC activities and the change in hygiene and sanitation attitudes of individuals. Baseline (before ODF status) and end line (after ODF status) surveys can be a part of the monitoring and evaluation framework to measure changes in the hygiene and sanitation attitudes of individuals. These can also be a part of the verification checklist.

5. **Budget Barriers:** Under SBM-G, the budget allocated towards IEC has increased over the years. In 2019-2020 the budget allocated towards IEC was around 0.45% of the total scheme budget, in 2020-21 it increased to 0.70% and in 2021-22, it further increased to 0.75%. Even though the budget allocation has increased, it has always remained under 1% of the total scheme budget. Given the criticality of behavior change to the success of the Mission, the budget allocated towards IEC seems to be insufficient.

WAY FORWARD

This section concludes the findings from the sectoral analysis and recommends a framework for applying behavioural insights in India.

4.1 CONCLUSION

The sectoral analysis above reveals that apart from the Jobs and Skills and Social Inclusion sectors all the other 8 sectors employ behavioural change tools to some degree. Sectors such as Health and Women and Child Development use behavioural change tools extensively whereas sectors such as Water Resources and Environment and Forest use behavioural change tools to a very limited extent.

The most common behavioural change tool used across all sectors is awareness generation. Measures are undertaken to sensitise the citizens regarding certain social issues and generate awareness about schemes and the benefits/services offered. A popular tool used to do so is mass media. It is used under major schemes such as the POSHAN Abhiyaan, Beti Bachao Beti Padhao, Swacch Bharat Abhiyaan, National Health Mission, etc. Awareness generation activities are also undertaken under the Water Resources, and Environment and Forest sectors. However, when it comes to using mass media, the Health, and Women and Child Development Sectors stand out. These activities create an *opportunity* for the beneficiaries/citizens as it creates knowledge about the existence of schemes and services which exist for them.

Other common behavioural change tools are community-based events and the network of Frontline Works. These engage and mobilise the communities. Both these tools are *social* in nature as they leverage the social norm or the feeling of belonging to a community to influence behaviours. Frontline Workers are usually the main point of contact between the implementing agents and the beneficiaries. They are specifically important for health and nutrition related interventions. They engage in intra-personal communication with the community members which is helpful in targeting social behavioural change. Both these channels *motivate* the citizens/community members to adopt/modify certain behaviours.

There are also incentives and training and capacity building exercises which are undertaken as a part of the behaviour change process. Incentives take the form of heavy subsidies or even free services. Training and capacity building exercises are conducted both for implementing agents/service providers and the beneficiaries. For example–Frontline Workers (service providers) undergo training in Social and Behaviour Change Communication and farmers (beneficiaries) undergo training wherein they are advised on what to grow, where and when to grow it, and how much urea and nutrients to use. These channels create the ability across all stakeholders to push towards a behaviour change.

As mentioned above, the most popular behaviour change method is awareness generation. However, awareness generation alone does not guarantee the adoption of required behaviors. It is important for interventions to close the intent to action gap or interventions to at least have a clear call for action. For example, when it comes to sanitation related behaviours, “Many organizations have tended to

provide information and education via mass media campaigns. These campaigns generally assume that building knowledge and changing attitudes is enough to spur behavior change in communities where there is next to no practice of hand-washing with soap. Yet these initiatives rarely have any long-lasting effect. The knowledge and understanding may have improved, but the action is still missing” (Hollingworth and Barker, 2019)²⁸.

Many interventions have been designed to target this intent-to-action gap. Biran et al (2014)²⁹, launched the “SuperAmma” campaign in the Chittoor district of Andhra Pradesh aimed at reducing child mortality caused due to diarrheal diseases. The impact of this campaign was measured through a Randomized Control Trial (RCT). This study tapped on to the relationship of mothers with their children and the central theme was to portray a mother who teaches her children good manners including washing hands with soap. The intervention delivered to the treatment group included community and school-based events along with public pledging ceremonies during which women promised to wash their hands with soap after/before performing certain activities and to ensure that their children did the same. This intervention-based on emotional drivers, community engagement and social norms-targeted habit building and led to a significant increase in hand-washing habits of the subjects.

Therefore, interventions/schemes/initiatives have an opportunity to not only focus on awareness generation but also explore innovative design ideas to close the intent-to-action gap. Another challenge which stands out from the sectoral analysis (and even the scheme wise analysis in the appendix) is the lack of data which enables one to draw a link between the various behavioural change tools employed and their impact. There is a lack of input, output and outcomes data. **Therefore, for effective behavioural interventions, it is important to have systematic data collection processes and a rich repository of data.**

Lastly, under the Jobs and Skills and Social Inclusion sectors, it is important to start employing behavioural change tools. Before aiming to close the intent to action gap, it is necessary to at least start awareness generation activities. The beneficiaries of various social inclusion schemes and interventions are unaware of the services/benefits they are eligible to receive.

The next section gives an overview of frameworks which may be used to effectively apply behavioural insights in India.

4.2 FRAMEWORK FOR APPLYING BEHAVIOURAL INSIGHTS IN INDIA³⁰

The past decades have seen a heightened understanding of the relevance of behavioural science in policy making. Policy makers today are more cognizant of the existence of behavioural biases that may impede effectiveness of policies, and there is increasing willingness to design policies that account for these biases- that is, policies designed for humans, not “econs” (perfectly rational humans).

The task of a framework is to bridge the gap between this understanding of the value of behavioural science, and its actual application to policy making. A framework aspires to provide policy makers with the structure, process and tool to design a behavioural intervention- it provides the moving parts that fit together to form a behaviourally informed policy.

²⁸ <https://behavioralscientist.org/saving-lives-by-closing-the-intention-action-gap/>

²⁹ <https://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2813%2970160-8/fulltext>

³⁰ Please note that this section “Frameworks for Applying Behavioural Insights in India” is borrowed entirely from a working draft of “Behavioral Insights in Indian Policymaking: Vision Document by the Behavioral Insights Unit of India”, scheduled to be published in 2022.

With the growing literature on behavioural insights, there is a variety of frameworks that have been proposed to design, apply, and evaluate behavioural science in public policy. This paper elaborates upon two widely known and accepted frameworks. The first, EAST framework by BIT, illustrates how to design a behavioural intervention, while the second, BASIC framework by OECD, illustrates how to apply behavioural science from the beginning to the end of the policy making cycle.

4.2.1 Designing a Behavioural Intervention: EAST

If you want your intervention to encourage an action, make it Easy, Attractive, Social, and Timely (EAST). Developed by the UK's Behavioral Insights Team (BIT) in 2012, the EAST framework is one of the most widely used frameworks to design a behavioral intervention. There are four principles central to it³¹:

Make it Easy: Often, people procrastinate- or evade altogether- doing things that require cognitive effort. Be it enrolling into a pension plan, applying for a job or university, figuring out how to pay taxes- and then actually filling out the forms to pay them. Small, seemingly irrelevant details that demand more time and cognitive effort (referred to as “friction costs”) often make all the difference when it comes to people following through on their intentions to act- or forming those intentions in the first place. A behavioural intervention should make it easier- and reduce cognitive effort- for people to undertake these actions. There are several ways to make an action easier. For instance, making an action the default with the possibility to opt-out has been shown to significantly increase enrollment in pension plans and organ donation. There are other ways to *harness the power of defaults*, for example smaller plates in hotel buffets and smaller glasses in restaurants reduced the wastage of food and water. Another way to make it easy is to *reduce the hassle factors and friction costs* involved in taking the action- for example, tax compliance increased when individuals were sent direct links to forms, they are required to complete. Finally, *simplifying communications and breaking down complex goals into simple, concrete actions* can make it easier- for instance, helping people with a plan to register to vote with the various registration steps laid out increases voter registration.

Make it Attractive: We are more likely to do something when its value statement appeals to us. Fundamentally, making something attractive involves two main levers: drawing attention to it, and making it appealing through incentives. *Attracting attention is a way to increase the salience*, the visibility of a stimulus- through visual cues, personalisation, or other cognitive responses. For instance, including a person's name at the start of an SMS increased the payment rate of court fines; a color-coded nutritional value system on food items can increase awareness of micronutrients; tax letters that emphasized doctors as their target group, rather than generic taxpayers, increased payment of tax liabilities by doctors. *Incentivizing an action through rewards or sanctions* is also an effective way to increase its attractiveness. For instance, noting the limited timeframe in which a program is available can increase sign-up rates; “gamifying” actions through badges, leader boards and other ways of healthy competition within social networks that increases engagement and motivation.

31 https://www.bi.team/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf

Box 9: Leveraging Scarcity Effect in Public Policy

Think about the last time you did online shopping. Do you get more drawn to products that have a tag saying: "Only 4 left in stock"?

This is by design! The scarcity effect is a cognitive bias that makes people more attracted to and place a higher value on an object that is scarce. Scarcity is associated in our brains with exclusivity, as we automatically assume that it is scarce because everyone wants or has already bought this product and therefore it must be a good product. In other words, scarce objects arouse our interests and so immediately become more desirable than a product that is readily available.

Can you think of ways this insight can be leveraged in public policy?

Make it Social: People don't make decisions in a vacuum. In fact, almost always there is some element of social influence in the decisions people make. Thus, an intervention should leverage social influence to enable an action. One way to do this is by *emphasizing the prevalence of positive norms*- and staying clear of emphasizing the prevalence of undesirable behavior. For instance, telling delinquent taxpayers that most people paid their taxes on time increased their payment rates; sending people reports comparing their energy use to that of an efficient neighbor reduced energy usage. Another lever is *leveraging social networks* through peer-to-peer information sharing. For instance, enabling social learning about dietary diversity in women's groups can help increase awareness on nutrition; assigning "ambassadors" from the community who promote awareness on a certain behavior- such as vaccination- helps increase action. *Encouraging commitments*- in a group or to a peer- is also an effective way to ensure action. For instance, assigning peers who monitor people's savings helped increase individuals' savings; encouraging people to make commitments to a cause through social media campaigns- such as girl child education- increases action to uphold the cause.

Make it Timely: Due to the sheer number of things that demand our attention on a daily basis, timing of interventions matters greatly. *Prompting people when they are most likely to have cognitive bandwidth* increases the effectiveness of interventions. For instance, messages displayed at the location of action are more effective- messages to save water placed above sinks, or messages about recycling near trash cans, or asking people to donate while they make a purchase. *People overweigh the immediate costs and benefits*, and under weigh long-term costs and benefits in their decision making. For instance, displaying projected lifetime costs of cheaper energy inefficient appliances at the point of purchase makes consumers significantly more likely to buy energy efficient (but more expensive) appliances.

4.2.2 Applying Behavioural Intervention: BASIC

The BASIC framework developed by OECD in 2018, provides the stages involved in the application of behavioural insights to ex-ante appraisal as well as the ex-post evaluation stage of a policy cycle. It highlights the stages involved in integrating behavioural insights into day-to-day policy making- identify Behaviours, conduct an Analysis, develop Strategies, test them with Interventions, and scale up results for policy Change (BASIC)³². These stages are illustrated below with an example: reducing home energy consumption through reduced use of electrical appliances.

³² <https://inudgelyou.com/wp-content/uploads/2020/01/BASIC-Toolkit.pdf>

- a. **Behaviour:** This first stage focuses on identifying at an early stage the behavioural aspects of the policy issue. This stage intends to answer some key questions:

What are the behaviours driving the policy issue?

Start with a policy area such as energy use, narrow it down to sub-categories such as residential and workplace energy use, and derive concrete behaviours that are of relevance: buying energy efficient appliances, taking public transport to work, reducing home energy use by reducing use of home appliances, etc.

Which behaviours should you target?

Consider the impact of the behaviour change, feasibility and ethical considerations of targeting that behaviour, and frequency of the behaviour. Use of home appliances is a behaviour that occurs often, can be feasibly measured through electricity bills and has a big impact; buying energy efficient appliances is less frequent, harder to measure, but high impact; and taking public transport occurs frequently, is harder to measure at an individual level, but high impact.

What is your desired policy outcome?

Craft a specific, measurable, realistic, and time-bound target for the behaviour change, such as: Reducing energy consumption in high-use households in Kailash Colony, Delhi by 5% in six months.

- b. **Analysis:** This stage aims to gain a deeper understanding of why people behave the way they do. It uses four main psychological factors that determine behaviour:
1. *People rely on mental shortcuts and often over/underestimate probabilities:* They might not be aware of the exact energy use or inefficiency of appliances.
 2. *People's attention is limited and easily distracted:* They might not pay any particular heed to energy usage by electrical appliances.
 3. *People are influenced by the framing and the social context of choices:* They may have a low awareness of their relative energy consumption vis-a-vis their neighbours.
 4. *People have limited willpower and it is subject to psychological biases:* They might, despite intention, forget to turn off electrical appliances not in use.
- c. **Strategy:** After analysis, the next stage is to identify behaviourally informed strategies to effectively target the factors that determine the behaviours identified.
- ⦿ *Targeting limited attention:* By placing the intervention at the point of decision, making it salient, setting defaults, or providing prompts/reminders for action. For instance, colorful stickers on switchboards, or doors, that urge to turn off appliances before leaving; weekly text messages with energy usage compared to last week with tips to save energy.
 - ⦿ *Targeting mental shortcuts and beliefs:* Creating easy-to-recall heuristics for energy use of different appliances. For instance, taking the energy use of one light bulb in an hour as the baseline ("x"), stickers on appliances highlighting their comparative energy use (eg, "equivalent to 100 light bulbs").
 - ⦿ *Targeting framing and social context:* Considering the motives, triggering emotions, and leveraging peer comparison. For instance, monthly letters with a smiley or sad face informing people of their energy use as compared to their neighborhood's average.

CASE STUDIES

5.1 INTERNATIONAL³³

In the past decades, a myriad of behaviour change interventions has been tried and tested around the globe for their welfare gains, efficiency, and value for money. Some of these are for tax compliance, take up of online government services, road safety, and fertilizer take up..

In some cases, policymakers and researchers intervened to impede self-defeating behaviors which could not be explained through classical economic models of rational actors. The case studies presented in the following sections are on some interventions which provide solutions to policy issues such as: *Why did some households in Kenya not use chlorine tablets to purify their water despite their apparent benefits? Why did some parents in Afghanistan and Pakistan fail to get their child immunized even when it was free and they believed in the benefits of vaccination? Why did health workers in Switzerland and Italy fail to get vaccinated against influenza despite obvious exposure and risk to patients?*

In other cases, policymakers and researchers intervened to promote a desired behavior, which had obvious benefits but was unlikely to be taken up at scale without a nudge. Certain interventions try to provide solutions to these policy issues. Some case studies presented here deal with policy issues such as: *How can we promote adoption of clean cookstoves in Uganda and Kenya where many households predominantly rely on firewood and charcoal for cooking? How can we increase savings in the Philippines, Kenya, Bolivia and Peru? How can we nudge firms in France and households in the US to reduce their energy consumption? How can we nudge pregnant and lactating women in Bangladesh to consume a diverse diet comprising all food groups? How can we increase intake of iron supplements amongst anaemic adolescent girls in Indonesia? How can we nudge better recycling behavior in Italy and the US?*

5.1.1 Health and Nutrition Interventions

There have been many popular behavioral interventions around the world on preventative health such as immunization, healthier diets, maternal and infant child health and nutrition, and health worker behaviors. Below are some examples:



To increase vaccination rates, an intervention called “*The Immunity Charm*” bracelet was implemented in Afghanistan- and later rolled out to other South Asian countries due to its success³⁴. The intervention was designed based on the social norm of “*nazar*” or the *evil eye*: an ancient, deep-rooted traditional symbol of protection across South Asia, where children commonly wear bracelets with a “*nazar*” charm given to them by their parents.

³³ Please note that this section “Case Studies” is borrowed entirely from a working draft of “Behavioral Insights in Indian Policymaking: Vision Document by the Behavioral Insights Unit of India”, scheduled to be published in 2022.

³⁴ <http://www.theimmunitycharm.org/>

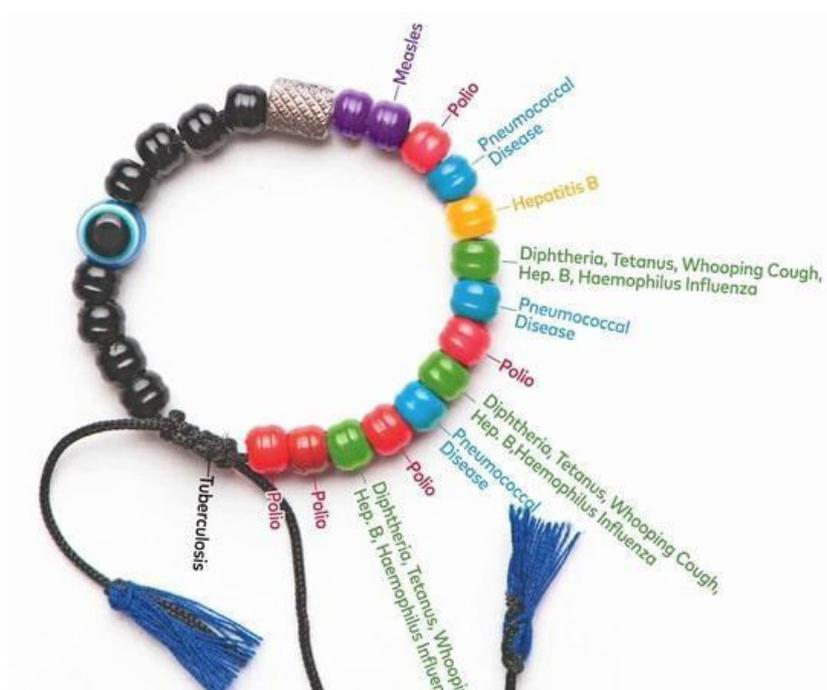


Figure 4: Immunity Charm Bracelet

The “Immunity Charm” was a simple bracelet (Refer to Figure 3) distributed to families, which was preloaded with a “nazar” charm and a series of black beads. At each immunization, colored beads representing each of the vaccine antigens were added to it. It’s success was due to three powerful drivers: 1) Mothers see the charm as a symbol of protection against disease and as being a good mother among her peers, 2) The bracelet is a visible symbol to influential family and community members to encourage mothers to have their children vaccinated, 3) Healthcare workers have an additional and readily visible indication of a child’s immunization status seeing the specific type and number of colored bead that reflect the immunization status of children (if the official immunization record is not available). The intervention won several awards for being a low-tech life saver.

Other interventions that have been found effective for increasing child immunization uptake have been customized, automated, text-message reminders in local languages sent to caregivers and parents³⁵.



In countries such as Switzerland and Italy, health worker vaccination is not mandatory, thereby making it a voluntary act. An intervention in Switzerland gave badges to all vaccinated health workers that said “*I am vaccinated against influenza to protect you*”. Non-vaccinated health workers were required to wear a mask and a badge that said “*I wear a mask to protect you*”. The intervention was successful at increasing vaccination rates in the country and over the years the vaccination rates went up from less than 10% to 40.4%³⁶. Similarly, a nudge in Italy sent health workers a personally-addressed letter signed by high-profile figures and aimed to raise awareness about the professional responsibility towards fragile people and colleagues, delivered with an information leaflet. The intervention increased both vaccination and vaccination intention rates by as much as 8 percentage points³⁷.

35 <https://publichealth.jmir.org/2018/1/e20/>

36 <https://aricjournal.biomedcentral.com/articles/10.1186/2047-2994-2-S1-P37#Sec2>

37 <https://www.mdpi.com/2076-393X/8/4/600/pdf>

Box 11: Leveraging Priming in Public Policy

Consider this sentence: “*Tanya went to the bank.*”

What comes to mind when you read it?

You probably imagined a woman with money on her mind, walking to avail banking services. But this is not the only possible interpretation. If an earlier sentence had been “She saw a river in the forest,” you would have imagined a river bank.

This is called Priming! What comes to mind will depend on whether you have been primed with associations related to rivers or money. When you have just been thinking of a river, “bank” isn’t associated with money. But in the absence of explicit context, the mind generates a context based on its own priming.



In Bangladesh, rice is the most commonly consumed staple crop, and dietary deficiencies of micronutrients, such as vitamin A and iron, are common due to a lack of dietary diversity. In an effort to encourage dietary diversity and improve maternal and child nutrition, a plate called “*Bengali Portion Plate*” (Refer to Figure 4) was given to women depicting all food groups that constitute a balanced diet. The intervention found that when combined with nutrition counselling, the plate was successful in increasing diet diversity amongst pregnant and lactating women³⁸.

An intervention in Indonesia to increase consumption of iron and folic acid (IFA) tablets amongst anaemic girls showed promising results. While a government program sponsored provision of tablets, monitoring of consumption was easy when school was in session, but became a challenge during holidays. The intervention promoted peer monitoring through a Whatsapp group for every class, where “peer monitors” sent reminders every week. In addition to reminders, girls were asked to post selfies when they took the tablets, and the boys in the group posted encouraging messages which served as validation and positive reinforcement. The groups were also utilized to share nutrition-related messages. This created a positive norm of consumption, which when combined with reminders increased compliance to intake³⁹.



Figure 5: Bengali Portion Plate

38 https://ageconsearch.umn.edu/record/258449/files/Abstracts_17_05_24_18_33_31_64_74_178_47_95_0.pdf

39 <https://scalingupnutrition.org/news/adolescent-girls-in-indonesia-use-their-smartphones-to-fight-anaemia/>

Box 12: Prime yourself to eat healthy

Try it: *PRIME YOURSELF TO EAT HEALTHY!*

We are not as capable of free thinking as we believe ourselves to be. Priming effects arise in the automatic part of our brain and we have no control over them. Often, people can be completely unaware that their behaviour has been affected.

Can you prime yourself to eat more healthy? What tiny stimuli could you place in your surroundings to subconsciously affect your eating behaviour?

Researchers believe it's possible to eat healthier by priming yourself with certain words at decision points. Some of the best words to focus on are *slim, healthy, fit and weight*. Stick them on the fridge door to prime yourself in the kitchen. Or set a reminder on your phone that flashes these words before meal times.

5.1.2 Savings, Social Security, and Financial Inclusion

Behavioral interventions around the world have also successfully increased personal savings, enrollment in pension schemes, and uptake of bank accounts. Some examples of interventions are below.



In the Philippines, a comprehensive intervention was implemented to increase savings. For new and existing clients, a simpler account opening form was designed along with a savings planner (Refer to Figure 5) which prompted them to think about their specific savings goals as well as the actions that would help them achieve those goals. Clients were also given a savings calendar, which allowed them to see the aggregation of their savings over time and prompted regular, habitual savings deposits. The intervention increased savings account balances by 37% over eight weeks, and the initial deposits for new accounts went up by 15% on average⁴⁰.

In Kenya, researchers found that labeling savings for health expenses helped families invest more in preventive health products. Simply providing people in pre-existing savings groups with a safe box (a metal box with a key they controlled) earmarked for health expenses and savings increased preventive health product investments by 66% in the following year⁴¹.

Even simple reminders have been shown to be an effective nudge for savings. In Bolivia, Peru, and the Philippines, clients with commitment savings accounts were sent messages reminding them of their savings goals and the financial incentives of meeting their savings commitment. The text reminders were inexpensive to administer; clients who received these reminders saved more and were more likely to reach their goals than clients who did not receive the messages⁴².

40 <http://www.ideas42.org/wp-content/uploads/2015/05/Applying-BE-to-Improve-Microsavings-Outcomes-1.pdf>

41 <https://www.aeaweb.org/articles?id=10.1257/aer.103.4.1138>

42 <https://www.poverty-action.org/sites/default/files/publications/getting-to-the-top-of-mind.pdf>



Figure 6: Savings Calendar



In Afghanistan, an intervention found that defaulting employees into automatic savings was as effective as a more costly 50% employer savings match. Employees who were defaulted into savings were 40 percentage points more likely to accumulate short-term savings than employees who had to opt in. When the study ended and the default enrollment was removed, 45% of employees continued to contribute to their accounts⁴³.

One of the most popular interventions for increasing savings for retirement is SMaRT, short for “Save More Tomorrow”. Initially piloted in the US, it has been tested across countries, and was even enshrined into the Pension Protection Act of the US as a core principle for companies to adopt. In the intervention, people are asked to make a commitment now to save more money in the future. Then, planned increases in savings rates are linked to future pay raises. This minimizes the influence of loss aversion since take-home pay never decreases. Once employees are enrolled in the program, they remain in the program unless they opt-out⁴⁴.

5.1.3 Green Nudges: Resource Conservation and Clean Energy Adoption

“Green nudges” have been used as a promising tool to promote energy and water conservation, and increase uptake of clean energy technology. Some examples are below.



One of the most popular behavioral interventions in resource conservation have been Home Energy Reports and Home Water Reports (Refer to Figure 6), first piloted through utilities in the US. The most effective of these reports included easy to understand month-to-month energy use trend, a social comparison wherein the energy use of the household was compared to their neighbors’ average, a normative feedback (sad or smiley face) depending on whether their consumption was lower or higher than the

43 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2814075

44 <http://www.shlomobenartzi.com/save-more-tomorrow>

average, and general tips to reduce consumption. The interventions have been shown to reduce energy consumption by 1-3%⁴⁵ and water use by 4.6-6.6%⁴⁶.



Figure 7: Home Water Report

In France, an intervention to reduce energy consumption by firms was implemented. It included three components: 1) A moral appeal, wherein emails were sent to employees to reduce consumption, 2) A social comparison, which provided employees information on the overall energy consumption of their company compared to the consumption of other companies, and 3) Stickers, which contained visual messages that, in a playful way, provided simple information on several everyday actions that might reduce the individual and overall energy consumption of the company. (For example, there was a sticker on the office thermostat indicating the recommended temperature level and explaining that reducing the temperature of each room of 1°C causes a decrease in individual energy consumption by 7%). The nudges successfully reduced energy consumption all the 47 companies studied across 12 weeks⁴⁷.

A popular intervention aimed to promote towel reuse amongst hotel guests in the US⁴⁸. Signs positioned on the washroom racks carried a descriptive norm message informing guests that a majority of other guests participate in the towel reuse program: *"JOIN YOUR FELLOW GUESTS IN HELPING TO SAVE THE ENVIRONMENT. Almost 75% of guests who are asked to participate in our new resource savings program do help by using their towels more than once. You can join your fellow guests in this program to help save the environment by reusing your towels during your stay"*. 44.1% of guests reuse their towels as a result of the intervention.

45 https://uplight.com/wp-content/uploads/2019/10/U_WhitePaper_FutureofHER_090519_v2-1.pdf

46 [https://www.financingsustainablewater.org/sites/www.financingsustainablewater.org/files/resource_pdfs/MCubed-Watersmart_evaluation_report_FINAL_12-12-13\(00238356\).pdf](https://www.financingsustainablewater.org/sites/www.financingsustainablewater.org/files/resource_pdfs/MCubed-Watersmart_evaluation_report_FINAL_12-12-13(00238356).pdf)

47 <https://hal.archives-ouvertes.fr/hal-02421815/document>

48 <https://academic.oup.com/jcr/article/35/3/472/1856257?login=true>

Box 13: “Ballot Bins”- Reducing Cigarette Litter on the Streets of London

“Ballot Bins”- Reducing Cigarette Litter on the Streets of London



Each Ballot Bin displays a question and two answers. Smokers vote by putting their cigarette butt in the slots underneath their preferred answer. The litter stacks up, showing which answer is more popular. The questions can be easily changed by the Ballot Bin owner, to suit the context.

These bins have proven to reduce cigarette litter by 46% in the UK. In America, the impact was a whopping 74%.

Why does it work? Salience of the bins is increased- smokers find the Ballot Bins much more engaging than alternative ashtrays. Framing of littering is also changed- smokers aren't asked to not litter but to dispose butts to indicate their preferences on an issue.



In Kenya, an edutainment intervention was implemented to improve the value perception of clean cookstoves and promote the transition away from traditional charcoal and firewood cookstoves. A television and radio show called “*Shamba Chef*” (Refer to Figure 7) was developed. “*Shamba Chef*” used a reality television format in which a pair of hosts visit a number of guests’ homes and discuss the value of modern cookstoves in the context of other personal and family benefits, such as improved nutrition and the family’s standing in the community. Each TV episode was also adapted for a weekly radio show. A digital mobile phone platform, called *iChef*, was also developed where viewers could either text or phone for further information. The program featured some of Kenya’s top chefs, who would travel to the rural, on-farm settings and connect and engage with local women, inspiring them with available and practicable ways of feeding the family using modern cooking solutions. The messaging- eating and living well, family pride – aimed to reframe the cookstove in people’s lives and present those benefits in an entertaining and humorous format. The intervention proved extremely effective in influencing people’s decisions to purchase modern cookstoves.

A brand new cook show from the producers of **SHAMBA SHAPE-UP**

SHAMBA
CHEF

Hosted by:
JANET KIRINA & MELVIN ALUSA

Starting April 2017 on **CITIZEN** Television
Tuesdays @ 1:30 pm (Swahili)
Fridays @ 1:30 pm (English)

For more information contact iChef on 0711 082 303 or SMS 20255 or visit www.shambachef.com

THE MEDIA COMPANY | GLOBAL ALLIANCE FOR CLEAN COOKSTOVES | LIPSHI DIGI | REPUBLIC OF KENYA

Figure 8: Samba Chef



Figure 9: Community Cooking Demonstration in Uganda

In Uganda, community cooking demonstrations were conducted through a local NGO to promote interest in acquisition of a clean cookstove⁴⁹. Village health workers were trained and engaged in raising awareness around household air pollution and the benefits of clean cookstoves, and facilitated referral of interested households to suppliers. The intervention was successful in raising awareness around and interest in clean cooking solutions.

⁴⁹ <https://www.tandfonline.com/doi/pdf/10.1080/10810730.2014.994245>

To reduce monetary barriers to purchase of clean cookstoves, an “Improved Contract” intervention was successfully implemented in Uganda. Researchers created an “improved contract”, with two types of improvements: 1) Free Trial – A one-week free trial, where enumerators would leave the stove with consenting consumers and return after a week- at which point the consumer could either pay in full or return the stove with no obligation. 2) Time Payments with right to return- Consumers could purchase a stove with four equal weekly installments, and also had a right to return the stove before all scheduled payments were due, in which case, future payments were canceled but no money refunded. The intervention dramatically increased uptake—in urban Uganda, from 4% to 45%, and in rural Uganda, from 5% to 57%. This is an eleven-fold increase⁵⁰.

Box 14: Optical Illusion to Stop Public Urination in Paris train stations

Optical Illusion to Stop Public Urination in Paris train stations



3D posters were painted at frequent urination sites. These posters created an optical illusion of an athlete playing, and led to an 88% reduction in public urination.

Why did it work? Framing and changing the social meaning of the site of urination: When we do not give a particular purpose to a place, we let people decide for themselves how to perceive it. Visual stimuli can change the perceived meaning.

Can you think of ways this can be applied in India?

50 <https://academic.oup.com/jeea/article-abstract/16/6/1850/4807496?redirectedFrom=fulltext>



Figure 10: Nudges Employed in Italy



Figure 11: Intervention in the USA

5.2 INDIA

In India, behavioral insights have been applied through government schemes, academic research, and projects led by non-state actors. Perhaps the earliest and most common application of behavioral insights in India can be found in the naming of government schemes. Several government schemes—especially ones that intend to promote uptake of a service or a changed behavior—have been named to emphasize positive norms and make their most valued aspects salient. *Ayushman Bharat* (popular name for the National Health Protection Scheme) means “India, blessed with a long life”, emphasizing

the most valuable aspect of good health care—a longer life. *Ujjwala Yojana* (a scheme to increase access to LPG) means “bright, radiant”, emphasizing the lack of smoke from LPG compared to coal or firewood cookstoves, leading to a more radiant home. *Jan Dhan Yojana* (the financial inclusion scheme), means “wealth of the commons”, emphasizing the intention to protect the hard-earned money of the common man. *Sukanya Samriddhi Yojana* (a savings scheme for parents of a girl child) means “prosperity of the girl child”, emphasizing the high interest rate and tax benefits of the savings account- and thus, of investing in one’s girl child.

In the sections below, we present case studies of some interventions which try to provide solutions to problems related to health and sanitation, women empowerment, environment, etc.

5.2.1 Health and Nutrition

To ensure rural India is not left behind in India’s march towards progress, Nand Ghars have been established by Vedanta in collaboration with the Ministry of Women and Child Development. They are a transformative leap dedicated to the rural children and women in India. Nand Ghars are better equipped and transformed Anganwadi Centres. They are equipped with televisions for e-learning, solar panels for reliable power, safe drinking water and clean toilets. Nand Ghars have led to a marked improvement in attendance, learning abilities and school readiness by deploying e-learning modules and playful learning. Nand Ghars are also used as a space to empower women wherein they undergo entrepreneurship training, including skill enhancement to start their micro-enterprise with extensive skill training and credit linkages. Today more than 1250 Nand Ghars are functioning across Rajasthan, Uttar Pradesh, Madhya Pradesh, Karnataka, Chhattisgarh, Jharkhand and Odisha. The Nand Ghar Project aims to touch lives of around 4 million community members while directly impacting around 2,00,000 children and around 1,80,000 women on an annual basis

To generate awareness and help containment of COVID-19, the SHG women adopted innovative communication and behaviour change tools. The SHG network across the country was made aware of the various aspects of the disease including the need to maintain personal hygiene, social distancing etc. through Audio Visual (AV) IEC material and advisories developed by Health Ministry which were circulated to all State Rural Livelihoods Missions (SRLMs). All such information, along with material developed by the state governments, are being used by the SRLMs to ensure that the correct message is communicated to the community about all required precautions. The SRLM staff and SHGs members are creating awareness in the local communities by various means such as telephone calls, wall writings, pamphlets/fliers etc. Social media is also being used extensively.

Some more important interventions by various SRLMs are mentioned here:

- Upon declaration of COVID-19 as a global pandemic, JEEViKA, Bihar stepped in and started working on IEC materials that would help in awareness and preparedness for the outbreak. JEEViKA is trying to systematically reach out to a maximum number of households through its 1.4 Lakh SHGs and spread awareness on topics such as hand wash, sanitation, quarantine and isolation and social-distance. JEEViKA has till date collected mobile numbers of more than 1,00,000 of community members and is using the Mobile Vaani platform to release voice messages on COVID-19 and is also addressing the community’s queries through the same.
- SHG women from UP SRLM ‘Prerna’ have used their creativity to make rangolis and mark lines and circles to re-emphasize the need for ‘social distancing’. They have also been making wall paintings to spread key messages about COVID prevention in their communities.

- The Didi helpline, a telephonic helpline initiated by Jharkhand SRLM, is open 24 hours to help migrant labourers by providing them verified information. It enables them to provide their data to state authorities to help evacuate them from different states, back to Jharkhand.

Another health intervention is the AYUSH Gram. AYUSH Gram is a concept wherein one village per block is selected for promoting the adoption of an AYUSH based lifestyle. This is done through behavioural change communication, training of village health workers towards identification and use of local medicinal herbs and provision of AYUSH health services. The elected village representatives are sensitized towards the concept so that there is also active participation from the community. Financial assistance of Rs. 10.00 Lakhs per unit covering 10, 0000 people in 5 to 15 villages in a State is being provided. As a part of this—herbs are grown within the Dispensary, herbal drinks are distributed to villagers and school kids, women in SHGs are involved in gathering the villagers and coordinating with them in organising various street plays, dances and other awareness campaigns, yoga teacher is present in the school and takes classes on a weekly basis, every 15-18 days either health check-up camps/yoga camps/ street plays/dances/awareness campaigns are conducted (termed as Kala Jatta), health check-up camps are regularly organised with a grant support of INR 4,000 (3 months interval), etc. Due to all of these efforts, Ayurveda Gram Centre has become the first point of contact for any type of illness or preliminary treatment. Villagers have indicated an increase in reliability on Ayurveda. Their food habits have changed for the better and awareness towards Medicinal herbs has increased. However, farmers are still not motivated to cultivate herbs as selling them is a challenge.

5.2.2 Women Empowerment

To celebrate the value of a girl child, the Kanya Ratna Utsav was organised in Ahmednagar by promoting Beti Bachao Beti Padhao (BBBP) through various awareness generation activities. It aimed to promote community participation to bring about a behavioural change. Under this, 141 Programmes were conducted across 14 Blocks of Ahmednagar at the Gram Panchayat/Village level. The Kanya Ratna Utsav is an entirely community funded activity. Various awareness generation activities were conducted under this programme such as morning rallies and street plays, Poshan Aahar, rangoli, essay and drawing competitions, lectures on ‘Save the Girl Child’ and ‘Educate the Girl Child’, felicitation of couples with one or two daughters and voluntary contribution of funds by locals for the girls, etc.

The primary outcome of this event was creating a change in attitudes and behaviour by addressing the stigma associated with the birth of a girl child. This initiative enabled the community to realize the importance of girls and women and their role in the social and economic development of any society. It transformed into a people’s movement in the district that challenged age-old traditions. Through donations, an amount of INR 37,60,105 was raised for 3882 girls.

Another initiative undertaken for gender sensitisation under the BBBP scheme was “Selfie with Daughter”, prompting people to share a selfie with their daughter using the campaign hashtag. Parents around the country participated in the initiative, which led to the establishment of a positive social norm- of celebrating the girl child. This helped address a “failure bias” in gender discrimination. Failure bias occurs when failures get the spotlight, giving people the impression that failure is the norm. When the spotlight is on poor sex-ratio, rampant female infanticide, and child marriage statistics, people tend to think those are the norm. By refocusing on the positive norms of pride in having a daughter, the initiative helped move the norm closer to fair treatment of daughters.

While gender discrimination is a long fight, requiring many more types policy responses, leveraging behavioral science to shift norms is an important lever of change.

In India, lack of participation of women in the labour market is a major issue due to reasons such as, distance between place of work and home, low wages, lack of crèche facilities at workplace, etc. With the introduction of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which guarantees 100 days minimum wage employment to rural households in India, there has been some increase in rural women's participation in economic activities. It was enacted in 2005. It is a flagship programme, now reaching over 50 million households across the country.

The act focuses on women equality and inclusion through provisions such as, one-third quota in each state, provision for crèche facilities, and preference to women, especially single women, to work close to home (Ministry of Rural Development, 2008). There is emphasis on equal wages based on the provisions of the Equal Remuneration Act, 1976. It mandates that work be provided locally and there is a provision of on-site childcare for children under six years of age, if there are more than five at a given worksite. In addition, the wages under the programme often surpasses real average wages received by women.

From an administration point of view, there is gender sensitivity in its focus on inclusion of women at local-level committees, and the social audit. Overall, the act/programme reflects commitment to equality of women. Even though the programme does not have a stated intention to enhance women's participation, it has made significant impact in this area (Azam, 2012; Das, Joshi and Vanneman 2015; Dasgupta and Sudarshan, 2011). Various studies highlight the contribution of the programme in increasing women's wages leading to welfare of the families and a positive impact on women's empowerment.

5.2.3 Environment

To promote energy conservation, the Energy Policy Institute at the University of Chicago (EPIC India) piloted an intervention in New Delhi⁵¹. Households received weekly report cards comparing their energy consumption in the previous week with their neighbors' average, and general tips on how to save energy. The intervention, conducted over the course of summer, reduced electricity usage by 7%. This effect was equivalent to the reduction that would be achieved through a 12.5% tariff hike for electricity.

To promote water conservation, the Center of Excellence for Change tested a behaviorally-informed campaign in Chennai called "*Shut the Tap*". School children were engaged as messengers and awareness on water conservation was raised through training and painting competitions. They were then given stickers bearing various kinds of informational messages: tips to reduce water use, the plight of water scarcity in rural India, positive action of peer groups and localities in Chennai who have reduced their water usage. These stickers were placed at water sources, to make them salient at the time and point of decision. Results showed that nudging through children led to 10.3% reduction in water usage- compared to nudging adults directly which led to a 5.02% reduction.

To promote adoption of improved cookstoves (ICS), the Shell Foundation ran a behaviorally-informed social marketing campaign called "Room to Breathe" amongst households in Karnataka who cooked on open fire or traditional stoves⁵². The campaign, launched in 2008, departed from

51 https://epic.uchicago.edu/wp-content/uploads/2019/07/UCH-022117_NudgesInTheMarketplace_final.pdf

52 https://shellfoundation.org/app/uploads/2018/11/shell_foundation_social_marketing_in_india.pdf

the traditional messaging of health and environmental benefits of ICS and focused on ICS as an aspirational, modern, money-saving, kitchen-enhancing technology. Different messages were targeted at men and women, based on their identified interests in the ICS. Messages depicted a young, modern woman showing an older lady how to use an ICS- hence reinforcing the modern nature of the stoves. The campaign held several cooking demonstrations on the ICS in the marketplace, which allowed social learning of stove benefits. A pocket calendar was distributed to people in which they could record time and money savings that would accrue from an ICS- due to reduced use of fuel and easier heating time. In every village, a woman was engaged as an ICS ambassador, whom the other residents could approach for information on an ICS. Finally, the Shell Foundation acted as a credible messenger for the campaign since they were not engaged in commercial marketing. They certified local ICS suppliers who met a certain level of product standard, and the campaign provided a list of certified products to interested consumers. Behavioral insights for adoption of ICS have also been used by USAID in India⁵³, which ran an intervention with personalized cooking demonstrations at the household level, option of payment in three instalments, rebates for consistent use of the ICS, and information pamphlets comparing different stove types. Over 50% of the households targeted adopted an ICS.

Box 15: “Mirror, mirror on the wall”: Deterring public urination in Bangalore

“Mirror, mirror on the wall”: Deterring public urination in Bangalore



Bruhat Bengaluru Mahanagara Palike (BBMP) held a mirror literally and figuratively to people who urinated in public. Large mirrors are installed at spots by the Bengaluru civic body wherever public urination is usually reported. The mirrors are eight feet by four feet, and can be moved to any spot. The mirrors also have a QR code that can be scanned to locate the nearest public toilet. The BBMP has also written messages on the mirrors about banning single-use plastic, not spitting in public and advising citizens to use dustbins.

Why does it work? Activating system 2 thinking about the action- public urination can often be a thoughtless, automatic action for frequent offenders (system 1 thinking); seeing one's reflection in the mirror might activate more conscious reflection about the act (system 2 thinking) and the code to find nearest toilets o might remove barriers to taking the right action.

53 <https://www.pnas.org/content/116/27/13282>

APPENDIX: SCHEME WISE ANALYSIS THROUGH A BEHAVIOURAL LENS

A. RURAL DEVELOPMENT

Below, we provide an assessment of some major schemes in the rural development sector from the perspective of the adoption of behavioural change channels.

A. 1. Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGAS)

Behavioural Change Channel

In the year 2014-15 the Department of Rural Development (DoRD) developed an extensive Information, Education and Communication (IEC) strategy for creating awareness and behavioural change amongst MGNREGS's beneficiaries. As a part of this strategy, States/UTs are required to conduct various IEC activities to spread key messages regarding the scheme and its entitlements to various target groups. Modes of communication include project initiation meetings, wall paintings, door-to-door programmes, posters, leaflets, stickers, engagement of Bharat Nirman Volunteers and Nehru Yuva Kendra, etc.⁵⁴ Training for officials at the District and Village (Gram Rozgar Sahayaks, MGNREGS mates etc.) level include components of IEC delivery and community level sensitisation. However, the details of these are not captured by the Centre.

The IEC plan also aims at facilitating dissemination of right based provisions of the Act to ensure that workers know their right to demand wage employment and exercise their right by applying for such employment as per their needs.⁵⁵ Interactions with the Mahatma Gandhi NREGA Programme Division, DoRD revealed that the department had also issued a *Framework for Citizen Information Boards and Wall Paintings* in 2017, to promote innovations in IEC activities, while ensuring transparency and accountability.

DoRD has also initiated the concept of Rozgar Divas, as one of the IEC activities. Rozgar Divas is to be conducted in every GP, every month on a fixed day. This initiative is to capture the demand of the ones who missed out on an opportunity of applying for work.

⁵⁴ Ministry of Rural Development. (2013). Mahatma Gandhi National Rural Employment Guarantee Act 2005. Operational Guidelines – 4th Edition. Government of India.

⁵⁵ MGNREGS Division, Ministry of Rural Development, Government of India. (2013). *Reaching the unreached IEC Plan for MGNREGS FY 14-15*.

Fund Allocation

As per MGNREGS's guidelines⁵⁶, the expenditure for the IEC activities (such as advertisements, publications, films, etc.) taken up by the states/UTs and districts can be met by utilising the funds earmarked for administrative expenses. Table 1 presents the year-wise fund allocation towards IEC activities out of the total budget allocation for the scheme.

Table 1: Total Budget of MGNREGS and Funds Alloted for IEC activities

Financial Year	Total Budget in Crores (Rs.)	Amount Allotted for IEC in Crores (Rs.)	Percentage of Amount allotted for IEC
2015-16	43,380.72	15.00	0.034 %
2016-17	57,386.67	60.00	0.104%
2017-18	64,985.89	60.00-	0.092%
2018-19	69,228.68	59.99	0.086%
2019-20	71,693.65	59.99	0.083%

Source: Mahatma Gandhi NREGA Division, DoRD, GoI, 2020

The total budget allocation towards MGNREGS has recorded a 65.27% increase from the year 2015-16 to 2019-20. Out of the total budget, the percentage of budget allocated towards IEC was the highest in the year 2016-17 after which it has only declined.

Impact of Behavioural Change Channel

An Impact Assessment Study conducted by Prasar Bharati in 2009 reveals that for 61.6 percent of the population, Intra-personal Communication (IPC) methods have served as the primary source of information about MGNREGS.⁵⁷ Beyond raising awareness, interventions at the interpersonal level need to be extended to ensure that individuals are converting their awareness into action. For this, Behaviour Change Communication (BCC) activities are to be rolled out, at the grass root level.

Challenges

In the year 2015, a nationwide study covered aspects related to Rozgar Divas. It was revealed that only 32.3 percent of household beneficiaries and 58.5 percent of mates reported that such events were organized. About 47 percent of these households said that it was organized at one place and another 47.5 percent said that it was organized in all the wards. On the other hand, 97 percent of district officials said that it was organized regularly in all the villages and the frequency of which, reportedly, varied from being organized on a weekly basis to monthly.⁵⁸ The study also reported that 85 percent of the GRS knew that it was their responsibility to organize Employment Guarantee Day. The GRS in their interviews explained that they face various problems like lack of funds, Panchayat not being proactive in initiating Rozgar Divas and non-cooperation by villagers. This indicates that

⁵⁶ Ministry of Rural Development. (2013). Mahatma Gandhi National Rural Employment Guarantee Act 2005. Operational Guidelines – 4th Edition. Government of India.

⁵⁷ Ministry of Rural Development. (2013). Mahatma Gandhi National Rural Employment Guarantee Act 2005. Operational Guidelines – 4th Edition. Government of India.

⁵⁸ Academy of Management Studies; Awadh Research Foundation; GFK Mode Pvt. Ltd.; Midstream Marketing & Research Pvt. Ltd.; Mott MacDonald Pvt. Ltd. (2015). Nationwide evaluation of flagship programme of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGS).

while the training of GRSs have been largely effective, other factors play a role in hindering the delivery of IEC interventions. This highlights the need to cascade funds to the ground-level effectively and align the Panchayat better on IEC activities. More effort is needed to promote innovations across BCC components in the Annual Action Plan.

A. 2. Pradhan Mantri Awaas Yojana – Gramin (PMAY – G)

Behavioural Change Channel

PMAY-G does not have a dedicated strategy for behaviour change. While the scheme focuses on enhancing the awareness of beneficiaries on aspects such as housing materials, stage-wise instalments, disaster resilient features etc., there are no targets for behaviour change within the scheme. The scheme guidelines stipulate that the Gram Panchayat is to play a *key role in orienting the beneficiaries on various aspects of the scheme*. Their responsibilities also include helping beneficiaries in accessing materials for construction and identifying trained masons. Likewise, the Self-Help Groups (SHGs) under the Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY – NRLM) are also involved in spreading awareness among the beneficiaries of PMAY-G about the construction of durable houses, sources of procurement of materials, etc.

Apart from this, the mandate of creating toilets in PMAY-G houses is directed towards reducing open defecation.

Fund Allocation

Since there is no behavioural channel for this scheme, there is no dedicated fund allocation for the same. However, regional workshops for sharing best practices were conducted in 2019-20. Workshops with Cement Manufacturers' Association and Global Green Growth Initiative were also conducted. The expenses for conducting these trainings were covered with funds allocated towards administrative expenses (2 percent of total budget in 2019-20).

Impact of Behavioural Change Channel

Results of the household survey indicate *varying levels of beneficiary awareness across various components* – with high awareness on stage wise instalments and quantum of assistance to be received, and low awareness on source of loans and loan facilitation.

Challenges

The literature⁵⁹ on creating toilets in PMAY-G notes, a significant proportion of PMAY-G households are still practicing open defecation even after having a personal toilet mostly due to water shortage as well as deep rooted habits. Efforts may be made to increase awareness about the demerits of open defecation.

A.3. Pradhan Mantri Gram Sadak Yojana (PMGSY)

Behavioural Change Channel

PMGSY does not have a dedicated behaviour change strategy or component. The aspect of road safety has been given importance in the scheme guidelines. A *Rural Road Safety Manual* has been

59 N.I.P.F.P. (2018). Impact of PMAY-G on Income and Employment. Ministry of Rural Development.

prepared by the NRIDA and circulated to all SRRDAs to construct safer rural roads. The Manual covers *accident data records, information on safer road design, road safety audit checklists and community awareness*. Further, as per the scheme guidelines, it is necessary to sensitize the communities and users of rural roads on road safety concerns and the role they can play in reducing the number of accidents/ fatalities. Awareness raising channels recommended in the scheme guidelines include *publication of pamphlets, audio-visuals, interactive programmes etc.* The scheme guidelines also mention that State Governments are to ensure a *road safety audit* of PMGSY works along with quality monitoring, involving Panchayati Raj Institutions.

Fund Allocation

Since there is no behavioural channel for this scheme, there is no dedicated fund allocation for the same.

Impact of Behavioural Change Channel

No information

Challenges

Due to lack of education in rural areas, awareness about traffic rules and regulations is low⁶⁰. Accidents are often considered an act of God rather than errors in human judgement and action.⁶¹ These problems are compounded by the lack of a unified authority to address the problems of road safety.⁶²

The literature reveals that the road safety audits have not been taken up in all States. Moreover, audit reports have highlighted issues with respect to design and construction of roads and the possibility of fatal accidents in those regions.

A.4. Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY - NRLM)

Behavioural Change Channel

DAY-NRLM, by and through SHGs influence the behaviour of beneficiary and other stakeholders using IEC materials, exposure visits, training modules, etc. The Knowledge Management and Communication (KMC) activities under DAY-NRLM aims to create and manage the systems that provide project staff and communities with relevant and timely information, and facilitate the exchange of knowledge. Tools such as field immersions, exposure visits of professional staff and beneficiary stakeholders, a repository of IEC materials, modules for training of community professionals in local languages are adopted to influence the behaviour of stakeholders and beneficiaries.

60 Dr. Agarwal, P. K., Dr. Mehar, R., Er. Jaisawal, H., & NRIDA, Ministry of Rural Development, Government of India. (2017). Some Basic Concepts to Enhance Safety on PMGSY Roads. *Grameen Sampark, NRIDA*.

61 Dr. Agarwal, P. K., Dr. Mehar, R., Er. Jaisawal, H., & NRIDA, Ministry of Rural Development, Government of India. (2017). Some Basic Concepts to Enhance Safety on PMGSY Roads. *Grameen Sampark, NRIDA*.

62 Dr. Agarwal, P. K., Dr. Mehar, R., Er. Jaisawal, H., & NRIDA, Ministry of Rural Development, Government of India. (2017). Some Basic Concepts to Enhance Safety on PMGSY Roads. *Grameen Sampark, NRIDA*.

Fund Allocation

There is no budget allocation towards Behaviour Change Communication (BCC) within the scheme.

Impact of Behavioural Change Channel

The Self-Help Groups (SHGs) have had a significant impact on the social, economic and political empowerment of women. SHGs provide women with a platform to meet regularly, socialise and indulge in discussions. Associating with SHGs contribute to empowering women financially, improving their household decision making power, improving their position in the community and empowering them politically 63. Many of the Kudumbashree and SERP women have been elected to local constitutional bodies.

Self-Help Groups (SHGs) have also been useful in dealing with issues such as undernutrition and providing a platform for linking livelihood actions with sectors such as agriculture, horticulture, health, etc. found. Nutrition related knowledge such as the 1000-day window, colostrum feeding, dietary diversification, anaemia and menstrual hygiene is disseminated through the SHG network, increasing the potential for behaviour change within rural communities. Notably, during the POSHAN Maah (Nutrition Week) held in September 2019, more than 6 crore SHG members participated in the event.⁶⁴ In addition, SHG networks are used extensively for spreading disaster management related information. For instance, SHG members played a crucial role in the management of the COVID-19 pandemic.

Challenges

No information

A.5. National Social Assistance Programme (NSAP)**Behavioural Change Channel**

NSAP guidelines do not specify any behaviour change activities.

Fund Allocation

No Information

Impact of Behavioural Change Channel

No Information

Challenges

No Information

63 Knowledge Partnership Programme. (2014). Self-help Groups as Vehicle of Empowerment.

64 Information obtained from DAY NRLM Division, DoRD.

A.6. Shyama Prasad Mukherji Rurban Mission (SPMRM)

Behavioural Change Channel

Given the unique implementation structure of SPMRM, *mechanisms to promote behaviour change are largely dependent on the schemes that converge within a cluster*. For example, if SBM-G converges within a cluster, then the scheme's ground-level mechanisms will be employed to create awareness about the potential ill-effects of open defecation and the need to construct and use toilets. In this way, mechanisms to elicit positive shifts in community attitudes and practices are driven by the schemes and components selected to converge within a given cluster.

Apart from this, community sensitization efforts are required to encourage the participation of community members and PRI representatives in developing the ICAP and determining the components to be instituted within a cluster. While not being explicitly mentioned in the scheme guidelines, District and Block level staff are generally tasked with community sensitization.

Fund Allocation

SPMRM does not have dedicated funds allocated towards awareness creation and sensitization. The SPMRM Framework of Implementation⁶⁵ reiterates that IEC materials are to be developed for information and dissemination of the Mission among all stakeholders – however it does not provide specific details on the kinds of materials to be developed, the channels to be used for awareness creation, and the topics on which sensitization is to be undertaken.

Impact of Behavioural Change Channel

There hasn't been significant research around behaviour change witnessed in Rurban clusters. Studies have focussed largely on the impact of individual schemes without analyzing the overall impact of convergent schemes on Rurban clusters. Given this, it is difficult to analyse the impact generated in terms of behaviour change under SPMRM.

Challenges

Interviews with implementing officials revealed that while in certain cases, officials have developed mechanisms (in the form of formats for Gram Sabha) to encourage community participation, ground-level functionaries face challenges in explaining the scheme to the community. While participatory planning is one of the cornerstones of SPMRM, there have been barriers to its implementation due to the lack of appropriate community sensitization measures.

⁶⁵ Ministry of Rural Development. (2015). Framework of Implementation. Shyama Prasad Mukherji Rurban Mission.

B. URBAN DEVELOPMENT

B.1. Smart Cities Mission (SCM)

Behavioural Change Channel

The Smart Cities Mission has initiated the 'Cycles4Change', 'Streets for People' and 'Nurturing Neighbourhoods' challenges to promote holistic planning approaches in cities across the country. These challenges are open calls for cities to participate and showcase their people-oriented initiatives to encourage behavioural changes in citizens. The participating cities receive technical and capacity-building support to pilot and scale initiatives which are aimed towards improvement in public space and mobility, neighbourhood planning, access to early childhood services, etc.

The 'Cycles4Change' Challenge in partnership with Fit India Mission, Swachh Bharat Mission & ITDP India inspires cities to implement cycling-friendly interventions. 107 Cities have registered, while local cycle groups, corporates, and NGOs have also joined hands to get cycles back on streets. To encourage citizens, cities can create cycling networks, launch community-led cycle rental schemes while promoting cycling through public events and outreach. Interactive workshops, perception surveys and peer learning sessions have highlighted the importance of collaborative planning.

The 'Streets for People' Challenge is aimed at creating walking initiatives in cities which focus on placemaking and liveability. The Challenge requires each city to test at least one flagship walking project. Streets and public spaces around transit hubs, heritage zones, commercial areas, recreational corridors or any high footfall zones are considered potential locations. SCM cities can implement the challenge beyond ABD areas also.

The 'Nurturing Neighbourhoods Challenge' aims at promoting healthy early childhood development at the neighbourhood – level. The guidelines provide cities with a roadmap for creating neighbourhoods where young children and their caregivers feel safe and can explore, play and engage with their built and natural environment (NIUA, Nurturing Neighbourhoods Challenge Guidelines, 2020).

The Mission has undertaken capacity building initiatives such as 'Capacity Building for Smart Data and Inclusive Cities' (SDIC) which aim to strengthen technical and institutional capacities and encourage stakeholder behavioural change by working directly with municipal authorities participating in SCM. Online capacity building platforms like NULP, toolkits, trainings and workshops, webinars for peer learning for City Data Officers and other personnel have been set up.

Fund Allocation

No information found.

Impact of Behavioural Change Channel

No information found.

Challenges

No information found.

B.2. Pradhan Mantri Awas Yojana – Urban (PMAY – U)

Behavioural Change Channel

During August 2019–January 2020, the Angikaar campaign was launched with the dual objective of:

- ⦿ bringing about a social behavioural change by encouraging households to adopt sustainable and healthy practices to lead better lives;
- ⦿ and ensuring the sustainability of the infrastructure delivered under the Mission.

The campaign focused on convergence, community engagement and communication. It is estimated that need was assessed across 15 lakh HHs across the country (MoHUA, PMAY(U) Presentations, 2019).

Fund Allocation

No information found.

Impact of Behavioural Change Channel

No information found.

Challenges

No information found.

B.3. Swachh Bharat Mission – Urban (SBM – U)

Behavioural Change Channel

The scheme aims at bringing about a change by relying upon the participation and involvement of its beneficiaries. It follows an inclusive model of cleanliness.

Fund Allocation

Mission has allotted 15 percent of its budget to IEC/BCC activities.

Impact of Behavioural Change Channel

The Mission has had a positive impact on sanitation and hygiene related practices of its beneficiaries. As per the National Sample Survey of 2018, about 97% of the households that had constructed a toilet under the scheme used the toilets either most of the time or all the time. Figure 12 (EY and Athena household survey, 2020) shows that other than toilet use, the sanitation and hygiene related practices that seem to have had a positive impact are washing hands, not urinating in the open, using sanitary pads, etc.

The findings of the same survey show that a behaviour change has also been recorded in the waste management practices of its respondents. As can be seen from Figure 13, 91.5% of the total households surveyed reported that they disposed their waste in dustbins, 66.8% reported that they segregated their waste, 52.3% said that they minimised plastic use, 46.5% said that they used cloth bags and 26.3% reported that they had started composting.

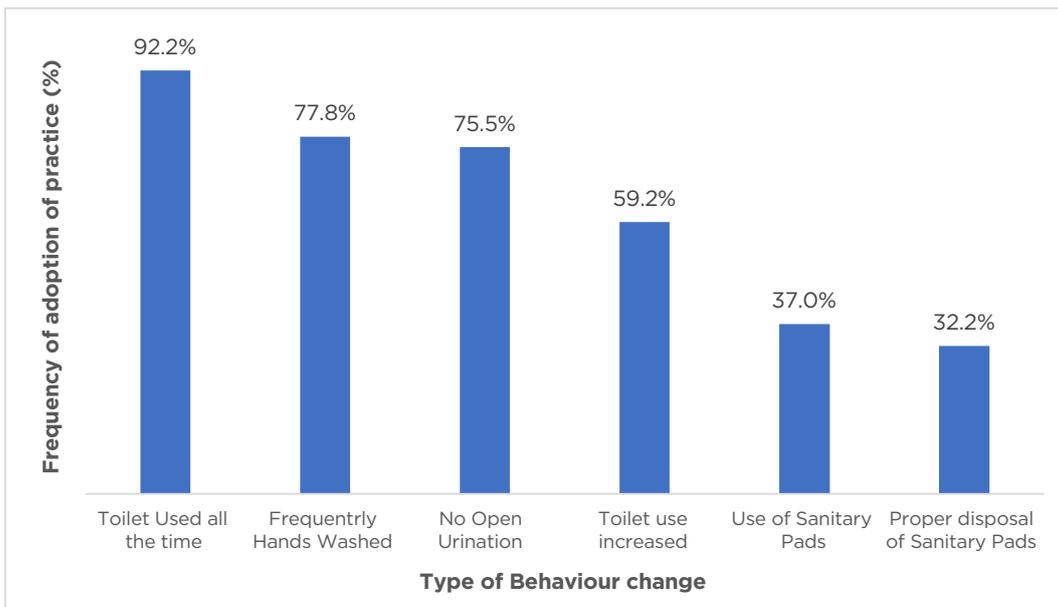


Figure 12: Type of behavior change reported in sanitation and hygiene practices

Source: EY & Athena Primary Research: HH Surveys, 2020; N=1243

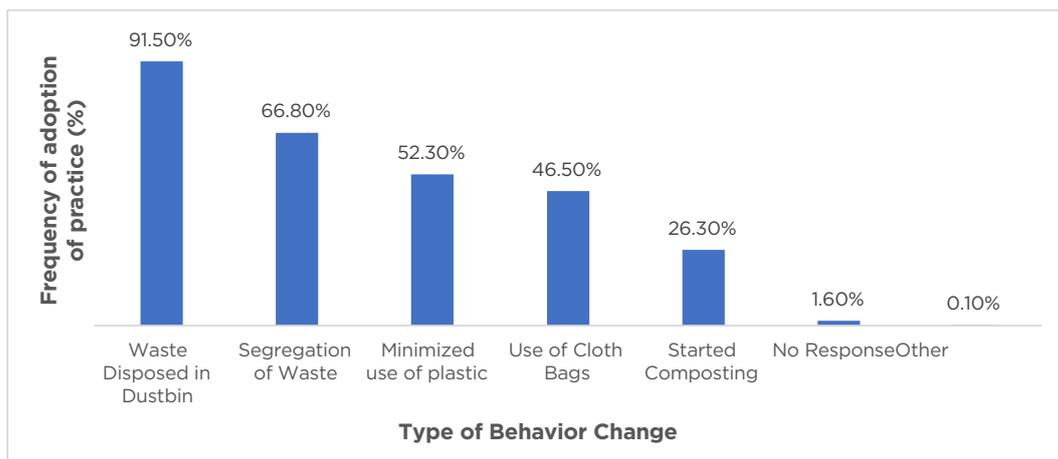


Figure 13: Type of behavior change report in household waste management practices

Source: EY & Athena Primary Research: HH Surveys, 2020; N=1066

The mission has also had a positive impact on cleanliness. Around 88% of the respondents surveyed under the EY and Athena household survey found their neighbourhood either to be moderately clean or very clean (Figure 14). The 10% of households who did not find their neighbourhood to be clean thought so because of reasons like fewer bins, less frequent street sweeping, toilet overflow, etc. The perception of cleanliness is not statistically different across households belonging to different socio-economic categories. Also, as a part of the same survey 72 percent of respondents reported that their neighbourhood had become cleaner over the past five years.

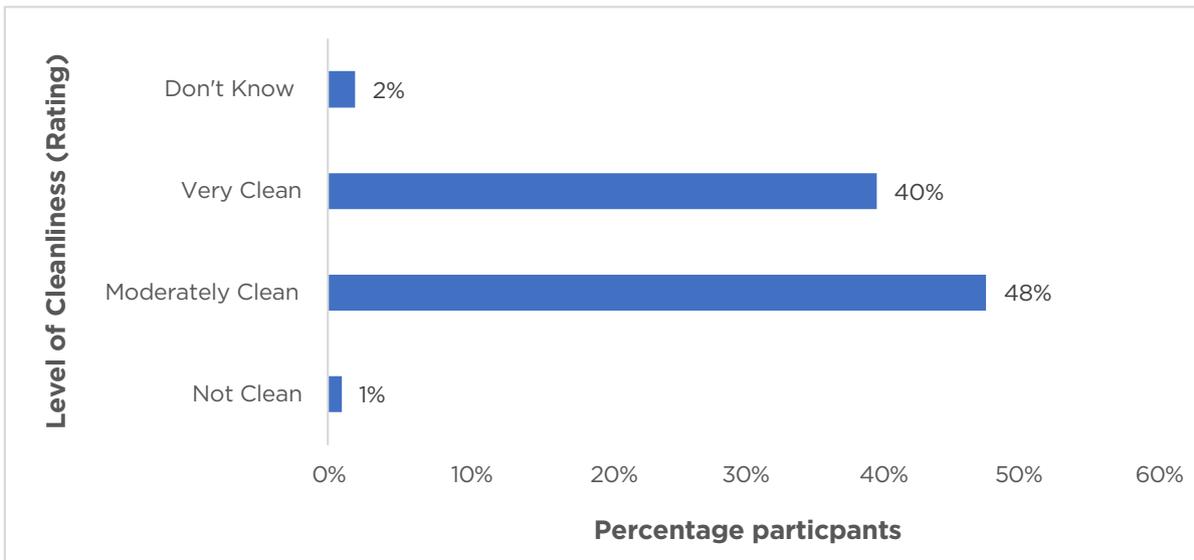


Figure 14: Cleanliness of neighborhoods (Rating)

Source: EY & Athena Primary Research: HH Surveys, 2020; N=1468

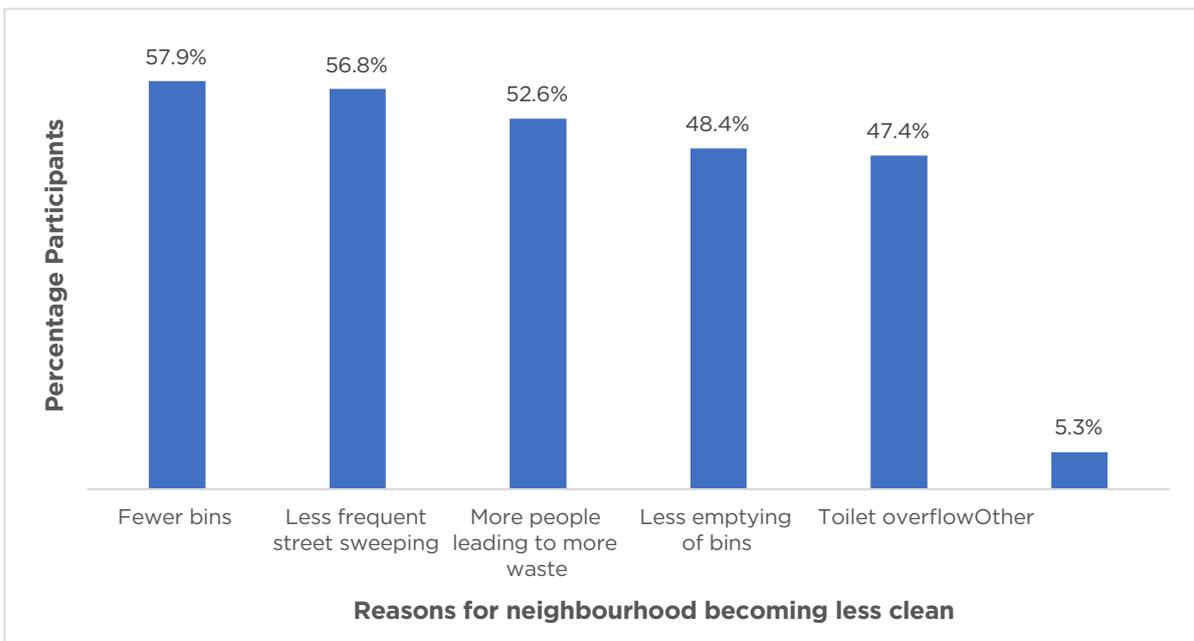


Figure 15: Reasons for neighbourhood becoming less clean

Source: EY & Athena Primary Research: HH Surveys, 2020; N=95

Improvement in sanitation and hygiene practices have resulted in positive externalities in the form of a reduction in the incidence of diarrhoeal disease. A USAID study on the impact of SBM(U) found that nearly 70 percent of households perceived a decrease in the prevalence of diarrhoea post SBM-U (USAID, 2020). A UNICEF-led impact evaluation estimated that improved sanitation led to health expense savings of nearly Rs. 61,000 per household annually. This figure includes the value of saved lives, value of time saved, value of treatment time saved, and value of medical costs averted (UNICEF, 2020).

Challenges faced

There are implementation related challenges which can hinder the realisation of the desired behavioural change. For example – the EY and Athena survey found out that nearly 20 per cent of those who constructed a toilet reported being dissatisfied with it due to reasons such as delay in construction, poor quality of construction and lack of water connection. Some KIIs indicate that inadequate maintenance of community toilets might lead to non-usage of toilets over time (EY & Athena Primary Research: KIIs, 2020).

The EY and Athena household survey indicates that there is a huge demand for pit-emptying services and better water supply. 56 per cent of beneficiaries who did not use their toilet all the time indicated that access to pit-emptying services would help improve toilet usage for their family. 58 per cent of them felt that better water supply would help improve toilet use in their household. Proper treatment and disposal of faecal sludge is crucial to reaping full health benefits of improved sanitation. Studies suggest that exposure to improperly disposed, concentrated human waste is more harmful than open defecation itself (Williams & Overbo, 2015). While the first phase of the Mission did not include funding for management of faecal sludge, the Mission is tracking safe management of faecal waste in its ODF ++ protocol guidelines.

B.4. Deendayal Antyodaya Yojana – National Urban Livelihood Mission (DAY – NULM)

Behavioural Change Channel

The following provisions under the Mission are meant to bring about a behavioural change:

- ⦿ At the National level, technical experts are recruited with expertise in institutional and capacity building (Manager – HR and capacity building) and developing livelihoods knowledge products, case studies, training modules, e-learning modules, audio-visual material (Manager -Communications and Knowledge Management)
- ⦿ Gender and social inclusion are important capacity-building modules for SHGs that promote discussions and dialogue on gender equality concerns.
- ⦿ Shelter managers are sensitised on the issues of urban homelessness to enable them to empathise with residents and provide essential services to meet the needs of the residents
- ⦿ The Mission relies on community institutions like SHGs to generate awareness regarding social entitlements and rights
- ⦿ Initiatives for outreach such as DAY-NULM Pakhwada and Shehri Samridhi allow SHGs members to showcase their products and the rallies organised as part of the events generate awareness regarding the Mission and its impact.
- ⦿ The newsletters of the Mission also document best practices and innovative solutions that other states/ cities can replicate.

Fund Allocation

As per the Mission guidelines, 3 per cent of the allocation under DAY-NULM can be utilised at the Centre/State/City levels for IEC.

Impact of Behavioural Change Channel

No information found.

Challenges

The awareness regarding the mission is still limited. As per the EY and Athena survey, only 68 per cent of the beneficiaries interviewed were aware of the NULM scheme (EY& Athena Primary Research: FGDs, 2020).

C. HEALTH AND FAMILY WELFARE

The following few heads provide an overview of the behavioural channels used for various health and health care related policies/schemes.

C.1. National Health Mission (NHM) Behavioural Change Channel

To spread awareness about various schemes and diseases, conduct activities such as the distribution of condoms, address existing health related barriers and to reinforce health related behaviours *the major behavioural change channels used under NHM are mass media and the network of ASHAs/ANMs/AWWs.*

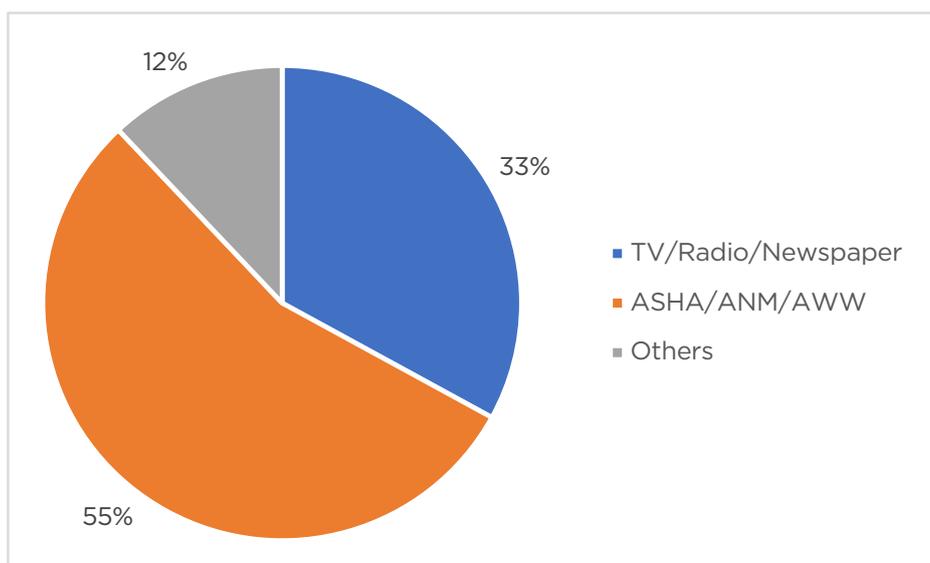


Figure 16: Sources of health information

Source: EY and Athena household survey (2019)

As per the EY and Athena household survey (2019), 55% households reported that ASHAs/ANMs/AWWs have been a major source of health information and 33% reported that mass media has been a major source [Refer to Figure 16]. However, the pattern differs across states. Figure 17 shows that in Karnataka, Madhya Pradesh, Rajasthan and Maharashtra ASHAs/ANMs/AWWs have been the major source of health-related information whereas in Delhi, Telangana and Assam TV/Radio/Newspaper has been a major source of information.

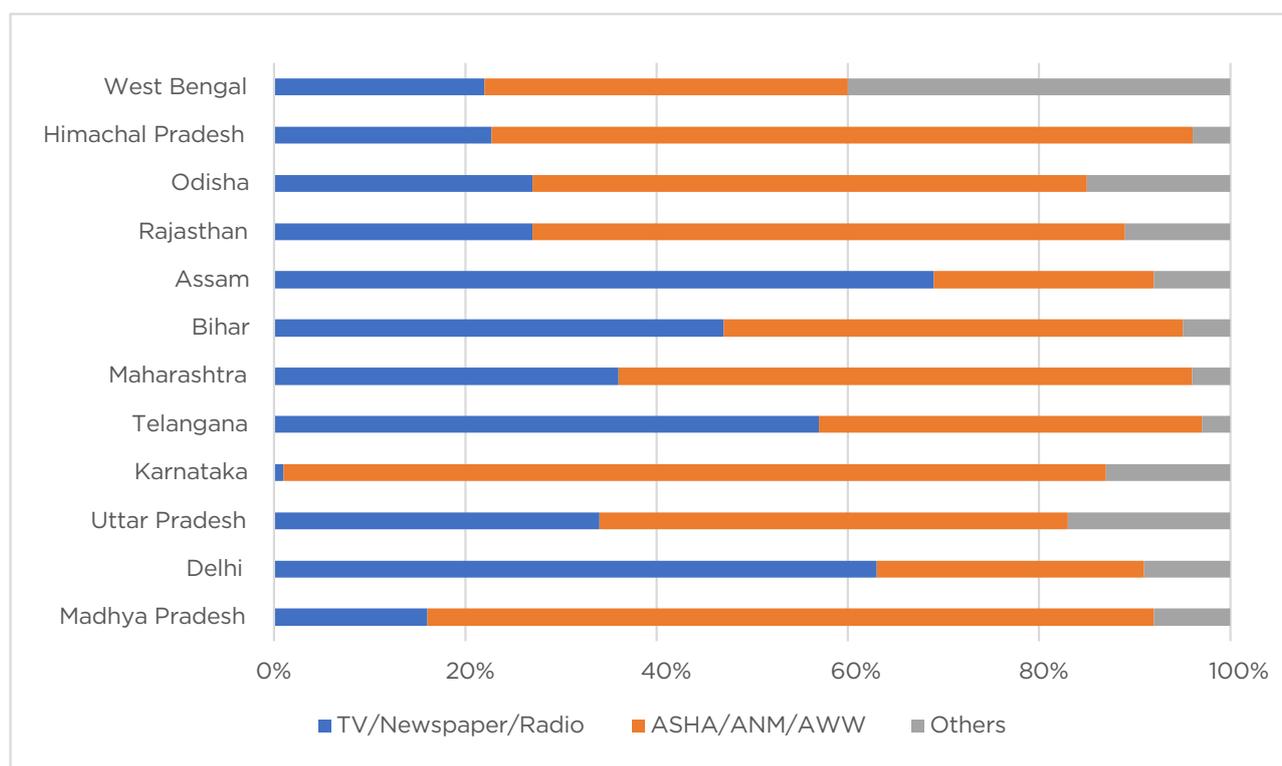


Figure 17: Sources of health information- Geographical Distribution

Source: EY Primary Analysis: Facility Survey, 2019

Major mass media tools used under NHM are posters, flyers, leaflets, brochures, booklets, radio broadcast, TV advertisements, social media are all used as awareness generation and campaigning tools. Multi-media campaigns are organised for:

- Various schemes such as Ayushman Bharat, Immunization, TB management, Anaemia Mukht Bharat, Integrated Diarrhoea Control Fortnight (IDCF), Breastfeeding Week, Tobacco Control, etc.-Awareness about various diseases such as Dengue, H1N1, etc.
- Distribution of condoms
- Awareness about maternal and child health and nutrition; communicable diseases; good hygiene and sanitation practices; family welfare and adolescent, reproductive and sexual Health; non-communicable diseases; HIV/AIDS prevention and control; etc. and specific vulnerable groups in urban settings (Ministry of Health and Family Welfare, 2015).

Programs such as “Health Days” and peer education programs are also organised. ASHAs/ANMs/AWWs have been a major source of health information for minority groups. They are involved in awareness generation activities for maternal and child health and nutrition; communicable diseases; good hygiene and sanitation practices; family welfare and adolescent, reproductive and sexual health; non-communicable diseases; HIV/AIDS prevention and control; and specific vulnerable groups in urban settings (Ministry of Health and Family Welfare, 2015). The Government has focused on community- based distribution of contraceptives by involving ASHAs and focused IEC/BCC efforts are undertaken for enhancing demand and creating awareness about family planning (Ministry of Health and Family Welfare, 2020).

Fund Allocation

No information

Impact of Behavioural Change Channel

No information

Challenges

There is a need for stronger IEC activities under JSY and JSSK schemes as many eligible beneficiaries have been found to have inadequate or inaccurate information about the scheme (Rupani, et al., 2019; Kumar, et al., 2018). As per the EY and Athena household survey, 40% of the respondents interviewed were not aware about the JSY scheme and its benefits.

C.2. Swachh Swasth Sarvatra***Behavioural Change Channel***

Swachh Swasth Sarvatra, an inter-ministerial joint initiative between the Ministry of Drinking Water and Sanitation and the Ministry of Health and Family Welfare was launched in December 2016 (Ministry of Drinking Water & Sanitation, 2016). This initiative was designed to build on and leverage the achievements of the two programs – Swachh Bharat Mission (SBM) and Kayakalp – of the Ministry of Drinking Water and Sanitation and Ministry of Health and Family Welfare, respectively. Three broad objectives of this scheme are (Ministry of Health and Family Welfare and Ministry of Drinking Water and Sanitation, 2018):

- Enabling Gram Panchayats where Kayakalp awarded PHCs are located to become ODF;
- Strengthening Community Health Centres (CHCs) in ODF blocks to achieve a higher level of cleanliness to meet Kayakalp standards through support of INR 10 Lakh under NHM;
- Building capacity through training in Water, Sanitation, and Hygiene (WASH) of
- nominees from covered PHCs and CHCs.

Incentives in the form of awards and training and capacity building are behavioural change tools adopted under this scheme.

Fund Allocation

No information

Impact of Behavioural Change Channel

As per the EY and Athena household survey (2019), the frequency of household members falling sick was lower in households with tap water as compared to those using tube well/hand pumps (EY Primary Analysis: Household Survey, 2019).

Challenges

No information

D. WOMEN AND CHILD DEVELOPMENT

D.1. The Poshan Abhiyaan

Behavioural Change Channel

POSHAN Abhiyaan is an umbrella scheme which covers a host of programs and services such as take-home ration from AWCs, anaemia prevention and control under the Anaemia Mukh Bharat program, antenatal care services, dietary counselling through VHSNDs and schemes such as Pradhan Mantri Surakshit Matritva Abhiyaan that provides quality antenatal check-ups. Schemes like JSY, promote institutional deliveries and aim at instilling good breastfeeding habits through conditional cash transfers, and free delivery and early neonatal care services.

A critical component of the POSHAN Abhiyaan is the mobilisation of communities at the grassroots level to combat misinformed or uninformed practices that lead to persistent malnutrition through generations. Some of the ways in which behaviour change is being addressed include Community Based Events (CBE), IEC and BCC, advocacy, and converting activities into a Jan Andolan (People's mission). The objectives of behaviour change communication include:

- Spreading awareness about the impact of malnutrition and a 'call to action';
- Mobilising communities to create an intent to consume nutrient-rich food; and
- Building knowledge, attitudes and practices around optimal breastfeeding, complementary feeding, optimal maternal and adolescent nutrition practices to prevent malnutrition (including severe acute malnutrition (SAM)) and anaemia.

Under this scheme, POSHAN Maah is organised annually in the month of September. The activities in POSHAN Maah focus on Social Behavioural Change and Communication (SBCC). Community based events, door to door campaigns and related activities are organised to spread awareness about antenatal care, optimal breastfeeding (early and exclusive), complementary feeding, anaemia, growth monitoring, girls' - education, diet, right age of marriage, hygiene and sanitation, eating healthy-food fortification. POSHAN Maah also focuses on engagement with elected representatives at all levels - from the Parliament to Panchayats. Material with appropriate messaging, content and media has been created to facilitate this engagement.

Fund Allocation

Funds under POSHAN Abhiyaan have been spent on IEC, advocacy, Jan Andolan, and other CBEs. Overall, 635 crores were spent on these activities until November 2019, of which 12% of funds were spent on IEC, Advocacy and Jan Andolan, and 88% on CBE. Amongst all states, Uttar Pradesh spent the highest share of the total funds on CBE (23%) followed by Madhya Pradesh (13%) and Maharashtra (12%). Madhya Pradesh and Maharashtra also spent a good percentage of sum on IEC and other activities (18% and 15%, respectively) followed by Gujarat (11 per cent).

Impact of Behavioural Change Channel

No information found.

Challenges

No information found.

D.2. Beti Bachao – Beti Padhao (BBBP)

Behavioural Change Channel

The scheme was launched to create equal value for the girl child through social mobilisation, community engagement and sensitisation of stakeholders. The key objective of the scheme is to address the issues of declining child sex ratio, elimination of gender-based sex selection, and ensuring survival, protection, education and participation of the girl child.

One of the key strategies of the BBBP is implementing a sustained advocacy outreach campaign with a 360° media approach *to create equal value for the girl child and promote her education*. The campaign *aims to create behaviour change* to ensure that girls are born, nurtured and educated without discrimination to become empowered citizens of this country with equal rights. The multi-sectoral initiatives in the Districts have been targeted towards various objectives – engaging communities for change of mind-set, improvement in Sex Ratio at Birth, promoting institutional deliveries, maintaining village level record of birth and their exhibition in public places through Guddi-Gudda Boards, birth registration, encouraging the celebration of girl children, challenging son-centric rituals and reversing the social norms, re-enrolment drives for getting girls back to schools and preventing child marriage⁶⁶. This nation-wide media campaign includes radio spots/jingles in Hindi and regional languages, video spots, SMS campaigns, community engagement through song and drama, e-mailers, hand-outs, and brochures. The use of social media is also reported⁶⁷. This nation-wide media campaign covers all 640 Districts within the country.

The scheme also undertakes community mobilisation and outreach to discuss gender issues through platforms like Naari ki Chaupal, Beti Janmotsav, Mann ki Baat, etc. Efforts are also made to bring about a change in the mindset of people, and an extensive focus on gender sensitisation through the integration of gender equality related concerns in curriculum across the educational institutions; integration of the girl child and gender equality related concerns in the training strategy of Administrative, police, judicial, medical colleges and other training academies, such as LBSNAA, ATIs, CTIs; strengthening capacities of the existing training institutions of the relevant Departments—including through Gender and Girl Child Units—to impart effective training on Gender Sensitisation and issues related to the CSR, the equal value of girl child; and undertaking training of Frontline workers such as AWWs/ ASHAs to enhance their understanding on Issue of declining CSR, gender-biased sex selection, other forms of discrimination against girl child and their social impact.

Fund Allocation

No information

Impact of Behavioural Change Channel

The MWCD Annual Report 2019-2020⁶⁸ notes that the BBBP scheme has stirred up collective consciousness towards changing the mind-set of the Nation towards valuing the girl child. It has resulted in increased awareness, sensitisation and conscious building around the issue of declining CSR across the country. As a result, a favourable trend with concerted efforts at National, State and District levels has been seen in Sex Ratio of Birth (SRB) at State/UT level. An improving trend of 2

66 Ministry of Women and Child Development. (2020). Annual Report 2019-2020.

67 Press Information Bureau, Government of India. (2019). *Use of Funds under the BBBP Scheme*.

68 Ministry of Women and Child Development. (2020). Annual Report 2019-2020.

points is observed in Sex Ratio at Birth (SRB) at National level from 929 (2017-18) to 931 (2018- 19)⁶⁹. Thus, BBBP has a robust behaviour change strategy spanning multiple sectors and agendas- one that has been effective in nudging behaviours towards positive life and education outcomes for girl children.

Challenges

No information

D.3. Ujjawala Scheme

Behavioural Change Channel

This scheme uses channels such as social mobilisation and involvement of local communities, awareness generation programmes, workshops and seminars to prevent trafficking of women and children for commercial sexual exploitation and facilitating the rescue of victims and placing them in safe custody. Rehabilitation services including shelter, food, clothing, medical treatment including counselling, legal aid and guidance and vocational training are provided. The scheme facilitates the reintegration of the victims into the family and society at large and the repatriation of cross-border victims to their country of origin.

Fund Allocation

No budget allocated

Impact of Behavioural Change Channel

No information found.

Challenges

No information found.

D.4. Mahila Police Volunteers

Behavioural Change Channel

Mahila Police Volunteers have been designated to act as role models for the community and to report incidences of violence against women such as domestic violence, child marriage, dowry related harassment and violence faced by women in public spaces.

Fund Allocation

No information

Impact of Behavioural Change Channel

No information found.

⁶⁹ *Ibid.*

Challenges

No information found.

D.5. Nai Roshni**Behavioural Change Channel**

No information

Fund Allocation

No information

Impact of Behavioural Change Channel

No information found.

Challenges

No information found

D.6. National Career Service**Behavioural Change Channel**

The **National Career Service (NCS)** Project provides a variety of employment-related services like career counselling, vocational guidance, information on skill development courses, apprenticeship, internships etc.

Fund Allocation

No information

Impact of Behavioural Change Channel

No information found.

Challenges

No information found

D.7. Mahila Samridhi Yojana (MSY)**Behavioural Change Channel**

This was launched by the MSJE as an exclusive Micro-Credit Scheme with a rebate on interest for women beneficiaries to enable them to take up income-generating activities with higher investment. Such rebates are forms of incentives which are a commonly used behavioural change tool.

Fund Allocation

No information

Impact of Behavioural Change Channel

No information found.

Challenges

No information found

E. HUMAN RESOURCE AND DEVELOPMENT (EDUCATION SECTOR)**E.1. National Programme Of Mid-Day Meal In Schools*****Behavioural Change Channel***

To bring about a behavioural change, awareness campaigns are to be organised at the state and school levels. At the school level, the organisation of such awareness generation activities is the responsibility of school level functionaries, block Level functionaries, district nodal officer, and district collector/CEO (Zilla Panchayat).

Fund Allocation

No information found.

Impact of Behavioural Change Channel

No information found.

Challenges

No information found.

E.2. Umbrella Programme For Development Of Minorities***Behavioural Change Channel***

The behavioural change channel is awareness generation and sensitisation.

Fund Allocation

INR 5 lakh per year per State Madrasa Board are allocated towards awareness generation and sensitization, and participation of the community. Scheme PAB minutes 2019-20, indicated 3 madrasa boards receiving fund allocation under the same. However, the data around utilization of the same is not available. States like Uttarakhand use funds from Samagra Shiksha for awareness generation activities.

Impact of Behavioural Change Channel

No information found.

Challenges

There is a lack of awareness regarding the scheme. Primary surveys have indicated that around 58 percent of teachers and 50.5 percent of households weren't aware of the scheme.

E.3. Sarva Shiksha Abhiyan

Behavioural Change Channel

The scheme aims to bring about a behavioural change by increasing community mobilisation and generating awareness through campaigns and programs. Initiatives such as Rangotsav (which includes cultural activities) and Kala Utsav (which includes competitions), are undertaken under the scheme for enhancing the overall school education experience of school community members. Praveshotsav is an initiative undertaken by states to involve community members to help improve enrolments, reduce dropouts and bridge gender, socio-economic gaps in the school.

Fund Allocation

For awareness generation and community mobilisation activities 0.5% of the total district outlay is provisioned in the Annual Work Plan and Budget provided that the cumulative outlay is not more than 4 per cent of total outlay. Under Samagra Shiksha, over INR 1,500 per school can be allocated and is subject to the state specific plan.

In 2018-19 (under Samagra Shiksha) over INR 47.9 crores were spent towards the behavioural change channel as compared to INR 74.65 crores spent in 2015-16 FY (under erstwhile SSA). The expenditure towards awareness generation and community mobilisation as a proportion of the total budget was 44% in 2016-17 and 37% in 2017-18. Through various household surveys it was revealed that awareness about schemes was the highest in Himachal Pradesh. In HP, the share of total budget spent towards awareness generation and community mobilisation activities was 77% in 2016-17 and 91% in 2017-18.

Impact of Behavioural Change Channel

The results of a primary survey indicate that 97% of the teachers interviewed are aware of the scheme and 70% have participated in awareness generation programs. Contrary to this, only 28% of the SMC members interviewed report to have participated in any kind of sensitization or awareness generation activity. Lastly, only 52% of the beneficiaries interviewed were aware of the scheme.

Challenges

While provisions for community mobilization and SMC training have been made under the scheme and funds have been allocated for the same, the percentage of the budget utilised is much lower than the allocated budget. During the years of 2016-17 and 2017-18, an analysis of scheme audit reports of a few states shows minimal expenditure against outlay towards the behavioural change channels. A survey revealed low awareness about the scheme amongst its respondents in the states of Uttar Pradesh and Nagaland (43% and 48% respectively). The average share of expenditure on community training and mobilization of the total funds allocated for these activities was 31 per cent in Uttar Pradesh and 1.5 per cent in Nagaland.

E.4. Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Behavioural Change Channel

The scheme guidelines highlight Community awareness, Parent Teacher Association, School Management & Development Committees as processes to generate beneficiary awareness. The Adolescent Education Programme (AEP) is also aimed at enhancing awareness for beneficiaries.

A few states such as Uttarakhand and Himachal Pradesh have adopted the following mechanisms to enhance awareness and sensitisation:

- ⦿ **Access:** Community level mobilization/awareness building and sensitization programs to increase student enrolment/attendance/retention, especially for enrolment of dropouts/OOSC in regular/open schools, and for enrolment of girls (special enrolment camps).
- ⦿ **Equity:** 'Adolescent programs' for girls to raise awareness on personal hygiene/menstrual health/reproductive health, self defence program, arts and crafts programs, girl's stipend, special awareness programmes for SC/ST students.

States have initiated Pravesh Utsav, a program where parents are invited to the schools and taken through presentations on teaching practices. In Gujarat, teachers who introduce innovative methods in teaching are recognized and felicitated annually.

Fund Allocation

Budget allocated towards community mobilization and beneficiary awareness campaigns is over 0.5 per cent of the total district outlay. Rs. 300 per person⁷⁰ can be spent on SDMC training.

Impact of Behavioural Change Channel

All states have indicated that beneficiary awareness as well as parental involvement in their child's education improved due the scheme

Challenges

The issue of student dropout is a major challenge and requires behavioural change interventions.

E.5. Centrally Sponsored Scheme On Teacher Education (CSSTE)

Behavioural Change Channel

Mechanisms to promote teacher educators, and awareness and sensitization include the following:

- ⦿ Awards: National ICT Award by MoE, Outstanding Science Teacher Prize, Global Teacher Prize, Teaching Professional Olympiad, UNESCO-Hamdan bin Rashid Al-Maktoum Prize and SOF Awards
- ⦿ Exchange and Training Programmes: Fulbright Awards in Teaching Program (USA), Japanese Teacher Training Scholarship (Japan), International Leaders in Education Program (ILEP) and Teaching Excellence and Achievement Program (USA) and Microsoft Innovative Educator Program (Online)

⁷⁰ RMSA Financial Procurement and Management Manual

- Research: UGC Research awards–For the teachers who have completed PhD, Fulbright-Nehru Fellowship and RBI Research Scholarship Scheme
- Fellowship: Teach for India Fellowship and Gandhi Fellowship

A committee is formed at the state level that evaluates application across various award categories. The most meritorious teacher's application is then forward to MoE for final evaluation. MoE receives applications of nomination from all states and Union territories. The national level committee then chooses the suitable awardees across various categories. The teachers are awarded annually on the 5th September by the President of India.

Fund Allocation

Details on fund allocation and utilization are not available. The findings of a primary survey revealed that the TEIs receive some amount under program activities which can be utilized for exchange and visits for awareness and sensitization activities.

Impact of Behavioural Change Channel⁷¹

No information.

Challenges

Only 43 per cent of the students surveyed are aware of CSSTE. They are reported to get their information from print media, social media and television advertisements.

E.6. Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

Behavioural Change Channel

At the state level, no specific awareness generation activities are undertaken for the beneficiaries of RUSA.

Fund Allocation

As per the guidelines of RUSA, there is no stipulated sum that must be utilised for generating awareness. Funds are allocated for conducting workshops and awareness activities to prepare the states for RUSA.

Impact of Behavioural Change Channel

No information found.

Challenges

At the institute level, no funds are allocated towards awareness generation activities. No awareness generation activities are undertaken as such. There are no provisions to involve local stakeholders like students in the scheme's planning process.

⁷¹ The primary survey indicates that SE Shagun maintains digital repository of the best practices in this domain.

E.7. Saakshar Bharat (SB)

Behavioural Change Channel

To bring about a behavioural change, the scheme includes capacity building, awareness building and sensitization programs for its beneficiaries and stakeholders to promote good practices and community convergence.

A volunteer-based mass campaign approach to increase the community level convergence of the scheme, and to generate a sustainable demand for literacy at the grassroots level has been prescribed under the scheme.⁷²

Fund Allocation

The total budget approved for capacity building and awareness generation activities is only 0.0064% of the scheme's total budget. Further, only 65.82 % of the approved budget for this behavioural change channel has been released to the states over the scheme's entire duration. Out of the released budget, 88.57% was utilised in 2019-20.

INR 2,500 per GP/AEC have been allocated for community mobilization/awareness building activities. INR 1,000 per literacy functionary has been allocated towards the training/ capacity building programs for implementation agents/ functionaries at State, District, Block and GP (Preraks) levels.

Impact of Behavioural Change Channel

While the programme has benefited several adult non-literates, it has not been able to address livelihood needs of adult learners/ neo-literates. The awareness generation activities seem to be insufficient.

Challenges

- ⦿ State KIs have indicated that the budgetary provisions for community mobilization activities are insufficient. Impact of these activities w.r.t awareness building and increasing participation is not that widespread. This is corroborated by the results of a primary survey which found out that 31% of the total beneficiaries are not aware of the scheme.
- ⦿ Another challenge is insufficient capacity building among key implementation stakeholders at the ground level. As per MoE data, only 53.8 per cent of the targeted VTs and 83.7 percent of the targeted Preraks were trained under the scheme.
- ⦿ Lack of adequate financial incentives resulting in lack of motivation amongst the VTs is another challenge. They did not receive any remuneration/honorarium as laid down under the scheme's provisions.

⁷² Ministry of Education. Centrally Sponsored Scheme: SAAKSHAR BHARAT. Retrieved from https://MHRD.gov.in/saakshar_bharat

BIBLIOGRAPHY

1. Academy of Management Studies; Awadh Research Foundation; GFK Mode Pvt. Ltd.; Midstream Marketing & Research Pvt. Ltd.; Mott MacDonald Pvt. Ltd. (2015). Nationwide evaluation of flagship programme of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGS).
2. *Adolescent girls in Indonesia use their smartphones to fight anaemia*. Scalingupnutrition.org. (2019). Retrieved from <https://scalingupnutrition.org/news/adolescent-girls-in-indonesia-use-their-smartphones-to-fight-anaemia/>.
3. Behavioral Insights in Indian Policymaking: Vision Document by the Behavioral Insights Unit of India [Unpublished]. (2022).
4. Bhutta, Z., Lassi, Z., Pariyo, G., & Huicho, L. (2010). Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems.
5. Biran, A., Schmidt, W. P., Varadharajan, K. S., Rajaraman, D., Kumar, R., Greenland, K., ... & Curtis, V. (2014). Effect of a behaviour-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial. *The Lancet Global Health*, 2(3), e145-e154.
6. Bishop, S., Pursnani, P., & Sumpter, C. (2014). *Social marketing in India: lessons learned from efforts to foster demand for cleaner cookstoves*. Technical Report, Shell Foundation, London 2013.(Not cited.).
7. Blumenstock, J. E., Callen, M., & Ghani, T. (2016). Mobile-izing savings with automatic contributions: Experimental evidence on present bias and default effects in Afghanistan. Available at SSRN 2814075.
8. Castelo, N., Hardy, E., House, J., Mazar, N., Tsai, C., & Zhao, M. (2015). Moving citizens online: Using salience & message framing to motivate behavior change. *Behavioral Science & Policy*, 1(2), 57-68.
9. Charlier, C., Guerassimoff, G., Kirakozian, A., & Selosse, S. (2019). Nudging electricity consumption within firms. Feedbacks from a field experiment.
10. Coffey, D., Gupta, A., Hathi, P., Spears, D., Srivastav, N., & Vyas, S. (2016). Untouchability, pollution, and latrine pits.
11. Corace, K., & Garber, G. (2014). When knowledge is not enough: changing behavior to change vaccination results. *Pubmed*.
12. Davidson, K. A., & Kropp, J. D. (2017). Exploring Behavioral Nudges to Improve Nutrition in Bangladesh.

13. Dmeo.gov.in. Retrieved from https://dmeo.gov.in/sites/default/files/2021-04/P4_Urban_Transformation_Sector_Best_Practices_Compendium.pdf.
14. Dr. Agarwal, P. K., Dr. Mehar, R., Er. Jaisawal, H., & NRIDA, Ministry of Rural Development, Government of India. (2017). Some Basic Concepts to Enhance Safety on PMGSY Roads. *Grameen Sampark, NRIDA*.
15. Duflo, E., Kremer, M., & Robinson, J. (2011). Nudging farmers to use fertilizer: Theory and experimental evidence from Kenya. *American economic review, 101(6)*, 2350-90
16. Dupas, P., & Robinson, J. (2013). Why don't the poor save more? Evidence from health savings experiments. *American Economic Review, 103(4)*, 1138-71.
17. Evans, W. D., Young, B. N., Johnson, M. A., Jagoe, K. A., Charron, D., Rossanese, M., ... & Ipe, J. (2020). The Shamba Chef Educational Entertainment Program to Promote Modern Cookstoves in Kenya: Outcomes and Dose-Response Analysis. *International Journal of Environmental Research and Public Health, 17(1)*, 162.
18. Fiorillo, A., Potok, L., Wright, J., Peachey, J., & Davies, K. (2014, February). Applying behavioral economics to improve microsavings outcomes. In *Ideas* (Vol. 42).
19. Gerber, A., Karlan, D., & Bergan, D. (2009). Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions. *American Economic Journal: Applied Economics, 1(2)*, 35-52. doi: 10.1257/app.1.2.35
20. Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research, 35(3)*, 472-482.
21. Gopalan, M., & Pirog, M. A. (2017). Applying behavioral insights in policy analysis: Recent trends in the United States. *Policy Studies Journal, 45(S1)*, S82-S114.
22. *Guidelines*. Swachhbharatmission.gov.in. Retrieved from <https://swachhbharatmission.gov.in/SBMCMS/guidelines.htm>.
23. Gupta, A., Khalid, N., Hathi, P., Srivastav, N., Vyas, S., & Coffey, D. (2019). Coercion, Construction, and 'ODF paper pe': Swachh Bharat According to Local Officials.
24. Gupta, S. (2017). Perils of the Paperwork: The Impact of Information and Application Assistance on Welfare Program Take-Up in India.
25. Halpern, D., & Sanders, M. (2016). Nudging by government: Progress, impact, & lessons learned. *Behavioral Science & Policy, 2(2)*, 52-65. doi: 10.1353/bsp.2016.0015
26. Hansen, P. G. (2019). *Tools and ethics for applied behavioural insights: The BASIC toolkit*. Organisation for Economic Cooperation and Development, OECD.
27. Hollingworth, C., & Barker, L. (2019). *Saving Lives By Closing the Intention-Action Gap*. Retrieved from <https://behavioralscientist.org/saving-lives-by-closing-the-intention-action-gap/>.
28. https://www.indiabudget.gov.in/budget201920/economicsurvey/doc/vol1chapter/echap02_voll.pdf
29. <https://jalshakti-ddws.gov.in/documents/annual-report>
30. <https://main.mohfw.gov.in/sites/default/files/5658789632541236.pdf>

31. <https://tribal.nic.in/writereaddata/AnnualReport/AR2017-18.pdf>
32. Information obtained from DAY NRLM Division, DoRD.
33. Iten, A., Bonfillon, C., Bouvard, T., Siegrist, C. A., & Pittet, D. (2013). P037: Nosocomial influenza prevention using multi-modal intervention strategies; 20-years of experience. *Antimicrobial Resistance and Infection Control*, 2(1), 1-1.
34. Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2016). Getting to the top of mind: How reminders increase saving. *Management Science*, 62(12), 3393-3411.
35. Kazi, A., Murtaza, A., Kazi, A., Khurram, Z., & Hussain, K. (2016). Effect of mobile phone text messages reminders on uptake of routine immunization among children in Pakistan-study protocol for a randomized clinical trial. *J Vaccines Vaccin*, 7(333), 2.
36. Knowledge Partnership Programme. (2014). Self-help Groups as Vehicle of Empowerment.
37. Kumar, P., Deb, S., de Wagt, A., Gupta, P., Bhandari, N., Sareen, N., & Aneja, S. (2020). Managing at risk mothers and infants under six months in India-no time to waste. *Field Exchange* 63, 38.
38. Levine, D. I., Beltramo, T., Blalock, G., Cotterman, C., & Simons, A. M. (2018). What impedes efficient adoption of products? Evidence from randomized sales offers for fuel-efficient cookstoves in Uganda. *Journal of the European Economic Association*, 16(6), 1850-1880.
39. Lok Sabha Secretariat, New Delhi, (2020). Standing Committee on Social Justice and Empowerment 2019-20, Seventeenth Lok Sabha, Ministry of Social Justice & Empowerment, Department of Social Justice and Empowerment
40. Lorini, C., Ierardi, F., Gatteschi, C., Galletti, G., Collini, F., Peracca, L., ... & Bonaccorsi, G. (2020). Promoting influenza vaccination among staff of nursing homes according to behavioral insights: analyzing the choice architecture during a nudge-based intervention. *Vaccines*, 8(4), 600.
41. Mani, A., Mullainathan, S., Shafir, E., & Zhao, J. (2013). Poverty impedes cognitive function. *science*, 341(6149), 976-980.
42. MGNREGS Division, Ministry of Rural Development, Government of India. (2013). *Reaching the unreached IEC Plan for MGNREGS FY 14-15*.
43. Ministry of Education. Centrally Sponsored Scheme: SAAKSHAR BHARAT. Retrieved from https://MHRD.gov.in/saakshar_bharat
44. Ministry of Health and Family Welfare (2015). Annual Report 2014-2015.
45. Ministry of Health and Family Welfare (2020). Annual Report 2019-2020.
46. Ministry of Health and Family Welfare (2021). Annual Report 2020-2021.
47. Ministry of Rural Development. (2013). Mahatma Gandhi National Rural Employment Guarantee Act 2005. Operational Guidelines – 4th Edition. Government of India.
48. Ministry of Rural Development. (2015). Framework of Implementation. Shyama Prasad Mukherji Rurban Mission.
49. Ministry of Women and Child Development. (2020). Annual Report 2019-2020.
50. Ministry of Women and Child Development. (2021). Annual Report 2020-2021.

51. Mitchell, D. L., & Chesnutt, T. W. (2013). *Evaluation of the East Bay Municipal Utility District's Pilot of WaterSmart Home Water Reports*. Sacramento, CA, USA: California Water Foundation.
52. Mullainathan, S., & Shafir, E. (2013). *Scarcity: Why having too little means so much*. Times Books/Henry Holt and Co.
53. Namagembe, A., Muller, N., Scott, L. M., Zwisler, G., Johnson, M., Arney, J., ... & Mugisha, E. (2015). Factors influencing the acquisition and correct and consistent use of the top-lit updraft cookstove in Uganda. *Journal of health communication*, 20(sup1), 76-83
54. Neal, D., Vujcic, J., Burns, R., Wood, W., & Devine, J. (2016). Nudging and habit change for open defecation: new tactics from behavioral science. *Bank, Editor*.
55. Nhp.gov.in. (2015). Retrieved from https://nhp.gov.in/sites/default/files/pdf/draft_national_health_policy_2015.pdf.
56. N.I.P.F.P. (2018). Impact of PMAY-G on Income and Employment. Ministry of Rural Development.
57. Oecd-ilibrary.org. (2018). Retrieved from <https://www.oecdilibrary.org/sites/9789264303072-10-en/index.html?itemId=/content/component/9789264303072-10-en>.
58. Olewitz, C. (2016). *Optical Illusion Speed Bumps Slow Down Traffic in India | Digital Trends*. Digital Trends.
59. 'Opt Out' Policies Increase Organ Donation | SPARQ. (2022). Retrieved from <https://sparq.stanford.edu/solutions/opt-out-policies-increase-organ-donation>
60. Pattanayak, S. K., Jeuland, M., Lewis, J. J., Usmani, F., Brooks, N., Bhojvaid, V., ... & Ramanathan, V. (2019). Experimental evidence on promotion of electric and improved biomass cookstoves. *Proceedings of the national Academy of Sciences*, 116(27), 13282-13287.
61. Press Information Bureau, Government of India. (2019). *Use of Funds under the BBBP Scheme*.
62. *Press Information Bureau*. Pib.gov.in. Retrieved from <https://pib.gov.in/Allrel.aspx>.
63. RMSA Financial Procurement and Management Manual
64. Rupani, M. P., Patel, P. M., Meena, P. R., Patel, P. P., Patel, P. A., & Paragda, P. K. (2019). Regular antenatal care visits predict good knowledge among post-natal mothers regarding entitlements of health programs in western India. *International Journal of Health Policy and Management*, 8(8), 467.
65. *Save More Tomorrow*. Shlomobenartzi.com. Retrieved from <http://www.shlomobenartzi.com/save-more-tomorrow>.
66. Soon, K. (2017). *Shifting Public Behaviour: Early Policy Measures in Singapore*. Retrieved 4 February 2022, from <https://www.csc.gov.sg/articles/nudges-why-how-what-next>.
67. Straßheim, H., & Beck, S. Introduction to the Handbook of Behavioural Change and Public Policy.
68. Sudarshan, A. (2017). Nudges in the marketplace: The response of household electricity consumption to information and monetary incentives. *Journal of Economic Behavior & Organization*, 134, 320-335.

69. Sunstein, C. (2014). Nudging: A Very Short Guide. *SSRN Electronic Journal*. doi: 10.2139/ssrn.2499658
70. Sunstein, C., & Reisch, L. (2018). Behavioral Economics and Public Opinion. *Intereconomics*, 53(1), 5-7. doi: 10.1007/s10272-018-0710-2
71. *Swachh Manch*. Swachhmanch.in. Retrieved from <https://www.swachhmanch.in/>.
72. Team, B. I. (2012). Applying behavioural insights to reduce fraud, error and debt. *Cabinet Office, London*, 185, 186.
73. Team, B. I. (2014). EAST. *Four Simple Ways to Apply Behavioural Insights*.
74. *The Immunity Charm - Making immunization into a tradition*. Theimmunitycharm.org. Retrieved from <http://www.theimmunitycharm.org/>.
75. Uplight.com. Retrieved from https://uplight.com/wp-content/uploads/2019/10/U_WhitePaper_FutureofHER_090519_v2-1.pdf.
76. Wakefield, M., Loken, B., & Hornik, R. (2010). Use of Mass Media Campaigns to Change Health Behaviour. *The Lancet*. doi: DOI:10.1016/S0140-6736(10)60809-4
77. Williams, A. R., & Overbo, A. (2015). Unsafe return of human excreta to the environment: A literature review. *Chapel Hill, NC: The Water Institute at UNC*.



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