Building Capacity to Use Research Evidence (BCURE): Data and Evidence for Smart Policy Design

Harvard University
Institute for Financial Management and Research

BCURE India Policy Dialogue Report: PolicyHack

Held at the American Center in Delhi April 18-19, 2015

Contents

I. EXECUTIVE SUMMARY

Evidence for Policy Design (EPoD) at Harvard University, and IFMR LEAD at the Institute for Financial Management and Research, organized a Policy Dialogue hackathon, dubbed *PolicyHack*, to bring together India's developers, software engineers, policy makers, representatives from academia, and government partners, under the auspices of the Building Capacity to Use Research Evidence (BCURE) Program. The event focused on developing new tools and innovations to create a more effective, efficient, and transparent government. It was held on the 18-19 April, 2015 at the American Center in New Delhi, India.

PolicyHack aimed to demonstrate how evidence-informed policy can be achieved through collaborative projects that bring technological innovations to policy stakeholders using the diverse perspective of a new generation of Indian technology developers. These developers were presented with policy problems across several sectors, including skills trainee job placement, education, clean water in Delhi, and countering counterfeit products.

Twenty-four teams of up to four participants each were given over 30 hours to envision, design, develop, and present their solution to a panel of four judges from the fields of government, academia, technology, and journalism. Winning projects are being provided with ongoing support in the development of their policy solution for further refinement and future implementation.

II. OVERVIEW OF THE BCURE PROGRAM

Greater use of data and research evidence by policymakers has the potential to contribute dramatically improved government policies that are effective, efficient, and transparent. The BCURE program at Harvard seeks to build a 'culture of evidence' where using evidence to inform policy decisions becomes the norm among a broad set of actors. Shifting the culture of policy-making will require not only expanding technical capabilities and innovation, but also enhancing motivation and incentives by building shared recognition of the value and usefulness of evidence. Informed by a rigorous assessment of the policy-making context, the program design incorporates several components, such as practical training for policy decision makers on how to use data and evidence, while also showcasing the power of evidence through proof-of-concept pilot projects and policy dialogues. A brief summary of each of the four core components of the BCURE program at Harvard is as follows:

1. **Needs Assessment:** A rigorous assessment of both training and capacity-building needs as well as the conditions under which policymakers' intrinsic and extrinsic motivations promote data and research evidence in decision making.
2. **Training**: A scalable online training platform, building on recent developments in pedagogical methods as well as a participatory diagnosis of training needs carried out as part of the assessment activity.
3. **Pilot Projects:** Development and institutionalization of a pipeline for demonstration and

pilot projects that will foster a more engaged and meaningful demand-driven approach to using evidence to inform policy.

4. **Policy Dialogues**: Forums for multi-directional dialogue, interactive problem solving and negotiation, and strategic coordination to advance policy through a shared understanding of the evidence base.

This multi-pronged and multi-level program is built on direct engagement with policymakers and partnerships with respected local research and policy organizations. We adopt a common model of engagement across the BCURE-Harvard focus countries of India and Pakistan, with the specifics of the approach reflecting the context's current level of institutionalization of evidence-informed policy, as well as particular capacity-building needs and opportunities expressed by end beneficiaries. The program design is based on the theory that in order for policy to be grounded in evidence, policymakers must have both the technical capabilities to access, appraise and apply data and evidence, as well as the motivation and incentives to do so. Changing norms around the role of data and evidence in policy making requires engaging a wide range of stakeholders and creating coordinated pressure for reform through informed debate. Highly visible successes in bringing evidence to bear on policy problems are crucial for building recognition within the policy community of the importance and value of more rigorous approaches.

The program activities, therefore, are designed to increase technical capabilities, motivation, and incentives to use evidence through five intermediate outcomes: 1) Increased experience with using data and evidence through applied learning; 2) Greater awareness of channels through which data and evidence can support decision making; 3) Embedded in-country capacity for training on evidence use; 4) Shared recognition of the value of rigorous, rather than anecdotal, evidence to inform policy debates; and 5) Strengthened policy networks, including influential champions committed to using evidence.

III. OBJECTIVES OF BCURE POLICY DIALOGUES

BCURE-Harvard policy dialogues are designed to bring together key stakeholders from a broad range of policy arenas, including government, political parties, military, private sector, civil society, academia and the media to advance policy and government program implementation through a shared understanding of the evidence base. Participants are selected to ensure a meaningful dialogue and to help identify and strengthen a network of 'champions' for evidence-based policy. In addition, they highlight success stories where using evidence to design policy in collaboration with policymakers and academics has led to "smart" policy designs with subsequently high-impact outcomes.

Each dialogue is designed to accomplish a specific set of goals in a particular policy context. They are also designed to test different models and approaches for engaging policymakers and researchers. To that end, the exact structure, make-up of the participants, and anticipated outputs will differ between each event. Still, all Policy Dialogues aim to achieve the following objectives:

1. Demonstrate the value of collaboration between policymaker and researcher for evidence-informed policy-making;

2. Share pertinent research evidence to generate discussion and consensus for potential policy interventions or reforms;

3. Help catalyze future engagements, often in a particular policy sector, which aim to solve critical policy problems with an evidence-based approach. In many cases, partnerships developed in the policy dialogue will feed other forms of continued interaction into the pilot projects.

A key to the success of each dialogue is to select participants based on their interest in engaging in constructive dialogue and their capability to turn the findings and decisions into action. Therefore, dialogue design involves an extensive pre-workshop planning and communication stage with key stakeholders during which they provide input on the workshop content, structure and objectives.

IV.   POLICY DIALOGUE: POLICYHACK

Overview

The third BCURE-Harvard policy dialogue focused on technological innovation and data-driven solutions in India, and in particular on innovative strategies for using data to improve transparency and effectiveness. It was held on April 18th and 19th at the American Center in Delhi, with significant on-site support from the American Center, which hosted over 80 participants for over 30 straight hours, along with numerous mentors, policy representatives and members of the media.

Theme

The theme of PolicyHack – data-driven solutions to governance and government implementation challenges – has been gaining attention in recent years throughout India and around the world, as the "big data revolution" has led to advances in data feedback loops. While frequently associated with the private sector, policymakers and scholars in this field have also begun to design ways in which similar processes can lead to improvements in public service delivery. Through BCURE pilot projects such as "Smart Data: Can visualized data help inform and hold public stakeholders accountable?" and through a number of on-going engagements, EPoD has been working with policymakers to identify ways in which administrative data can be better used to improve policy design and outcomes. In India, this has led to the development of dashboards to track program indicators such as payment delays for the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA); and to a greater understanding of how to use data captured by continuous emissions monitoring devices to improve regulatory capacity at the Gujarat Pollution Control Board. Still, we are undoubtedly at the early stages in this space. Not only is there great demand for better data systems among policymakers (as evidenced by our pilot projects and numerous conversations with policymakers across many different ministries), there is also a great deal of talent in India's technology development sector.

Partners

The dialogue was held at the American Center, a library and cultural center run by the United States embassy in India. The venue provided us with ample space, a central location and invaluable support. It also offered great cost-savings, as the American Center offered their venue free of charge and donated the costs of printing and support staff time.

Participants

Participants included: over 80 developers, coders, web designers and analysts, who competed in the event; twelve mentors from a diverse set of backgrounds and organizations including EPoD, IDinsight, Jameel Poverty Action Lab, World Bank, and Harvard University; representatives from policy track partners (some of whom also served as mentors); and a four-judge panel including Professor Rohini Pande, EPoD Co-Director and Professor of Public Policy at the Harvard Kennedy School; Dr. Santhosh Mathew, Joint Secretary, Ministry of Rural Development; Rukmini Shrinivasan, National Data Editor at the Hindu; and Ajey Gore, Founder of CodeIgnition.

Approach

The two-day event brought together some of India's top developers to take on a number of real-world data-based policy and implementation challenges and to design practical solutions. Specifically, there were four policy tracks established, each representing a different policy problem that was posed by policy partners and developed in collaboration with EPoD staff in India. These included:

- Matching vocational trainees and willing employers, with DDU-GKY Skills Division, Ministry of Rural Development
- Increasing transparency in education, with the Central Square Foundation
- Water management in the city of Delhi, with the Delhi Dialogue Commission, Government of Delhi
- Tracking and tackling the challenge of counterfeit products, Department of Consumer Affairs, Ministry of Consumer Affairs, Food, and Public Distribution

These policy tracks were designed in the months leading up to the event, and matched with relevant data sources. The policy partners also attended the opening session of PolicyHack to present their challenges and provide guidance in the developers' research and development of a solution. Teams of coders spent almost two full days developing solutions to one of these particular policy track challenges. Some teams alternatively chose to pursue a fifth "open" track, in which the team was tasked with designing both the challenge and a solution using any open-source government data available.

After roughly 30 hours of work (broken up only by meals, two "flash talks," and a few structured mentoring sessions), each team of developers presented their solutions to the panel of judges, who selected one winning team from each policy track. The judges used a rubric that included the real-world application as well as the innovation of the solution. (The rubric is attached as Appendix 2.)

Of the winning projects, one was awarded the grand prize of mentoring from the EPoD teams in India and Cambridge, who will provide guidance in shaping a full-scale proposal for the policy partner.

Opening Remarks and Team Selection

After registration and opening remarks by EPoD India Director Charity Troyer Moore and First Secretary at the U.S. Embassy in India Katherine A. Caro (which can be viewed here and here), developers had a chance to meet with representatives from each policy track, who were situated around the premises to field questions. During this time, developers who had not entered the competition with an already-formed team were encouraged to meet and form teams around similar interests and complimentary skill sets.

Project Development, Mentoring and Flash Talks

Once formed, the 24 teams began building their solutions. Participants were encouraged to spend ample time working through the solution on paper before developing or designing a computer program. Over the course of the 30 hours that followed, mentors circulated to assist teams in issues ranging from policy application viability to technical development. The mentors also conducted two structured sessions: the first came roughly 10 hours into the event and focused on ensuring a coherent and viable theory of change; the second came two hours prior to judging and focused on presentation skills and product articulation. We also scheduled a series of "Flash Talks" throughout the event, which were opportunities for developers to take the stage and talk about other projects on which they were working. Due to limited demand and a keen interest from each team to keep working, we ultimately had only two flash talks, one by a mentor and one by a developer.

Presentations and Awards

Finally, in the afternoon of the second day, everyone (including representatives from the policy track organizations/departments) came together to hear each team present their solution. They were given 5 minutes, including questions from the panel of judges. After deliberation by the judges, the winning teams were announced. There were four first place teams and one grand prize winner.

Winning Projects
Grand Prize
Track 3: Delhi Water (Delhi Dialogue Commission)
Team Name: JSON
Project info: Team worked on solving the water leakage and corruption (a.k.a. water mafia) problem for Delhi Jal Board's water tanker system under the Delhi Dialogue Commission. An Arduino-based water level indicator and GPS system was built by the team, which can be installed in each tanker to monitor water level and location of tankers in real time. All this data is collected and analyzed on a web portal which is accessible to the government and general public.

Track 1: Jobs Portal (DDU-GKY)
Winning Team: KAP

Project Info: Recognizing job seekers' difficulty in communicating key characteristics, such as work ethic, to employers, KAP created a job portal for DDU-GKY trainees based on Aadhaar-enabled biometric attendance systems. This incorporated indicators on their vocational training performance to help build a job-relevant history for trainees in areas such as daily attendance at the training. ,.

Track 2: Education (Central Square Foundation)
Winning Team: Team XYZ

Project Info: This team built an interactive voice response and web-based solution to provide information about schools' performance to parents in rural and urban areas. Performance metrics are built on top of data from [DISE](#).

Track 4: Counterfeit Products (Department of Consumer Affairs)
Winning Team: Team OSC
Project Info: This team built a natural language- and image processing-based application to detect counterfeit products. User can click a picture of any product's logo or bar code and get information about the product's authenticity.

Track 5: Open
Winning Team: Qbo
Project Info: This team built a web portal that, on the front end, allows each government office/program to provide the public with relevant information and for each user to build a customized interface to access the information most important to them. There are features for queries and comments built in, as well as advertising space for the government to promote a particular request. On the back end, Qbo proposed to set up a DropBox folder for each government agency/program to hold the information they wish to present on the website. This would then be transferred to the website and automatically uploaded.

V. TRACKING PROGRAM IMPACT—FROM OUTPUTS TO OUTCOMES

The primary aim of the grand prize is to enable the winning team to fully develop their prototype into an applicable and functional tool that the government could use. While there is great potential in the idea developed during PolicyHack, much work needs to go into both the technical components and the policy application, including increased buy-in from the Delhi Dialogue Commission. The grand prize is structured to accomplish this. It involved roughly six weeks of in-country mentoring. EPoD India Director Charity Troyer Moore has already met with this team on multiple occasions, as has EPoD's Technology Consultant Ravi Suhag. Later in the summer, the team will fly to Cambridge, Massachusetts to spend a week with policy experts at the Harvard

Kennedy School, refining their tool in preparation for a final presentation to the Delhi Dialogue Commission upon their return to India.

EPoD staff also met with members of each of the four first-place winning teams to assess interest in moving forward with the next stage of product development, and to set up meetings with the relevant policy counterparts. We will continue to track (and support) these developments and will especially track the developments with the grand prize winning team, including conducting scoping for outcome and/or impact level studies.

Additionally, the event created much excitement around the use of data within the policy and research circles in India. It was covered by several media outlets, including a feature in [Business World](#) and Business World's separate magazine [Smart Cities](#). Other policy partners from across the country also expressed much interest in engaging in a future PolicyHack event, which we will revisit in the coming months.

VI. CHALLENGES, REFLECTIONS, AND LESSONS LEARNED

Overview
As the third BCURE-Harvard Policy Dialogue, this event was quite different from the previous two and thus subject to significantly different lessons. For instance, whereas much of the focus in previous dialogues was on panel discussions with policymakers and researchers, this event had no panels other than the judges. PolicyHack was also a more inward-facing dialogue. While there was an external audience who we sought to reach through publicity surrounding the event, the primary focus was on work conducted at the dialogue and reaching the policymakers in attendance. Through this process we learned a number of lessons which should help in planning the next PolicyHack, and also have implications for any future policy dialogue. Some of the most important include:

It is important to find sponsors early and to hedge through diversification.
During the many months of planning, we had been in talks with the Indian Department of Electronics and Information Technology (DeitY) to be a co-host and major sponsor of the event. Only a few weeks before the dialogue, it became clear that they were not going to join, which meant that EPoD would be responsible for covering the costs of the dialogue. While we engaged in an intensive fundraising effort, we were ultimately unable to find additional sponsors at such a late stage. The results were not devastating, as we had already found a venue host/sponsor in the American Center and there was ample room in the budget to cover the major expenses (mostly catering). However, in the future, we will certainly find additional sponsors much further in advance of the dialogue.

Structured mentor sessions are highly valuable.
For the first 10 hours of the event, the mentors functioned as floating supporters. Some worked directly with a particular team for a long stretch of time, while others remained available for specific questions. While this was certainly helpful, the full potential of the mentors (and their true value from the perspective of the developers) was not reached until we began holding structured

mentoring sessions, where each team sat down for 15 minutes with a pair of mentors to walk step-by-step through their theory of change. In the future, we may also consider assigning mentors to specific teams to enable this type of structured approach over a longer period of time.

Success depends on policy partner buy in and the amount of context they are able to provide.
Having dynamic and engaged policy partners proved to be extremely valuable. For each policy track, we provided background information (included as ANNEX X), and each policy track had a high-level representative available to answer questions at the beginning of the event. Furthermore, three of the policy tracks also had mentors who stayed for extended periods of time to help the teams understand the context and potential implications of their proposed solutions. The "open" track generally proved very hard for participants. While the winning team created a great prototype, most teams in this track ran into significant hurdles because they had very little context within which to understand the challenge they had envisioned.

VII.   APPENDICES

Appendix 1. Program Agenda

PolicyHack Agenda		
Saturday, April 18, 2015		
9:00 am - 9:30 am	Registration	*Participants sign in at the registration desk.*
9:30 am - 10:00 am	Welcoming remarks and introduction of policy tracks	*Introduction from EPoD India and the American Center. Background information for the event.*
10:00 am - 10:30 am	Personal introductions, forming teams and policy track sign up	*Representatives from each policy track will be available to meet with interested developers. Developers to form teams and select tracks.*
Remainder of day/night	Hackathon coding	*Participants will be allowed to code uninterrupted. Food will be made available throughout the day/night.*
1:00 pm	Lunch	*Lunch will be available.*
7:30 pm	FlashTalk One	*Developers will have the opportunity to give short talks on cutting edge developments in the tech/coding industry. Snacks will be available.*
8:00 pm	Dinner	*Dinner will be available.*
Sunday, April 19, 2015		
12:00 am+	Hackathon coding	*Coding to continue through the night. Auditorium will be available for breaks.*
12:30 am	Midnight snack	*Pizza will be available*
7:30 am	FlashTalk Two	*Slot times available for participants to sign up.*
8:00 am	Breakfast	*Breakfast will be available.*
1:00 pm	Lunch	*Lunch will be available.*
2:30 pm - 5:30 pm	Group presentations	*Each group will give 3-5 minute presentations of their innovation.*
5:30 pm - 6:00 pm	Judge Deliberation and Selection, Awards and closing remarks	*Judges select winners.*

Appendix 2. Judging Rubric

	Concept	Execution	Scalability	Total Score

	Addresses problem posed	Feasible to implement through existing administrative systems	Politically supportable	Attractive to potential users, with high usage potential	Represents an innovative contribution	Proportion of prototype plan completed	Design aesthetics	Potential value for money of scaled solution compared to alternative options	Technical feasibility of scaling	Out of 90 Total Points
Team	/10	/10	/10	/10	/10	/10	/10	/10	/10	/ 90

Appendix 3. Policy Track Background Information

1) DDU-GKY Trainee Job Placement

DDU-GKY Skills Division, Ministry of Rural Development

Problem Background: The Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) is the flagship placement-linked skill training programme under the Ministry of Rural Development of the Government of India. DDU-GKY is unique among government skill programmes in its exclusive focus on training poor rural youth. DDU-GKY expects to train 20 lakh rural youth by 2017 in a variety of trades, including retail, BPO services, hospitality, banking and accounting, and more. DDU-GKY embraces the use of IT solutions, and it is India's first skill training programme to provide tablets for trainees, to require Aadhaar-linked biometric information on attendance, and to mandate geo-tag time-stamped records of training centres and classes.

DDU-GKY also distinguishes itself from other training programmes by its focus on candidate retention and career progression. Affiliated training centres are required to place at least 75% of trained candidates in formal sector employment paying at least Rs. 6,000.

Currently, placement occurs solely through the training partners' efforts, and many trainees who are placed migrate far from their native communities for the first time. Another obstacle to employment is the lack of documentation – trainees often have no way to demonstrate police verification (of identity and clean records) or employment history.

Problem Statement: There are many challenges to providing employment opportunities to candidates and encouraging employment retention, including the following:
- There is no systematic means by which employers can tap into this pool of DDU-GKY trainees for recruitment, and there is no central market for DDU-GKY candidates to search for employment.
- Employers look to hire in batches but lack matching and planning tools to recruit trainees.
- There is no means to level the playing field so candidates from particularly disadvantaged backgrounds can more easily connect to formal employment opportunities.
- There is no matching engine that takes text format job descriptions and recommends candidates based on their profiles while keeping the unique needs of the rural youth trainee population in mind.

- Trainees who migrate face many challenges related to relocation. They often lack appropriate support, leading some to leave their jobs and return home.
- Employers are often wary of hiring candidates without police verification of identity and proof that they have no cases pending against them.

The challenge is to build a platform/tool which facilitates job placement and retention in a way that meets job seekers' needs and is attractive to potential employers.

Available data: Candidate-level data capturing the following types of fields:
- Candidate background: name, mobile number, gender, socio-economic status
- Location: home address (including district, state), current address
- Training and certification: Sector/Trade in which training received, course, duration and dates of training, level, certification agency, marks in exam
- History: Highest level of education received, previous employers, last salary drawn (optional)
- The location of the nearest police station to the candidate, for purposes of police verification.

A successful platform may make use of GIS data and other publicly available information on employees and employers.

2) Education in India

Central Square Foundation

Problem Background: School enrollments continue to climb across India, with primary gross enrollment well over 100% and gross enrollment reaching 68.5% for secondary school (2011) and 24.8% at the tertiary level (2012). At the same time, the Annual Status of Education Report (ASER) has indicated that the percentage of Standard 5 children who can read a Standard 2 text actually dropped from 53% in 2006 to 48% by 2014. Public spending on education cannot explain these trends: according to the Center for Global Development, the median cost of educating a child in a private school in India in 2011-2012 was Rs. 5,961. The same cost for public was over twice this amount at Rs. 14,615.

Data on schooling inputs and outcomes exists, but it is not clear that parents and administrators have access to information that helps them more easily understand educational outcomes compared to inputs in their area and push local school officials for improvements.

This hackathon track is being posed by the Central Square Foundation, a Delhi-based organization that aims to ensure all Indian children receive a high quality school education. They are keen to support powerful ideas and innovations that can help the Indian educational system meet this goal.

Problem Statement: Your challenge is to create a tool by which parents and public officials can understand how educational institutions perform in their area and put pressure on education officials to improve the system. Users should be able to understand not only information about their own localities, but also ensure they know how they are doing compared to similar localities. Finally, data may contain errors, so ensuring the system has a process for improving data quality is critical.

Available data:

District Information System for Education (DISE): DISE is an annual census-based survey completed by all primary schools across India. Data aggregated at the district level for 2002-13 can be found here: http://dise.in/drc.htm. Annual Status of Education Report (ASER): http://www.asercentre.org/Keywords/p/236.html. ASER is an annual rural household survey that collects learning outcome data for a representative sample of children in every state. District Performance Tables are available for each year from 2005-12. The data is available in Excel format for 2006-11 and in PDF format for 2005 and 2012.

Feel free to incorporate any other sources of open data related to this topic.

3) Clean Water for All in Delhi

Delhi Dialogue Commission, Government of Delhi

Problem Background: The Delhi government is committed to ensuring that all residents have access to clean water, and that water is managed responsibly. This goal is ambitious but important: 45% of Delhi households are not linked to the water sewerage network, and the Comptroller and Auditor General estimates that the Delhi Jal Board loses upwards of Rs. 1,000 crore annually from corruption and mismanagement.

More specifically, water is frequently wasted and mismanaged; access is extremely inequitable and many residents – frequently slumdwellers – do not have access to piped water or a sewage network and must rely on water tankers for access; grievance redressal systems do not work effectively; and, crucially, much of Delhi's water system is extremely polluted and poses a threat to residents' health and environmental sustainability. True to its commitment to *swaraj* and its fight against corruption, the government would like to draw on Delhi residents' vast knowledge to inform the government of water-related problems, hold officials accountable, and provide a groundswell of information that can be used to propel crucial improvements in the water and sewerage systems. Improved, publicly available information on water usage and management are necessary inputs that can improve the system.

Problem Statement: Your challenge is to build a tool (mobile/web app, etc.) that will help the Delhi government meet one or more of its goals for water management. Challenges that the government would like to address with citizens' help include identifying and fighting corruption in the water tanker system; identifying instances of waterway pollution by industries and domiciles sending untreated effluents and garbage into the Yamuna River; pinpointing and addressing inefficiencies in the current water delivery and sewage system; and making information available to the public and media to increasingly hold officials accountable to the public for improved water management.

Available Data:
Water Resources Information System of India (http://www.india-wris.nrsc.gov.in/)
Delhi Government: data on water tanker schedules, timing of water supply, etc.
(http://www.delhi.gov.in/wps/wcm/connect/doit_djb/DJB/Home/)

Additional Resources:
Excreta Matters (http://www.cseindia.org/content/excreta-matters). Available from the PolicyHack team in hard copy.

WASH Survey: Water, Sanitation and Hygiene in Poor Settlements of Delhi. January 2013.

4) Countering Counterfeit Products

Department of Consumer Affairs, Ministry of Consumer Affairs, Food and Public Distribution

Problem Background: The mandate of the Department of Consumer Affairs, situated in the Ministry of Consumer Affairs, Food and Public Distribution, is Consumer Advocacy. Translating this mandate into action entails enabling consumers to make informed choices, fostering fair, equitable and consistent outcomes for consumers, and facilitating timely, effective and affordable consumer complaint redress. Government at the Centre and the states recognize the enormity of the challenge, given the relatively low awareness of consumer rights and the prevalence of predatory, exploitative or unfair trade practices.

In particular, counterfeit products, such as food, medicines, and agricultural inputs (seeds, fertilizers, pesticides, etc.) pose a major threat to the health and livelihoods of consumers. There is currently no centralized system for consumers to report counterfeit items to the government. There is also a need for technologically supported outreach by which the Department of Consumer Affairs can effectively raise awareness about these issues among rural Indians, the group presumably most affected by counterfeit products. Improving information flows in both directions, to the government and back to the citizens, could help reduce counterfeit manufacturing, improve consumer awareness, and ultimately save lives.

Problem Statement: Your challenge is to create a system that can help the Department of Consumer Affairs effectively speak to, and hear from, all Indians, regardless of geographic location, socioeconomic status, connectivity, language, or any other characteristics. Such a system would ideally meet the following goals:
- Clearly identify fake or counterfeit products, address complaints, and track progress on dealing with problems
- Learn from complaint patterns and prioritize areas for follow-up
- Creatively leverage India's communication networks – both human and technology-based - to help the Department raise consumer awareness about the dangers of counterfeit products.

The potential remoteness and low literacy levels of relatively less empowered populations should be considered for both complaint registration and awareness building.

Available Data:
A sample of consumer product complaints from the National Consumer Helpline.

5) Open Track

Under the open track, developers have the opportunity to work on any topic of their choosing related to a policy or implementation problem in India. Some suggested topic areas that developers could explore are women's safety, urban air pollution, or integrated monitoring of rural development schemes. Teams working under the open track should be able to clearly define their chosen topic as

a problem statement and are encouraged to consult with PolicyHack mentors during this stage of problem formulation. Projects under this track will be evaluated similarly to other tracks but will also be judged on the importance and relevance of the chosen topic. Open track teams are encouraged to incorporate any sources of open data available to them