

Title:

Designing for Sustainable Outcomes: Espousing Behavioural Change into Co-production Programs

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Abstract:

This paper uses a policy design perspective with which to examine the formulation of programs that are based on the concept of co-production. In doing so, the paper reviews essential literature on policy design and co-production to identify that a limited focus on outcomes and specifically, how behavioural change can make these outcomes sustainable, represents a major gap in the current discussion of co-production. We firstly argue that in designing programs involving co-production, outcomes need to be considered at the initial design stages where broad policy objectives are being defined. Secondly, we argue that for these outcomes to be sustainable, behavioural change on the part of policy targets needs to be an important objective of a coproduction program. To illustrate our point, we use the example of rural sanitation programs from three developing countries to specifically demonstrate how the absence or inclusion of behavioural change considerations in the early phases of policy design can elicit different levels of success in achieving desired policy outcomes.

Introduction: Co-production and Policy Design

The term 'co-production' has emerged over the last few decades, as a concept that generally indicates greater and an active civic community or 'end-user' or 'policy target' participation in social policy processes (Voorberg, Bekker and Tummers 2014, Pollitt and Hupe 2011). Situated within the broad reform trend of New Public Governance (NPG), co-production embodies the contemporary emphasis on increased citizen participation in the policy process and a move away from the bifurcation between traditional public administration and market-oriented emphasis of public management (Osborne 2010, Pollitt and Bouckaert 2014).

While the literature on policy co-production has concentrated on the participation of civic society in the delivery of services, it rarely touches on the role that these participants play in the design and continuity of the desired outcomes of those services. That is, while the academic discussion of the term focuses on community involvement in the implementation or delivery of a defined service or program, the role of the community in *sustaining* that service once it has been produced, has not received equal attention.

This distinction relates to whether and how actively citizens are involved in the core service delivery process, *as well as* the maintenance of the flow of benefits that emanate from that co-produced service, well after it has been implemented. Brandsen and Honingh (2015) have made an important analytical start in this direction by identifying "two variables along which different types of co-production can be distinguished: the extent to which citizens design services delivered to them and the proximity of co-production to the primary process" (p. 7), allowing for types of co-production to be distinguished based on whether communities are involved in the design and/or the implementation of the service under consideration. Furthermore, some authors have suggested that 'co-production' as a term should refer to the involvement of communities in the implementation of a policy program while 'co-creation' should indicate their input in its formulation (Pestoff, Brandsen and Verschuere 2013).

However, much remains to be said about what community behaviours need to be specifically addressed at the initial, design stages of any policy dealing with co-production, which can

have direct effects on the sustainability of the desired results. In employing a policy design perspective, the depiction of co-production in this paper supports an analytical extension of the concept beyond the co-production of *services*, to the co-production of *outcomes* and the sustainability of those outcomes.

With a focus on lessons from rural sanitation solutions in developing countries that have succeeded in sustaining the outcomes of co-production to various degrees, this paper argues that behavioural change considerations must be incorporated into the design of policy programs that adopt co-production. In doing so, the paper first reviews essential literature on policy design and co-production to identify that a limited focus on outcomes and behavioural change represents a major gap in the current discussion of co-production. We argue that in formulating programs involving co-production, a consideration of outcomes needs to be included at the initial design stages where broad policy objectives are being defined. Secondly, we use the example of rural sanitation programs from three developing countries as critical cases (Yin 1999) of co-production policy, to specifically illustrate how the absence or inclusion of behavioural change considerations can elicit different levels of success in achieving desired policy outcomes. In using these cases, therefore, we argue that the sustainability of co-production depends on whether and to what extent behavioural change is considered during policy design. The paper concludes by drawing lessons from the case of rural sanitation and the prospects of future coproduction research

A Policy Design Approach: Co-production as a Policy Instrument Preference and Behavioural Change as a Policy Objective

Defining policy goals and proposing means to meet these goals is the cornerstone of policy design and purposive policy formulation by governments (Gunningham and Sinclair, 1999; Howlett and Lejano 2013; Howlett, Mukherjee and Rayner 2014). Policy design takes place in the policy formulation stages of the policy process, once an issue has already been raised on the government's agenda. It is the way in which policy formulation processes create a policy program or instrument to meet a stated policy goal. Here it is important to recognize (see Figure 1) that policies are composed of several elements, distinguishing between abstract or theoretical/conceptual goals, specific program content or objectives and operational settings or calibrations of instruments (Hall 1993, Howlett and Cashore 2007, Howlett and Cashore 2009).

Each of these component elements is conceived and created by policy-makers in the course of the policy-making process. Some components of a policy are very abstract and exist at the level of general ideas and concepts about policy goals and appropriate types of policy tools which can be used to achieve them. Others are more concrete and specific and directly affect administrative practice on the ground. Policy programs, such as those explored in this paper, exist between these two levels, operationalizing abstract goals and means and encompassing specific on-the-ground measures and instrument calibrations.

The articulation of a broad policy aim – for example, involving citizens in improving public services - and the resulting general logic and norms to guide policy implementation, represents the broadest level in the multi-layered process of policymaking (Table 1). At this stage, policy design nests and heavily impacts more specific mechanism-level preferences, which then in turn impact more operational-level settings and calibrations of on-the-ground policy measures (Hall 1993, Howlett and Cashore 2007, Howlett and Cashore 2009).

Table 1: Co-production and the Multiple Levels of Policy Design. (Adapted from Howlett and Rayner 2013).

	Policy Content		
Policy Content	1. High Level Abstraction (Policy-Level)	2. Operationalization (Mechanism-Level)	3. On-the-Ground Specification (Measures-Level)
<i>Policy Aims</i>	<p>POLICY GOALS What General Ideas Govern Policy Development?</p> <p>Example: New Public Governance (NPG) and 'network' governance</p>	<p>PROGRAM OBJECTIVES What Does Policy Formally Aim to Address?</p> <p>Example: The desired outcomes of co-production policy, such as improving behaviours linked to rural sanitation.</p>	<p>OPERATIONAL SETTINGS What are the Specific On-the-ground Requirements of Policy?</p> <p>Example: Meeting national sanitation targets, eg. 100% total sanitation by a certain year.</p>
<i>Policy Means</i>	<p>POLICY INSTRUMENT PREFERENCES What General Norms Guide Implementation and Instrument Preferences?</p> <p>Example. Co-production and more inclusive modes of involving citizens in policy processes</p>	<p>PROGRAM MECHANISMS What Specific Types of Instruments are Utilized?</p> <p>Example: Community Led Total Sanitation (CLTS) approaches, Information-instruments aimed at changing sanitation-oriented behaviour.</p>	<p>TOOL CALIBRATIONS What are the Specific Ways in Which the Instrument is used?</p> <p>Example: Participatory tools for deciding on the sanitation solutions that are most suited to the community. Capacity-building tools to enhance community-level learning about sanitation.</p>

Thinking of co-production in these policy design terms situates it as a policy instrument preference, borne from the broad goals of the New Public Governance (NPG) movement to increase citizen involvement in public service production (Osborne 2010, Pollitt and Bouckaert 2014). While no unanimously accepted, specific definitions currently exist for co-production practices, scholars have attempted to describe it as the mechanisms of social innovation that the public sector espouses to increase civic participation in addressing social needs (Voorberg et al. 2014, Prahalad and Ramaswamy 2000, Brandsen and Pestoff 2006).

A renewed interest through the 1990s and early 2000s towards new forms of participatory public governance, invigorated a recognition that “publicly-desirable outcomes are likely to rely quite heavily on the contributions of multiple stakeholders, amongst whom users and communities in which they live are centrally important” (Bovaird et al. 2015, p.47). Terms such as ‘collaborative governance’ or ‘network governance’ have also been used to define the NPG reform movement, to highlight the vision of a democratic and inclusive government looking to create more bottom-up mechanisms for policymaking (Rhodes 1994, Milward and Provan 2000, Bevir 2007, Koppenjan and Klijn 2004).

Co-production, in this sense, embodies a governance reform principle involving more inclusive participation by communities a citizens and a move away from top-down or managerial emphasis of earlier reform movements (Ostrom 1996). Sicilia et al. (2016), expands this notion to emphasize that there are several reasons that have brought about the preference for increased citizen participation, and these include “the attempt to improve public service quality by bringing in the expertise of users and their networks; the need to provide public services that are better targeted and more responsive to users; the possibility of using co-production as a way of cutting costs; the opportunity to create synergies between government and civil society with a positive impact on social capital (p. 2, citing Brudney and England 1983, Ostrom 1996, Pestoff 2009, Seligman 1997).

Co-production of Outcomes and Behavioural Change

While the ideals of NPG and the principles of co-production indicate, respectively, broad policy-level goal and policy preferences (column 1 in Table 1), at the operational level of policy design, these translate to program level objectives and mechanisms (column 2 in Table 1). The stage of design involves addressing questions regarding its desired outcomes, or what exactly a co-production-inspired policy expects to achieve through more inclusive policy processes. However, outcomes of co-production is an area of research that has not enjoyed as much attention as the broader principle of increased civic participation. Voorberg et al. (2014), in their meta-analysis of the co-production concept, for example, delineate such processes that actively involve citizens in public service delivery as “the creation of long-lasting outcomes that aim to address societal needs by fundamentally changing the relationships positions and rules between the involved stakeholders, through an open process of participation, exchange and collaboration with relevant stakeholders including end-users, thereby crossing organizational boundaries and jurisdictions.” (Voorberg et al. 2014, p. 1334).

Even though such a focus on outcomes may be implied in academic discussions of co-production, empirical studies have been traditionally more concerned with an understanding of citizen inputs when policy programs are created (for example, Alford 2002). Although this trend appears to be changing (Steen et al. 2016), and outcomes have been explicitly gauged in co-production studies in the past few years, they mostly surround efficiency measures, for example an increase in treatment quality for heart patients after the co-production of healthcare (Leone et al. 2012), or where monetized measurements are possible, increased financial efficiency of service providers (Verschuere et al. 2012). Still missing, is an explicitly normative stance about what *should* co-production strive to achieve. As surmised by Bovaird and Loeffler (2012, p. 1119), “public services should be designed to bring about ‘outcomes’ and not just ‘results’ and these outcomes should, in large measure, correspond to those which service users and citizens see as valuable, not simply those which are valued by politicians, service managers and professionals”.

Along the same lines, the design of co-production programs also needs to consider what instruments can be used to sustain these desired outcomes in the long-term. That is, what types of policy instruments can be used to achieve the policy outcomes that co-production formally aims to address (column 2, Table 1). Answering this question relates to long-term behavioural change on the part of citizens and how this is a critical program objective that needs to be addressed in order to see sustainable outcomes.

Aside from a few seminal studies that have emerged in this past year (for example, Bovaird et al. 2015 and Bovaird et al. 2016), most empirical studies of citizen behaviour and co-production have, again, been in the context of how people contribute to the implementation of the activity rather than in the context of what social goals have been achieved through it. The widely used academic depictions of co-production have emphasized citizen inputs into the service delivery process as being largely ‘voluntary’ (Parks et al. 1981, Pestoff 2006). And civic contribution, rather than community-level results of public activity, has remained central in major academic discussions of co-production. For example, Ostrom (1996) illustrates co-production as the provision of ‘inputs used to produce a good or service by individuals who are not ‘in’ the same organization’ (Ostrom 1996, p.1073).

In addressing this empirical deficit on links between behaviour and the outcomes of co-production, one major recent finding through an EU-wide comparative study has been that there is a marked difference in “the nature and level of collective co-production compared to individual co-production. It appeared that citizens are more likely to engage in co-production of public services and social outcomes with public agencies when the actions involved were relatively easy and could

be carried out individually rather than in groups” (Bovaird et al. 2015, citing Loeffler et al. 2008 and Parrado et al., 2013). Building on these findings, Bovaird et al. (2015) identify *collective co-production* as a distinctly outcomes-oriented phenomenon where even though the inputs into a co-production process may be provided by individual citizens, the resulting benefits or outcomes are accrued by the collective. The major finding of this study by Bovaird et al. (2015), which cuts across four sectors, namely health, social well-being, community safety and local environment, is that the desired outcomes of co-production tended to be higher when individually, and collectively citizens had a strong sense of political self-efficacy, or the realisation that their actions can make a difference. Supporting this finding, is Sancino’s (2015) depiction of community co-production, which contends that “community outcomes result from a sum of peer production, co-production and inter-organizational collaboration across the public, third and private sectors.” (p. 420). These recent studies looking at community behaviour indicate that it can be a major determinant towards reaching and maintaining the desired outcomes of co-production and thereby warrants future investigation.

The lessons derived from the cases below allow us to go a step further to suggest that the success of co-production is linked to the extent to which community-level behavioural change is articulated as an important objective during the design of a policy program. The design of specific operational settings and tool calibrations (column 3, Table 1) depend on empirical contexts and the operational experience with community-led total sanitation (CLTS) projects and their role in co-production-oriented sanitation policy in Bangladesh, India and Indonesia is therefore presented below.

Case Selection and Methodological Considerations

An exploratory case study approach (Yin 1994) informs this paper. The rich findings about community behaviour and the success of rural sanitation practices that have resulted from over 15 years of community-led total sanitation (CLTS) research in more than 50 countries, present it as a critical case of co-production. Aligned with the stipulated definition of critical cases in case study research, lessons derived from CLTS projects “are likely to yield the most information and have the greatest impact on the development of knowledge” (Patton 2001, p. 236), in this case about the behavioural aspects of co-production success.

As discussed above, the empirical research informing the theoretical development of the co-production concept has been traditionally skewed towards a focus on participation and inputs by citizens, rather than on outcomes. Additionally, the concept has so far been explored as examples of post-New Public Management (NPM) reforms, rather than as a subject of formal policy studies. In this light, CLTS examples provide an important opportunity to not only study co-production outcomes, but also learn about how they can be incorporated into the design of policy programs based on co-production. By exploring the CLTS cases below through a policy design lens, a unique opportunity arises to inform theory (Eisenhardt 1989), allowing for greater comparability of policy design across a group of co-production cases.

Case Description and Background

There is little doubt that a key determinant of the general health of any community has to do with its collective levels of hygiene and sanitation. Unhygienic practices surrounding the disposal of human excreta, in particular, are inextricably linked with the transmission of infectious diseases such as typhoid, cholera and other diarrhoeal and parasitic diseases that present a significant challenge to public health. While lacking access to effective mechanisms of disposing sewage and other wastes is

clearly a major hindrance towards upholding sanitation in a community, it is only half the challenge. The provision of resources may not in itself be adequate in helping communities improve sanitation, if it is not accompanied by a collective will to change behaviours towards the handling and removal of waste. Achieving community-wide sanitation, then, is a target that relies on effective co-production by policymakers and civil society, because it is as heavily dependent on behaviours of citizens themselves as much as it is on the design of relevant policies by governments.

A major example of collective benefits through community-wide behavioural changes is found in the improved health outcomes in rural areas from the eradication of unhygienic waste disposal methods such as open defecation (OD). Diarrhoea is a major cause of childhood mortality in developing countries, where it leads to the death of approximately 800,000 children each year and unsanitary practices such as OD and lack of sustainable disposal facilities have been established as leading causes for such deaths (Liu et al. 2012, Prüss-Üstün et al. 2008). Furthermore, there is evidence that stunting in children can result in communities with OD, even if a child lives in a home with a toilet (Spears 2013). The United Nations and the World Health Organization estimates that targets for improving global sanitation as a part of the Millennium Development Goals (MDGs), could become undermined and approaches such as CLTS have emerged to help mitigate against this challenge (WHO 2015). CLTS is defined as “an innovative methodology for mobilising communities to eliminate open defecation (OD). Communities are helped to conduct their own appraisal and analysis of open defecation (OD) and take their own decisions and actions to become open defecation free (ODF). CLTS focuses on the behavioural change needed to ensure real and sustainable improvements – investing in community mobilisation instead of providing sanitary hardware, and shifting the focus from toilet construction for individual households to the creation of open defecation free villages. By raising awareness that as long as even a minority continues to defecate in the open everyone is at risk of disease, CLTS triggers the community’s desire for collective change, propels people into action and encourages innovation, mutual support and local solutions, thus leading to greater ownership and sustainability” (Snel, Carrasco and Dubey 2014, p. 5).

The CLTS approach was first pioneered in Bangladesh in 2000. By the end of 2016, CLTS has spread to over 60 countries, as sanitation sector leaders and financiers have recognized its value as a rapid catalyst of collective behaviour change for improving rural sanitation conditions (Sigler, Mahmoudi and Graham 2015, Kar and Chambers 2008). CLTS has been adopted under various names in different jurisdictions, for example as Community-based Total Sanitation in Indonesia and Community Approaches to Total Sanitation (CATS) as promoted globally by the United Nations Children’s Fund (UNICEF). By putting communities at the helm of improving their own public sanitation situations, CLTS has triggered a rethink of previous sanitation program policies that were based on governments providing free or subsidised latrines to rural households (Kar and Chambers 2008, Sigler et al. 2015).

The role of government agencies in improving rural sanitation is being re-defined by CLTS in the three cases discussed below, from being providers of sanitation to becoming enablers and facilitators of community-wide behavioural changes that are chosen and executed by the communities themselves. For example, these behaviours include the eradication of OD and conversion of unimproved facilities to improved latrines. Thus, intrinsically CLTS is an instrument of co-production requiring specific types of collaboration between the State and its citizens in producing desired policy outcomes. The most vital of these outcomes is improved sanitation behaviours surrounding the use and maintenance of improved sanitation facilities, which improve living environments and promote human development and health.

During the first years following the launch of the CLTS, the movement spread across Bangladesh mainly through the information dissemination work of multiple NGOs. In 2003, Bangladesh hosted the first South Asian Conference on Sanitation (SACOSAN), wherein CLTS was showcased as an innovative example of co-production that can be scaled-up to national levels, indicating its applicability to other countries with rural sanitation policy objectives. Thereafter exchanges supported by multilateral agencies such as the World Bank Water and Sanitation Program (WSP) helped the spread of CLTS into India and Indonesia during 2003-2005. In the years that followed, CLTS was further adopted across other countries in Asia and also Africa. While the particular methodology of CLTS has been adopted widely as a co-production tool, the larger changes to overarching policy objectives, which are needed to maximize its transformative potential have taken much longer. In some countries, where CLTS has been fully incorporated in the co-production policy logic for rural sanitation, the outcomes have been vastly different than in others where sanitation services are still being forwarded without the active collaboration of target communities.

To illustrate this range of outcomes, this paper presents three CLTS cases where rural sanitation programs are occurring at a national scale, namely in Bangladesh, Indonesia and India. The case studies have been chosen as major examples of the CLTS experience, in order to illustrate the range of government responses to the rural sanitation challenge in Asia, from prioritizing the construction of toilets over other interventions, to focusing entirely on catalysing behaviour changes, and a combination of both. The paper examines the outcome and lessons learnt from the policy choices in the three countries during the period 2003 – 2015.

All three countries have long histories of donor-funded as well as government projects and programs to improve rural sanitation, providing free or subsidized toilets to rural households, building communal latrines, and dispensing health education. In all three countries, sector histories include rural sanitation approaches that have failed to scale up, slowing the growth of access to sanitation despite many years of interventions, and delivering weakly sustained results - measured mainly in terms of toilets constructed. With the emergence of collective behaviour-changing approaches like CLTS and sanitation marketing in the early 2000s, improvements to this situation have begun to emerge as governments in the region and elsewhere are beginning to adopt CLTS as a viable mode of co-production.

Methods

This analysis covers twelve years of CLTS experience, from 2003 to 2015. It is based on findings from census data, rural sanitation program monitoring data from the relevant ministries, UNICEF-WHO Joint Monitoring Program updates, national program evaluation surveys by government agencies, and four independent research studies incorporating multi-province quantitative surveys of impact evaluation in India, Bangladesh and Indonesia.

Case Study Analysis: Community Led Total Sanitation (CLTS) in Asia

Each case is organized in three broad sections. Firstly, a brief description of the particular national sanitation scenario introduces each case. Secondly, to focus on objective and mechanism design aspects of co-production (column 2, Table 1), each case discusses to what extent behavioural change was incorporated into the initial definition of co-production policy objectives and the related instruments that were chosen to address them. Thirdly, each case then examines the progress and sustainability to date of the resulting behavioural outcomes.

1.1. Bangladesh

A country of just over 153 million people, Bangladesh is 72 percent rural and one of the most densely populated countries with 1050 persons per square kilometre. Although poverty rates have been declining in the last decade, its current Gross National Income (GNI) per capita is USD 1,314 (BBS, 2015). Bangladesh has achieved steady progress in improving population sanitation behaviour, in that the country has reduced the population practising open defecation from 42 percent to 1 percent within twelve years, from 2003 to 2015. Sanitation progress has contributed significantly to improvements in public health, and especially to the health of children. Child mortality of under five-years of age has fallen from 133 to 38 per 1000 livebirths between 1990 and 2015 (UN-IGME, 2015) and the rate of decline has accelerated sharply after 2003.

In 2003, a nationwide baseline survey had found poor levels of sanitation, with only 33 percent of households with access to hygienic latrines and approximately 55 million people (42 percent of the population) practicing open defecation, the majority of whom lived in rural areas (Min LGRD&C, GoB, 2005). As a densely populated, flood-prone country inhabited by a large proportion of poor and ultra-poor communities, the resulting environmental contamination led to a heavy burden of diarrheal and parasitic diseases, and high levels of child mortality and malnutrition, with consequent negative impacts on the economy.

By 2015, the scenario had changed dramatically, as 61 percent of households have improved sanitation facilities and the population practising open defecation had fallen to 1 percent. Those who did not directly own improved latrines, were making use of neighbourhood utilities rather than openly defecating as open defecation had become socially unacceptable in Bangladesh (GoB 2016). In 2016, Bangladesh was officially declared ODF.

Phase 1: Setting Behavioural Objectives and Mechanisms (2003-2009)

Government commitment in Bangladesh and a multi-stakeholder approach to catalyse large scale behavioural change began by setting policy objectives for sanitation in behavioural terms. In 2003, the Government of Bangladesh (GoB) set a target of 100 percent sanitation by 2010. Policy instruments chosen to address this objective included a national directive to earmark 20 percent of annual local government development budgets for sanitation, and extensive project promotion at the sub-district level to raise awareness of the government sanitation goals. From 2003 to 2006, the government reached all parts of the country with a national sanitation campaign that was defined in behavioural terms “to achieve 100 percent sanitation coverage and stop open defecation in rural areas by 2010”. While these two criteria were the ones prioritised for monitoring during the 2003-2006 national campaign, the government’s National Sanitation Strategy in 2005 defined “100% sanitation” in behavioural terms, emphasizing a stop to open defecation, the availability and use of hygienic latrines, proper maintenance of latrines for continued use and improved hygiene practices by communities (Ministry of LGRD&C, GoB, 2005).

The behavioural focus of this objective had far-reaching implications on the approaches chosen to implement the campaign, and the indicators by which progress was measured. While previous sanitation programs had only aimed at the construction of durable sanitary latrines by individual households, the 2003 campaign focused on eliminating human feces from the living environment by getting all community households to stop open defecation. Sanitation promotion techniques included those that triggered collective change by whole communities – because success was to be measured in terms of collective change, i.e. totally sanitized households with latrines or Open Defecation Free (ODF) communities. The campaign was implemented through a range of additional interventions such as:

- Local government leaders promoting collective change
- Collaborations between government, NGO and donor agencies at national, district, and sub-district levels, all linked to the same target outcome

- Media campaigns helping to promote social norms against open defecation
- Technological innovations and creative marketing approaches to provide the poorest consumers with access to affordable supplies and skills
- Increased access to latrine materials and skilled masons in local market

During the campaign, central, district, and sub-district governments played a lead role in social mobilization to influence whole communities to stop open defecation. Rewards were also offered by the central government to local villages that successfully promoted the installation of latrines in all resident households, and successfully achieved the “100 percent sanitized” status by becoming open defecation-free (ODF).

Behavioural aspects related to the willingness to pay for community sanitation were also encouraged by the local governments. For example, the co-production of sanitation facilities required voluntary investment by citizens, even though it was common for village leaders to provide free or subsidized latrine construction packages to the poorest households. The recipients in turn had to get their facilities installed using their own or paid labour and masons. Better off households preferred to procure supplies of their choice from local markets. For neither of these groups, did the government build the actual facilities, focusing instead on empowering citizens to change their attitudes towards defecation.

While the local government took a lead role in facilitating behavioural transitions related to open defecation, NGOs supported the continued implementation in many regions even after the campaign concluded. Behavioural change promotions directed toward households were communicated through mass, group and interpersonal media channels and settings, including information mobilization by local government officers through meetings, rallies, loudspeaker announcements and household visits. Advocacy from the central government down to the local governments, with a clear single agenda to shift people from open defecation to fixed point defecation through construction of low-cost latrines – sometimes shared among two or three families – was the key factor in unifying the country around sanitation ((Ministry of LGRD&C, GoB, 2016)

Phase 2: Sustainability of Behavioural Outcomes (2010-Present)

A large scale quantitative and qualitative assessment was undertaken during 2010-11, following the 2003-06 campaign, in local village units that were declared open defecation free four and a half years ago. The study (Hanchett et al. 2011) found that the sanitation behaviour change campaign has had sustained impact on the whole. Given that only 29 percent of rural households were using any type of improved latrines in 2003, the 2010-11 study found that:

- 89.5 percent of sample households continued to use their own or share a latrine that safely confines waste.
- 70 percent of sample households owned their current latrine for at least three years, indicating that the majority of latrines that were built are fairly durable.
- All implementation approaches, focused on achieving total sanitation but implemented by various agencies (government, donor or NGOs) resulted in sustained high latrine use and low rates of open defecation.
- The social norm of defecating in the open had generally been rejected and was a significant factor in sustaining the use of latrines. Previously, latrine use was the norm mostly among upper-income groups or in areas covered by earlier campaigns. In 2011, however, it had become socially accepted practice at all levels of society, including the poorest wealth

quintile. Those who continued to practice open defecation were socially criticized. Social norms pertaining to marriage arrangements, village respectability, and village purity for religious events were widely assumed to require the use of improved latrines.

- Households with female heads were more likely to have an improved or shared latrine compared to households headed by males. The study suggested that the 2003–2006 campaign possibly tapped into latent demand by millions of females to have a latrine for cultural and hygiene reasons.
- Follow-up programs that continued to reinforce sanitation behaviours were associated with the sustained use of improved or shared latrines. Approximately 65 percent of local government chairpersons continued to remind constituents of the importance of ‘hygienic’ latrine use, providing latrine parts to poor families, declaring local rules against open defecation, and following up on sanitation-related complaints.
- High access to latrine parts and maintenance services from local markets (catalysed by the spurt in demand) had likely contributed to sustained use of latrines. The emergence of a mature private sector meant that heightened market demand by communities had allowed most households to access affordable parts and services that can help sustain the use of improved and shared latrines.

1.2. Indonesia

Indonesia is a country of 254.5 million, spread over 17,000 islands. It has achieved impressive poverty reduction milestones indicated by a GNI per capita increase from \$560 in the year 2000 to \$3,650 in 2014. However, income inequities are high with 11 percent of Indonesians currently below the poverty line and another 40 percent clustered around it. Access to improved sanitation facilities currently stands at 61 percent of the population, and around 52 million still defecate in the open of whom 34.3 million live in rural areas (JMP 2014 Update). Meanwhile, costs to the country from poor sanitation practices have been estimated at US\$6.3 billion annually equivalent to 2.3% of its GDP (Hutton et al, 2009).

Phase 1: Setting Behavioural Objectives and Mechanisms (2007 – 2010)

For several decades, rural sanitation efforts in Indonesia had focused on improving access to basic sanitation using hardware subsidies and hygiene education without much effort to change behaviours related to sanitation. The approach proved to be ineffective, highlighting the size of the challenge. Rural household access to improved sanitation grew at less than 1 percent per year from 1985 to 2006, reaching only 20.6 percent in 2006. With less than 10 years to 2015, the rural MDG target of achieving 56 percent sanitation seemed well beyond reach. In order to adopt a new approach to sanitation, policy-makers and sector administrators began to implement CLTS principles as policy successes in Bangladesh and elsewhere become well known in the region.

Adopting a new, behaviour oriented approach to sanitation, the Ministry of Health declared CLTS as the main instrument to target rural sanitation in 2006 in addition to a parallel campaign to encourage handwashing with soap. By 2007, Indonesia became the first country in East Asia to embark on a new rural sanitation initiative combining CLTS and sanitation marketing with strengthening enabling policy and institutional environments. This was the Total Sanitation and Sanitation Marketing (TSSM) project covering all of East Java, a province of 37.5 million people.

After several decades of stagnation, the rural sanitation scene began to change radically. TSSM signalled a complete break away from past subsidy-based approaches, and offered only a nine

month window of technical assistance to local governments interested in becoming ODF districts. Almost all of East Java district governments opted to participate in the TSSM project, with the investment of their own human resources and budgets in this learning initiative. Indonesia's first definition of an ODF community and methods to verify ODF status were developed by TSSM for the use of district governments in East Java, in 2008. It has been adopted for national use since the year 2012. Four years later, by the end of TSSM, 2,200 communities had been verified as ODF, and more than 1.4 million people had gained access to improved sanitation over the baseline of 2007, with 100% of the sanitation improvements being financed by rural households themselves.

Within a year of TSSM implementation in East Java, the Ministry of Health officially discontinued hardware subsidies for household latrines nationally by identifying key hygiene behaviour changes in communities – including eliminating open defecation - as its main objective for achieving improved sanitation. The national rural sanitation goal was first set in collective behaviour terms as “Indonesia ODF 2014”, in the National Medium Term Development (MTD) Plan 2010-14. Although initially unrealistic, the 2014 ODF target served to highlight what it will take to push collective behaviour changes on a nationwide scale. The definition of ODF status and ODF verification guidelines first applied in East Java by the TSSM project in 2008 were adopted for national use by the Ministry of Health in 2011.

Phase 2: Sustainability of Behavioural Outcomes (2010-Present)

The 2015-19 Plan for achieving sanitation has now set the national goal as 100 percent universal access by 2019. It has become evident that the 11 percent annual access growth rate required to achieve such a goal will require a lot more than ‘business as usual’ practices. While funding levels and channels of intervention are being greatly enhanced, sector monitoring systems continue to track and publicize both access gains and ODF achievements by villages, sub-districts and districts. To further encourage behavioural transformation, the verification procedure provides for sustainability checks every two years and even allows for ODF status to be revoked when communities are found to have slipped (MoH, 2013).

Sustainability of outcomes was investigated in Indonesia through three major studies, a market research study (Nielsen 2009) during the course of TSSM which informed the sanitation marketing strategy developed for East Java; a participatory evaluation of TSSM project outcomes with 80 communities that experienced the TSSM interventions (Mukherjee et al, 2012), and an impact evaluation by the World Bank (Cameron, Shah and Olivia, 2013). Each study provides important learning about how behavioural aspects impact the sustainability of co-production of improved sanitation behavioural outcomes at scale.

The Nielsen market research identified underlying motivations that drive rural population behaviours to continue with open defecation or switch to building and using sanitary toilets. It identified the barriers that poorer consumers experience in making the switch and helped craft a marketing strategy that is now being implemented in multiple Indonesian provinces (Nielsen 2009). The impact evaluation by the World Bank (Cameron et al, 2013) found a reduction in open defecation among households that had lacked latrines before TSSM. It also found measurable positive health impact on children under five in communities that had experienced TSSM interventions for sanitation behaviour change, as compared to control communities that did not. However, it also revealed that the poorest households had gained much less access to sanitation than their non-poor neighbours in TSSM project areas. The findings helped refine the sanitation marketing strategy to target poorest consumers better. Lastly, the participatory action research with

TSSM communities found that, provided the CLTS triggering process was of sufficient quality, ODF achievement and sustainability were hastened by:

- A community's social capital and the involvement of leadership in the change process,
- The local availability and affordability of latrine attributes desired by poor and non-poor consumers,
- An absence of externally provided subsidies to a few households, and
- Post-triggering monitoring and follow-up by external agencies working together with communities.

The action research also found that sanitation behaviour change is difficult to ignite in riverbank and waterfront communities and special strategies were needed for them. The national Strategy has been since refined using these findings. Recent estimates show that household access to improved sanitation has risen to 61 percent. With the adoption of behavioural goals and consequent changes in programme approaches, Indonesia's rural sanitation access growth rate has accelerated from less than 1 percent in the years before 2006 to 3.4 percent per annum during 2007-13. Rural access to improved sanitation has more than doubled in seven years: from 20 percent in 2006 to 44 percent households in 2013 (BPS Indonesia, 2014). The percentage of the population defecating in the open in 1990 has been halved by 2015, with the bulk of the decline occurring in rural areas.

1.3. India

According to the WHO/UNICEF Joint Monitoring Programme (JMP) update (2014), India houses one sixth of the world's population, but more than half of the world's open defecators. The problem is predominantly rural. The 2011 National Census showed that of 1.2 billion Indians, 833 million live in rural areas, and 67 percent defecate in the open. While that percentage has declined marginally to 61 percent as of 2015 (JMP, 2015), – the actual numbers of open defecators has increased rather than declined, from 2011 to 2015. The real numbers of open defecators in India are even higher, as recent behavioural research reveals that 46 percent of latrine owners continue with open defecation in villages, out of a preference for the practice (Coffey et al, 2014). And despite massively funded national sanitation programs, economic losses due to poor sanitation are estimated to be costing India as much as US\$53.8 billion annually, equivalent to 6.4 percent of its GDP at 2006 prices. (WSP, 2010). Recent research in multiple countries is pointing out even more challenging consequences of poor sanitation practices. Children growing up in communities where open defecation is practised or unhygienic unimproved facilities are used, suffer physical and cognitive growth losses that are often irreversible. This relationship holds true whether or not the children's families themselves use sanitary latrines (Spears, 2013; Quattri et al 2014).

The rural sanitation sector in India has attracted unprecedented and steadily rising levels of national government funding for several decades, with suboptimal outcomes. Sector research over several years has shown that since the first national effort towards sanitation began in the 1990s, the Central Rural Sanitation Program (CRSP) was not able to show desired results. With successive revisions of the CRSP formula, funding was scaled up further and policies tweaked peripherally, however, without many positive results.

Despite growing evidence from these efforts, the original premises underlying CRSP were never reformulated as the government continued its policies of providing increasing levels of hardware or cash subsidies to household for toilet construction, as it transitioned from CRSP to subsequent yet similar sanitation policies in 1999 and 2012. The latest in the series, the SWACHH Bharat Mission-Grameen launched in 2014 is arguably the largest ever rural sanitation program to date globally. It retains the same core policy commitment to building millions of toilets for households that are

without access. However, there seems to be a new openness to change at the level of defining policy objectives, with recent research evidence about the impact of poor sanitation behaviours on health, human development and the economy.

Phase 1: Absence of Behavioural Objectives and Mechanisms (1980s – 2013)

Rural access to improved sanitation increased from 1990 to 2015 at the rate of less than 1 percent per year, despite the following progression of generously funded national programs (WHO/UNICEF JMP, 2015). Throughout this period rural sanitation policies and programs were designed to be focused on increasing access to sanitation, aimed at targets set for latrine construction, and consequently monitored only the extent of budgets expended and numbers of facilities built. Improvement of population sanitation behaviours remained absent from definitions of program objectives and targets, missing from the indicators of progress and performance monitoring, and therefore often missing from approaches used for implementation

The Central Rural Sanitation Programme (CRSP) was introduced in 1986 and its approach of providing cash subsidies per household to cover full costs of toilet construction produced only 8 percent improvement in rural sanitation coverage between 1981 and 1991, way below the target of 25 percent during the same period. A newer iteration of the program in 1999, incorporated new terminology into objective design including “community-led” and “people-centred”, along with the need to “generate community demand” for improved sanitation (Government of India, 2004). Yet, subsidies for household latrine construction remained and were renamed as an incentive for households that were below poverty line. The extent of subsidies was initially much reduced, but continued to be revised upwards till it was meeting a bulk of the construction cost. Still, the campaign failed to produce the expected acceleration of sanitation coverage.

In 2003, a behavioural focus was added, though not in program objectives or targets and instead as a minor principle. A reward component was added to the policy, for helping villages achieve open defecation free status with access to improved solid and liquid waste disposal mechanisms (GoI, 2004). While the awards generated sanitation awareness, they also brought pressure from village leadership and local governance on ordinary citizens to fall-in-line and acquire standard sanitation facilities regardless of their consent. Principles of community-led collective behaviour change and co-production of outcomes were placed increasingly at risk as the program proceeded to scale-up. By 2011 more than 28000 of India’s 250,000 Gram Panchayats (village councils) had received awards following one-time checks. Subsequent evaluations of the program revealed high levels of slippage from ODF status and sustainability problems with latrine usage and functionality. (Government of India, 2011)

In April 2012, the sanitation policy was recast as Nirmal Bharat Abhiyan (NBA) with a renewed emphasis on even more accelerated toilet construction and monitoring of construction. The new features were a strategy of “saturation” of population pockets with toilets, even larger cash subsidies for household latrines, and further resource mobilisation for construction by converging rural sanitation programs with rural livelihood and employment guarantee schemes. Beset with many implementation bottlenecks, the NBA program was replaced in 2014 the by the present sanitation policy, the SWACHH Bharat Mission- Gramin (SBM-G) (Government of India, 2014).

Phase 2: Setting Behavioural Objectives and Mechanisms (2012– Present)

Several landmark evaluations and research studies during 2011-14 laid bare the nature of the real challenge in India. An evaluation of previous sanitation policies by the Government of India

(GOI Planning Commission, 2013) found that nearly 73 of the rural population practised open defecation, including households that had their own latrines. A survey of 22,000 households in the rural heartlands of open defecation found hitherto un-researched motivations underlying open defecation, which have possibly been confounding government efforts for years, to improve sanitation by providing toilets for all. Some examples of the survey findings include: “A distinct preference for open defecation was common as 47 percent open defecators find the practice pleasant, comfortable and convenient. Some even think it is better for health than using a household latrine. Over 40% of households with a working latrine have at least one open defecator. Government latrines are particularly unlikely to be used. Most people who own a government-constructed latrine defecate in the open anyway” (Coffey et al, 2014).

Through these findings and others, it is increasingly being recognized that SBM-G is acknowledging the need to incorporate a behavioural goal-focus and build institutional capacity accordingly. The SBM-G Guidelines issued in late 2014 include, for the first time, “elimination of open defecation” among the principal mission objectives. This behaviour change is stated as instrumental for achieving SWACHH Bharat (Clean India) by October 2019, a target espoused by the Prime Minister. Methodologies for implementation recommend community-led and community saturation approaches for collective behaviour change rather than toilet construction. Recognizing that objective setting is meaningful only if progress is measurable, the December 2014 SBM-G guidelines state, also for the first time, that “the main focus of the monitoring arrangements for the Mission is on toilet usage through the creation of ODF Communities. The system [monitoring] shall be upgraded to enable the reporting of the creation of ODF communities and their sustenance”. During 2015 the government has followed through with standardising a definition for ODF communities and procedural requirements for verifying ODF achievements uniformly by all State governments.

The next immediate challenge for the rural sanitation sector institutions in India is scaling up understanding of the changed nature of the task ahead, and building institutional capacity fast enough to be able to facilitate sanitation behaviour change in a country of India’s scale by October 2019. The sustainability of this new focus on behavioural change as a sanitation policy objective would be assessable at that time.

Concluding Comments – Designing Co-Production Policy for Sustainability

As examined through the lens of policy design, the principles of co-production can penetrate three levels of policymaking. Building on the foundations of greater civic participation as advanced by the New Public Governance reforms of the past two decades, co-production firstly embodies a broad policy making logic. It is a norm which involves a preference for policy instruments that espouse the participation of civic society. Secondly, at a more specific level of policy programs, co-production means the participation of citizens in the defining of policy program objectives and the choice of mechanisms to meet those objectives. Thirdly, co-production can influence the way in which instrument settings and calibrations are used on-the-ground, in tune with different empirical contexts.

Incorporating Outcomes into Coproduction Design

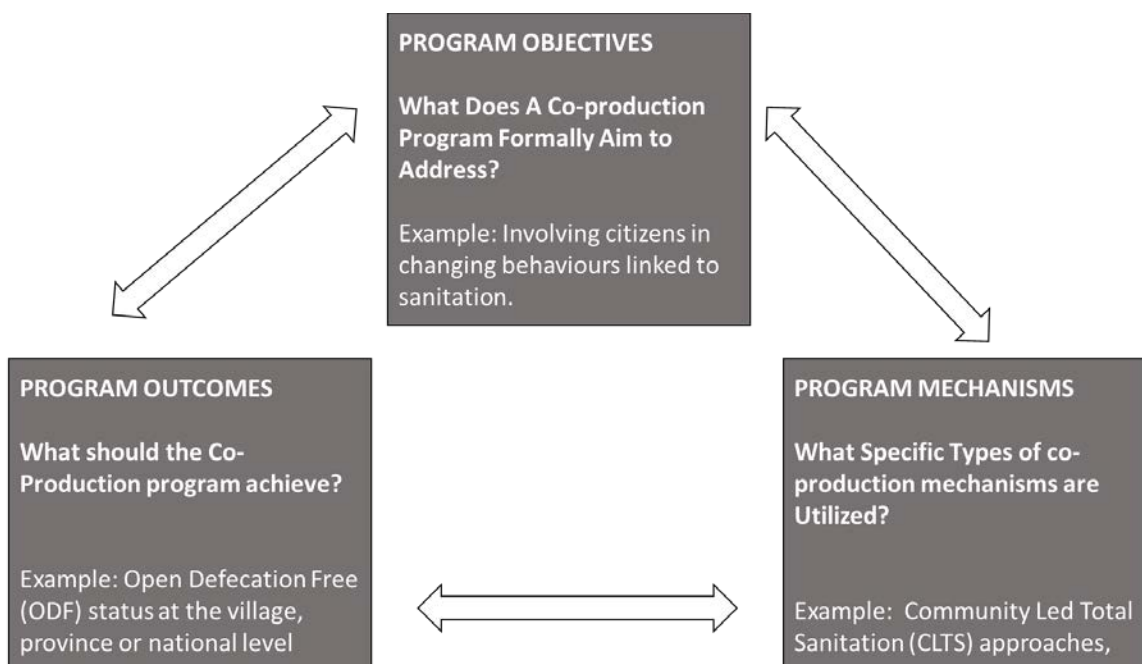
In an endeavour to understand how co-production can be studied through its desired outcomes, this paper explored an important case of civic engagement towards meeting societal goals. Years of experience with the particular case of co-production represented by the CLTS movement has shown that achieving an important public outcome such as rural sanitation depends equally on individual inputs as well as community behaviours, in order to be successful and have

lasting results. In summing up the findings of the paper, the three cases show three different levels of progress in co-production policy, designed with an explicit outcome-oriented, behavioural focus. Bangladesh was the first to incorporate a behavioural focus in its national rural sanitation interventions, in 2003, many years before other developing countries in Asia and Africa. Indonesia came on board with a behavioural policy objective in 2009, which catalysed its national sanitation strategy. India made the change later, in 2014 with the Swachh Bharat Mission – Gramin. While none of the three countries met its Millennium Development Goal target for sanitation by end 2015, Bangladesh and Indonesia were very close and their progress has been directly linked to incorporating behavioural change as their co-production program objective for rural sanitation. India is still facing several hindrances toward fulfilling its Swachh Bharat (Clean India) target by October 2019. With its newly adopted behavioural focus, progress towards achieving rural sanitation looks promising and remains to be observed.

The three cases highlight how adopting behavioural change as an objective of a coproduction program has led to the long-term sustainability of the desired outcomes, that in this case surround improved rural sanitation. As discussed earlier in this paper, empirical work on co-production has mostly concerned the inputs that citizens can bring to a policy or a program, or on defining what the stated outputs of such collaborative efforts should be. The CLTS case in Bangladesh, India and Indonesia all indicate that an equal emphasis on the long-term *outcomes* of a coproduction necessitates that the design of program objectives and mechanisms are aligned with these outcomes.

Using the lessons derived from the cases to extend from the policy design framework discussed earlier, Figure 1 incorporates a concern for outcomes into the design considerations for co-production programs. Policy design thinking already emphasises a dialectic between program level objectives and program level mechanisms in order to maximize the complementarity with existing policy settings (Howlett, Mukherjee and Rayner 2014). However, the CLTS cases reveal a third important consideration, that of program level outcomes that needs to be included to uphold the sustainability of any co-production effort.

Figure 1: Designing Co-Production Programs – Aligning Objectives, Mechanisms and Outcomes



In the CLTS cases, this three-way complementarity of policy program components is indicated by the finding that including citizens in changing sanitation behaviour should be a program objective as it is directly necessary for achieving the desired program outcome of total sanitation (or an open-defecation free status). The adoption of behavioural change objectives in rural sanitation programs also leads to the selection of program mechanisms and monitoring indicators that support and track community-wide sanitation practices, thus increasing the likelihood of achieving desired outcomes (rather than just the production of outputs). As the case in India has particularly shown, if the objectives are not aligned with the desired outcomes, and instead are only concerned with outputs (for example, increasing the number of toilets instead of addressing sanitation behaviours), this can lead to challenges in achieving stated policy goals.

Highlighting the impact that behavioural considerations can have on co-production, the findings from these cases indicate a basic theoretical groundwork for advancing the work on co-production outcomes and inspire future questions regarding what it takes to design participatory policy at multiple levels of governance: ranging from broad policy goals to micro-level policy instruments. In this light, Co-production outcomes need to be defined holistically, including both the services and the behaviours associated with them that need to be produced, in order that the outcomes benefits and streams of benefits that are generated is sustained over the long-term.

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